Accommodation Costs in State University Dormitories Illustrated by Selected Examples

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Abstract

Purpose: The main purpose of the article was to present accommodation offered by selected sixteen state universities located in the following cities: Warsaw, Cracow, Poznań, Wrocław, Łódź, Gdańsk, Toruń. A supplementary objective was to draw attention to the fact that student dormitories constitute a specific product within the real estate market.

Methodology: The first stage of the study consisted in a literature query. Next, using the direct observation method, a database comprising accommodation offered by the selected universities was created. The database includes 155 observations. As a result of applying the three sigma rule, two outlier observations were discarded, while the rest were analysed using statistical methods.

Findings: The university function makes the real estate market of university cities a specific one and requires appropriate spatial management. The accommodation offered by the analysed universities remains highly diverse and varies considerably in price, despite the fact that all the dormitories are among public resources. Investment is required to adapt the provided accommodation to the needs of people with disabilities.

Implications and recommendations: It seems that state universities should consider organizing an information campaign addressing the prices of accommodation – primarily those competitively priced.
In the period featuring a declining number of students, such a factor can significantly promote a particular university.

**Originality/value:** The results of the research are useful for both students and university administration.

**Keywords:** real estate market, student dormitory, rental costs

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1. **Introduction**

The real estate market of university cities is abundant in its variety. It provides – not only to students – a significant pool of premises of diverse standards, location and, consequently, rental prices. It should also be noted that student dormitories constitute an important part of this market; they are, in a way, a counterbalance to free-market rental offers. In recent years, an increase in the availability of collective accommodation dedicated predominantly to students has been observed in the form of private accommodation. This fact indicates that student accommodation, as a real estate product, becoming an object of interest for entrepreneurs.

The December 2023 student protests over the planned sale of Jowita Dormitory by Adam Mickiewicz University in Poznań show that housing issues are of utmost importance to the academic community representing a significant part of the local population in university cities. The first active participation in the real estate market for those entering higher education very often coincides with commencing studies at a university located outside the place of permanent residence. The financial burden that comes with living in a student dormitory is quite noticeable for the household budget. The research results indicate that the tuition fees and the cost of renting an apartment or a room invariably constitute the largest portion of monthly expenses for students not residing permanently in their university city (Portfel Studenta, 2023). The issue of state suniversity dormitories is therefore relevant not only to the real estate market, but also to the financial aspect of higher education.

The main purpose of the article was to present the accommodation offered by selected sixteen public universities (which frequently provide several dormitories) located in the following cities: Warsaw, Cracow, Poznań, Wrocław, Łódź, Gdańsk, Toruń. An additional objective was to highlight the fact that student dormitories represent a distinct product within the real estate market.

2. **Student Accommodation as a Real Estate Market Product**

A well-developed rental market is of great importance not only for the macroeconomic aspects of the national economy, but also for the local community regarding the quality of life and the development of a given urban unit. Compared to European countries, the Polish rental market can hardly be described as highly developed (Regulska, 2018). However, the situation of university cities is particular – the need to be accommodated is reported by members of a large academic community. The source literature confirms that students belong to the so-called third urban population – the first being city residents, while the second is represented by commuters from the suburban zone (Bajerski, 2015). Given that the real estate market is evolving (Belniak, 2001), one cannot ignore the housing stock that student dormitories represent. It is worth noting that an analysis of the location of real estate associated with higher education indicates three dominant trends, i.e. central location, location between the city centre and the periphery, and peripheral locations. In Polish academic centres, the latter trend is rare as the links between the university function and the urban fabric used to be much more often emphasised (Dolata and Konecka-Szydłowska, 2006).

In a turbulent environment, student dormitories remain a stable, long-standing, almost traditional, component of the real estate market in university cities – and not only in Poland. This is noteworthy
because the Covid-19 pandemic was a destabilising factor for real estate markets in basically every area. The source literature provides numerous examples identifying the changes it caused (see: Balemi et al., 2021; Chong and Phillips, 2022; De Toro et al., 2021; Heldak et al., 2023; Marona and Tomal, 2020; Polska Federacja Rynku Nieruchomości, Raport, 2020; Piepiora et al., 2022; Wen et al., 2022). The pandemic naturally triggered changes in the operation of university dormitories around the world, but due to their nature, it did not cause their irreversible withdrawal from the rental market (Sebong et al., 2023). With regard to the Polish real estate market, an additional destabilising factor was recorded, namely the influx of refugees caused by the war in Ukraine (Gołąbeska and Tymiński, 2023). The operation of student dormitories in Poland seems to be secure. Furthermore, private accommodation for students is increasingly appearing on the Polish market, demonstrating private capital’s interest in the researched real estate product (Cushman and Wakefield, 2023).

### 3. Methodological Remarks

A literature query constituted the first stage of the conducted research. As a result, it was attempted to determine the existing correlations between the university function of a city and the local real estate market.

Whilst planning the study, the usability of its findings was considered the priority – the perspective of a student with a defined budget limitations and thus forced to carefully analyse the cost of accommodation was adopted. This prompted the grouping of some empirical research results according to the criterion of university type (the aim was to show that a person interested in studying at, for example, a technical university, may expect different accommodation costs depending on the location of the university). In addition, the study aimed to present information useful from the standpoint of university administration in planning and developing accommodation services, including the aspect related to price competitiveness.

The spatial scope of the study covered the selected university cities: Warsaw (250,000 students, accounting for 13% of the population), Cracow (128,000 students, accounting for 16% of the population), Poznań, Wrocław (both cities approximately 110,000 students, accounting for 20% and 16% of their populations), Łódź, Gdańsk (both cities approximately 70,000 students, accounting for 11% and 14% of the population, respectively) and Toruń (30,000 students, accounting for 15% of the population). The choice of cities for the study was dictated by the desire to show the analysed phenomenon in the cities attracting the largest number of students, characterised by the joint university function and the function of the regional capital. According to this criterion, the first six cities were selected, whereas the last city, Toruń, was chosen due to its historical values and the need to show the analysed phenomenon in a smaller centre. This was also influenced by the fact that it is the final city in the top 10 (by number of students) academic centres (Statistic Poland, n.d.).

The selection of specific universities was guided by the size of the particular university (priority was given to the largest centres) and, very importantly, the availability of data. It is worth noting that the analysed universities each have several student dormitories offering rooms that differ not only in the number of beds, but also in the standard within the same number of premises. Consequently, the study covered:

- in Warsaw the dormitories of: University of Warsaw, Warsaw University of Technology and SGH Warsaw School of Economics,
- in Cracow the dormitories of: Jagiellonian University and AGH University of Science and Technology,
- in Poznań the dormitories of: Adam Mickiewicz University, Poznań University of Medical Sciences,
- in Wrocław the dormitories of: Wrocław University of Technology, University of Wrocław, Wrocław University of Environmental and Life Sciences and Wrocław Medical University,
- in Łódź the dormitories of: Medical University of Łódź, Łódź University of Technology,
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- in Gdańsk the dormitories of: Gdańsk University of Technology, Medical University of Gdańsk,
- in Toruń the dormitories of: Nicolaus Copernicus University.

As a result of the research, 155 observations (i.e. variants of rooms on offer) referring to accommodation were identified. For each university, all variants of single and double rooms were examined, differing in: location, square footage, access to sanitary facilities, etc., the features which ultimately affect the price.

Each room variant was therefore considered an individual type of offered accommodation. This does not mean that there are a total of 155 rooms in the analysed university dormitories. The number of 155 represents the sum of single and double room variants in all the facilities covered by the study, i.e. the dormitories of 16 universities. The decision to limit the scope of the research to single and double rooms was dictated by the negligible number and significant discrepancies in the availability of other room types (the features prevented comparison, thus the cognitive value of the analysis would be marginal).

The time scope of the study covered one academic year, i.e. 2022/2023.

In terms of empirical research, the creation of the authors’ original database, allowing to conduct analyses that form the basis for presenting the student dormitories offered by the state universities, should be considered as the most important. The inference was preceded by an appropriate analysis of the studied database.

When embarking on the study, the authors aimed at answering the following research questions:

- How many variants of single and double rooms were offered by the analysed dormitories?
- What is the price range for monthly accommodation?
- Does the average price of accommodation differ in the dormitories provided by the universities of the same type (university, medical university, university of technology)?
- Are the dormitories adapted to the needs of people with disabilities?
- Do the rooms have separate sanitary units?

When presenting the data in the form of charts, the principle of grouping objects with the same location (city) was adopted.

4. Student Dormitories of the Selected Universities – Research Results

A total of 70 different variants of single rooms and 85 variants of double rooms were identified. The largest number of single and double room variants was offered by the University of Warsaw. The least diverse accommodation facilities were provided by: SGH Warsaw School of Economics, Medical University of Gdańsk and Wrocław Medical University. The lack of single rooms in the dormitories of AGH University of Science and Technology was surprising (see Table 1 for details).

The preliminary analysis of collected data indicated the need to reject two outlier offers in further research (concerning price). This was done based on the three sigma rule, which states that for the normal distribution $M \mu, \sigma$ in the interval $(\mu-3\sigma; \mu+3\sigma)$ there are 99.7% observations. As a result, the database was limited to 153 observations.

It should be noted that the rules for paying for accommodation were the same in all the units examined. A student is obliged to move out by the end of the exam session (the first deadline), thus not residing in or paying for the dormitory during the summer months. There is a possibility of accommodation during the summer, but under completely separate rules applicable to guest rooms (this aspect was not examined).
Table 1. Variants of single and double rooms in the analysed dormitories

<table>
<thead>
<tr>
<th>City</th>
<th>Name of the University</th>
<th>Variants in units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Single rooms</td>
</tr>
<tr>
<td>Warsaw</td>
<td>University of Warsaw</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Warsaw University of Technology</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>SGH Warsaw School of Economics</td>
<td>1</td>
</tr>
<tr>
<td>Cracow</td>
<td>Jagiellonian University</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>AGH University of Science and Technology</td>
<td>0</td>
</tr>
<tr>
<td>Poznań</td>
<td>Adam Mickiewicz University in Poznań</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Poznań University of Medical Sciences</td>
<td>4</td>
</tr>
<tr>
<td>Wrocław</td>
<td>Wrocław University of Technology</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>University of Wrocław</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Wrocław Medical University</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Wrocław University of Environmental and Life Sciences</td>
<td>5</td>
</tr>
<tr>
<td>Łódź</td>
<td>Medical University of Łódź</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Łódź University of Technology</td>
<td>3</td>
</tr>
<tr>
<td>Gdańsk</td>
<td>Gdańsk University of Technology</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Medical University of Gdańsk</td>
<td>1</td>
</tr>
<tr>
<td>Toruń</td>
<td>Nicolaus Copernicus University in Toruń</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: authors’ compilation.

Table 2. Selected information on the analysed accommodation

<table>
<thead>
<tr>
<th>Minimum value</th>
<th>Maximum value</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
<th>Range</th>
<th>Coefficient of variation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price per 1 month accommodation in [PLN]</td>
<td>360.00</td>
<td>1200.00</td>
<td>631.22</td>
<td>585.00</td>
<td>175.35</td>
<td>840.00</td>
</tr>
<tr>
<td>Price per 1 day accommodation in [PLN]</td>
<td>12.00</td>
<td>40.00</td>
<td>21.02</td>
<td>19.50</td>
<td>5.84</td>
<td>28.00</td>
</tr>
</tbody>
</table>

Source: authors’ compilation.

The content of Table 2 shows that the analysed dataset is highly diverse: the lowest price of monthly accommodation in the analysed dormitories amounted to PLN 360 (a double room in the dormitory of Gdańsk University of Technology), while the highest was PLN 1200 (a single room in the dormitory of Medical University of Łódź). The range of PLN 840 should be considered as very large. Similar correlations are noticeable in the price per day of dormitory accommodation. However, a clarification is necessary here – some of the dormitories, when determining the daily price, do not use the principle that it equals the quotient of the monthly price and the number of days in a month. It should be stressed that these facilities are not substitutes, nor do they compete with each other due to their distant location. Nevertheless, the identified discrepancy indicates the huge differences in the cost of accommodation experienced by a student at Polish public universities.

When analysing accommodation prices in university dormitories, it is worth considering the offered range of private accommodation. According to a report by Cushman and Wakefield, prices in private facilities were significantly higher, but so was their standard. The smallest price differences between the minimum prices of both types were observed in Kraków and Wrocław, where private accommodation was over twice as expensive as the public. In Warsaw, the price difference was the largest – the cheapest private accommodation on offer was almost 4.5 times more expensive than the cheapest student dormitory (Cushman & Wakefield, 2023). Toruń was the only city mentioned in this article that was not included in the aforementioned report. However, one should remember that the impact of private accommodation on the market is limited as it offers only 13,000 places (the largest network being Student Depot), while for the university accommodation – 112,000 places (Roguski, 2023).
The average price of monthly accommodation in a single room (see Figure 1) was calculated as the arithmetic mean of the fees for all single room variants in the dormitories of a given university. On average, the most expensive accommodation was offered by the Medical University of Gdańsk (PLN 1140), while the cheapest by Warsaw University of Technology (PLN 532).

![Fig. 1. Average price of dormitory accommodation per month – single room](image1)

Uni. – abbreviation for University
Source: authors’ compilation.

![Fig. 2. Average price of dormitory accommodation per month – double room](image2)

(Uni. – University)
Source: authors’ compilation.
The average price of monthly accommodation in a double room (see Figure 2) was calculated as in the case of a single room. On average, Jagiellonian University was the most expensive (PLN 980), whereas the cheapest was Nicolaus Copernicus University in Toruń (PLN 380).

The analysis of the database shows significant differences between the average prices for monthly accommodation in the dormitories belonging to the same type of university (i.e. universities, medical universities, universities of technology).

The comparison of the accommodation offered by the universities (University of Warsaw, Jagiellonian University, Adam Mickiewicz University in Poznań, University of Wrocław and Nicolaus Copernicus University in Toruń) shows that a university student can pay, on average, for a single room starting from less than PLN 600 when choosing Toruń, up to PLN 1,000 in Wrocław. For a double room, the price ranges from PLN 380 in Toruń up to PLN 980 in Cracow. The average price for a double room in the dormitories of Jagiellonian University is also astonishing – it is higher than for a single room (see Figure 3 for details).

Fig. 3. Average price per one month accommodation in university dormitories
(Uni. – University)
Source: authors’ compilation.

A comparison of the accommodation provided by medical universities (in Poznań, Wrocław, Łódź and Gdańsk) also shows significant differences in prices. The average price for a single room ranged from PLN 700 in Wrocław up to PLN 1140 in Gdańsk. For a double room, the price was between PLN 523 in Poznań and PLN 705 in Łódź (see Figure 4 for details).

Fig. 4. Average price per one month accommodation in medical university dormitories
(Uni. – University)
Source: authors’ compilation.
Universities of technology were the last group of compared in terms of average accommodation prices (Warsaw, Wrocław, Łódź and Gdańsk). Warsaw University of Technology offered the cheapest single and double rooms (PLN 532 and PLN 460, respectively). The highest average prices for single rooms were recorded in Wrocław (PLN 856), and for double rooms in Łódź (PLN 600) (see Figure 5 for details).

![Fig. 5. Average price per one month accommodation in the dormitories of universities of technology](source: authors’ compilation.)

In the 21st century, striving for spatial accessibility of public facilities for the disabled has become a legitimate norm. Alarmingly, in the analysed group of offerings (153 observations) only 70 had been adapted to the needs of people with disabilities. Therefore, urgent investment in this area is strongly required. Parking is also an important issue for people with mobility disabilities. A car park is an added advantage for 54% of the analysed accommodation, in the case of 33% a clear absence of this facility was indicated, and in the remainder, information was not provided.

The assessment of the standard offered by the university dormitories can be negatively affected by the location of the sanitary facilities. In the case of as many as 67% of the sanitary units were located on the first floor, and only 33% in the individual module (i.e. for the exclusive use of the two or three rooms included in the module). An individual sanitary unit is undisputedly one of the decisive factors affecting the comfort of living.

5. **Summary and Conclusions**

Students, as the so-called third group of urban space users, influence the city both in terms of lifestyle and accommodation needs, hence student dormitories should be considered a significant element of the real estate market.

In recent years, a significant increase in rental prices has been observed on the real estate market. This applies both to the rental of residential units, as well as to the fees for single and double rooms in individual student accommodation across Poland – a consequence of the above is the continuously rising price of the so-called student wallet (Portfel Studenta, 2023). This fact confirms the relevance of the research results presented in this article.

The volume of accommodation on offer can be astonishing as dormitories of the same university can provide dramatically different facilities. In the course of their research, the authors identified in the accommodation facilities belonging to 16 universities, 70 different types of single rooms and 85 of double rooms.
The accommodation offered by the analysed universities showed a significant price range—ranging in unit price from PLN 360 (Gdańsk University of Technology) up to PLN 1200 per month (Medical University of Łódź). The highest average price for a single room was offered by the Medical University of Gdańsk (PLN 1140) and the cheapest one at the Warsaw University of Technology (PLN 532). With regard to double rooms, on average, the most expensive were offered by Jagiellonian University (PLN 980), while the cheapest by Nicolaus Copernicus University in Toruń (PLN 380). These extreme price offers were not competitive for each other due to their diverse location. Nevertheless, the above price range indicates that state university dormitories vary significantly in price depending on the university.

The average price of dormitory accommodation at universities of the same type (the analysed institutions: universities, medical universities and universities of technology) also varied to a great extent. Interestingly, the universities located in Warsaw, i.e. the most expensive real estate market in the country, offer competitively priced dormitories. It is worth noting that the average price for accommodation at the dormitory of Warsaw University of Technology was significantly lower than that of Wrocław University of Technology.

It is a regrettable observation that the accessibility for people with disabilities was not standard in the analysed dormitories—more than half of the offered accommodation (83 offer) had not been adapted to their needs. Sanitary units, in 67% of the cases were located on the first floor—and this may negatively affect the assessment of accommodation standard. On a positive note, the insignificant number of rooms with more than two beds was identified—multi-bed uncomfortable accommodation constituted a negligible margin in the analysed dormitories.

The comparison of standards offered by various universities in different cities was hampered by the absence of consistent information about the available accommodation resources. Nevertheless, the identified differences indicate that when choosing a university, a student with limited financial capacity should check the prices of accommodation in individual facilities. The data presented in the article clearly indicate that it is possible to study at the same type of university while incurring significantly different accommodation costs.

The presentation of these research results at the master’s seminar of the spatial management course at Wrocław University of Environmental and Life Sciences caused widespread surprise in the audience. If the fifth year university students were astounded by the scale of differences in accommodation prices, what kind of knowledge may the first year students have in this regard? Therefore, the information about the price of accommodation should be clearly communicated to university applicants already at the stage of university enrolment.

References


Streszczenie


różnorodna i znacznie różni się cenowo, pomimo że wszystkie akademiki należą do zasobów publicznych. Konieczne są inwestycje dostosowujące ofertę do potrzeb osób z niepełnosprawnością.

**Implikacje i rekomendacje:** Wydaje się, że uczelnie publiczne powinny rozważyć akcję informacyjną o cenach zakwaterowania – szczególnie te, które oferują konkurencyjne ceny. W okresie zmniejszającej się liczby studentów ten czynnik może istotnie promować uczelnię.

**Oryginalność/wartość:** Wyniki badań są użyteczne dla studentów oraz administracji uczelni.

**Słowa kluczowe:** rynek nieruchomości, akademik, koszty najmu