

# WHAT UNIVERSITIES TOWNS AND CITIES GAIN FROM STUDENTS' RETENTION? EVIDENCE FROM OPOLE

Jaké výhody získávají univerzitní města díky studentům? Příklad na městě Opole

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## Annotation

The purpose of the study is to investigate the long run consequences of graduate's retention by university towns and cities. It investigates hypothesis that the inflow of students to the university towns and cities among who dominate women, and their prosper to remain after graduation, cause surpluses of young women. The analysis presented in the article was conducted for Opole which is one of university towns in Opolskie Voivodeship (region) in Poland. In the article, there were combined data applied – the results of the research were conducted in Opole among students and a range on statistic database from Opolskie Voivodeship. The research has been conducted in 2016/2017 among more than 700 students of last academic years from all universities located in Opole. The data origins from Poland Statistics aggregated to the poviats of Opolskie region which are equivalent LAU-1. The most important findings proved that inflow of students to the towns and cities may create a huge demographic impact on the urban areas as some graduates remain in the university towns and cities after graduation. The most important is the fact that there are mostly younger women in working age population which affects the demographic potential of the urban area.

## Key words

university towns and cities, student's retention, human capital, the feminization of urban population

## Anotace

Účelem studie je zjistit dlouhodobé důsledky retence absolventů v univerzitních městech. Článek zkoumá hypotézu, že příliv studentů, kterým dominují ženy, do univerzitních měst a jejich setrvání zde i po ukončení studia, způsobují převahu mladých žen. Analýza obsažená v článku byla provedena pro město Opole, které je jedním z univerzitních měst v Opolském vojvodství v Polsku. V článku byla použita kombinace dat: výsledky výzkumu provedeného v Opole mezi studenty a řada statistických databází z Opolskie Voivodeship. Výzkum byl proveden v letech 2016/2017 mezi více než 700 studenty posledních akademických let ze všech univerzit v Opole. Data pocházející z Polského statistického úřadu byla agregována dle se agregovaly do okresů (powiatů) opolského regionu, které jsou ekvivalentní k LAU1. Nejdůležitější zjištění prokázala, že příliv studentů do měst může mít významný demografický dopad na městské oblasti, protože někteří absolventi po ukončení studia zůstávají v univerzitních městech. Nejdůležitější je skutečnost, že v populaci v produktivním věku jsou většinou mladší ženy, což ovlivňuje demografický potenciál městské oblasti.

## Klíčová slova

univerzitní města, retence studentů, lidský kapitál, feminizace městského obyvatelstva

**JEL classification:** J10, J21, J24

## 1. Introduction

A considerable body of literature has shown that there has been high increase in participation in higher education (Smith and Holt, 2007, Zygmunt, 2018, Zygmunt, 2018a). The most of advantages of enormous explosion of higher education sector were noticed in towns and cities which host wide range of Higher Education Institution and a large body of students. The literature review suggests that a short run and a long run economics consequence of student's inflow can be observed. The most common and visible are short run advantages that students bring to the urban areas. It has been defined as a studentification (Smith, 2002). It means a wide range of consequences

observed in towns and cities with the neighbourhood occupation by a number of students. The inflow of students creates a growing number of city users which increases consumer demand, demand on private rented sector and increases the labour supply (Steinacker, 2005, Munro, Livingston, Turok, 2009, Munro, Livingston 2012, Beblavý, Fabo, 2015, Adamska, 2018, 2020, Maj, Hawrysz, Bębenek, 2018). No less implication has been created by students in a long run of urban areas. Those who moved to the university towns and cities for higher education may remain in urban areas after their graduation (Sperlinger, McLellan, Pettigrew, 2018). Thus, the most important contribution that graduates make for towns and cities in a long run is absorption of additional urban population (Winters, 2011, Benneworth, Herbst, 2015). The attribution in creating human capital and a long run economic growth is also of a great importance (Barro 1991, Cohen and Soto 2007, Klemens, Durkiewicz, 2019). While a large number of literature has synthesis about abovementioned issues, there is relatively little research on the impact of graduates on the structure of urban population. One of the few are Haussermann and Siebel (1988), who examined intensified mobility after the German reunification and found that in university towns and cities there is observed a large surplus of women aged 18–30. They also observed that the number of women per 100 men in these cities is much higher than the average for Germany and the entire European Union. Another, which is a mirror image of previous one, is research conducted by Jończy (2017) and Śleszyński (2018) in Poland. They found that there is shortage of young women in peripheral areas in Poland because of migration from the periphery to the centres.

Based on the above-mentioned studies the aim of the paper is to investigate the long run consequences of graduate's retention by university towns and cities. I investigate hypothesis that the inflow of students to the university towns and cities among whom dominate women, and their propensity to remain there after graduation, creates changes in the structure of population – especially because of the(?) surpluses of young women. This analysis is provided for Opole which is one of university towns in Opolskie Voivodeship (region) which is the smallest and the most specific region in Poland. It is situated in the west-southern part of Poland between two economically extraordinarily strong regions – the Lower Silesia Voivodeship in the West and the Silesia Voivodeship in the East. These This location causes several difficulties of to the Opolskie Voivodeship due to the fact that nearby regions attract majority of the investments and human capital resources of the Opolskie region. The special character of the region is also caused by the fact that a part of the residents has two citizenships or origins – Polish and German – which contribute to high scale of foreign migration. These both factors: the intermetropolitan location and the high scale of foreign emigration caused that the voivodeship becomes the area of deteriorating demographic situation and the area of a demographic crisis, which relate to cities, towns and villages suffering from depopulation, mass emigration abroad and high variability in demographic structures (Rokita-Poskart, 2016, Heffner, Klemens, Solga 2019, Kubiciel-Lodzińska, Maj, 2021). Similar problems concern the capital of the Opolskie Voivodeship – Opole, where currently approx. 130,000 residents are living, but at the same time experiences a declining process in the number of inhabitants and the outflow of young people to the nearby metropolitan centres, including nearby metropolis and foreign countries (Jończy, Rokita-Poskart, 2014). Besides the fact that the town fulfils several administrative functions, it is a university town, where four universities are located with about 20 thousand students (Local Data Bank), among whom about 90% are non-local (Rokita-Poskart, 2016). Thus, the inflow of students to Opole and probability that some of them would remain after graduation may be a huge advantage for the demographic and economic situation of the urban area.

In the article, I combine the results of the research that there were conducted in Opole among students and a range on database from Opolskie Voivodeship. The research has been conducted in 2016/2017 among more than 700 students of last academic years from all universities located in the Opole academic centre. The data origins from Poland Statistics aggregated to the poviats(counties) of Opolskie region as part of a larger unit equivalent LAU-1.

The structure of the article is as follows. Firstly, I discuss employed methodology of research and underline the data. Then, I present the results of the research. Finally, I show the public data about the share of women and men for Opole compared with other poviats in the Opolskie Voivodeship. The last section contains conclusions.

## 2. Research and methods

The basis for presenting empirical research are results of the survey that was conducting conducted using an auditorium survey technique among students in Opole in 2016 and 2017. There was used a quota-random sampling. First, the random sampling of majors of studies among all majors offered by all Opole universities was used. Then on selected majors of studies among final-year students there was quota sampling applied. There were two criteria applied of quota sampling: gender and full-time and part-time students. It means that the sample survey distribution was compared to the distribution of these two features of Opole student's population (Tab. 1).

Finally, the survey was conducted among a sample of 730 students among whom 642 were non-local students. The presented analysis was driven for the group of non-local students as I suppose who are? the most interest potential for the development of university towns and cities.

**Tab. 1: Structure of Opole students population applied in quota sampling**

Female	59.9%	100%
Male	40.1%	
Full-time students	67.4%	100%
Part-time students	32.6%	

Source: authors' own processing

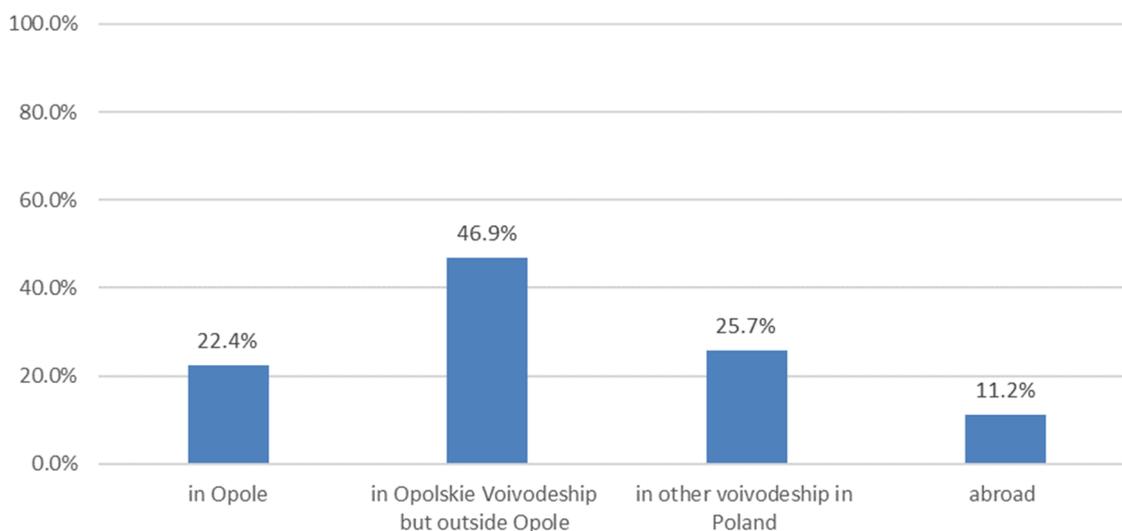
The questionnaire which contains about 20 questions was used in survey. Its structure is based on the channels via which students impact on the city. The first group of questions concerns expenses of students due to the potential impact on the local commodity market, the second is about work activity during studies due to potential impact on the labour market, and last but not the least questions concerns students plan after graduation as it seems that students have potential impact on the development of the towns and city in a long run. In the article, there were presented the answers to the questions which are related to post-graduated planes in regard to the place of residence.

The article is also based on the statistical data for all poviats in Opolskie Voivodeships. It refers to the number of men and women for all poviats in Opole Voivodeship.

### 3. The research results among students

To identify the impact of students on university urban area in a long run there were the results on non-local students plans for place of residence after graduation presented. It was determined that about ¼ of respondents planned to live in Opole, almost half of them planned to live outside the Opole but in the Opolskie Voivodeship and more that ¼ in other voivodeship in Poland and abroad (Fig. 1).

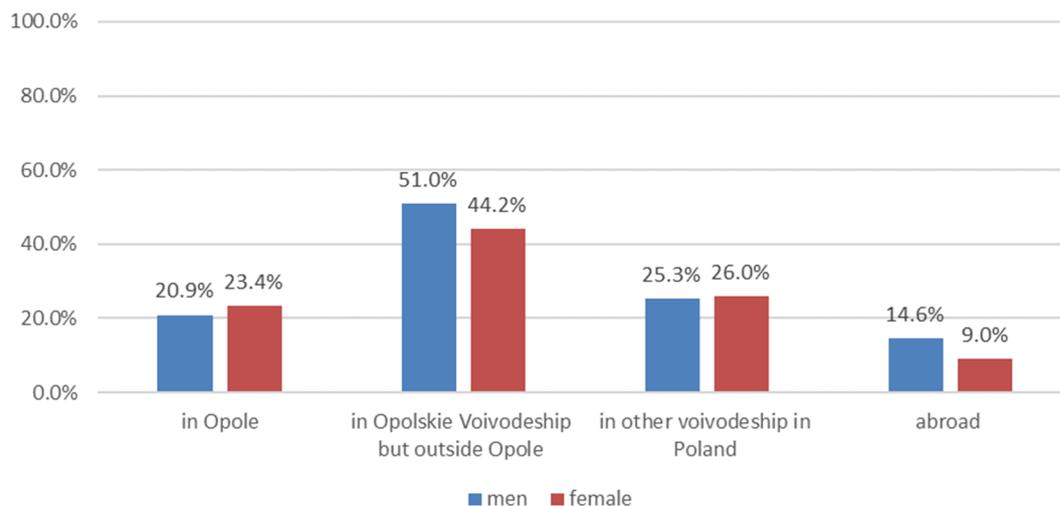
**Fig. 1: Place of residence of students' post-graduation plan**



Source: authors' own processing

It turned out that most of student who intended to live in Opole come from the Opolskie Voivedeship and much less come from other parts of Poland. Most of them were student who lived in Opole during higher education and much less those who commute from the place of residence to the urban area.

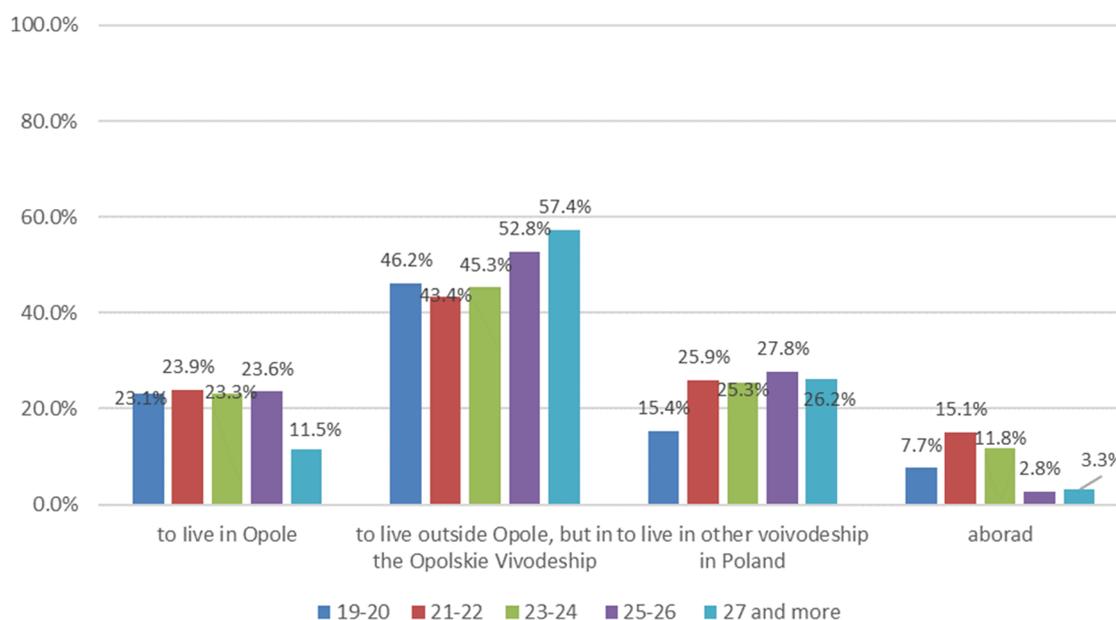
Recent research suggests that there are some differences on post-graduation plans by respondents' gender and age. Thus, the Fig. 2 presents the place of residence of students' post-graduation plan by gender.

**Fig. 2: Place of residence of students' post-graduation plan by gender**

Source: authors' own processing

The results show that that women more often than men planned to live in Opole after graduation. The presented research results seem to confirm the regularities observed in rural areas of the Opolskie Voivodeship, which show that women who come from peripheral areas outflow more often to the towns and to larger urban centers (Śleszyński, 2018, Jończy, 2017). Men, on the other hand, more often plan to live outside Opole, but in the Opole region and abroad.

The respondents plan after graduation differ in regard to their age (Fig. 3).

**Fig. 3: Place of residence of students' post-graduation plan by age**

Source: authors' own processing

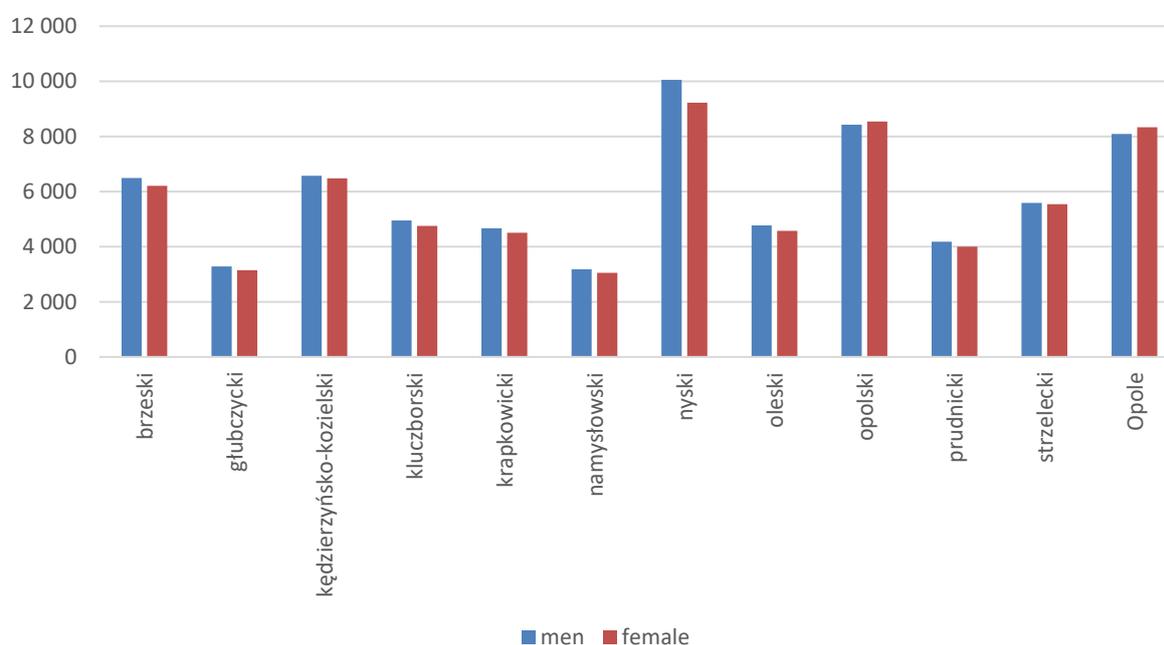
No clear regularity was observed while analysing post-graduation plans after graduation. However, as for the plans of younger non-local students indicated to live in Opole more often than older ones. In turn, the older respondents more often indicated that they would live outside Opole, but in Opolskie Voivodeship. The presented analysis has shown that Opole is little more attractive place of residence for younger (exception are the youngest non-local students) while less attractive for older non-local students. It seems to be result of fact that older students have already started to rise the family and professional career outside of the university urban area, while younger ones are much more flexible in that case.

#### 4. Consequences of student's retention in university towns and cities

The impact of inflow of students on the demographic situation and the local market was undertaken for a long-term perspective. In this regard, the possibility of absorbing students by the university towns and cities becomes more and more important. If rate of graduates' retention in towns and cities is high, it affects the demographic situation of the urban areas and affects the other economic fields. However, the described situation cannot be applied to some towns and cities where a parallel drain of the local population by other centres and abroad is observed. In their case, the inflow of students and the absorption of university graduates may only lead to the alleviation of negative demographic trends.

In case of Opole, about 22% non-local students declared that they would like to stay in the town after graduation. If these plans were implemented, then the city could gain about 1.35 thousand additional residents annually. An interesting finding is that women more often declared their intention to live in the city after graduation than men. This may give rise to the conclusion that there would be a surplus of young women in Opole observed. In order to prove the hypothesis, the static data for all poviats of the Opolskie Voivodeship were compared (Fig. 4). They manifest that the relationship which is abovementioned is observed.

**Fig. 4: The number of men and women aged 20-34 in the poviats of the Opolskie Voivodeship**



Source: authors' own processing

While analysing the presented data there can be observed that only in two poviats of the Opolskie Voivodeship – in the land poviat of Opole and in the city of Opole – there is a surplus of women over men in the younger working age group. The analysis has shown that in the first, the feminization rate calculated for the age group 20-34 is 104 women per men, in the case of the second – 102. The possible explanation for this is the coincidence of several elements – the dominance of women in higher education and in the inflow to towns and cities for educational purposes, as well as their more frequent declarations regarding the choice of Opole as a place of residence after graduation. From the point of view of an university centre, this situation should be assessed positively. On the other hand, due to the areas that are “washed out” from human capital, the migration of women to the towns and cities leads to an even deepening of the demographic crisis (Jończy, 2017).

#### 5. Conclusion

The retention of graduates by university towns and cities has a lot of implication for local development. As it was proved in the article it may create a huge demographic impact of the urban areas as some graduates remain in the university towns and cities after graduation. The most important in that analysis is a fact that there are mostly women. This is because women dominate in the structure of student's population in Poland, and they dominate in the migration for higher education from the place of residence to the university towns and cities which host Higher Education Institution. The higher share of women than men that declared remaining in the Opole after graduation

has another source. Among the most significant reasons there are better work opportunities for women, better livelihoods and a better access to the educational and health infrastructure (Mitra, 2019).

The ability of a college town and cities to retain university graduates has many other long-term consequences. One of them is the impact on the accumulation of human capital. Another consequence of migration for education and the retention of graduates is a significantly higher level of wages. An extremely important consequence of the availability of university graduates are other benefits related to the local labour market and the development of the university towns and cities. There are also many indications that graduates create an important investment potential as it is one of the most important factors attracting investors to towns and cities. This impulse trigger multiplier effects – mainly income, but also supply effects which run not only the development of the local labour market and the creation of new jobs, but also contributing to the development of the local goods and services market.

I recognize the limitation of the presented analysis. One of this is narrow research area – only the Opolskie Voivodeship. However, regularity which is observed in one region in Poland can give the impulse to widen the research to the whole country. Another limitation of the presented results concerns the question about the students plans after graduation. Some part of these answers should be considered as less precise due to the declarations which could not have had to be in line with reality.

However, the educational migratory inflow, as it was proved in this paper, seems to have a great "causative power", as it is one of the most important driving forces generating impulses for development. As Florida (1995) confirmed towns and cities without students would have long lost their youth, vitality and ability to shape development in the economic and demographic sense (Rokita-Poskart, 2021). This seems to be particularly apparent in non-metropolitan university centres, especially in Opole.

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