

20 Drivers, consequences, and governance of urban shrinkage in Lithuania

The case of Šiauliai

Gintarė Pociūtė-Sereikienė and Donatas Burneika

Introduction

Political and economic changes which struck Central and Eastern European (CEE) countries at the end of the last century triggered significant variations in their respective urban systems (Krišjāne 2001, Mykhnenko and Turok 2008, Burneika 2012, Ubareničienė 2018). The key features of the postsocialist period in these countries were the redistribution of inhabitants within their territories, growth of metropolitan centers (Sýkora and Bouzarovski 2012), and rapid population decline elsewhere (Hospers 2012, Grossmann *et al.* 2013, Pociūtė-Sereikienė 2019). Population decline most strongly affected peripheral territories characterized by small towns and industrial cities that were developed during the Soviet era (Raagmaa 1996, Nagy and Turnock 1998, Stryjakiewicz *et al.* 2012, Lang *et al.* 2015). The small Baltic country of Lithuania, located along the eastern border of the European Union (EU), is no exception as it experienced similar trends of population redistribution, followed by sharp population declines (Ubarevičienė 2018).

Though all CEE countries suffer from similar trends, each country has its own specificities as inherited urban systems along with other local factors were different. Šiauliai, one of several industrial centers of the Lithuanian multimodal urban network, was purposefully developed during the Soviet era, which lasted from the end of the Second World War until 1990 and corresponded with a major wave of industrialization and urbanization. The idea of a multimodal urban network (Šešelgis 1996) was based on the limitation of the growth of former major centers, especially the capital of Vilnius. Industry and most public services were evenly distributed throughout Lithuania across ten (and later six) cities, which served as major regional centers. Since the early 1990s, Lithuania has seen a rapid transformation of its settlement system, which nevertheless remains much more polycentric than in other CEE countries (Vanagas *et al.* 2002, Ubarevičienė 2018).

This chapter seeks to conceptualize the phenomenon of shrinkage in Lithuania in the global context using the case of Šiauliai. The authors

present key empirical evidence of the shrinkage of Šiauliai, including related consequences and attitudes of local actors. Šiauliai was selected as a case study because, firstly, it is the largest non-metropolitan Lithuanian city, and secondly, its population has declined by 31 percent since 1992. While it was a major industrial center under state socialism, its industrial base was one of the most damaged sectors of post-Soviet development. Moreover, although it is formally recognized as a large city (under Lithuanian law more than 100,000 residents), Šiauliai has neither benefitted from any major scheme of regional development nor special support measures as in some smaller areas (e.g., financial support for farmers, tourism, small local entrepreneurs in rural areas and so on). While three major Lithuanian cities continue to act as interregional centers, concentrating jobs and population (Burneika 2019), Šiauliai seems to be losing its status as a regional center. We argue that Šiauliai still has grounds to be considered a strong center of northwestern Lithuania in light of its university, international airport (mostly used for military NATO air police purposes at present but working to expand to civil use), railway and road connections, and longstanding Free Economic Zones. These factors all contribute to making Šiauliai a lively city with some visibility in local and foreign media; however, these advantages over other non-metropolitan Lithuanian cities have not prevented its rapid urban shrinkage.

Background to the research: theoretical discussions on urban shrinkage, methodology and data

Theoretical discussions

While countries follow different paths of urban shrinkage, population decline is the main feature across all cases (Oswalt and Rieniets 2006, Rink *et al.* 2010, Reckien and Martinez-Fernandez 2011, Li and Mykhnenko 2018). There is no widely accepted definition to explain all cases of shrinkage. Instead, the literature contains several explanations. According to Audirac (2014, p. 43), Grossmann *et al.* (2013, p. 221), and a number of others, shrinkage should be viewed as a multidimensional, process-based phenomenon that is highly dependent on historical background.

Researchers have attempted to explain urban shrinkage using the theories and models of “life cycle development” or “delayed process of adjustment” (Dietzsch 2009). Meanwhile, some scholars (Rink *et al.* 2010, Haase *et al.* 2013, p. 89) have presented multi-theoretical understandings of shrinkage involving a combination of explanations rooted in “stage” or “life-cycle” theories, “uneven development” or “accumulation of capital” concepts, discussions on “post-suburbias”, changing territorial divisions of labor, or even findings based on the “second demographic transition” or “fourth urban revolution” (Soja 2000).

The drivers of shrinkage are diverse. Scholars point out that shrinkage is influenced by economic decline and job-related out-migration, demographic change, suburbanization, structural upheaval, political changes, resettlement, and environmental disasters, among other reasons (Dietzsch 2009, Rink *et al.* 2010, Haase *et al.* 2013, Pallagst *et al.* 2014). The drivers of shrinkage are often found in combinations of two or more (Wiechmann and Bontje 2015).

The direct and indirect consequences of urban shrinkage are wide-ranging and vary from case to case (Haase *et al.* 2013). Direct consequences include those influenced by depopulation, such as the under-use of infrastructure or housing vacancies, and those affected by deindustrialization, such as the emergence of brownfield sites. Indirect consequences, on the other hand, “are defined as a combined product of feedback loops” (Haase *et al.* 2014, p. 1524).

Researchers have identified the main tools used by national and local authorities (in some cases with the help of entrepreneurs, public agencies, and other institutions) to manage urban shrinkage. In the majority of analyzed cases, economic development, especially foreign investment, is believed to be the most effective tool for attracting new residents (Stryjakiewicz *et al.* 2012, Cortese *et al.* 2013, Pallagst *et al.* 2017). Another essential tool to manage shrinkage is rethinking the city’s development path: for example, strengthening the image of universities (Pallagst *et al.* 2017), establishing hi-tech hubs (Stryjakiewicz *et al.* 2012), restructuring the local economy and finding new niches (Leetmaa *et al.* 2015), developing green areas and social infrastructure (Fol 2012, Stryjakiewicz and Jaroszewska 2016). The literature also notes the positive effects of urban renewal in shrinking cities (Cortese *et al.* 2013). Economic development, renovations, renewal of engineering, and social infrastructure in postsocialist countries of the EU have often been funded by the EU (Stryjakiewicz *et al.* 2012, Wolff and Wiechmann 2018). Furthermore, active civic engagement is also identified as one of the essential keys to cope with shrinkage (Hospers 2012, Leetmaa *et al.* 2015).

Methodology

The research in this article is based on the heuristic model of urban shrinkage (Haase *et al.* 2014), previously applied to shrinking cities in several European countries, including Poland, the Czech Republic, Ukraine, Romania, (Eastern) Germany, Italy, and the United Kingdom. The model assumes that population loss is the key indicator of urban shrinkage. The main idea of the model is to view shrinkage from a broad perspective and consider not only the reasons (drivers) for depopulation but also the impacts (consequences) as well as responses (governance) (Haase *et al.* 2014).

Data

The research is based on quantitative and qualitative data analyses. Following the heuristic model, the first analysis was quantitative in nature

and focused on uncovering the drivers and consequences of the shrinkage. Sources of data for the analysis include official statistics (Statistics Lithuania 2019) on demographic and macroeconomic indicators. In order to gain an understanding of the development trajectories of the city during the last 30 years, 25 statistical indicators were analyzed, from which the main indicators explaining the shrinkage were selected.

The qualitative part of the research is based on semi-structured interviews about the attitudes of the local authorities, stakeholders, and active citizens toward shrinkage. The main criterion behind the selection of respondents was expertise (leading position, active involvement in activities, work experience). The formulation of questions was guided using previous research (Rink *et al.* 2009). In total, ten interviews were conducted, including five with local authorities (municipality representatives), three with citizens involved in various institutions, one with an entrepreneur who is the leading person of the chamber of commerce, industry, and crafts, and one with the deputy to Parliament responsible for presenting Šiauliai affairs in the sessions. The interviews usually lasted around two hours.

Šiauliai and geography of population decline in Lithuania

Population shifts in Lithuania that began in the 1990s occurred more rapidly and with greater intensity than in other CEE countries (Ubarevičienė 2018). However, the causes of depopulation in Lithuania are similar to other CEE countries and include high emigration, low birth rates, and an aging population (Haase *et al.* 2014, Smętkowski 2017, Daugirdas and Pociūtė-Sereikienė 2018, Pociūtė-Sereikienė 2019). The result of this rapid depopulation is that the Lithuanian population decreased by about 25 percent in the last 25 years. Currently, a great majority (86.9 percent) of Lithuania's 2.8 million residents are Lithuanian, not unlike during the socialist period (76.4 percent in 1989) (Statistics Lithuania 2019). As of 2019, the biggest minority groups were Russians and Poles, which made up 12.4 and 6.0 percent of the population, respectively. On the other hand, the distribution of ethnic minorities is extremely uneven as they comprise roughly one-third of residents in Vilnius and Klaipėda and less than 5 percent in the other large cities, Šiauliai included.

Although Lithuania is a small country, a total of 103 cities/towns are officially recognized (Figure 20.1). The smallest urban settlement has around 500 residents and the largest, Vilnius, counts 550,000 inhabitants. Deindustrialization occurred throughout Lithuania and was the main cause of persistent population decline in all cities, except Vilnius, where the number of residents remained stable. Nearly all rural areas also faced drastic depopulation, with the exception of suburban areas near the largest cities of Vilnius, Kaunas, and Klaipėda (Ubarevičienė 2018).

Šiauliai's development trajectory is similar to that of other Lithuanian industrial regional centers; for instance, the fifth-largest city in Lithuania, Panevėžys, has also lost 33 percent of its inhabitants since 1992, and the sixth-largest city,

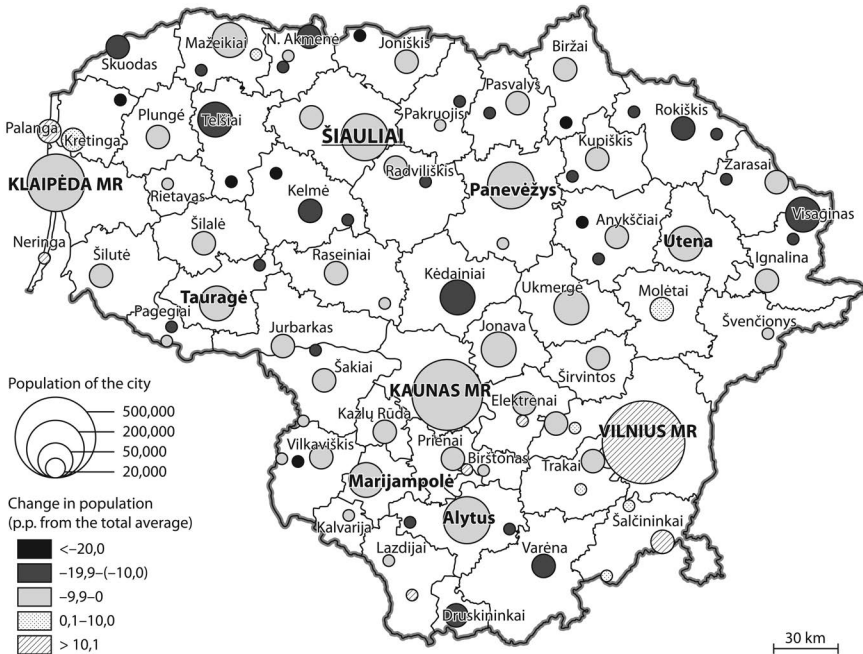


Figure 20.1 Population development in Lithuanian cities 1990–2018.

The case study area (city of Šiauliai) is underlined.

Source: Graphics prepared by R. Ubarevičienė and D. Burneika (adapted from Burneika 2019, p. 49).

Alytus, has lost 33.4 percent. Shrinkage of other small peripheral towns is particularly noticeable and can be explained by the decline in rural jobs in agriculture. It should also be emphasized that the processes of shrinkage were driven by foreign emigration, with the whole country losing approximately one-fourth of its population since 1991. Unlike in Western countries or even former East Germany, the urban shrinkage of Lithuania should be perceived at an international scale. Second-tier cities like Šiauliai experienced population declines not because of the redistribution of residents and jobs inside Lithuania but first and foremost because of out-migration to other parts of Europe.

Šiauliai, the fourth largest city in Lithuania (after Vilnius, Kaunas, and Klaipėda) with 100,100 inhabitants as of 2019, is located in northern Lithuania, approximately 50 kilometers from the Latvian border. Šiauliai became an important urban center because of its geographical position in the 16th century, but the city's historical development was very turbulent. It was heavily impacted during World War I (65 percent of buildings were destroyed; Baliutavičienė and Baliutavičius 1999) and World War II (85 percent of the city was destroyed along with the majority of population, which was primarily of Jewish origin; Sireika 2007).

Consequently, the city's period of stable growth under state socialism is often perceived as its "golden age". Indeed, during the socialist period, Šiauliai developed into an economically strong industrial and cultural regional center (Vanagas *et al.* 2002) with well-developed social infrastructure and a constantly growing population (Baliutavičienė and Baliutavičius 1999). The majority of inhabitants were recruited by the state to work in city's manufacturing sector (especially food, machinery and metal, clothing and textile industry) (Sireika 2007, p. 172), which made products for export all around the Soviet Union. It was a period of relative prosperity, marked by an increasing number of houses, schools, kindergartens, entertainment services, and green areas (Sireika 2007). From 1959 to the end of the Soviet era in 1990, the population increased from roughly 58,600 to 145,500. The population peaked in 1992, and since then, the city has faced persistent population decline (Figure 20.2).

Drivers and consequences of shrinkage in Šiauliai

The shrinkage of Šiauliai might be explained by general macro-level political, economic, and socio-demographic changes that have taken place in Lithuania and across CEE. Though no detailed studies exist, micro-level factors related to the roles performed by local actors, such as local government leaders, entrepreneurs, or politicians also appear to have played a role. However, the overwhelming similarity of trends throughout Lithuania suggests the impact of micro-level factors on shrinkage was limited.

There is little doubt that the macro-level triggers of shrinkage were related to the inability of the city's economy to adapt to the changing political and economic systems of Lithuania and Europe as well as growing global competition. Most Soviet era industries were extremely energy inefficient, had low levels of productivity, and produced low-quality goods or machinery. Under the conditions of a competitive global economy, the majority of factories had no future. In fact, Šiauliai suffered from deindustrialization in a similar way to other European cities at the end of the 20th century (Hall 1998); however, the pace of deindustrialization was much faster and its scope much wider due to the fact that the industry was orientated toward the East, and meeting the needs of the Soviet Union. During the socialist period, Lithuania, together with other Soviet republics (and similar to Latvia and Estonia), implemented plans imposed by the Soviet Union, which meant its direction of industrialization and spatial development were strictly planned and "laid down from the top" (Vanagas *et al.* 2002). The central Soviet government decided the location of factories in specific cities, which agricultural goods ought to be grown in specific rural areas, and even the migration patterns of inhabitants. Generally, the bulk of goods produced in one Soviet republic was distributed all over the Soviet Union. After the collapse of the Soviet Union, however, most of the previous distribution links were terminated, resulting in the closure of numerous factories.

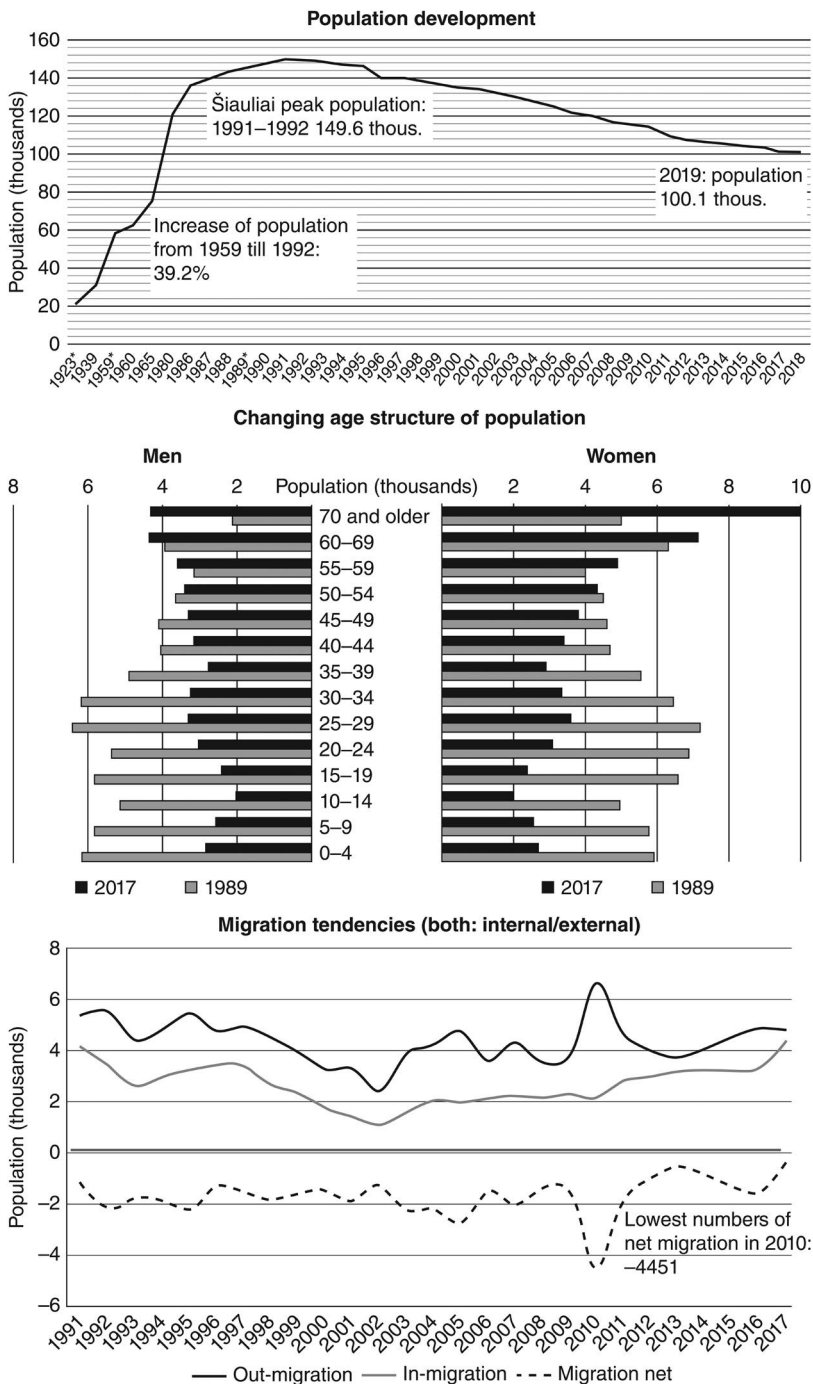


Figure 20.2 Changes of main demographic indicators in Šiauliai city. (Continued)

Source: Authors' own calculations based on data from Statistics Lithuania (2019).

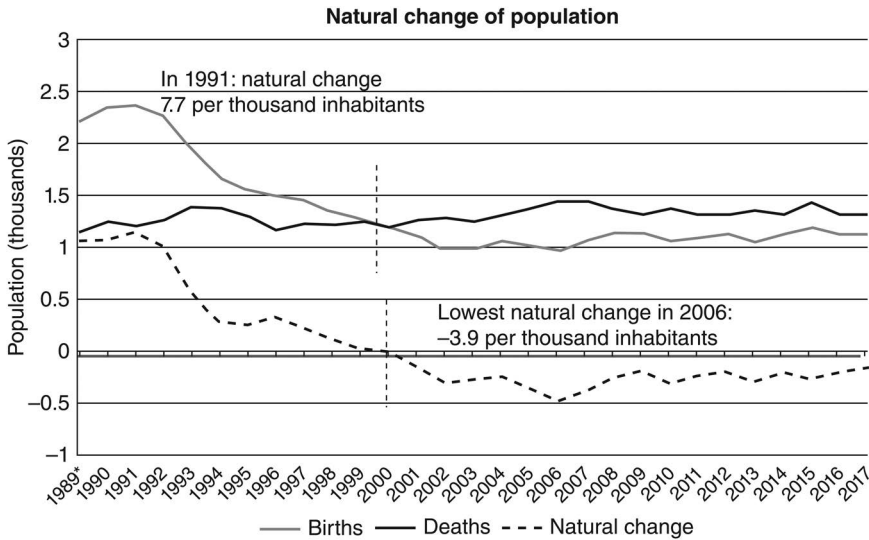


Figure 20.2 (Continued)

Factory closures led to drastic increases in the unemployment rate, which jumped from 1.3 percent in 1992 to 16.1 percent in 2000. Though the unemployment rate decreased to just 3.7 percent reached in 2007, this can be explained by out-migration. In recent years, the unemployment rate has remained around 5 percent, but this is only partly related to the growth of jobs in Šiauliai. Out-migration has helped to mitigate unemployment, but it has also skewed the age structure of the population (Figure 20.2). The working age population decreased by one-third (from 94,400 to 60,400). The largest age group are those over 55 years, which translates to an aging labor force that is not the most mobile or adaptable to changes. Extrapolating from the present trend, further population declines to 94,600 residents in 2022 and 87,400 in 2027. Meanwhile, the elderly population is increasing: it is estimated that by 2022, 22.9 percent of residents will be older than 65, and by 2027, 25.4 percent. In general, the age structure of Lithuania's population has radically changed during the last 30 years and the country is now facing a major population aging trend (Jasilionis *et al.* 2015). The index of aging (the population aged 65 and older per 100 children aged under 15) has almost doubled from 71 in 2001 to 131 in 2019 (the same period in Šiauliai from 61 to 134) (Statistics Lithuania 2019).

Due to economic decline, net migration has been negative since the early 1990s, but the greatest gap between in-migration and out-migration was during the first few years of the 21st century. From 2001 to 2005, almost 2.5 times more residents left the city than moved to it (Statistics Lithuania 2019). The out-migration wave was selective, as most migrants were 20 to 40 years old. The second wave took place from 2009 to 2011 and immediately followed a drastic

increase in unemployment (Figure 20.2), indicating that a lack of job opportunities was the main reason for out-migration (Šiauliai City Municipality 2016).

Foreign emigration was the prevailing trend during the whole study period, except for the most recent years when rates of out-migration to other Lithuanian municipalities were higher. The most extreme migration to foreign destinations was monitored during the post-crisis period of 2009–2011 when foreign emigration flows were greater than internal out-migration by more than 30 percent. These results suggest that the greatest impacts on urban shrinkage were not just the polarization of economic and social development inside Lithuania. The country has been influenced by European-wide core-periphery transformations. Since 2016, internal out-migration has exceeded external out-migration, with 66 percent of all out-migrants leaving the city to settle elsewhere in Lithuania (Statistics Lithuania 2019). However, these figures include suburbanization processes as some suburban developments are located outside city limits.

The city's changing demographic structure has negatively influenced natural population change (Figure 20.2). The birth rate in Šiauliai has dropped by 30 percent since 1992. In 1992, the birth rate was 15.8 live births per 1,000 people, whereas, in 2017, there were 11.0 births. The number of children in Šiauliai more than halved (from 33,700 to 15,600) between 1989 and 2017. In the same period, the number of residents aged 60 or older increased from 17,400 to 25,900 (Statistics Lithuania 2019). The decreasing number of pupils has led to school closures and corresponding job losses in public services. Moreover, the decreasing number of consumers has caused problems for local government and businesses. For example, due to increasing maintenance costs of infrastructure, the municipality struggles to ensure the convenience of and accessibility to public services, namely public transportation and education. (Šiauliai City Municipality 2016, p. 21).

Deindustrialization also impacted the cityscape. After the closure of industrial enterprises, buildings were left abandoned. Select parts of former factories were restructured and reused, but others became huge brownfield sites and, in turn, a burden on the local government. Moreover, the owners of many abandoned buildings are not willing to invest in their renovation, instead preferring to leave them as “ghosts” of the city.

All of the above inevitably exerted a negative influence on the image of the city and its ability to attract investors and residents. On the other hand, shrinkage has also opened doors for positive outcomes, such as increasing living space and decreasing rental costs, traffic, and air pollution (Janicki 2017), but such outcomes depend on the ability of private and public decision makers to affect the actual and subjective outcomes of shrinkage.

Local actors' attitudes toward shrinkage

In Lithuania, regional policy and development decisions are still strongly centralized, and municipalities have very limited financial resources for investment in activities that are outside the field of their direct responsibility.

The regional policy of Lithuania has been assigned very limited resources since its origin in the early 2000s. Most of its available funds are related to EU structural funding and follow its requirements. Unlike many other cities in post-communist countries, such as Łódź or Wałbrzych in Poland (Stryjakiewicz *et al.* 2012, Stryjakiewicz and Jaroszevska 2016), which were mostly renovated and renewed using EU funding, Šiauliai, as formally a “large” city, missed out on EU funding support schemes in Lithuania as they were targeted at problem areas (rural municipalities mostly) or secondary growth poles (medium cities). Although Šiauliai has not gone completely without EU funding (for example, Šiauliai is currently renovating its squares, parks, and engineering networks, thanks in part to EU structural funds), it has received less attention and funding compared to rural areas.

The present government has prioritized regional development and included its government programs (Seimas of the Republic of Lithuania 2016), but given no special attention to cities like Šiauliai. Even the current government program, despite providing support for young families to purchase a home outside metropolitan areas, such as suburban areas of the sprawling city of Kaunas, ignores Šiauliai.

Municipalities in Lithuania cannot freely dispose of their own land and property and furthermore need to reconcile new projects with the national government and adjust them to national or strategic plans. Therefore, the abilities of municipalities to attract investors are limited. On the other hand, the municipality still holds budgetary powers and can regulate its spending to some extent. It can also play an active role in city promotion and image creation, implement local scale strategies, set property tax rates, and influence investment priorities of EU funding for the city (within certain limits).

The field study and interviews of this study focused on revealing how the local government, entrepreneurs, and active citizens (all hereafter referred to as local actors) understand the problems in the city, what future trends were expected, and what role local actors play in coping with shrinkage. Research results identify three main approaches the city has adopted to manage urban shrinkage: (1) keeping existing or attracting new young residents; (2) economic development; and (3) infrastructure renewal. These approaches are presented in more detail below.

First approach: attracting new young residents to the city

Given that the city is aging fast, attention has focused on attracting and retaining young people and young families. In 2019, the municipality arranged a program that covers students’ rental and study fees (if the study program is paid) on the condition that after their studies, the student continues to live and work in Šiauliai for at least three years after graduation. Additionally, the municipality offers young families financial support toward the purchase of a first home. The support is in the form of covering the costs of notaries and Center of Registers services, which may total about 1,500 euros. As well, the municipality provides a starter pack

for every newborn child. Recently, the municipality decided to offer rent support for young specialists who come to the city to work in institutions that lack staff, such as health care services. In addition, the municipality has been running a program where some schools offer special programs for children of returning emigrants. Furthermore, very recently, the municipality launched the platform “Global Šiauliai”, which provides a range of necessary information for returning emigrants and newcomers. While these actions are very recent and, in some cases, still in development, they demonstrate an aspiration to deal with depopulation.

In general, efforts to attract new residents are noticeable in many shrinking cities; however, the ways these efforts are implemented differ. For instance, the main strategy to attract people to the formerly shrinking city of Leipzig was set to make the city more socially diverse by tackling social issues related to immigrant integration, low-income households, or unemployment (Cortese *et al.* 2013). Various projects were implemented toward these aims, such as the “urban development plan (STEP)”, “Rebuilding the City – East” (“Stadumbau Ost” Wiechmann and Pallagst 2012), or “Social city” (Cortese *et al.* 2013). These measures led to the renovation of abandoned industrial houses and entire neighborhoods, upgrading of social infrastructure, and ultimately regrowth, as Leipzig became attractive not only to immigrants but also to young German families and students.

Meanwhile, shrinking cities in Poland set the urgent task to halt the outflow of young people by creating attractive residential places for families, offering better-paying jobs, and improving social facilities such as kindergartens (Stryjakiewicz and Jaroszevska 2016). In order to improve the labor market situation in Poland’s shrinking cities, various agencies were established, such as the Lower Silesian Agency for Regional Development or the Lower Silesian Science and Technology Park in Wałbrzych (Stryjakiewicz *et al.* 2012). Conversely, local governments in France decided to take measures to attract middle-class residents from suburban zones back to the core of the cities, including renovating old city centers, rebuilding cultural heritage objects, renewing public and green areas, and constructing new homes. Although these initiatives aimed to change the image of cities, a focus on attracting middle-class households to the city could contribute to gentrification (Fol 2012).

Compared to aforementioned, the main difference of the Lithuanian strategy, at least in the case of Šiauliai, is that the reaction of the government toward urban shrinkage and its efforts to attract new residents are more declarative than effective. As the programs are more recent and still with problems to be worked out, the desired inflows of young people have not yet materialized.

Second approach: economic development

Another major effort to “wake-up” Šiauliai is based on strengthening its economy. Eight years ago, Šiauliai established a Free Economic Zone

(FEZ), a well-established tactic to attract businesses by offering reduced state and municipal fees. The practice of establishing Special Economic Zones (SEZ) is common in postsocialist shrinking cities in Poland, where the aim has been to accelerate economic development, attract Polish and foreign investors, create new jobs, redevelop post-industrial infrastructure, and foster modern technologies and innovations (Stryjakiewicz *et al.* 2012). These zones, which were established in the 1990s and eventually became significant areas of investment, could serve as successful examples for managing shrinkage by economic means.

Lithuania is currently home to six operating FEZs (Lithuanian Association of Free Economic Zones 2020). However, under EU legislation, actual tax reductions offered to companies are very limited and thus do not give much impetus for companies to relocate. For a long period, the Šiauliai FEZ was not viable and only existed on paper, while other cities fared much better. In 2015, a newly elected municipal board began working more actively on economic regeneration projects, among them the establishment of a FEZ. Therefore, in 2019, four companies (producing medical equipment, plastic windows, and advertising signs) received support from the municipality to relocate to the FEZ and brought 9 million euros in investment with them. This created 200 new workplaces and added value to the city. However, although the local government proudly considers the Šiauliai FEZ to be the most rapidly growing FEZ in Lithuania, the zone is not working at full capacity: 107 of 133 hectares of land remain to be developed. In addition, in 2005, the municipality, accepting the government's call, started preparing infrastructure for another national "grand project" known as the "Industrial Park". Since FEZs are, in fact, not free of taxes, actual differences between "Parks" and FEZs are minimal and tend to be more related to the timing of the projects. The actual differences in terms of infrastructure and location play a more decisive role in attracting investments. The "Park" in Šiauliai is the biggest of five "Parks" located in Lithuania and, similar to FEZs, offers reduced fees for relocating manufacturing companies. Eleven companies together with the municipality have invested 45 million euros and created some 6,000 new jobs in this Šiauliai "Park".

In 2016, the municipality also launched a program for entrepreneurs, in which local authorities support the business plans of small companies and start-ups. This program was originally dedicated to young entrepreneurs (up to 29 years old), but at present, two additional groups (those older than 50 and middle-aged residents) are eligible for funding. This program seeks to motivate city residents to stay, bring new ideas, and create for the city. Currently, the local authority is developing a "Strategy for Economic Breakthrough". The main idea of this strategy is to highlight the path of economic development which the city should follow. The program involves different sectors, however, the main emphasis is placed on logistics, the expansion of the existing FEZ, "Industrial Park" zones, and exploiting the potential of the airport. An interview with an entrepreneur involved in

the creation of the strategy indicated that the strategy remained unclear and still at its formative stage. The respondent was moreover dissatisfied with this new strategy and expected it would be another expensive document destined to be forgotten like its predecessors.

Third approach: infrastructure renewal

From the middle of the 20th century until recent times, Šiauliai has retained the same Soviet appearance. A few years ago, however, the local government decided to renew the main pedestrian zone in the city center, modernize the main city square, replace old pipes, upgrade the streets, renew parks, and clean and adapt the lake for recreation. Meantime, the city is encouraging the use of alternative transport (such as bikes and electric scooters) and improvement of urban amenities.

To reduce the number of brownfield sites, the municipality increased property taxes for unused buildings. This led to the restoration and reuse of an old abandoned building near the lake as an elderly care home. High occupancy and long queues indicate the further potential to develop the city's "silver economy". However, there remain a large number of dilapidated Soviet-era industrial buildings that should be demolished or reused.

How is Šiauliai willing to present itself?

The interviewed entrepreneurs, NGOs, and local activists emphasized that there is no clear vision or robust strategy guiding the city. Rather, it seems the local government wants to do everything at once: strengthen the economy, attract foreign investment, and invite young people to the city. However, these ideas are predominantly top-down and have not yielded the desired outcomes. A bottom-up initiative of local leaders to develop the city around the idea of "Šiauliai as a land port" was rejected ten years ago. This is regrettable because examples from other countries, such as Flint in the United States (Pallagst *et al.* 2017), show that plans developed via bottom-up collaborative processes involving citizens' suggestions can have a positive effect on city development. The city's current slogan, "Šiauliai strong economic center" (Šiauliai City Municipality 2016), seemed like a joke to some respondents, who suggested it is too late to regenerate the city's economy and that there is a need for alternative concepts for the city's development.

Local authorities underlined their own visions and ideas for the city. They, and especially the mayor, primarily see the city as a "family-friendly place" with well-developed infrastructure. Several times it was pointed out that the term "family" actually means "young family", which suggests that Šiauliai's development is still linked toward a younger generation even though because of aging, the city has become a residential location for the older generation. However, while authorities are promoting the idea of attracting young people to the city, the instruments to do so remain unclear and

under discussion. The only clear vision is to maintain the status of a “university city”. Šiauliai is one of four cities in Lithuania with a university, and respondents believe this institution still attracts young people from around the country. Pallagst *et al.* (2017), analyzing Kaiserslautern in Germany as well as Flint and Youngstown in the US, underlined the capacity of universities to attract young people to cities as well as to serve as a hub for hi-tech industries or start-up companies (Stryjakiewicz *et al.* 2012).

As the majority of Šiauliai’s former factories have closed, the city has become less polluted. Therefore, another idea of the local government is to present the city as a “green city” and to take advantage of its green areas, parks, and lakes. While it remains unclear how this will help to change demographic and economic trends, the idea of “greening” the city (for example, by restoring or creating parks) has been raised in many shrinking cities as a strategy to attract or retain families (Fol 2012, Stryjakiewicz *et al.* 2012, Pallagst *et al.* 2017).

Šiauliai gained a strong military function due to the construction of a major military airport during the Soviet era, which has been used by NATO for more than a decade. The local government has proudly presented the city as a home for employees of the military and made efforts to attract investment toward strengthening this potential. For example, it has widely promoted the national government’s 2019 decision to build a “military village” in Šiauliai.

Survey respondents identified a mismatch between authorities and residents about priorities for city development and raised questions about a reliance on foreign immigration for growth. The analysis of interviews furthermore shows a gap between authorities and residents, especially among entrepreneurs, about what steps would best manage urban shrinkage. Local authorities blame businesses for not joining the “fight” against economic emigration, whereas the entrepreneurs point out that the municipality does not allow them to join city development discussions. According to entrepreneurs, the local authorities take on too many initiatives but lack the financial and human resources to realize their aims. While the mayor declared the situation in the city is still good enough, other respondents underlined depopulation, economic backwardness, residents’ dissatisfaction, and increasing social segregation as processes as matters of concern for the city. However, almost all respondents agreed that shrinkage is a natural process and not exclusive to Šiauliai.

A fundamental question was also raised about the expectation that foreign immigrants will facilitate regeneration. Even though some local municipal leaders enthusiastically declared that the population of Šiauliai has recently increased by 8,000 inhabitants, most of these individuals are newcomers from Ukraine and Belarus. Some respondents pointed out that foreign immigration is not a solution as it increases the number of employees but not necessarily the number of skilled workers. Indeed, the majority of immigrants are employed as truck drivers and construction workers. The

respondents were more in favor of restrictions on immigration and willing to elect local authorities who would focus on retaining existing residents rather than attracting foreigners or returning emigrants. In general, the respondents argued that Šiauliai should follow the path of becoming a smaller, resident-friendly city.

Discussion and conclusion

The postsocialist transformation of Lithuania has proved challenging. Residents and authorities have had to adapt to changes in the political system and the transition from a socialist to a market economy (Burneika 2012). Moreover, throughout this period, the country has been confronted with demographic changes including rapid depopulation and urban-rural shrinkage. While Lithuania is not an exception in a European context of rapid population decline (Haase *et al.* 2013, Wiechmann and Bontje 2013, Wolff and Wiechmann 2018), major European countries, such as Germany, are in a stronger position to deal with urban shrinkage as they are generally favored by immigrants. Trends of shrinkage in Lithuania better resemble those observed elsewhere in CEE, especially the other Baltic States of Latvia and Estonia, which along with Lithuania were among the world's fastest shrinking countries during the last decades (since restoring the Independence in 1990) (United Nations 2015). Not only have peripheral rural areas been shrinking, but also 95 percent of cities and even capitals have been losing their populations; for instance, Riga lost 29.6 percent of its population since 1989 (Ubarevičienė 2018). Meanwhile, suburban areas surrounding capitals (in addition to two other major cities in Lithuania and Estonia) have recorded population increases. Such results suggest a strong trend of metropolization in the Baltic States. This unequal development has caused polarization among the Baltic States to become more evident.

Shrinkage might be explained by general macro-level political, economic, and socio-demographic changes (Raagmaa 1996, Krišjāne 2001, Berzins and Zvidrins 2011, Daugirdas and Pociūtė-Sereikienė 2018). Many theories of divergent regional development also predict similar trends of concentration and polarization of the economy under the conditions of the free market (Dawkins 2003). The geographical factor plays a major role as well. In general, the Baltic States are “on the edge” of the EU. In the case of Šiauliai, its location at the “periphery of the periphery” contributes to its stigmatization. Indeed, even though Šiauliai is Lithuania's fourth-largest city, its peripheral location is one reason why it has not managed to become an interregional center that attracts jobs and people from areas beyond Lithuania's northern region. And while Šiauliai struggles with low investment rates, major cities including Vilnius, Kaunas, Klaipėda, and Riga have become increasingly attractive for international companies.

The drivers and consequences of shrinkage in the case of Šiauliai are similar to those identified in shrinking cities of other European countries, such

as Ostrava, Bytom, Timișoara, and Wałbrzych, or even Liverpool, Leipzig, and Saint-Étienne (Rink *et al.* 2010, Fol 2012, Stryjakiewicz *et al.* 2012). In all countries, the greatest role was played by economic decline and deindustrialization, which in turn was echoed in unemployment, emigration, negative natural population change, aging, and abandonment of residential and industrial buildings.

The management of shrinkage in Lithuania has been rather weak. In general, CEE countries lack comprehensive city regeneration strategies (especially for shrinking cities) and usually deal with shrinkage by separate programs or plans (Stryjakiewicz and Jaroszewska 2016). In Lithuania, as in other CEE countries, shrinkage is often neglected (Batunova and Gunko 2018), or the dominant approach is based on overcoming its negative effects rather than fostering the development in the conditions of shrinkage (Stryjakiewicz *et al.* 2012). Rather, planners ought to understand shrinkage as a normal phenomenon; one which requires reconsideration of the city as a holistic space for reconstruction and multi-scaler policy responses (Wolff and Wiechmann 2018).

Lithuania has not launched special programs or policies to cope with shrinkage. While the federal government has recognized depopulation as a problem in several national documents (most recently in the “Lithuanian Regional Policy White Paper” (Ministry of Interior 2017) and “Lietuva 2030” strategy (Ministry of the Environment 2019)), its management remains more conceptual than practical, and largely targeted at rural areas. The regional policy strategies presented in both the “White Paper” and “Lietuva 2030” aim to develop Lithuania more equally by strengthening peripheral regional centers. Accordingly, Šiauliai qualified as one of ten developing regional centers, and it was proposed that the city becomes a regional “intermediate center” serving northern Lithuania. However, the policies lack information about instruments to improve the city’s socio-economic and demographic situation or guidelines on how to attract investment and improve residents’ quality of life.

Currently, the local government in Šiauliai operates according to a strategic development plan (Šiauliai City Municipality 2016) that includes few practical measures to deal with urban shrinkage. The plan emphasizes, however, the importance of increasing the population of young people, strengthening economic potential through investment, as well as improving social, leisure, and physical infrastructure. While these aims represent small “steps” to improving life in Šiauliai, they are insufficient “instruments” for solving the challenges of shrinkage.

Although Šiauliai lost a great share of its inhabitants and nearly all of its former industries, the city nevertheless has the potential to maintain its regional center status, as all the necessary infrastructure is there. Currently, the city is working to reduce its “periphery label” and looking for ways to attract companies and investment, for example, by opening coordination centers for start-ups and young entrepreneurs. Interviews with local

authorities revealed the city is willing to change its “industrial face” and become a green, compact and comfortable city attractive for families as well as tourists. Alas, following the populist idea to “make the city great again” would be one of the worst scenarios for the national and local government, though it could be an attractive idea among aging voters. Instead, the city should focus on becoming friendlier and more convenient for existing residents. Promising strategies to develop the city according to the idea of “shrinking smart” (Rink *et al.* 2010, range from making investments in human capital to strengthening educational opportunities to taking advantage of the city’s geographical position (for example, as a possible logistic center), to converting abandoned public housing into comfortable and homely nursing homes for the elderly. With the right attitude, cooperation between national and local actors, and proper use of EU funds (Stryjakiewicz *et al.* 2012), Šiauliai might transition to a brighter future and serve as another example of the positive side of shrinkage.

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