Technical and Vocational Education and Training in Monotowns: Production of Mobility

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Abstract This article looks into the relationship between education, industry and youth mobility in monotown settings. Information collected during a sociological survey in four Ural monotowns—Krasnoturyinsk, Pervouralsk, Revda (Sverdlovsk Oblast) and Dalmatovo (Kurgan Oblast)—was used as empirical data for the study.

Education can sometimes work "against" the community, as cultural and symbolic capital that young people acquire at secondary or sometimes vocational schools allows them to migrate from their hometowns to larger cities for education purposes. Therefore, better-educated youths are more likely to leave monotowns. At the same time, availability of educational institutions in a monotown provides its citizens with opportunities for personal growth as well as improvement of urban environment. A way out of this seemingly insoluble dilemma could be the policy of civic engagement, which can be implemented provided there are diverse labor market opportunities and a conducive social infrastructure. Planning the cooperation among businesses, education and municipal authorities could be part of the town development strategy, not only the result of decisions handed down by some ministries.

The article also offers an example of a cultural life script: a biography of a research participant whose desire to stay in a small town was only increased by the education she obtained.

- Keywords cultural life script, dual education, employer-sponsored scholarships, mobility, model biography, monotown, technical and vocational education and training (TVET).
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Nearly all authors of classical social mobility studies, beginning with Pitirim Sorokin [1959], assert that education breeds vertical social mobility. Of no less importance is the ability of education to generate geographic mobility. This ability is possessed not only by renowned megalopolis universities but also by tech and trade schools in small towns. In a monotown, young people's craving for changing places may be increased by the dominant industry's specific characteristics, and the resulting mobility is often outbound: youths are not happy with the main areas of workforce application in monotowns-either because of the volume of goods that can be exchanged for their labor efforts or because of the education that they have obtained and the qualities and competencies that they have developed as a result. This article looks into the relationship between education, the dominant industry and youth mobility in monotown settings. The interplay of these three elements determines the vector and intensity of mobility flows. A strong and effective link between technical and vocational education and training (TVET) and the opportunity to apply the acquired knowledge and skills at the town-forming enterprise can become a tool for worker attraction and retention.

This research is underpinned by Urry's "new mobilities" paradigm (actually no so new nowadays, but we stick to the established terminology) and analysis of institutional interactions between industry and education [Urry 2012]. We proceed from the "new institutional" premise that norms and rules are shaped as a result of efforts applied by various actors [Fligstein 2001], putting it into the context of monotown settings. Specifically, we are interested in the mechanisms of interaction between educational and labor market institutions.

1. Sources of Sociological information collected in four Ural monotowns—Krasnotu-ryinsk, Pervouralsk, Revda (Sverdlovsk Oblast) and Dalmatovo (Kurgan Oblast)—in 2018–2019 was used as empirical data for the present study. There were 112 go-along and sedentary interviews with local citizens, municipal administrators and other experts in all the four towns: 52 in Krasnoturyinsk, 19 in Pervouralsk, 21 in Revda, and 20 in Dalmatovo.

Group discussions with middle-, high- and tech school students were also held in each of the towns. A total of 30 discussions involved 529 participants: 113 in Pervouralsk, 200 in Krasnoturyinsk (113 in 2018 and 87 in 2019), 113 in Revda, and 103 in Dalmatovo. Visual methods were applied in the course of discussions: mental maps, life lines, traveling routes and transportation sheets. Discussions were audio- and video-recorded with the consent of participants and their legal representatives.

The list of Russia's monotowns was introduced by Governmental Resolution No. 1398-r of July 29, 2014 (repeatedly revised afterwards) and originally included 319 localities. Monotowns are divided into three

	Population in 2010	Population in 2020	Distance from regional center, km
Dalmatovo	13,911	12,248	200 (from Kurgan)
Krasnoturyinsk	59,633	56,290	425 (from Yekaterinburg)
Pervouralsk	124,528	120,778	45 (from Yekaterinburg)
Revda	61,875	61,533	47 (from Yekaterinburg)

Table 1. Population dynamics and distance from the regional center for the monotowns analyzed

Source: Federal State Statistics Service of the Russian Federation (Rosstat).

categories depending on the risk of socioeconomic decline. The first category, originally consisting of 94 localities, includes towns in "the most disadvantaged socioeconomic situation (due to town-forming enterprise functioning issues, among other things)". In Sverdlovsk Oblast, this category is represented by Pervouralsk and Krasnoturyinsk, which are analyzed in the present study. The second and the largest category includes 153 monotowns "at risk of socioeconomic decline". In our sample, they are represented by Dalmatovo (Kurgan Oblast). The third category covers 71 monotowns "in a stable socioeconomic situation" and is represented in this study by Revda. This way, the sample features representatives of all the three types of monotowns.

Naturally, each town is unique in terms of their socioeconomic, cultural and historical capital.

In Krasnoturyinsk, cutbacks in aluminum production in 2008–2013 reduced the number of plant workers from 12,000 to 2,000. Layoffs sparked protests. In order to solve the unemployment problem and create points of economic growth, the town launched an industrial park, one of the first ones in the region, which later served as the basis for an advanced socioeconomic development area (ASEDA). However, all those efforts have not created essentially more jobs so far.

No such drama occurred to Pervouralsk, yet its population has been steadily declining. This monotown is part of the Yekaterinburg urban agglomeration with a newly-created innovative cultural center Shayba, a recently renovated embankment and a boost in residential construction.

The monotown of Dalmatovo has a small, steadily decreasing population and boasts a rich cultural heritage. Dalmatovo Monastery, the first ASEDA resident which is currently under active reconstruction, has already become a pilgrim and tourist attraction.

Revda is situated only 47 kilometers from Yekaterinburg, the regional center. Just as Pervouralsk, it is part of the growing Big Yekaterinburg urban agglomeration. Both towns have been losing their populations in the recent years, but the trend is unstable. Town-forming enterprises are up and running in Revda, which is 12 kilometers from Pervouralsk.

Table 1 shows the monotowns' population dynamics and distance from the regional center.

2. Monotown A monotown labor market has some distinctive characteristics. On the one hand, it has a limited number of jobs to offer; on the other hand, though, it guarantees some degree of stability and predictability. In monotowns, indeed, a lot of people still have their careers and life lines predetermined and tied, this way or another, with the dominant industry [Vandyshev, Veselkova, Pryamikova 2019].

Representatives of educational institutions and town-forming enterprises unite to work toward common or overlapping goals. Tech and trade schools need to get support from the industry and assistance with apprenticeships, while the industry needs to ensure a stable supply of qualified workers. Models that emerged in the Soviet era have been evolving, giving rise to some entirely new ones, such as dual education.

The old interaction paradigms reproduce the "Soviet" type of relationship between the enterprise and the population that is based on mutual loyalty: "we care about you, and you stay loyal to us". Maintenance and promotion of those models is manifested, in particular, in the persistence of labor dynasties and sustained funding for urban development and improvement.

Maintaining a sufficient supply of adequately-qualified workforce remains key to monotown wellbeing. However, available statistics indicate a strong positive growth rate of outbound youth mobility that casts a long shadow on the future of monotowns and town-forming enterprises. In a modern society, mobility works against them: despite the joint efforts of monotown stakeholders, young people pour out of their hometowns, guided by the basic principle of "the bigger the city, the greater opportunities". It would also be unfair to ignore the fact that demand for TVET graduates in the labor market leaves much to be desired [Dudyrev, Romanova, Travkin 2019].

3. Production of TVET institutions increase communities' capitalization rates by attracting youths from smaller neighboring localities. A small town will never have the same amount of resources and opportunities as a big city, e.g. in terms of average wage or labor market diversity. Yet, a small town has advantages of its own: unique social networks, good accessibility, light traffic, proximity of nature, etc. Characteristics of the education system, including TVET, also become a factor affecting young people's critical decision whether or not to leave.

Educational institutions, from secondary schools to universities, play a vital role in the life of small industrial monotowns. The past dec-

ade has seen a number of studies elaborating this topic using the example of Sverdlovsk Oblast or the Ural Region as a whole. They demonstrate that negative trends in education have especially harmful effects on the life of such localities. As recently as in the early 2010s, researchers would complain about the excess of university and tech school branch campuses in small monotowns, in particular in Krasnoturyinsk [Germaidze, Obshivalkina 2013]; today, they bitterly observe the consequences of the reduction of the number of universities and their branch campus networks (for the Ural Macroregion, see [Zborovsky, Ambarova 2018]). The special role of universities in the monotowns of Sverdlovsk Oblast has been covered in a recent study performed by Higher School of Economics (HSE) sociologists [Romanenko et al. 2018].¹

Educational institutions could be the basis for urban transformation, and educators with their creative potential could become agents serving the community's interests. What attracts researchers' attention more than anything else is whether universities are able to enhance the attractiveness of monotowns and wean them off of their infamous "monohood" [Balyushina 2020; Stas 2018; Punina, Romashova 2015]. With regard to the town, universities perform three functions: town-forming, town-developing and town-preserving [Zborovsky, Ambarova 2018]. In a situation where provincial towns and higher education opportunities are shrinking like a skin of sorrow, the town-preserving function comes to dominate [Ibid.:917].

Most publications examining education in monotowns are focused on higher education. However, TVET appears to be a more relevant subject, at least in the context of monotowns. But do TVET institutions have the same levels of capacity as universities?

Findings from group discussions indicate that, in terms of mobility, tech and trade schools in the four monotowns analyzed serve as transit hubs for adolescents delaying their outbound mobility for whatever reason and as centers of attraction for youths from smaller towns, semi-urban and rural settlements and villages. Vocational schools cannot provide a 100% guarantee of employment by the town-forming enterprise, but they allow their graduates to move forward, thus acting as conductors of mobility rather than anchors holding young people down.

"We recruit, again, from the nearby villages. They move here <...> and then someone will stay here in the town, and others will go to a bigger city." $(DM37)^2$

^{1 &}lt;u>https://theoryandpractice.ru/posts/17240-predpriyatie-vse-reshaet-kak-ustroe-no-obrazovanie-v-monogorodakh;</u> <u>https://www.youtube.com/watch?v=MHN-T2O-HV9I</u>

² From this point onward, the following notation system is used: town—Kr (Krasnoturyinsk), R (Revda), P (Pervouralsk), D (Dalmatovo); gender—male (M) or female (F); and age of the interviewee.

Amidst population decline, which is particularly noticeable in small towns, the education-generated potential for mobility may seem to be leading to a stalemate. Indeed, high-quality secondary education and extracurricular activities—in which the four monotowns rightly take pride—lay the groundwork for further educational trajectories: without enough educational opportunities in their hometown, young people join the flows of outbound student migration that researchers describe as irreversible and irretrievable [Sannikova 2015; Zakharova et al. 2020].

While in the age of Pushkin, a "restless urge for change of place" was interpreted as "an attribute that's quite vexatious", today its universal though transient nature has been widely recognized. Meanwhile, a number of more substantial changes have occurred to the world since Pushkin: modernity has become liquid, societies have gotten accustomed to risks, and mobility has been turning into a fundamental category in social science research on youth and society as a whole. It seems that "adult" experts have already got used to talking about "youth drain" without alarmism, taking on a somewhat philosophical tone:

"Now that we are adults, we are more patriotic and want to live in our hometown, but when we were 16–17 years old, we wanted to go chasing stars and millions." (KrM50)

In our view, it is not only about generational differences but also about the system of interactions between education and the dominant industry. A steady intergenerational discourse of nonreturn outbound migration has emerged in monotowns. Older generations that survived through the 1990s and have already seen the town-forming enterprise shutting down or cutting jobs are acutely sensitive of the current situation's insecurity, supporting children in their decision to move to more future-proof localities:

"All the kids left the town, and I was all for it." (KrF60)

Even if the enterprise is running and the town is fairly well off, which we observed in Kachkanar [Veselkova, Pryamikova, Vandyshev 2016], locals tend to speculate on how much ore is left to supply the plant, trying to estimate average time to the unavoidable end of the flourishing period.

A monotown labor market is structurally limited. As the interviewees believe, the small number of attractive jobs and the lack of career growth opportunities inevitably engender "unhealthy" competition that has nothing to do with candidates' personal strengths but is conditioned by entirely different circumstances:

"We've got <...> folks quite up in years everywhere, at all top management positions and beyond: the population is ageing. You see, young people have no choice but to leave <...> while the older ones kind of fit nicely where they are, but [pause] they won't go anywhere <...> We need new jobs to retain the younger generation." (DM37)

"Most of my friends and other people I know have eventually left the town. <...> The town is small, high-paying jobs with career advancement potential are very few and extremely hard to get because everyone is trying to hire someone they know. I mean, there are basically no employment opportunities." (KrF25)

An entire system set up in the Soviet Union to train workforce for enterprises regulated the process of mobility among other things. Trade schools supplied industries with blue-collar workers, and tech schools prepared higher-qualified workers including operators and even engineers. High selectivity of Soviet universities made higher education hard to access. As a result, individuals' life strategies were aligned with the State's interests, at least when it came to education and employment.

Enterprises were used for apprenticeships, and their employees were extensively involved in training trade and tech school students. A virtually uniform institutional system was developed that supplied industrial processes with adequately-skilled workers and at the same time guaranteed jobs with a certain salary range and a set of fringe benefits to vocational graduates. This system was transformed under the pressure of the late 1980s–early 1990s' reforms. Enterprises became full actors in the capitalist economies of their towns—with all that it entailed, including the termination of partnerships with municipal authorities and TVET institutions. Slumps in demand or prices have come to determine the market behavior and success of town-forming enterprises: whether they have a growth or decline in profits, undergo mergers and acquisitions, introduce technological innovations, and so on. Their positions in the monotown arena have become "unreliable", as they are not sources of stability and certainty anymore.

Educational institutions have also adjusted to the market economy by offering new specializations that are not always related to the dominant industry's demands. The State supports trade and tech schools through public funding on an annual basis, thereby allowing young monotown dwellers to increase their starting capital and, in effect, contributing to their outbound mobility. Both enterprises and educational institutions encourage multi-skilling, i. e. learning several trades or specializations:

"Being enrolled in one specialization, you can learn another one. Attending courses <...> some students opt for fee-based training, not necessarily at our school, and combine work and study. Our school offers supplementary courses and related majors: for example, if you are learning to be an auto mechanic, it would be nice to have welding skills." (PF38).

As one of the experts said in an interview, "people find it easier to go to any big city for higher education than attend a local vocational school to become a tractor operator or a welder" (DM37). Paradoxically, while TVET institutions prepare workers demanded in the labor market and thereby retain them in the monotown, they at the same time provide young people with a potential for spatial mobility, pushing them out to large cities.

Nowadays, the TVET system is not solving the problem of outbound mobility in monotowns, and vocational schools are not even regarded as points of growth, unlike universities. Nevertheless, our research has revealed a number of possible solutions on how to strengthen the link between TVET and urban enterprises, the dominant industry in the first place.

 4. Solution: Dual Education for Tech Schools
The model of dual education, which combines TVET programs at a vocational school with apprenticeships in an enterprise, showed particularly good results in Germany during the economic crisis of 2008–2012 and has become the major trend in TVET since then [Dudyrev, Romanova, Travkin 2019; Dudyrev, Romanova, Shabalin 2018]. In addition to combining education and apprenticeship, this model also provides an institutional framework for interactions between the TVET system and the industry [Dudyrev, Romanova, Shabalin 2018]. In monotowns, implementation of this model is specific in many ways.

> Dual education has not yet become mainstream in Russia; of the four monotowns analyzed, it is only Pervouralsk that has adopted this model.

> An autonomous nonprofit organization called Dual Education Development Institute was established in 2017 at the initiative of Pervouralsk New Pipe Plant and the ChelPipe (Chelyabinsk Pipe Rolling Plant) Group. Further on, "the 'Agreement on Implementing a National-Scale Experiment to Establish an Effective Managerial Mechanism: a Managing Company on the Basis of the Dual Education Development Institute (DEDI) Autonomous Nonprofit Organization' was signed at the 2018 Russian Investment Forum in Sochi as part of joint initiatives by the ChelPipe Group, the Agency for Strategic Initiatives, the Ministry of Education and the Government of Sverdlovsk Oblast".³ Pervouralsk School of Metallurgical Engineering became the testing ground for integrating the principle of dual education in the TVET system of Sverdlovsk Oblast.

³ Dual Education Development Institute: <u>https://pervouralsk.bbmprof.ru/dual-edu-</u> <u>cation-development-institute/</u>

This project can be regarded as a new version of deep integration between TVET and town-forming enterprises. It is designed to prepare competent professionals who comply with the modern hi-tech manufacturing requirements and are involved in corporate culture.⁴ This kind of integration looks like a corporate takeover of educational institutions with their public funding being preserved. In a configuration like that, employers get qualified workers, educational institutions get steady orders for education, and young people get a clear prospect of getting employed and, consequently, staying in the town. This model is not something entirely new to TVET. An interviewee from a vocational school in Pervouralsk said that "the system <...> of dual education <...> has always been there." (PF38)

A research participant from Pervouralsk (an employee of Pervouralsk New Pipe Plant whose husband works at the plant's education and training department) speaks positively of the company's policy:

"This is the board administering The Future of White Metallurgy project. <...> I think all the necessary arrangements are in place to promote learning. <...> They have everything they need to become professionals. They participate in dual education programs, which means 60% is practice and 40% is theory. And all the necessary equipment is at their disposal. This is great. We didn't have arrangements like that." (PF30)

Dual education thus reconstructs the institutionally supported patterns of social and job mobility, providing young monotown dwellers with clear prospects that condition their choices. A blanket survey of 485 students and graduates from The Future of White Metallurgy program carried out in 2017 found that over two thirds of the respondents are willing to work in their field of study and are convinced that they can find a good job, which probably indicates a high level of their education, yet half of the students would like to leave Pervouralsk as soon as they graduate [Korovina 2018:55; Bannikova, Galiaskarova 2020:320]. However, employment statistics show that their ambitions are unlikely to be achieved: the unemployment rate among TVET graduates is approximately 1.5 times above the national average, about 40% being mismatched to their jobs and mostly holding "positions that require lower levels of skills and offer lower salaries than what their educational backgrounds could demand" [Dudyrev, Romanova, Travkin 2019:121-122, 131].5

The half of Pervouralsk students enrolled in The Future of White Metallurgy program who reported willing to stay in their hometown in

⁴ Dual Education Development Institute: <u>https://pervouralsk.bbmprof.ru/</u>

⁵ For an unknown reason, in a verbatim quotation (although without quotation marks) from [Dudyrev, Romanova, Travkin 2019], 40% become 70% in [Zakharova et al. 2020:236–237].

the study by Korovina mentioned above is also a fairly high rate that stands in contrast with the results of school student surveys, which usually show a much lower percentage of those willing to stay. A questionnaire survey conducted in 2013–2014 by Vandyshev found that only 21% of the high-school students surveyed in Revda were going to stay in their hometown or come back after completing their postsecondary studies, the proportion being even lower in Krasnoturyinsk and Nizhny Tagil (8%) [Vandyshev 2014:121–123].

5. Solution: Employer-Sponsored Scholarships in Higher Education Employer-sponsored scholarships in higher education suggest that training is ordered and paid for by a company or organization, which in its turn relies on the education programs offered by the university. Observed in each of the four monotowns analyzed, this form of interaction ensures a steady flow of workers to the sponsor company and at the same time prevents depopulation. Scholarships can be sponsored by municipal authorities, e.g. in case of medical education, or by town-forming enterprises in keeping with their prospective needs.

"Today, the future of Krasnoturyinsk hinges upon Bogoslovsky Aluminum Plant, which has a development program for up to 2050. So, we have preserved the branch campus of UrFU⁶ and have already enrolled 15 employer-sponsored students. That is, RUSAL⁷ pays for their education so that five years later they could be hired into Bogoslovsky Aluminum Plant." (KrM47)

"We now have a medical student who will return under the monotown development initiative, and one girl is enrolled in a choral singing program at Contemporary Art Institute in Moscow with a scholarship sponsored by our local authorities. She will come back in four years and will work at our music school for the next five years. We hope she'll get pregnant and stay here, take roots as they say." (DM37)

A municipal leader in Revda asks himself, "What are we hoping to do to retain youths who can see and compare things too?" and formulates an answer right away:

"Those they are interested in... Take Sredneuralsky Copper-Smelting Plant: it has entire programs based on employer-sponsored scholarships for their middle-skill engineers and technicians <...> they recruit students from localities where the company operates, selecting the best candidates who will apply practical skills successfully. I mean, they train practical workers, not theoreticians. And through those

⁶ Ural Federal University (*TN*).

⁷ United Company RUSAL, international public joint-stock company (*TN*).

courses and employer-sponsored scholarship programs, enterprises get qualified workers that already know how to operate equipment at the specific plant." (RM43)

Universities benefit from this type of worker training too, as they develop relations with employers while remaining autonomous and keeping control over the learning process.

In Krasnoturyinsk, having applied an effort to preserve the university branch campus, the enterprise focused on employer-sponsored scholarships, which offer a certain guarantee of return on investment in education for the company and at the same time provide students with opportunity to work in their field of study.

"It has been decided to commercialize the courses, meaning that the company pays for their education under guaranteed employment contracts, obliging the kids to work for the company for five years after graduation. And further on, they will decide for themselves, of course, it's a free country we live in." (KrM50)

These speculations have been supported by a number of scholars [Dudyrev, Romanova, Travkin 2019].

In the end, both the company and the university (or its branch campus) retain their independence without merging their resources on a systemic level. The enterprise as employer has only limited influence on the design of education programs. So, are employer-sponsored scholarships helpful in preventing depopulation of monotowns? *Per se*, as we have already established, they are definitely not. On the contrary, participation in postsecondary education "enhances graduates' migration potential dramatically" [Vandyshev 2014:123].

6. University and Monotown: To Leave or Not to Leave

The system of technical education, represented by tech schools and sometimes university branch campuses, is perceived positively by monotown residents, as it contributes to urban development and generates symbolic capital. For instance, the experience of Krasnoturyinsk, where there are signs of university performing the town-forming function, is regarded as highly valuable—a specific part of the urban landscape was once dubbed "UPI" after the local branch campus of former Ural Polytechnic Institute, and the name stuck firmly in ordinary people's language. Although UPI was transformed into a federal university (UrFU) in 2010 and was merged with the classical Ural State University a year later, people in Krasnoturyinsk keep referring to this neighborhood as UPI. Not only have the inert vernacular toponyms conserved the already non-existing name and type of educational institution (VTUZ, meaning "technical college"), but they are also a reminder of the significance of polytechnic education in Ural as well as the specific characteristics of local industry. Back in the day, Bogoslovsky

Aluminum Plant used to be a town-forming enterprise. It still operates, but production volume has been essentially reduced. Other enterprises in the town include some mining companies and a branch of Gazprom. The majority of male population works fly-in/fly-out rotation schedules in other regions of the country. Nevertheless, the UrFU branch campus still exists.

At the end of every interview, the participants were asked to draw their town on paper, and a representative of Krasnoturyinsk municipal government depicted his town in the following order:

"Here we have the UPI building. Here we have the BAP [Bogoslovsky Aluminum Plant] Culture Palace. Here we have Lenina Street, the town's artery. Here is the central square. The road then goes this way, it's such a radial pattern, yeah. Here we have the embankment. Here is our Lovers' Park, I'll make a heart here, like this. And then the embankment goes this way along the river. This area right here is now under reconstruction..." (KrM47)

The interviewee does not not explain the meaning of "UPI building", choosing instead to focus on the recently built Lovers' Park, but using UPI as a starting point is very remarkable. This is because in spring 2018, the Krasnoturyinsk branch of UrFU was on the brink of shutdown, but local authorities joined their forces with the town-forming enterprise's management, "grabbed hold of the UrFU branch on their last legs", as worded by the director of the town-forming enterprise, and managed to save it. It happened just before our field study in June 2018.⁸

Such measures are quite consistent with the scientific findings about universities being vitally important for urban localities: availability of "universities or effective branch campuses is always a symbol of prestige and an opportunity to increase the town's attractiveness for youth and population in general" [Zborovsky, Ambarova 2018:922] (except that the Krasnoturyinsk branch was not effective anymore by then). The position of municipal authorities also echoes the second fundamental inference from the available literature, which is that "the main purpose of the university in a town is to train workers for the dominant industry and to retain youths" [Romanenko et al. 2018:120]. They are united in their certainty that maintaining access to higher education is vital for Krasnoturyinsk, while at the same time expectedly emphasizing the town's interests in the former case and the enterprise's needs in the latter.

For example, interviewees from the Mayor's office tend to invoke the town's legacy in the first place:

⁸ On the successful developments one year after, see: Zimens O. (2019) Uspeshnost' nachinaetsya s UrFU [Success Begins with UrFU]. *Zarya Urala*, June 26. Available at: <u>http://smizu.ru/успешность-начинается-c-ypфy/</u>

"I believe that if higher education is taken away from a community, that community will gradually begin to die." (KrF39)

In support of this speculation, the interviewee gives the following arguments:

"Those four or five years spent at a university in another region shape the social milieu in which people feel at home. They have got friendships and communication, and they often have some job in sight by that time. It's very hard to come back to their hometown and leave behind everything they've built over those five years.

<...> that's why we find it of key importance to maintain higher education in the town. This is how we attract intellectually advanced young people and preserve the milieu that once emerged in Krasnoturyinsk. Because it was mainly highly-qualified professionals who settled here, forming the class of intelligentsia." (KrF39)

In our view, it makes no sense talking about "retention" or "holding down" in the age of mobility—at least, it would be unproductive to reduce youth and education policies to those. It is not only small towns that people migrate from. Besides, it is not *where from* but rather *where to* that matters: the town should become more attractive, and education may play a significant role in increasing its prestige. This point is articulated not only in Krasnoturyinsk but in Dalmatovo as well. An official from Dalmatovo municipal government explains:

"Say, why there is no Subway, McDonalds or Burger King in Dalmatovo? Because—who might need it and why? I mean, demand begets supply. And if there's not enough young people, there are no higher education institutions, and so on... So, then we have either school-age children or working-age people—and no golden mean. That's why we fight to keep the tech school running. <...> I've noticed so many times: the more educational institutions in a town, the more rapidly it develops." (DM37)

Interviewees compared their hometowns not only with larger localities but also with smaller ones, usually located nearby: against their background, the monotowns analyzed would most often win. TVET institutions and university branch campuses, where they have survived, work as a factor of attraction and as a potential driver of local development. Our findings show, first, that it is not only universities but also vocational schools that matter, and second, that towns with educational resources can be however small. Indeed, the only tech school⁹ in Dalmatovo, a town of 12,000 residents, steadily enrolls students from

⁹ Namely the branch campus of Anfinogenov Kurgan Technology School.

Krasnoisetskoe and other neighboring villages, and TVET institutions of Revda attract candidates not only from the unprosperous and small Degtyarsk but also from the larger and more successful Pervouralsk, despite its proximity to Yekaterinburg.

One¹⁰ perfect example of close ties that people build with the place 7. Biographical where they study is the life story of Alla,¹¹ a research participant na-Solutions to Systemic tive to Severouralsk who went to the Krasnoturyinsk branch of UrFU Contradictions after high school. Severouralsk, a monotown twice as small as Krasnoturyinsk, is located in 60 kilometers from the latter—this is much closer than the main campus in Yekaterinburg. According to the established education scheme, Alla spent her first two years of study at the branch campus, renting accommodation at a rate that was fairly affordable to a student. She then moved to Yekaterinburg to do the remaining three years of her program. Working part-time in her field of study, she nevertheless dreamed of coming back to Krasnoturyinsk, which is exactly what she did as soon as she graduated.

> How is this scheme attractive and why would someone actually choose a branch campus at all rather than going straight to Yekaterinburg? We believe that the decisive role is played here by the solid "groundedness" of small towns in their local settings, which allows their dwellers to use the accumulated local competence when they move from one small locality to another [Veselkova 2011]. A more radical mobility is fraught with adaptation challenges: small-town living skills are not suitable for life in a big city, and much of social competence has to be relearned. For Alla, Krasnoturyinsk was a comfort zone: not only was it close to her hometown but it was also very similar to it in terms of lifestyle and type of locality. Recalling the time when she came to Krasnoturyinsk for studies, Alla explains:

"It wasn't so far as Yekaterinburg from where my parents lived. Over the two years of my studies here, I just fell in love with Krasnoturyinsk. I wanted to live and start my family here. I mean, this town had more than enough to meet my expectations and socialization needs." (KrF36)

Alla also found it essential that Krasnoturyinsk had an obvious advantage over Severouralsk in terms of labor market opportunities:

"You can fulfill yourself in any sphere here. And, of course, I had no difficulty finding a job with a university degree." (KrF36)

¹⁰ A phrase by Ulrich Beck (Beck 2000), repeatedly deployed and elaborated by Zygmunt Bauman (2002).

¹¹ Not her real name.

The town has a developed social, cultural and residential infrastructure, including children's facilities (at the time of the interview, there were two children of preschool and school age in Alla's family):

"We participate in sports events as a family, taking part in various competitions with my kids and other family members, and the kids really love to be engaged. One daughter attends an art school, and the other one takes dance classes." (KrF36)

It would be productive to analyze Alla's case as a model biography of a monotown dweller, or rather one type of such life stories. Model biography is a concept related to other two that have been recently introduced into the Russian literature by Nurkova: *cultural concept of biography*, offered by Bluck and Habermas [Bluck, Habermas 2000], and *cultural life script*, proposed by Berntsen and Rubin. Cultural life scripts are "culturally shared semantic knowledge about the expectations in a given culture about life events, including the order and timing of such events and the assessment of their prevalence, importance and valence" [Berntsen, Rubin 2004] (quoted after [Nurkova 2018:57]).

From a sociological perspective, cultural life scripts are important as socially shared models of life—a type of Durkheim's collective representations. Nurkova underlines the axiological-normative dimension of cultural life scripts that "regulate human behavior across extremely long periods of time" [Nurkova 2018:57]. However, we would like to give attention to the discursive aspect as well: the very metaphor of a script implies eloquently that it is not only a guide for action or, in Nurkova's words, an "instruction for use", but also an example of narrative, which embraces mental modelling, assignment of meaning, and coherent narration.

Alla's story is a good illustration of how status and geographic mobility can be influenced by the education system along with the infrastructure and potential of the urban environment as a whole. While being a student in Krasnoturyinsk, Alla met her husband who worked at the town-forming enterprise and made a good living. Her decision to stay was conditioned greatly by this encounter, but it was her "being in love" with Krasnoturyinsk that made all the difference.

At some point during the interview, however, the positive evaluations of Krasnoturyinsk in Alla's story begin to appear overly persistent—as if she had to give excuses for her choice. This "excusing" tone highlights the wide inequality gap between localities of different size. In addition to significant migration flows from smaller localities to larger ones, there are also certain discourses and ideologies (of life success and mobility) that transform this phenomenon from a statistical norm to a normative model: *this is what you do if you have at least some potential; only losers stay*.

A few times throughout her story, Alla mentions that the town "was comfortable for living, and still is". Comfort is interpreted as the absence of "heavy traffic, as in Yekaterinburg" and the opportunities for employment and family socialization mentioned above.

Therefore, the attractive power of educational institutions works together with the urban environment as a whole.

"What young people look for in the first place... When they have just graduated from secondary school, they don't think about jobs, or kids, or family—it's not what they want. What they want is mobility, exciting events, performances, being in the thick of the crowd, and so on and so forth. And if we work on this a little more, some will probably choose to stay." (KrF39)

However, the environment is not always helpful—it can be harmful at times. This type of urban environment experience and perception is represented by students at Revda vocational schools who commute from the nearby town of Pervouralsk (20 km away). Both transportation and Revda itself receive negative feedback, and only vocational schools are plotted in Revda on students' mental maps, all their other haunts being located in Pervouralsk and other communities outside Revda.

8. Conclusion Outbound mobility flows in monotowns are not generated by young people's life choices alone. Activities pursued by agents promoting mobility in small towns are obviously divergent [Veselkova et al. 2019]. Outbound mobility is fueled by the discourse of "the bigger the city, the greater opportunities" shared across generations. In effect, this attitude is counteracted by efforts applied by local authorities, town-forming enterprise management and educational institutions.

In the course of our study, we repeatedly came across life stories of people who came (back) to small towns to build their lives and careers, which is a good illustration of the role that educational institutions play as points of attraction. To the same extent, education promotes outbound mobility, providing youth with resources for moving forward. That is to say, education creates symbolic capital of a locality and improves its prestige, but it does not serve directly as the basis for deciding whether or not to leave.

Obviously, it makes no sense to fight outbound mobility or consider it a deviation in a mobile society. It is no use counting on secondary and vocational school graduates to become drivers of monotown development. A reconfiguration of the existing vision and of the whole managerial vocabulary is required: not *retain* but *attract*, and not only locals but everyone. In this case, education can become a center of attraction and the creative framework for designing initiatives such as the industrial park in Krasnoturyinsk.

Can there actually be a model of TVET that will not only produce outbound mobility, which seems inevitable in a modern society, but also contribute to community development? Today, the value of any educational institution is largely determined by quantitative indicators. In the context considered in this article, it would be more productive to use qualitative characteristics, such as how the institution can benefit the community or what kinds of unique professionals it can train. Planning the cooperation among businesses, education and municipal authorities should be part of the town development strategy, not only the result of decisions handed down by some ministries.

There is currently a search for new forms of institutional interaction between business and education. Employer-sponsored scholarships ensure connections between employers and their prospective workers—university students, while dual education programs are built around the relationships between employers and tech schools, the latter getting deeply integrated in a particular company's production processes. While employer-sponsored scholarships provide a fixed mobility track to retain youths in specific jobs in a specific town, dual education programs leave young people's options open. The dual education model can be considered the most promising one, yet it is also more cost-consuming.

Institutional interactions between employers and TVET institutions of all levels can have a considerable influence on the development of monotowns, whose social structure reproduction is provided by TVET and higher technical education. Access to tech university degrees in a monotown can not only retain young people (and the lack of such, accordingly, repulse them) but also generate social and symbolic capital necessary for monotown development. Universities may help monotowns wean themselves off of their "monohood" by promoting new industries and thereby clarifying the prospects, in particular through training highly-qualified workers that are involved in the locality and interested in its development. At the same time, universities may work to preserve the town's "monohood" in a situation where the town-forming enterprise operates successfully and provided that it is beneficial for the community. Not only does collaboration between tech schools and the dominant industry outline clear prospects for the latter (though, of course, workforce resources are not enough for a successful operation), but it can also increase the town's mono-dependence. Trade schools also perform a double function, being able to work as transit hubs and at the same time to attract youths from other, usually smaller localities. The divergent effects of TVET shape a unique network of monotown mobility that connects biographies of the town and individuals.

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