

JUVENILE DELINQUENCY IN THE URBAN AND RURAL AREAS OF THE WIELKOPOLSKA REGION, POLAND

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ABSTRACT: The article aims to examine the level of juvenile delinquency in the urban and rural areas of the Wielkopolska region in the years 2017–2021. Analyses were conducted by poviats¹ for the Wielkopolska region. Two indicators were selected to characterise the level of juvenile crime: (1) the juvenile crime intensity indicator, which is the number of crimes committed by minors per 10,000 juveniles, and (2) the contrast indicator, which is the quotient of the intensity of juvenile crimes in urban and rural areas. Research on juvenile crime in the urban–rural context was carried out referring to four fundamental issues: (a) examining the relationship between the intensity of crime in urban and rural areas in poviats with the use of a contrast indicator, (b) determining the sequence of crime types based on the juvenile crime intensity indicator, (c) tracking changes in the level of juvenile crime over time, taking into account cities divided into three size categories: large, medium, and small (towns), and (d) analysing changes in the structure of juvenile delinquency. Research shows that the number of crimes committed by minors has slightly decreased. Criminal acts are often committed in the region's largest cities and poviats neighbouring a large city or in poviats having a large or medium-sized city within their area. However, juvenile crime in rural areas has also increased, which is reflected in the decreasing contrast indicator. Despite the overall decline in juvenile crimes, the number of drug crimes committed by minors increased.

KEYWORDS: juvenile crime, urban areas, rural areas, Wielkopolska region, Poland

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Introduction

Juvenile delinquency has always been a subject of interest for researchers and scientists (Marshall, Enzmann 2012). Although Polish statistics have not indicated an increase in the

number of crimes committed by minors over the past dozen or so years, a change in the nature of these criminal acts has been noticed. Young people are becoming more and more aggressive, which in turn leads to an increase in the level of brutality in committing crimes (DeLisi et al. 2013). As Cichy and Szyjko (2014: 9) note, “juvenile crime is one of the most publicized ‘taboo’ topics in recent years, and the increasingly frequent

¹ Powiat or county, the second unit in Poland's three-tier local administration system.

brutal crimes committed by minors cause a sense of scandal among society". However, the most significant concern is the increase in phenomena leading to demoralisation. There is a rise in the use of alcohol and, above all, drugs among minors (Czabański et al. 2010, Drzewiecki 2016, Sharma, Su 2020). The use of psychoactive substances affects all social groups, but it spreads most rapidly among young people. This pathology is an increasingly common problem in Poland, mainly affecting large cities (Sierosławski 2020). A factor that should be considered in research on juvenile delinquency is its urban and rural aspect. It turns out that differences in the living environment fundamentally impact the formation of youth behaviour and tendency of young people to engage in criminal activities. This is primarily because of different access to various resources (e.g. cultural institutions that offer other forms of spending free time), as well as the nature and strength of social ties (e.g. neighbourly control, the role of family) (Abhishek, Balamurugan 2024).

Research on juvenile delinquency plays an essential role in the analysis of social problems and is an important source of information for creating effective preventive and intervention strategies. Despite certain limitations related to the quality and completeness of statistical data, their importance remains undeniable. First, the results of such research constitute the basis for shaping public policy and designing support programmes that can help reduce juvenile delinquency. Second, research allows the identification of high-risk groups, which is the basis for undertaking early and targeted preventive interventions. These measures, implemented at the initial stages of problematic behaviours, can effectively counteract the escalation of deviant phenomena and reduce the likelihood of more serious forms of crime in the later period of an individual's development. Third, knowledge of the scale and structure of juvenile delinquency is an essential element in the process of designing and implementing educational programmes aimed at raising the awareness of minors about the consequences of behaviours that are contrary to legal and social norms. These programmes fulfil a preventive function, developing attitudes consistent with the legal order and strengthening social competencies of young people to make responsible decisions. It should be added at this

point that the Wielkopolska region implements preventive programmes that include education on safety, counteracting peer violence, and psychological support for young people and families. However, many schools do not implement mandatory classes to counteract peer violence, which makes effective prevention difficult.

The primary goal of this study is to examine the level of juvenile delinquency in the urban and rural areas of the Wielkopolska region in the years 2017–2021. The study of the crime level shows the distribution and intensity of juvenile delinquency and the variability of this phenomenon over time. Analyses were conducted at the poviats level for the Wielkopolska region, emphasising urban and rural areas. In Poland, the status of a city is granted to localities with city rights; the rest are rural areas.

The subject of the research is juvenile delinquency. It is characterised by two categories of crimes: (1) criminal – under the Act of 6 June 1997, the Penal Code, and (2) drug-related – under the Act of 29 July 2005 on counteracting drug addiction.

The research procedure consists of the following parts. In the first part, the literature review is presented. The second part describes the research area and methodology, including data sources and research methods. The third part contains the results of the analyses: a general description of the juvenile crime level in the Wielkopolska region and an analysis of changes in juvenile crime in the urban–rural context. This is followed by discussion and conclusions.

Literature review

There is a significant disproportion in studies on crime with respect to places. As Kaylen and Pridemore (2013) and Wells and Weisheit (2004) note, while the overwhelming majority of studies on crime are conducted in urban areas, not much research has been done in smaller cities or rural areas.

Urban areas are frequently investigated for crime in many disciplines. Among many papers, there are, for example, the following: Ceccato (2012), Atkinson and Millington (2019), Ceccato and Nalla (2020), Lymperopoulou and Bannister (2022), Sikorski et al. (2024). For instance, in

criminology, this urban-centric bias is considered as one of the significant shortcomings (Hogg, Carrington 2006, Barclay et al. 2007, DeKeseredy, Donnermeyer 2013, Carrington et al. 2014, Donnermeyer, DeKeseredy 2014). To some extent, this can be explained by the emergence and influence of the Chicago school, as it privileged the city as a research laboratory (Carrington et al. 2014). From the geographical perspective, where the place is what matters, too intense concentration on one dimension – urban – creates an interesting research gap and opens a chance to fill it. A significant increase in crime studies in rural areas can be observed in the recent literature (Wells, Weisheit 2004, Weisheit et al. 2006, Barclay et al. 2007, DeKeseredy, Schwartz 2009, Ceccato 2016, Kokoravec et al. 2021).

The images of the urban and rural areas drawn from the studies differ a lot from each other. Urban areas generate social conflict and disorganisation and have higher rates of crime and violence (Shaw, McKay 1942, Ladbroke 1988, Carrington et al. 2014). In contrast, rural areas have a myth of being relatively crime-free places of 'moral virtue' (Lockie, Bourke 2000, Carrington et al. 2014), characterised by higher social cohesion, informal control, and less serious social disorder (Bruinsma 2007, Kokoravec et al. 2021).

When considering juvenile delinquency, the situation is similar. Juvenile delinquency persists as a complex and costly social problem that spans a geographic realm (Blackmon et al. 2016, Kokoravec et al. 2021). It is widely discussed in the urban context (i.e. Shaw, McKay 1942, Gruszczyńska et al. 2008, Ferdoos, Ashiq 2015), yet very little research has been done in rural areas (i.e. Barclay et al. 2007, Kaylen, Pridemore 2013). A review of studies on crime and safety in rural areas was the subject of Abraham and Ceccato's (2022) work.

Urban and rural dimensions are combined in some research. For instance, Laub (1983) has found higher rates of juvenile delinquency in densely populated areas. Ladbroke (1988) presents three explanations of why crime rates are higher in urban areas compared to rural ones: (1) degree of urbanisation and population density, (2) urban areas have a greater rate of migration and population growth, and (3) urban areas have a greater proportion of young people. Glaeser

and Sacerdote (1999) and O'Flaherty and Sethi (2015) show that crime rates are higher in large cities rather than in small towns or rural areas. Blackmon et al. (2016) examine the differential influence of demographic, behavioural, and school-related factors on juveniles offending in both settings in Louisiana. The authors underline that rural youth are more likely to encounter the juvenile justice system, and there is a strong need for much more attention from both researchers and policymakers to adjust prevention programmes for rural areas. Kokoravec et al. (2021) studied juvenile delinquency and victimisation in urban and rural environments in Slovenia. The authors have not found statistically significant differences between the two dimensions, but noted that comparing urban and rural regions is needed, especially in qualitative terms.

The Polish context might be relevant as the article discusses the problem of juvenile delinquency in one of the Polish regions. Kossowska (2007) underlines that, in general, the knowledge of juvenile delinquency in Poland, despite many studies after 1989, is very limited. Most of them were conducted in the field of criminology, other disciplines are relatively rarely represented. Moreover, the authors concentrate primarily on explaining the causes of the phenomenon (Firla 2001, Chmielewska 2012, Hnatów 2012) or finding the solutions to prevent it (Lipka 1971, Komadowska 2012). For instance, Firla (2001) states that the situation in schools is partly responsible for juvenile delinquency, as schools are increasingly focusing on teaching, not on upbringing, while parents, due to lack of time, also push many educational problems onto the school. Taking into account overloaded classes, fast-paced teaching, and extensive programmes, teachers often do not have the opportunity to get to know students individually and work out a path of understanding. Chmielewska (2012) attempts to determine the significance of the family environment in the process of becoming a criminal. The difficult family situation makes it easier for young people to violate the law and commit a crime. Meanwhile, Hnatów (2012) seeks the cause of criminal behaviour in peers. Owing to limited acceptance and self-fulfilment in a dysfunctional family environment and the inability to satisfy this need in school, they often join informal peer groups. Consequently, juveniles may

adopt criminal attitudes as a result of the identification and internalisation processes taking place. In their studies, the authors investigating the phenomenon concentrate on finding solutions to prevent juvenile delinquency and its causes (Lipka 1971, Komadowska 2012), and show possible ways to interact with minors on different levels.

Polish studies on juvenile delinquency embrace various spatial scales. Drzewiecki (2016) focuses on the country level, Mordwa (2013) on large cities, and Kulczyńska and Pawlak (2017) on a regional level. From the point of view of this study, the regional scale is the most important. Kulczyńska and Pawlak (2017) studied spatial differences in juvenile delinquency in the Wielkopolska region, revealing a growing number of drug offences. The article concentrates on the factors behind criminal behaviour. Among those that influence juvenile crimes are urbanisation, population density, divorce rate, poverty, and others. Czabański et al. (2010) conclude that small towns and villages are the most peaceful in this respect.

It is also worth noticing that juvenile delinquency differs from adult offences in terms of the type of crime. As Drzewiecki (2016) mentions, juvenile delinquency is characterised by bravado and brutality, often accompanied by drugs, robbery, and theft.

In the context of the study's time scope, an attempt to determine the impact of the COVID-19 pandemic on the crime level seems important. According to Polish and global statistics, numerous restrictions meant a decrease in juvenile and adult crime (Ostaszewski et al. 2021, Hoeboer et al. 2024).

Framing the study case

Study area

The Wielkopolska region is one of Poland's 16 regions and constitutes the highest administrative division level in Poland, corresponding to NUTS 2² statistical units. The spatial scope covers

the areas of operation of poviats police headquarters, which correspond to the administrative division at the poviats level; therefore, in this article, the term 'poviat' refers to 'poviat police headquarters'. The analysis covers 35 poviats (Fig. 1).

In 2021, the study area was inhabited by 3,500,030 people, including 1,874,165 people living in urban areas (53.5% of the total population), and the remaining 1,625,865 living in rural areas. The number of pre-working age inhabitants (under 18 years old) divided into places of residence was 326,827 in urban areas (17.4% of the total inhabitants of the urban areas) and 359,637 in rural areas (22.1% of the total inhabitants of the rural areas), respectively.

In 2021, there were 115 cities/towns in the Wielkopolska region, which, in this respect, puts the region first in the country. The regional system of cities can be divided into three size classes, namely: large cities (over 100,000 inhabitants), medium-sized cities (20,000–100,000) and towns (<20,000) (Fig. 1). The largest city in the region that is in the class of large cities is Poznań. There



Fig. 1. Cities and poviats of the Wielkopolska region in the year 2021.

² The exception is the Mazovia region, divided into two statistical units, i.e. the Mazovia Regional Area and the Warsaw Metropolitan Area.

are 19 centres that constitute the class of medium-sized cities. The class of towns is the largest one and includes 95 units. In 2017–2021, the number of towns increased by two. In 2021, Budzyń (Chodzież powiat) and Koźminek (Kalisz powiat) were granted town rights. The urban settlement network is complemented by rural areas, which consist mainly of villages (4439) and other independent settlement units (782 colonies and settlements).

Sources

In this article, we use only secondary source materials. The analyses were based on statistical data from the Wielkopolska Region Police Headquarters in Poznań and the Local Data Bank of Statistics Poland.

From the first source, we obtained data on ascertained crimes (i.e. confirmed to be crimes during completed preparatory proceedings) committed by minors between 2017 and 2021, including the place (urban/rural areas) and type of crime. According to Polish law (Act of 6 June 1997 – Penal Code), crime is an act prohibited under penalty by the law in force at the time it was committed.

Crimes in Poland are recognised by the police in three categories: criminal³, economic, and road traffic. The location of the crime allowed analysis at different scales. During the period under review, there were no changes in legal definitions of criminal acts or the method of generating statistical data.

When interpreting statistical data, it is essential to remember the dark figure of crimes – the number of crimes that were not reported to the police. In other words, it is the difference between the actual number of crimes committed and those recorded in official police statistics. Official statistics may give a slightly distorted picture of the real crime because they do not include crimes not reported to law enforcement (Mordwa 2012). Not knowing the full scale of the problem may make it challenging to analyse the crime level, but these

are the only data available in Poland that allow such analyses.

From the Local Data Bank of Statistics Poland, we acquired data on people in the pre-working age in each powiat of the Wielkopolska region for 2017–2021. The data were used to relativise the number of crimes committed by minors.

In reference to the statistical data, we use two terms that require explanation – minor and juvenile. The definition of minor is complicated in Polish law. It is defined in the Polish Act on Proceedings in Juvenile Cases⁴. Minor is: (1) in the scope of proceedings regarding the prevention of and combating demoralisation – a person who has not turned 18 years of age; (2) in the scope of proceedings for punishable acts – a person who committed such an act after turning 13 years of age, but not reaching the age of 17, and (3) in the scope of adopting educational or corrective measures – a person against whom such measures have been adjudicated, even if they are 18 years old, but not beyond the age of 21. Unfortunately, it was not possible to obtain information from the police what understanding of minor refers to each crime. Therefore, we use the term minor when referring to young people who committed crimes. On the other hand, a juvenile is a person who is under 18 years old. We use juveniles as a reference group of people in the pre-working age.

Methods

From the perspective of the geography of crime, indicators assigned to territorial units are important, enabling the analysis of phenomena in a spatial context and the search for the co-occurrence of various phenomena, which can indirectly be interpreted as a manifestation of multiple factors influencing crime. Two indicators were selected to characterise the level of juvenile crime in the Wielkopolska region poviats in 2017–2021, namely: (1) the juvenile crime intensity indicator and (2) the contrast indicator.

The juvenile crime intensity indicator was used to determine the position of a powiat compared to other poviats, expressed in the number

³ The authors are aware of the weirdness of the term 'criminal crime'. It is widely discussed in Polish criminology, for instance by Uhl (2021), who proposes to use term 'traditional crime' or 'common crime'.

⁴ The Polish Act on Proceedings in Juvenile Cases of 26 October 1982.

of crimes committed by minors per 10,000 juveniles. This indicator takes the following form:

$$I_{jc} = \frac{N_{jc}}{N_{ji}} \times 10,000$$

where:

- I_{jc} – juvenile crime intensity indicator,
- N_{jc} – number of juvenile crimes, i.e., the number of criminal acts committed by minors,
- N_{ji} – number of juvenile inhabitants, corresponding to the number of inhabitants of a given spatial unit at the pre-working age (0–17 years old).

This indicator is interpreted so that the higher its value, the higher the crime in a given area.

It also allows determining the sequence of crime types. Two types of poviats can be distinguished, namely: type L – low, the indicator value for the poviat was lower than the average for the region, and type H – high, the indicator value was higher than the average for the region. Several types of sequences can be obtained, showing the intensity of juvenile crimes in relation to the average value for the region.

Another indicator used in the analysis was the contrast indicator. It is the quotient of the intensity of juvenile crimes in urban areas and the intensity of juvenile crimes in rural areas, and in each poviat it takes the following form:

$$I_c = \frac{I_{jc}U}{I_{jc}R}$$

where:

- I_c – contrast indicator,
- $I_{jc}U$ – the intensity of juvenile crimes in urban areas indicator,
- $I_{jc}R$ – the intensity of juvenile crimes in rural areas indicator.

Individual indicators are counted as the number of juvenile crimes committed in urban areas per 10,000 juveniles of urban areas. The indicator for rural areas is calculated accordingly. If the contrast index exceeds 1.0, more criminal acts are committed in urban areas.

Results

General information on the juvenile crime level in the Wielkopolska region

The share of crimes committed by minors in the total number of crimes in Poland is 2.8% (2020). Only Ukraine has a lower share (2.7%) among the countries studied. In Western European countries, this share is higher, for example, in Switzerland it is 11.7%, in the Netherlands 10.8%, and in Sweden 9.5%. The average is 6.5%. However, it should be remembered that the age of minors varies in individual countries, which makes direct comparisons difficult/impossible (The European Sourcebook...).

In the years 2017–2021 in Poland, the percentage of crimes committed by minors in relation to total criminal acts decreased from 3.39% to 2.19%. In the Wielkopolska region it decreased from 4.28% to 3.35%. However, these values were always higher than the average for Poland. The reasons can be sought in the higher percentage of people of the pre-working age and better detection and reporting of crimes. Analysing the data on the share of juveniles in the total population of Polish regions, it turns out that the Wielkopolska region is characterised by the highest percentage of juveniles (along with the Pomerania region), which automatically increases the potential group in which crimes can occur. Moreover, areas more developed economically and organisationally, such as Wielkopolska, have more effective police services and crime reporting systems, which leads to higher registered crime, even if the actual number of crimes does not differ significantly from the average.

Despite the slight decrease observed, the Wielkopolska region is characterised by a relatively high level of crime detection compared to national data. In 2017, the crime detection rate was 76.9%, while in 2021 it decreased to 73.3%. For comparison, the national average in the same period was lower, at 73.4% and 71.2%, respectively. These data indicate that despite the decrease in the effectiveness of crime detection, Wielkopolska maintains a relatively high standard of work of law enforcement agencies compared to the national average.

In the Wielkopolska region in 2017–2021, there was a slight decrease in the number of

Table 1. Number of crimes committed by minors in the Wielkopolska region in 2017–2021.

Type	2017	2018	2019	2020	2021
Criminal	1488	1247	1234	933	1052
Drug-related	964	1166	1787	1270	1209
Other	8	4	1	2	1
Total	2460	2417	3022	2205	2262

criminal acts committed by minors, from 2460 to 2262 (8.0%). Similar trends were noticed in relation to individual categories of crimes, except for drug crimes, the number of which increased by 25.4%. It is also worth adding that in 2017 and 2018, the most frequently committed were criminal offences, which accounted for 59.6% and 51.4% of all crimes, respectively. However, in 2019–2021, drug crimes dominated the structure of crimes. In 2019, the share of this type of crime was 59.1%. In the following years, this percentage decreased slightly, but was still higher than 50.0%, and amounted to 57.0% in 2020 and 53.4% in 2021. By far the least crimes were committed in the 'other' category, which includes road and economic crimes (Table 1). The small number of crimes in this category is due to legal

restrictions. First, juveniles usually do not have a driving license, which eliminates the possibility of committing many traffic crimes, and second, juveniles often do not yet have full capacity to bear criminal responsibility for certain types of crimes, especially those requiring greater social and legal maturity. However, these explanations are generalisations, and the situation may vary depending on the circumstances, e.g. in the case of economic crimes, adults may use minors to commit crimes.

The juvenile crime intensity indicator was also used to characterise the level of juvenile crime. In the years 2017–2021, there was a slight decrease in the value of the indicator from 36.6 to 33.0 (Fig. 2). In 2017, eight poviats had a crime rate higher than the region's average. The highest values occurred in the following poviats: Poznań city (383.8), Piła (238.2), Chodzież (185.3), Kalisz (181.9), and the poviats with the lowest indicator values were in western and southern Wielkopolska. However, in 2021, the number of poviats for which the indicator value was higher than the average for the region increased to 11. The highest values were recorded in the following

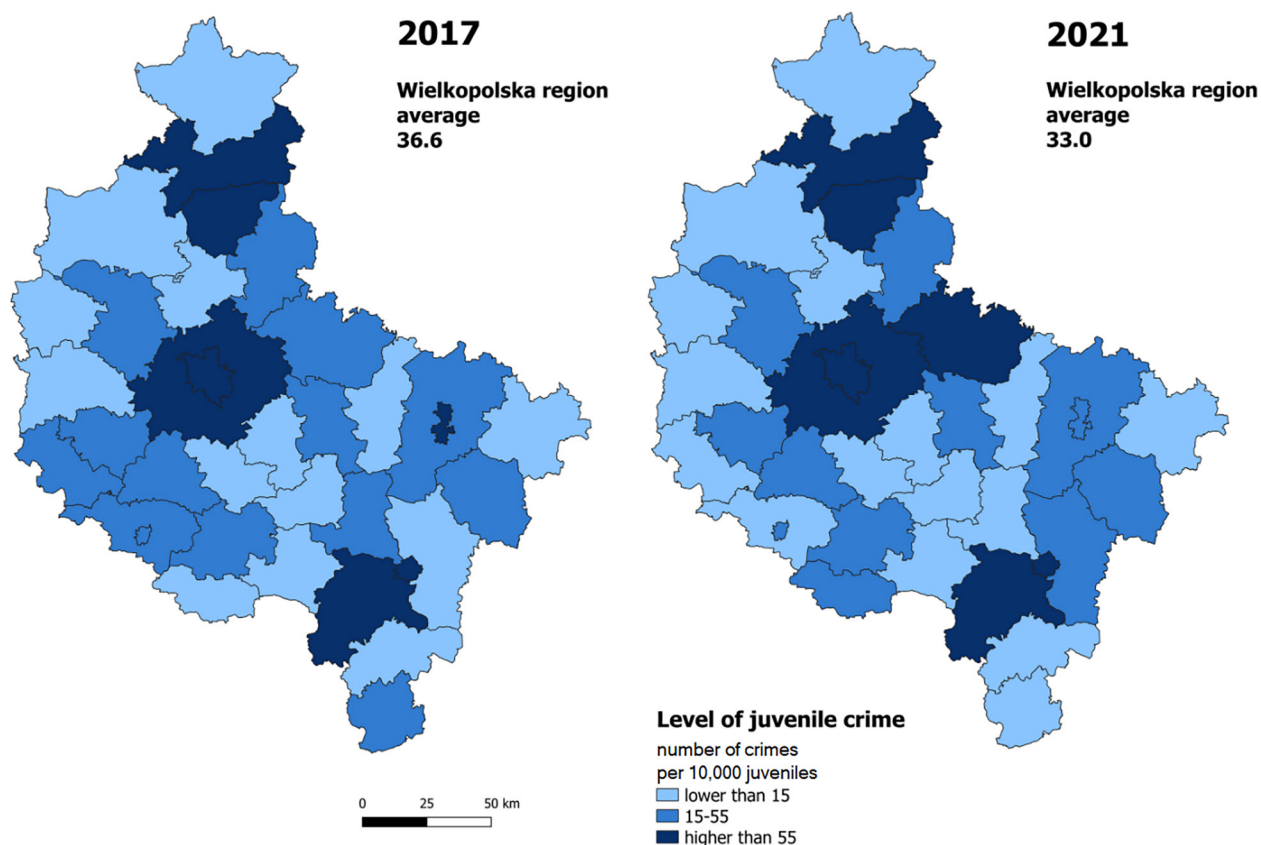


Fig. 2. Juvenile crime intensity indicator in the Wielkopolska region in 2017 and 2021.

poviats: Chodzież (312.3), Kalisz (268.7), Poznań city (169.3), Piła (141.5) and Poznań (114.8). For the remaining poviats, these values ranged from 0.9 in the Nowy Tomyśl powiat to 28.9 in the Konin powiat. This analysis shows that juvenile crime is concentrated mainly in the region's largest cities, as well as in the poviats neighbouring a large city or having a large or medium-sized city within their area. The exception in this respect is the Chodzież powiat.

The average annual level of juvenile crime in the Wielkopolska region for the years 2017–2021 was higher in urban areas (60.2) than in rural areas (11.0). Poviats located in the north-eastern and south-eastern part of the region were characterised by the highest crime rates in both urban and rural areas. Generally speaking, the juvenile crime intensity indicator values – despite large fluctuations – are much higher in urban than in rural areas and show a decreasing trend (a drop from 61.1 in 2017 to 54.0 in 2021), in contrast to the latter, where an increase in the indicator value is observed (from 12.1 in 2017 to 13.8 in 2021) (Fig. 3). The Chodzież powiat stands out among all the poviats studied, for which the average annual rate had maximum values, respectively, 235.8 in urban areas and 80.0 in rural areas.

The level and structure of juvenile crime in the urban–rural system

The research on juvenile crime in the urban–rural context was carried out referring to four fundamental issues: (a) investigate the crime rate in urban and rural areas in poviats using the contrast indicator, (b) determining the sequence of crime types based on the juvenile crime intensity indicator, (c) tracking changes in the level of juvenile crime over time, taking into account cities divided into three size categories: large, medium, and small and (d) analysing changes in the structure of juvenile delinquency.

Generally speaking, the values of juvenile crime intensity indicator are much higher in urban areas than in rural areas and show a decreasing tendency, unlike the latter, where an increase in the indicator value is observed. The observed process translates into the value of the contrast indicator, which decreased from 5.05 in 2017 to 3.90 in 2021. For each year of the analysis, the contrast index values are higher than 1.0, which confirms the fact of the higher crime level in urban areas.

The results indicate that juvenile crime is concentrated in urban areas (Fig. 4). However, it is possible to distinguish poviats where crime is

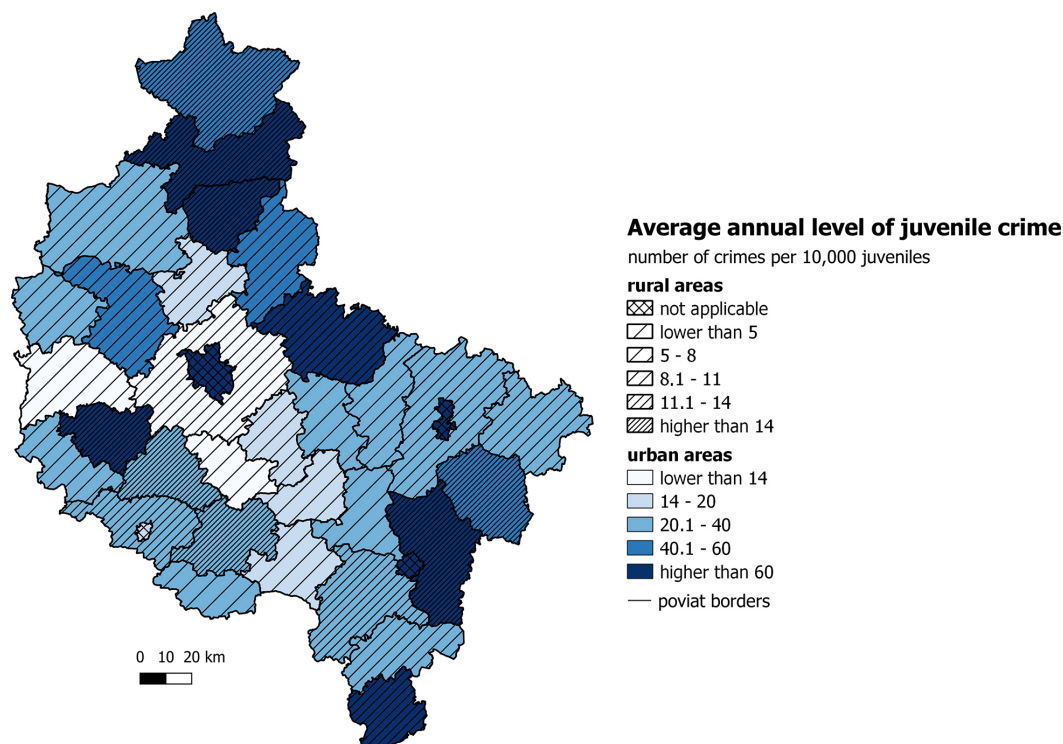


Fig. 3. Average annual (2017–2021) level of juvenile crime in the Wielkopolska region.

higher in rural areas. In 2017, only the Gostyń poviats recorded higher juvenile crime in rural areas. The value of the indicator for this poviat was 0.46. In 2018, there were two poviats, Międzychód (0.54) and Piła (0.73), and in 2019 seven poviats: Środa Wielkopolska (0.28), Oborniki (0.66), Kalisz (0.71), Grodzisk (0.83), Jarocin (0.88), Konin (0.94) and Złotów (0.95). In 2020, the number of poviats with higher crime in rural areas dropped to three, Ostrzeszów (0.69), Oborniki (0.81) and Złotów (0.83), and in 2021 to two, Poznań (0.23) and Gostyń (0.76). It is worth adding that there were also poviats where no juvenile crime was recorded in urban or rural areas: (1) no crimes in urban areas were recorded in the following poviats: Kalisz, Leszno, Ostrów Wielkopolski – 2018, (2) no crimes

in rural areas occurred in the following poviats: Śrem – 2017, Pleszew, Środa Wielkopolska – 2018, Jarocin, Krotoszyn, Pleszew, Środa Wielkopolska, Wolsztyn – 2020, Międzychód, Nowy Tomysł, Szamotuły – 2021 and cities with poviat rights (Kalisz, Konin, Leszno and Poznań) due to the administrative function.

In the next stage, with the use of juvenile crime intensity indicator in 2017, 2019, and 2021, two types of poviats were distinguished, namely: type L and type H. Based on the research, several types of sequences were obtained showing the intensity of juvenile crimes in relation to the average value for the region, broken down into urban and rural areas (Table 2). Thus, six type sequences were distinguished in urban areas. The most frequently

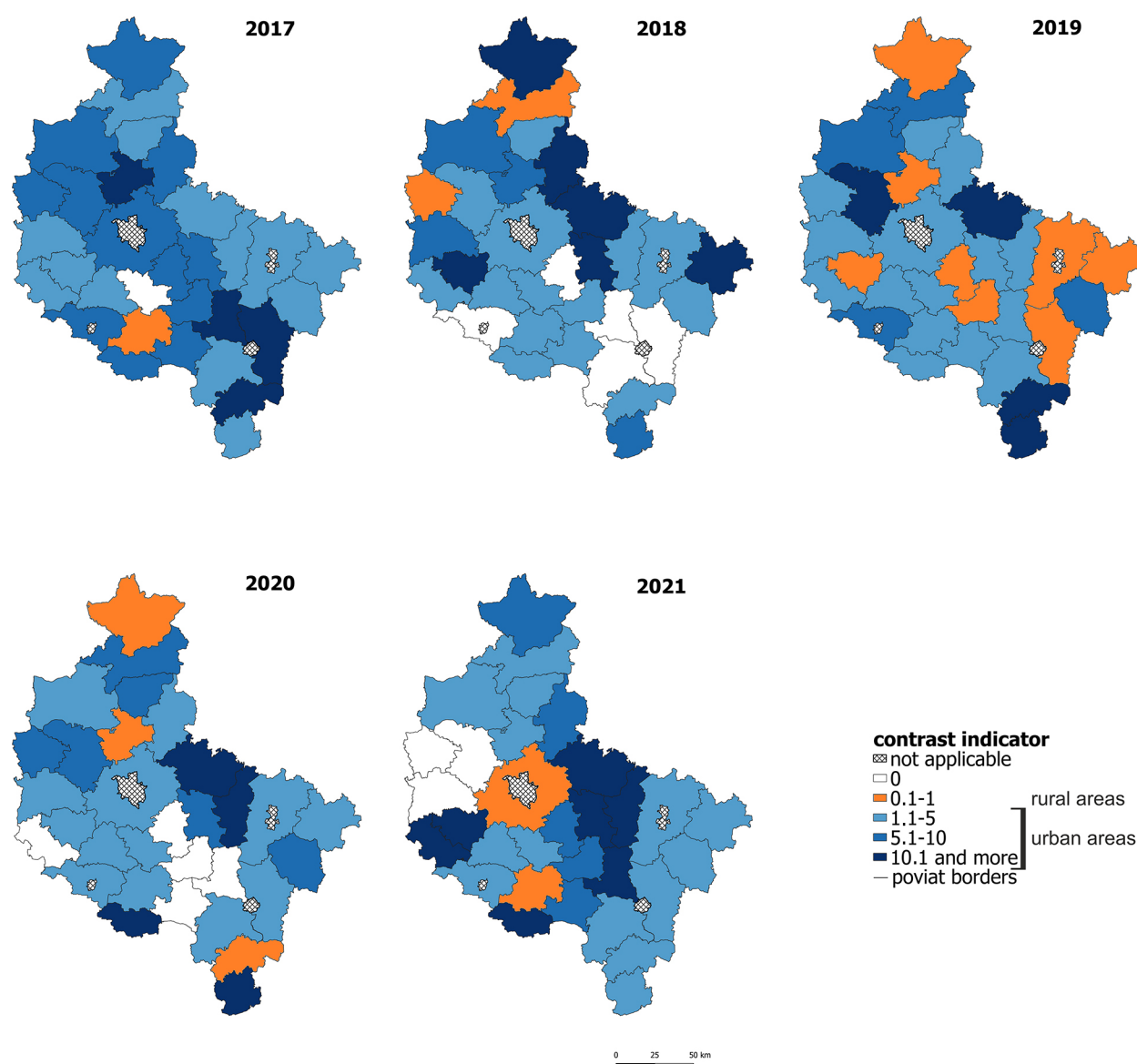


Fig. 4. Contrast indicator values in the Wielkopolska region in the years 2017–2021.

Table 2. Juvenile crime sequence types in the urban and rural areas of the Wielkopolska region.

Type	Urban	Rural
HHH	Chodzież, Gniezno, Piła, Kalisz city, Konin city	Chodzież, Gostyń, Piła
HLH	Kalisz, Międzychód, Wągrowiec	Leszno, Turek
HHL	Poznań city	Gniezno, Grodzisk, Kępno, Koło, Kościan
HLL	Leszno	Międzychód, Ostrów Wielkopolski, Wolsztyn
LHH	–	Kalisz
LLH	–	Konin, Poznań
LHL	Kępno	Jarocin, Pleszew, Słupca, Środa Wielkopolska, Wągrowiec, Złotów
LLL	Czarnków-Trzcianka, Gostyń, Grodzisk, Jarocin, Koło, Konin, Kościan, Krotoszyn, Nowy Tomysł, Oborniki, Ostrów Wielkopolski, Ostrzeszów, Pleszew, Poznań, Rawicz, Słupca, Szamotuły, Środa Wielkopolska, Śrem, Turek, Wolsztyn, Września, Złotów, Leszno city	Czarnków-Trzcianka, Krotoszyn, Nowy Tomysł, Oborniki, Ostrzeszów, Rawicz, Szamotuły, Śrem, Września

represented was the LLL type, meaning that each year the indicator values were lower than the average for the region, and occurred in 24 poviats. In five poviats, the HHH type occurred, meaning above-average indicator values. The HLH type was characteristic for three poviats. The following types were individually represented: LHL, HHL and HLL, characterised by a decline in the indicator over time below the average value. The situation in rural areas was similar, although slightly more sequence types have been distinguished, namely eight. Nine poviats represented the LLL type, six the LHL type, five the HHL type, three HHH and HLL types, two HLH and LLH types, and one LLH type. It is worth noting that the number of type sequences in rural areas is more diverse than in urban areas, as well as the fact that two new types that were distinguished in rural areas (all the others also occurred in cities) indicate an increase in juvenile crime because the indicator values in time increased so much that they exceeded the average for the region.

It should be noted that the value of the juvenile crime intensity indicator depends not only on the number of crimes committed by minors but also on the number of juveniles, which generally shows an upward trend (for the Wielkopolska region, the dynamics indicator is 102.1), with the indicator in urban areas being 97.4 and in rural areas 106.8. A considerable decrease in the number of juveniles was observed in the largest cities of the region, i.e. Konin (91.0), Kalisz (92.0), Leszno (92.8) and the towns of the following poviats: Koło (87.8), Wolsztyn (91.4), and Turek (92.0). In general, the number of juveniles decreased in 22 poviats. This trend is characteristic

of the countries of Central and Eastern Europe, where the process of population ageing is observed after systemic transformation. The situation is much better in rural areas. The number of juveniles there increased in 22 out of 31 poviats analysed. The highest values of the indicators were recorded in the rural areas located around the largest cities in the region, poviats: Poznań (127.6) and Leszno (111.4). On the other hand, the Chodzież poviat was unfavourable in these analyses, which was caused by the fact that Budzyń obtained town rights in 2021, which consequently influenced the increase in the number of juveniles in urban areas (114.0) and a decrease in rural areas (78.0).

Since previous analyses have shown that much higher juvenile crime occurs in urban areas, the next stage determines the city size class where the crimes concentrate. In the years 2017–2021, the number of crimes increased in towns (by 1.8%) and medium-sized cities (by 40.6%) and decreased in the largest cities (by 61.4%).

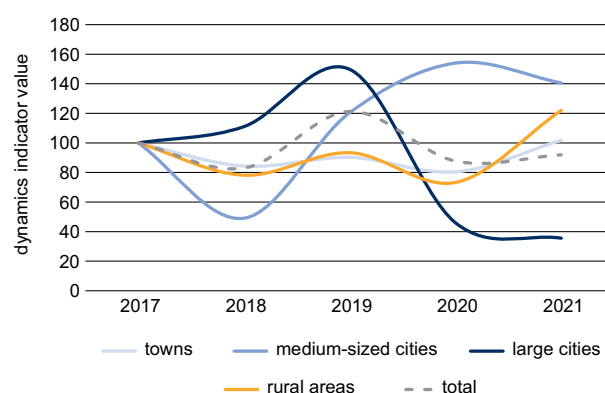


Fig. 5. Dynamics indicator of the number of juvenile crimes in the Wielkopolska region (2017 = 100).

It is difficult to observe any regularities in the number of juvenile crimes change by city size class (Fig. 5). The number of crimes committed in towns decreased compared to 2017, but in 2021, it was slightly higher than in the initial year. In turn, in medium-sized cities, the number of crimes decreased and then increased, and in 2020, it was the highest, then decreased slightly, but was much higher than the initial value. Changes in the number of crimes in large cities were different. After the initial increase, their number decreased so much that it deviated significantly from the initial level (dynamic rate 35.6%).

A more tangible picture of juvenile delinquency is provided by the number of crimes per 10,000 juveniles. The highest crime rates are in medium-sized and large cities, but the changes in the indicator values are different (Fig. 6). In the case of medium-sized cities, an increase from 57.2 to 73.2 is observed in the indicator value. Meanwhile, in large cities, after an initial rise (from 85.4 to 125.6), there was a decrease in the number of crimes per 10,000 inhabitants (from 125.6 to 38.0). It is also worth paying attention to the indicator value in 2020. The value decreased compared to the previous year in rural areas, towns and large cities. The exception in this respect are medium-sized cities, where there was an increase in juvenile crime.

It is also worth paying attention to the structure of crimes committed in the urban-rural system. Among criminal crimes, property crimes are dominant (mainly theft, burglary, destruction of property, and in cities, extortion and robbery), followed by crimes against life and health, and crimes against freedom, both in rural and urban areas. Then, there are crimes against sexual freedom and decency in rural areas, while in cities,

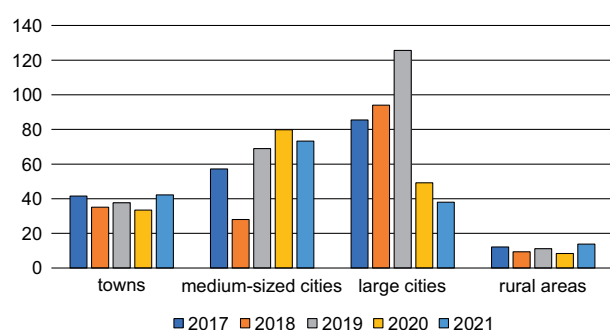


Fig. 6. The juvenile crime intensity indicator by town size classes and rural areas in the Wielkopolska region in the years 2017–2021

these are crimes against honour and physical integrity. An analysis of the types of crimes under the Act on counteracting drug addiction leads to the conclusion that the most common crime committed by minors in cities and rural areas is possession of narcotics or psychotropic substances. During the COVID-19 pandemic, visible changes in the number of drug crimes were observed, depending on the type of socio-spatial environment. In cities, an increase in the number of crimes involving the provision of narcotics to other people, as well as inciting their use, including financial or personal benefits, was noted. This may indicate an intensification of activities related to the distribution of psychoactive substances in conditions of the limited institutional and social supervision that accompanied the pandemic. On the other hand, a decrease in the number of crimes related to the possession of narcotics or psychotropic substances was observed in rural areas. Reduced social activity, stronger control of local communities, and potential restrictions on access to these substances could have contributed to a decrease in detection or an actual reduction in the scale of such behaviour. In the context of criminal crimes, the pandemic affected the number of offences, especially in the urban areas. Restrictions on the movement of people and strict control of public space significantly hindered direct-contact crimes, such as theft or extortion. As a result, a decrease in the number of such prohibited acts was noted, which can be explained by the reduced mobility of perpetrators and the limited availability of potential criminal targets. In contrast to the trends observed in cities, a slight increase in burglary and fraud was noted in rural areas. This can be interpreted as the result of relatively weaker formal and informal supervision and lower intensity of preventive actions by law enforcement services. In addition, dispersed development and limited access to monitoring infrastructure contributed to an increased sense of anonymity of perpetrators, which could encourage criminal activities in conditions of the reduced risk of detection.

Discussion and conclusions

The research results presented in this text made it possible to draw several conclusions. The

first one concerns general observations regarding juvenile crime in the Wielkopolska region. The number of committed criminal acts decreased slightly. Similar trends were observed in previous research conducted in this region by Kulczyńska and Pawlak (2017). Criminal acts are often committed in the largest cities and poviats neighbouring a large city or having a large or medium-sized city within their area. A greater concentration of a population in a given area enhances the tendency to engage in pathological behaviour, including criminal (Laub 1983). Therefore, the urbanisation rate has a significant impact on population safety and the level of crime, as confirmed by the research of Mordwa (2013: 2), who states that “in Poland (...) the highest intensity of crimes (number of crimes committed per 10,000 inhabitants) is in the group of the largest towns”. However, as our research shows, juvenile crime in rural areas increased, which is reflected in the contrast index. What is worth noticing is that many studies in foreign literature indicate that rural delinquency is a growing concern (i.e. Mallett et al. 2013, Blackmon et al. 2016).

The observed differences in crime intensity indicate that juvenile delinquency is concentrated in urban areas rather than in rural areas. These differences are due to several primary reasons (Shaw, McKay 1942, Carrington et al. 2014). The main reason for the increased crime in urban areas is the concentration of the population, which increases the likelihood of interactions between young people and the more significant number of potential conflict situations. Another but equally important reason is weaker social control in urban areas. Weaker social ties result from greater anonymity, which undermines the sense of responsibility for one's actions and makes it harder to build strong relationships among neighbours. Other reasons include greater cultural diversity hampering the development of a community and mutual trust, and the fast pace of life, which means that young people need more time to cultivate neighbourly relationships. Although there is much evidence that juvenile delinquency is more concentrated in urban areas (Glaeser, Sacerdote 1999, O'Flaherty, Sethi 2015), it is impossible to generalise and claim that there are no problems with it in rural areas. For instance, Ceccato and Abraham (2022) claim that crime and safety in rural areas are the issues to be examined. The

differences between urban and rural areas are complex and depend on many factors requiring further detailed research in this field; it should consider the specificity of a given region, different types of crime and changes that occur over time.

The research shows that despite a general decline in juvenile crime, the number of drug crimes is increasing. The press and television are progressively reporting on the spread of drug crime among juveniles. The use and distribution of narcotic substances is observed, especially in the younger age groups. According to Drzewiecki (2016: 79), juveniles, in addition to inappropriate behaviour at school, “are involved in criminal activities, in particular drug trafficking”. There may be many reasons for this phenomenon, although the most frequently indicated are (1) easy access to drugs and other intoxicants, also via the Internet (e.g. mobile applications that allow anonymous purchase of drugs), (2) drug use as a way of coping with emotional problems such as stress, anxiety, depression and low self-esteem, (3) experimenting with drugs as a desire for acceptance in a peer group, and (4) curiosity about new experiences related to drug use (United Nations Office on Drugs and Crime 2018). When analysing drug crimes, it should be borne in mind that their number is determined, among others, by the level of activity of police services (Mordwa 2012). As a result, crimes of this type are recorded in only a few percent of actual incidents, and spatial variability reflects greater police activity than the occurrence of the crime. Therefore, the scale of drug crime in the studied region may be much higher than indicated by statistics (dark figure of crimes). Another factor determining the intensity of crime is the scale of the problem. Although a larger scale of drug crime increases the potential number of detected crimes, this is not a linear relationship. Many other factors influence how effectively law enforcement agencies can combat this problem. Owing to the specific nature of this delinquency and the increase in the number of drug crimes, a broader analysis of this issue should be undertaken in the future.

In 2020, the number of criminal acts committed by minors was the lowest compared to other years. It is possible that the COVID-19 pandemic caused this situation. The pandemic has affected every aspect of social life, including the image

of juvenile crime. It is worth adding that some crimes usually require personal contact with another person. Hence, temporary restrictions during the pandemic, such as quarantine, isolation, keeping distance, and limited personal contacts, translated into fewer committed criminal acts. During this period, the decrease in total crime (including juvenile crime) was also visible in national and global statistics (Ostaszewski et al. 2021, Hoeboer et al. 2024).

The study of juvenile delinquency is a complex topic, therefore several key methodological considerations should be taken into account when conducting it. The first step is to define juvenile delinquency and determine the minors' age (the upper age limit), which is often interpreted differently across countries. A particular difficulty in this type of research is seen in the interpretation of statistical data, which are burdened with a certain margin of error. Some crimes remain undetected or unreported for various reasons, e.g., for fear of the perpetrator, lack of trust in law enforcement agencies, or ignorance of the law, which is referred to in criminology as the dark figure of crime. This means that official crime statistics always underestimate the absolute scale of the problem. Also, changes in the legal definitions of prohibited acts, often introduced to adapt the law to changing social realities, can significantly complicate comparing data from different periods.

We may risk the statement that the image of juvenile delinquency in the Wielkopolska region perpetuates. Based on the conducted research, but also the research of others (e.g., Kulczyńska, Pawlak 2017), the highest level of crime among minors was observed in three parts of the region. First, it was the northern part of the region, and primarily the Chodzież and Piła poviats, second, the southern part represented by the Ostrów Wielkopolski powiat and Kalisz city, and third, the central part – Poznań city and the Poznań powiat. The results regarding drug crime are of the most significant concern. Observations show that young people are increasingly having problems coping with everyday problems that often results in escaping into stimulants, which in turn translates into an increase in the number of drug crimes. This thread requires continued research and its extension to include studies on the availability of drugs and other prohibited psychoactive

substances among juveniles, as well as an attempt to explain the reasons for this situation.

The research on juvenile delinquency and its division into urban and rural areas shows signs of innovation in methodology and cognitive aspects. The innovativeness of the research is manifested primarily by spatial analysis used as a tool enabling the comparison of the level and structure of juvenile delinquency in the urban–rural system. This approach makes it possible to better understand the dynamics of the phenomenon and identify areas requiring diverse forms of intervention and prevention. As a result, the presented analyses not only extend the current knowledge of the subject but also contribute significantly to the development of research on the spatial differences regarding juvenile delinquency in the urban–rural system.

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Authors' contribution

KK: conceptualisation, investigation, data curation, methodology, visualisation, writing – original draft, writing – review & editing; EB: conceptualisation, investigation, data curation, methodology, visualisation, writing – original draft, writing – review & editing; AB: data curation, writing – original draft; MM: data curation, writing – original draft.

References

- Abhishek R., Balamurugan J., 2024. Impact of social factors responsible for juvenile delinquency – A literature review. *Journal of Education and Health Promotion* 13(1): 102. DOI 10.4103/jehp.jehp_786_23.
- Abraham J., Ceccato V., 2022. Crime and safety in rural areas: A systematic review of the English-language literature 1980-2020. *Journal of Rural Studies* 94: 250–273. DOI 10.1016/j.jrurstud.2022.05.010.
- Atkinson R., Millington G., 2019. *Urban criminology. The city, disorder, harm and social control*. Routledge, London.
- Barclay E., Donnermeyer J.F., Scott J., Hogg R. (eds), 2007. *Crime in rural*. Federation Press, Australia.
- Blackmon B.J., Robison S.B., Rhodes J.L.F., 2016. Examining the influence of risk factors across rural and urban com-

- munities. *Journal of the Society for Social Work and Research* 7(4): 615–638. DOI [10.1086/689355](https://doi.org/10.1086/689355).
- Bruinsma G.J.N., 2007. Urbanisation and urban crime: Dutch geographical and environmental research. *Crime and Justice* 35(1): 453–502. DOI [10.1086/650190](https://doi.org/10.1086/650190).
- Carrington K., Donnermeyer J.F., DeKeseredy W.S., 2014. Intersectionality, rural criminology, and re-imagining the boundaries of critical criminology. *Critical Criminology* 22(4): 463–477. DOI [10.1007/s10612-014-9257-0](https://doi.org/10.1007/s10612-014-9257-0).
- Ceccato V., 2012. *The urban fabric of crime and fear*. Springer, New York, Dordrecht, London.
- Ceccato V., 2016. *Rural crime and community safety*. Routledge, London.
- Ceccato V., Abraham J., 2022. Reasons why crime and safety in rural areas matter. In: Ceccato V., Abraham J. (eds), *Crime and safety in the rural. Lessons from research*. Springer Briefs in Criminology, Springer: 9–28.
- Ceccato V., Nalla M., 2020. *Crime and fear in public places: Towards safe inclusive and sustainable cities*. Routledge, Abingdon and Abingdon.
- Chmielewska A., 2012. Znaczenie i rola środowiska rodzinnego w procesie stawania się przestępcą (The importance and role of the family environment in the process of becoming a criminal). In: Ćmiel S. (ed.), *Przestępczość nieletnich – teoria i praktyka*. Wydawnictwo Wyższej Szkoły Gospodarki Euroregionalnej im. Alcide De Gasperi, Józefów: 299–320.
- Cichy A., Szyjko C., 2014. *Nieletni jako przestępca w XXI wieku – studium uwarunkowań społeczno-prawnych* (A minor as a criminal in the 21st century – A study of socio-legal conditions). War Studies University, Warsaw.
- Czabański J., Gruszczyńska B., Marczewski M., Siemaszko A., 2010. Poland. In: Junger-Tas J., Marshall I.H., Enzmann D., Killias M., Steketee M., Gruszczyńska B. (eds), *Juvenile delinquency in Europe and beyond*. Springer, New York: 279–292.
- DeKeseredy W.S., Donnermeyer J.F., 2013. Thinking critically about rural crime: Toward the development of a new left realist perspective. In: Winlow S., Atkinson R. (eds), *New directions in crime and deviancy*. Routledge, London: 206–222.
- DeKeseredy W.S., Schwartz M.D., 2009. *Dangerous exits: Escaping abusive relationships in rural America*. Rutgers University Press, New Brunswick.
- DeLisi M., Vaughn M.G., Gentile D.A., Anderson C.A., Shook J.J., 2013. Violent video games, delinquency, and youth violence: New evidence. *Youth Violence and Juvenile Justice* 11(2): 132–142. DOI [10.1177/1541204012460874](https://doi.org/10.1177/1541204012460874).
- Donnermeyer J.F., DeKeseredy W.S., 2014. *Rural criminology*. Routledge, New York.
- Drzewiecki P., 2016. Zjawisko przestępczości nieletnich w Polsce (The phenomenon of juvenile crime in Poland). *De Securitate et Defensione. O Bezpieczeństwie i Obronności* 2: 78–96.
- Ferdoos A., Ashiq A., 2015. Impact of urbanisation on juvenile delinquency: A study of Muzaffarabad jail. *International Journal of Criminology and Sociological Theory* 8(1): 1–14.
- Firla J., 2001. *Psychospołeczne uwarunkowania przestępczości nieletnich* (Psychosocial determinants of juvenile delinquency). Wydawnictwo Szkoły Policji w Katowicach, Katowice.
- Glaeser E., Sacerdote B., 1999. Why is there more crime in cities? *Journal of Political Economy* 107(6): 225–258. DOI [10.1086/250109](https://doi.org/10.1086/250109).
- Gruszczyńska B., Burianek J., Dekleva B., Kalpokas V., Markina A., 2008. Juvenile victimisation. In: Steketee M., Moll M., Kapardis A. (eds), *Juvenile delinquency in six new EU member states. Crime, risky behaviour and victimisation in the capital cities of Cyprus, Czech Republic, Estonia, Lithuania, Poland and Slovenia*. Verwey-Jonker Instituut, Utrecht: 103–113.
- Hnatów A., 2012. Wpływ grup rówieśniczych na popełnianie przestępstw przeciwko mieniu przez nieletnich (The influence of peer groups on committing property crimes by minors). In: Ćmiel S. (ed.), *Przestępczość nieletnich – teoria i praktyka*. The Alcide De Gasperi WSGE Publishing House in Józefów: 479–498.
- Hoebler C.M., Kitselaar W.M., Henrich J.F., Miedzobrodzka E.J., Wohlstetter B., Giebels E., Meynen G., Kruisbergen E.W., Kempes M., Olff M., de Kogel C.H., 2024. The impact of COVID-19 on crime: A systematic review. *American Journal of Criminal Justice* 49: 274–303. DOI [10.1007/s12103-023-09746-4](https://doi.org/10.1007/s12103-023-09746-4).
- Hogg R., Carrington K., 2006. *Policing the rural crisis*. Federation Press, Sydney.
- Kaylen M.T., Pridemore W.A., 2013. Social disorganization and crime in rural communities: A first direct test of the systemic model. *The British Journal of Criminology* 53(5): 905–923. DOI [10.1093/bjc/azt031](https://doi.org/10.1093/bjc/azt031).
- Kokoravec I., Meško G., Marshall I.H., 2021. Juvenile delinquency and victimisation: Urban vs rural environments. *Revija za kriminalistiko in kriminologijo* 72(4): 323–336.
- Komadowska A. (ed.), 2012. *Przestępczość wśród młodzieży – zagrożenia, sposoby przeciwdziałania* (Crime among youth – threats, ways to counteract it). The Publishing House of the Catholic University in Lublin.
- Kossowska A., 2007. Obraz przestępczości współczesnej młodzieży (The image of crime among contemporary youth). In: Krajewski K. (ed.), *Nauki penalne wobec problemów współczesnej przestępczości*. Wolters Kluwer, Warsaw: 447–454.
- Kulczyńska K., Pawlak N., 2017. Zróżnicowanie przestrzenne przestępczości nieletnich w województwie wielkopolskim (Spatial differentiation of juvenile crime in the Greater Poland Voivodeship). *Rozwój Regionalny i Polityka Regionalna* 40: 127–147.
- Ladbrook D.A., 1988. Why are crime rates higher in urban than in rural areas? – Evidence from Japan. *Journal of Criminology* 21(2): 81–103. DOI [10.1177/0004865888](https://doi.org/10.1177/0004865888).
- Laub J.H., 1983. Patterns of offending in urban and rural areas. *Journal of Criminal Justice* 11(2): 129–142. DOI [10.1016/0047-2352\(83\)90048-X](https://doi.org/10.1016/0047-2352(83)90048-X).
- Lipka M., 1971. *Przestępczość nieletnich w Polsce. Zapobieganie i zwalczanie* (Juvenile crime in Poland. Prevention and control). Państwowe Wydawnictwo Naukowe, Warsaw.
- Lockie S., Bourke L. (eds), 2000. *Rurality bites*. Pluto Press, Annadale.
- Lymperopoulou K., Bannister J., 2022. The spatial reordering of poverty and crime: A study of Glasgow and Birmingham (United Kingdom), 2001/2 to 2015/16. *Cities* 130: 103874. DOI [10.1016/j.cities.2022.103874](https://doi.org/10.1016/j.cities.2022.103874).
- Mallett C.A., Fukushima M., Stoddard-Dare P., Quinn L., 2013. Factors related to recidivism for youthful offenders. *Criminal Justice Studies* 26(1): 84–98. DOI [10.1080/1478601X.2012.705539](https://doi.org/10.1080/1478601X.2012.705539).
- Marshall I.H., Enzmann D., 2012. The generalizability of self-control theory. In: Junger-Tas J., Marshall I.H., Enzmann D., Killias M., Steketee M., Gruszczyńska B. (eds), *The many faces of youth crime: Contrasting theoretical per-*

- spectives on juvenile delinquency across countries and cultures. Springer, New York: 285–325.
- Mordwa S., 2012. Ciemna liczba przestępstw. Przykład badań wiktyimizacyjnych mieszkańców wybranych obszarów w Łodzi (Dark figure of crime. An example of victimization survey among the residents of selected housing estates in Łódź). *Space-Society-Economy* 11: 145–155. DOI 10.18778/1733-3180.11.09.
- Mordwa S., 2013. *Przestępczość i poczucie bezpieczeństwa w przestrzeni miasta. Przykład Łodzi* (Crime and sense of safety in the city. The example of Łódź). Lodz University Press, Łódź.
- O’Flaherty B., Sethi R., 2015. Urban crime. *Handbook of Regional and Urban Economics Association* 14(5): 1074–1100. DOI 10.1016/B978-0-444-59531-7.00023-5.
- Ostaszewski P., Klimczak J., Włodarczyk-Madejska J., 2021. *Przestępczość i wymiar sprawiedliwości w pierwszym roku pandemii COVID-19* (Crime and justice in the first year of the COVID-19 pandemic). The Publishing House of the Institute of Justice, Warsaw.
- Sharma M., Su X., 2020. Association between alcohol and drugs and juvenile delinquency: Implications for alcohol and drug education. *Journal of Alcohol & Drug Education* 64(2): 5.
- Shaw C.R., McKay H.D., 1942. *Juvenile delinquency and urban areas: A study of rates of delinquents in relation to differential characteristics of local communities in American cities*. The University of Chicago Press, Chicago.
- Sierosławski J., 2020. *Używanie alkoholu i narkotyków przez młodzież szkolną. Raport z ogólnopolskich badań ankietowych zrealizowanych w 2019 r.* (Alcohol and drug use by school youth. Report on nationwide surveys conducted in 2019). Europejski Program Badań Ankietowych w Szkołach ESPAD, Warsaw.
- Sikorski D., Lisowska-Kierepka A., Ilnicki D., 2024. Influence of selected spatial features on crime rates in a large city based on the example of Wrocław (Poland). *Cities* 147: 104841. DOI 10.1016/j.cities.2024.104841.
- The European Sourcebook of Crime and Criminal Justice Statistics 7 edition (Preeliminary version) Online: <https://wp.unil.ch/europeansourcebook/printed-editions-2/7th-edition-preliminary-publication/> (accessed 1 May 2025).
- Uhl A., 2021. Czy istnieje przestępczość kryminalna? Kilka uwag o tautologii w policyjnej statystyce przestępczości i nie tylko (Is there criminal crime? Some notes on tautology in Police crime statistics and beyond). *Biuletyn Kryminologiczny* 27: 21–42. DOI 10.5281/zenodo.4767624.
- United Nations Office on Drugs and Crime, 2018. *Drugs and age. Drugs and associated issues among young people and older people*. World Drug Report.
- Weisheit R.A., Falcone D.N., Wells L.E., 2006. *Crime and policing in rural and small-town America*, 3rd Edn. Waveland Press, Prospect Heights, IL.
- Wells L.E., Weisheit R.A., 2004. Patterns of rural and urban crimes: A county level comparison. *Criminal Justice Review* 29: 1–22. DOI 10.1177/073401680402900103.