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The image of craft and technical occupations in Serbia

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Study prepared by:

Marija Dukić,
Journalist
Business and Finance

Abstract

Although there is a rising demand for craft and technical occupations in the market, the interest for schools that offer training in these profiles has been declining year after year. Some secondary schools in Serbia have closed departments for three-year courses due to, as shown by this survey, low social standing of craft and technical occupations. The majority of surveyed parents and children would refuse to enroll in craft and technical schools, even if they were promised a job and a good salary after the completion of three-year courses in these schools. The reason behind great aversion towards craft schools is perhaps best illustrated by the following data: only 14.5% of the children believe that they might be happy and satisfied in life if they had a craft job. In pursuit of happiness, higher social status and also income and better working conditions, most children decide, as early as in primary school, to finish university.

However, employers in certain industries argue that there is no great demand for those occupations for which training is offered at the most popular universities, and that rather there is a deficit in craft and technical occupations. They are also warning about the weak practical knowledge of secondary school leavers and they are offering assistance in training students.

Also offering assistance are local governments that have the information that the education policymakers need: the demographic trends at the local level, the state of the economy and industry in their territory, information on attracting investments, but also on the local deficit in certain vocational profiles. However, when it comes to the impact in the field of education, their authority is only limited to preschool.

All this, combined with inadequate records of the labor market demands, shows great anemia in the blood count of our current education system and in the future of the Serbian economy.

Keywords

Image of craft and technical occupations in Serbia, parents' and children's views of crafts, lack of professionals in craft and technical educational profiles

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1. Work methodology

The survey has mainly been conducted on the basis of available official data, also on the basis of a quantitative survey on the views of parents of children attending the final year of primary school and of children who are in the final year of primary school, as well as on the basis of qualitative analysis supported by interviews with employers and representatives of local governments from the whole of Serbia.

As regards the quantitative analysis, it has been implemented on the on basis of the survey data. The survey was carried out in urban and rural areas of the municipalities of Kikinda, Belgrade, Kragujevac, Čačak, Bor and Niš. The survey process was coordinated by Marina Ostojić, and the interviewers were Mrs. Ostojić and 5 other persons. Data analysis was performed using SPSS statistics software tool.

1.2. SOURCES OF DATA

1.2.1. References

- Statistical Bulletin October 2013 NATIONAL EMPLOYMENT SERVICE
- The NES data on development of the demand from 2009 to 2013 for certain occupations (clothes sewer, knitter, locksmith, ship locksmith, mechanic, machinist, machine locksmith, carpenter for installation, repair and maintenance, carpenter for decor and art objects made of wood, carpenter for making frames and orthopedic devices, shipwright, bricklayer, refractory bricklayer, electric welder, welder - gas cutter, ship carpenter, carpenter, bender, car mechanic, wireman for energy machinery and equipment, makers - assembler of electronic products and assembler of electronic medical devices)
- Halo oglasi - advertising magazine
- 2012/13 Secondary Education Bulletin from the Statistical Office of the Republic of Serbia
- Data on macroeconomic developments from the Business Registers Agency
- Education Development Strategy in Serbia until 2020

1.2.2. Media sources

- Business and Finance, article "Why do Kids Stay Away from Vocational Schools: Pupils' New Clothes"
- Dnevnik, article "Nobody Competes for Bricklaying Jobs"
- B92, article "Well-Paid Jobs Even Without a University Degree"

1.2.3. Interviewed employers (grouped by cities)

- Kikinda (BUS Computers d.o.o., ProConto Software d.o.o., Electronica ZTR)
- Belgrade (Delta Holding, Hotel Palas, a company that wished to remain anonymous)
- Kragujevac (sole trade business Emonna pizzeria, Granit d.o.o., Milprom Plus d.o.o.)
- Čačak (Independent craft shop DIK Atelje, Enhy Group d.o.o., a locksmith shop that wished to remain anonymous)
- Bor (Albo d.o.o., Moki-Mont Independent locksmith shop, ATB FOD doo)
- Niš (Knitwear production company Vida d.o.o., Pomoravlje a.d., Pekarica, a company in the field of manufacturing and retail, Staklo ram majstorica, a glazier and framing shop and an anonymous shop for making handicraft crocheting and embroidery)

1.2.4. Interviewed representatives of local governments

- Stanislava Hrnjak, a member of the Municipal Council of Kikinda responsible for the departments of education, culture and information
- Kosta Andrić, a Council member at Stari grad municipality, Belgrade
- Suzana Pavlović, Secretary at the Education, Culture and Information Secretariat in Kragujevac
- Miroslav Vujović, Head of the City Department for Social Services, Čačak
- Dragan Ćuković, officer at the City Department for Local Economic Development in Čačak
- Lidija Načić, Vice president of Local Employment Council of the Municipality of Bor, a member of the Municipal Council
- Jelica Velaja, Head of the Department for Education, Culture, Youth and Sports, Niš

1.2.6. Surveys with children and parents

- 130 parents of children aged 13, 14 and 15 have been surveyed
- 131 students aged 13, 14 and 15 have been surveyed

1.2.5. Other sources of data

- Vocational Schools Forum trade union (data on enrollment in secondary schools in Belgrade, Nišava, Šumadija and South Bačka districts)
- Zorica Đoković, Principal of Drvo art vocational school from Belgrade
- Milan Vukobrat, Vice president of the Center for Vocational and Adult Learning

2. Current situation in the labor market

In the past year (from October 2012 to October 2013) Serbian economy has slowly been recovering, but it seems that employment has not been following the tempo. Unemployment rate is very high (22.4%), and it seems that it will remain so in the future due to layoffs in the announced restructuring of unprofitable state-owned enterprises. Of course, in Serbia, as in the rest of the world, there are scarce occupations which improve the unemployment rate average. As we can see in the table from the Statistical Bulletin October 2013 of the National Employment Service (hereinafter: NES), in the period from October 2012 to October 2013, the unemployment rate was increasing for people with primary, four-year secondary and university education. This means that the unemployment rate only decreased for semi-skilled workers (those with primary education and one-or two-year training and courses) and craftsmen, i.e. workers with three-year training.

	Month	Elementary school		Semi-qualified labor		Three-year high school		High school		University degree	
		Total	Women	Total	Women	Total	Women	Total	Women	Total	Women
Unemployed	Oct-13	260,052	390,727	212,952	107,217	30,151	15,644	189,304	75,566	217,916	122,204
	Oct-12	752,678	391,827	211,485	108,551	31,722	16,675	190,530	77,798	215,138	127,641
First job request	Oct-13	266,233	152,641	99,544	61,197	7,042	4,668	53,022	23,248	66,989	38,026
	Oct-12	266,148	154,590	98,932	61,848	7,703	5,100	54,987	24,493	66,617	38,771
Newly reported	Oct-13	41,543	21,262	9,507	4,510	1,002	487	9,297	3,573	12,219	6,726
	Oct-12	44,114	22,128	10,416	4,943	1,232	588	10,559	3,899	12,921	7,081
Reported employed	Oct-13	20,860	11,236	3,909	2,001	1,556	772	5,055	2,120	6,515	3,811
	Oct-12	20,658	11,705	3,016	1,660	966	509	4,024	1,816	8,351	4,945
Deletion and drafts evidence	Oct-13	57,657	2,798	13,457	6,410	1,813	930	14,813	5,327	17,315	9,256
	Oct-12	53,751	26,237	13,346	6,462	1,843	988	13,755	4,955	15,669	8,474

Table 1: Excerpt from the Statistical Bulletin of the NES for October 2013

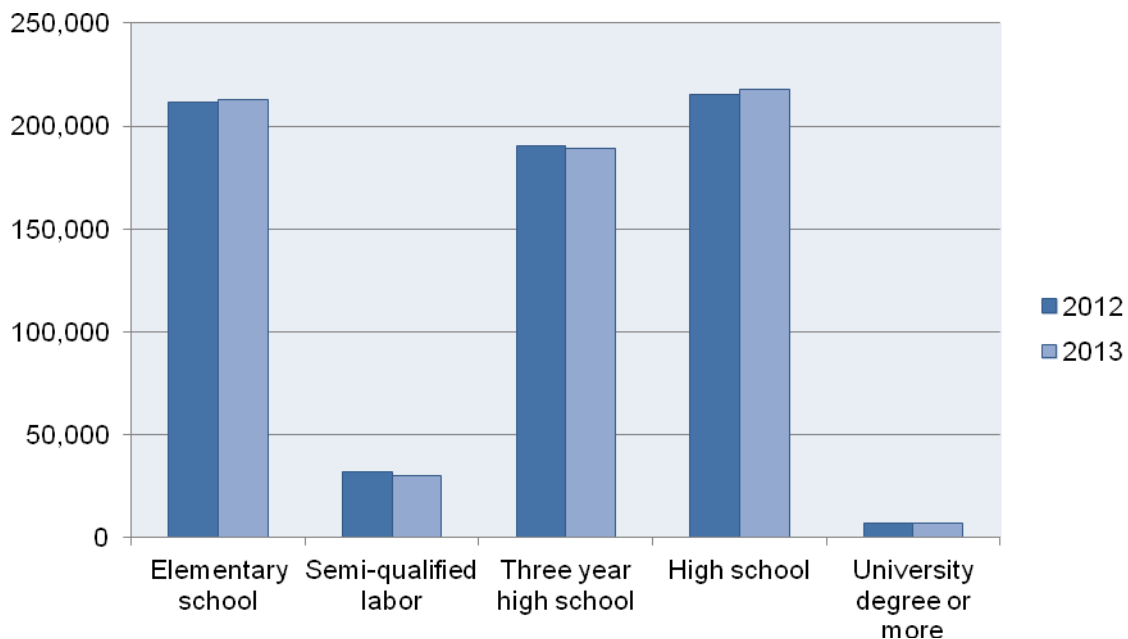


Figure 1: Table graph of the excerpt from the Statistical Bulletin of the NES for October 2013

The said NES Statistical Bulletin shows that at the labor market there is a great demand for builders with three-year training (specifically benders, carpenters, bricklayers, construction machinery operators and those involved in finishing works such as tilers, painters, etc.). There is also demand for locksmiths, knitters, sewers, carpenters, welders, car mechanics, electronic

products installers etc. A look at the ads shows a similar situation - there is demand for these professions.

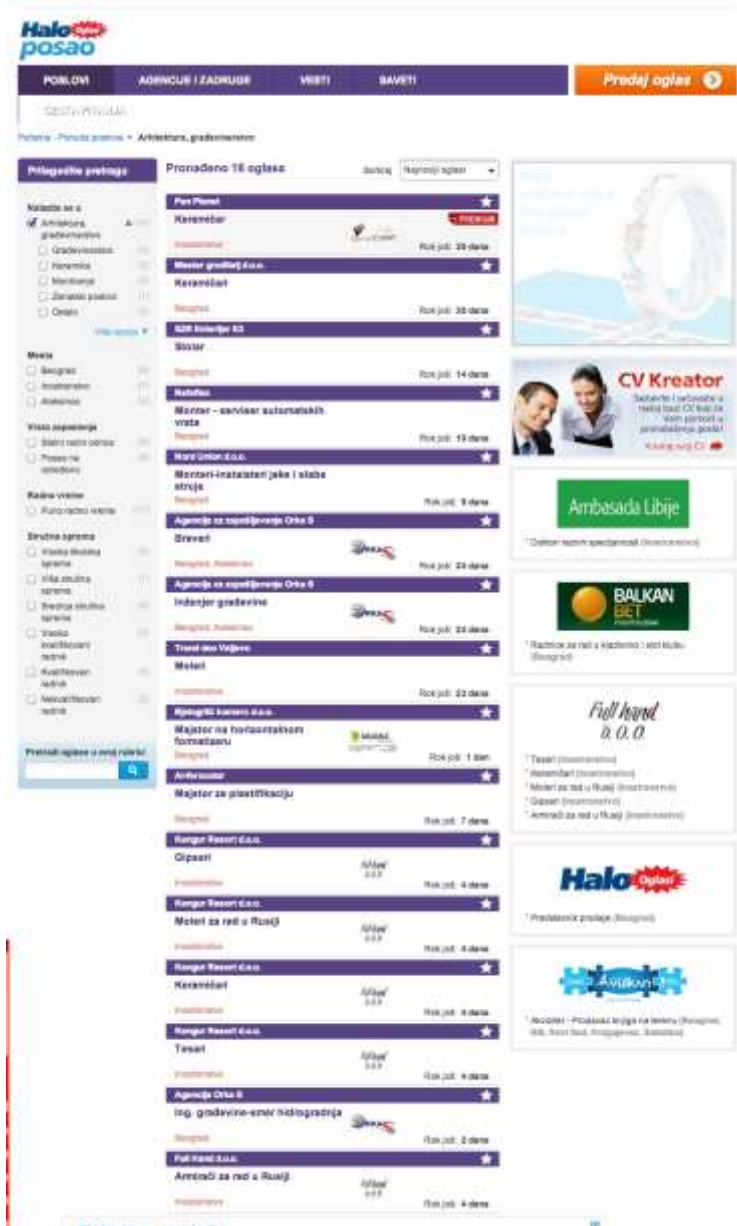


Figure 2: Current job listings on the “Halo oglas” website

However, when you look at the NES data (the table covering the period from 2009 to November 2013) on occupations for which there is evident demand in the ads, you get a contradictory picture. The explanation for the decline in demand for workers in 2010 lies in the strongest impact of the economic crisis, when unemployment in almost all educational profiles increased dramatically. But what was it that happened in the years that followed?

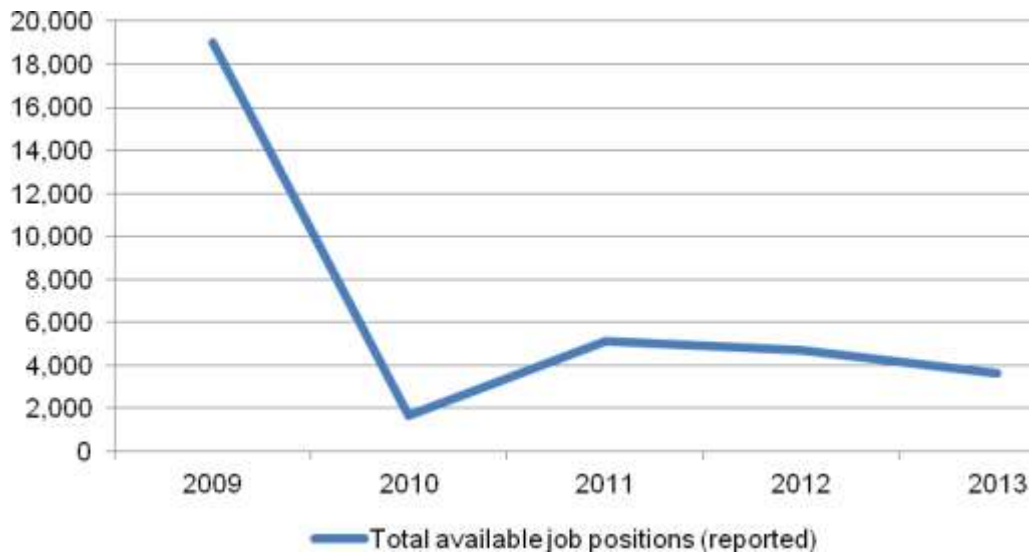


Figure 3: Demand developments for certain craft occupations from October 2009 to October 2013 based on NES data

According to official data from the Ministry of Economy and Regional Development of that time, in 2009 more small and medium-sized enterprises were closed than founded, and from this part of the economy alone 67,619 employees were laid off. When this is joined with the fact that industry production decreased by 12.2% it becomes clear why in the following year the number of vacancies in all sectors of the economy was reduced. In 2010, the economic situation was also bad - the number of enterprises that were closed was lower than those founded, and start-ups were shut down faster. In 2011 we had a similar situation, so that year as well the unemployment rate increased by 3.5%. However, 2012 finally saw a positive trend - the number of companies founded was higher than the number of those that were closed by 1,293 micro, small and medium enterprises.

In this year, in 2013, according to the data from the Business Registers Agency, in the first five months the number of founded enterprises was higher by as many as 2,817 enterprises than the number of those closed. So the economy has started to recover, but that does not mean that these occupations, for which the NES and various advertising media have been recording demand, are highly ranked on the list of popular professions. In the table below we see that the demand for some of them (installers of electronic products, refractory bricklayers, sewers) has increased, while that for certain occupations (knitters, carpenters, welders, etc.) continues to decline, even though employers complain to the media that these are precisely the occupations they lack.

Job	2009	2010	2011	2012	2013	Total
Tailor/clothing	1,344	333	937	1,344	1,452	5,410
Knitting	89	5	43	42	10	189
Locksmith	6,317	378	1,120	1,234	641	9,690
Ship/locksmith	11	0	0	1	0	12
Mechanic, machinist, machinist/locksmith (III/SSS and KV)	1,751	143	211	435	282	2,822
Woodworker for installation, repair and maintenance	1,102	198	266	361	242	2,169
Woodworker for decor and art objects from wood	36	0	21	5	3	65
Woodworker for making templates and orthopedic appliances	2	0	0	3	0	5
Ship/woodworker	5	0	0	0	0	5
Mason	1,340	92	756	200	151	2,539
Fireproof mason	19	0	4	3	10	36
Electro-welder	882	66	313	401	193	1,855
Welder/burner/gas	644	40	60	95	77	916
Ship/carpenter	1	0	0	0	0	1
Carpenter	1,035	57	625	160	154	2,031
Metal framework worker	1,013	36	369	82	54	1,554
Car mechanic	3,246	314	395	360	317	4,632
Electro worker for installation of energy machinery and equipment	81	5	7	4	13	110
Producer/assembler of electronic products (III/SSS and KV)	80	2	13	2	20	117
Assembler of electronic medical devices	1	0	0	0	0	1

Table 2: Reported vacancies from 2009 to October 2013 inclusive, source NES

This could have two explanations. First, employers are not legally required to report their demand for employees to the National Employment Service, which reduces the capability of this institution to monitor the real situation on the labor market. Second, the fact is that these are all mainly craft occupations, which traditionally only exist “in the gray zone” in Serbia, meaning without registering employees and paying taxes.

It is also true, however, that this year employers reacted violently to the news of the closure of numerous departments for three-year courses in secondary schools, pointing out that they already lacked those professionals, and that therefore in the near future they would have to import workforce. That in certain industries there is a shortage of workforce can be seen in other indicators as well, such as the average age of workers. Thus, according to the data from the Serbian Chamber of Civil Engineering and Industry, the average age of construction workers is 55, which means that in the last couple of years, the construction sites hired very few young people.

This says a lot about the future trends in (un)employment and, more importantly, it matches the data that secondary schools have been reporting to the general public. Although there is still no

official data on enrollment in secondary education from the Ministry of Education, Science and Technological Development, other institutions have published that the results of this year's enrollment are devastating - in Belgrade, a city of two million, there is currently not a single carpenter in training, and according to the data from other schools for forestry and wood processing, there seem to be no wallpaper technicians in training in Serbia this year. If the situation doesn't change, we will soon have to import workers with these occupations and pay them generously to work in Serbia.

3. Interests in secondary schools

For now, the general public has insight in the official data from the Statistical Office of the Republic of Serbia on the number of students in secondary schools for the 2012/13 school year. According to this data, the highest number of students went to gymnasiums, as many as 68,189 out of 280,422 children (24.31%). It is expected that when official data for this school year is published, this number will be higher since more departments in popular schools have been opened and many departments closed in schools for which there was no interest. Let us return to the last school year for which data is available.

As stated, the majority of students in the past year went to gymnasiums. The least number of students were in secondary schools in the field of hydrometeorology (201 students), geology, mining and metallurgy (1,207 students) and textile and leather industry (4,105 students). A detailed overview of the number of students in schools is given in the table below.

	Total		By grade	
	Classes	Pupils	Classes	Pupils
Gymnasium	2,507	68,189	635	17,765
Agriculture, food production and processing	794	17,014	205	5,125
Forestry and wood processing	175	3,610	48	1,066
Geology, mining and metallurgy	51	1,207	14	379
Engineering and metalworking	1,171	26,422	346	7,761
Electrical engineering	1,145	27,385	300	7,782
Chemistry, non-metals and graphics	438	11,250	112	3,015
Textile and leather	207	4,105	50	1,067
Geodesy and construction	326	7,488	85	2,083
Traffic	508	13,692	143	3,984
Trade, catering and tourism	960	24,864	272	7,318
Economics, law and administration	1,392	39,532	356	10,337
Hydrometeorology	8	201	2	50
Arts, culture and PR	390	6,207	99	1,619
Health and social care	842	25,346	213	6,399
Other (personal services)	171	3,910	54	1,341

Table 3: The number of students in secondary schools for the 2012/13 school year, source Statistical Office of the Republic of Serbia

Vocational Schools Forum trade union made public a projection that due to the low interest that primary school leavers have in vocational schools, and in particular in the three-year production profiles, this year more than 200 departments will be shut down, including many of those that offer training for scarce occupations. The Forum acquired this data following the publications of schools after the completion of enrolment, but only has data for four districts - Belgrade, Nišava, Šumadija and South Bačka. According to these preliminary (and only publicly available) data, the least interest was shown in the agri-food, wood processing and forestry and textile industry schools, which do not have a single department with a sufficient number of registered students.

Zorica Đoković, Principal of Drvo art vocational school from Belgrade confirms this with the statement that all three-year courses have been cancelled in this school (manufacturer of finished wood products - carpenter, wood molder, musical instruments maker, wallpaper technician - decorator). Civil Engineering and Geodesy and Mechanical engineering high schools have not filled 80-90% of their capacity and, on 1 September, Chemistry schools also opened their doors to a much lower number of students than anticipated.

	Total classes	Non-populated classes	Classes with 15 pupils or less
Machinery, Engineering	49	21 (43%)	20 (95%)
Chemistry	18	5 (28%)	2 (40%)
Forestry and Wood	5	4 (80%)	3 (75%)
Textile and Leather	13	11 (84%)	8 (70%)
Civil Engineering and Geodesy	18	13 (72%)	12 (92%)
Agriculture-food processing	22	18 (81%)	6 (33%)

Table 4: Vacant places in secondary school departments in Belgrade District, source Vocational Schools Forum

	Total classes	Non-populated classes	Classes with 15 pupils or less
Machinery, Engineering	11	7 (63%)	3 (42%)
Chemistry	4	3 (75%)	2 (75%)
Forestry and Wood	1	1 (100%)	1 (100%)
Textile and Leather	2	2 (100%)	2 (100%)
Civil Engineering and Geodesy	5	4 (80%)	4 (100%)
Agriculture-food processing	7	7 (100%)	5 (70%)

Table 5: Vacant places in secondary school departments in Nišava District, source Vocational Schools Forum

	Total classes	Non-populated classes	Classes with 15 pupils or less
Machinery, Engineering	17	15 (90%)	8 (53%)
Chemistry	4	2 (50%)	1 (50%)
Forestry and Wood	2	2 (100%)	1 (50%)
Textile and Leather	1	1 (100%)	1 (100%)
Civil Engineering and Geodesy	3	1 (33%)	1 (33%)
Agriculture-food processing	4	3 (75%)	1 (33%)

Table 6: Vacant places in secondary school departments in Šumadija District, source Vocational Schools Forum

	Total classes	Non-populated classes	Classes with 15 pupils or less
Machinery, Engineering	34	32 (94%)	25 (78%)
Chemistry	12	4 (25%)	0 (0%)
Forestry and Wood	6	2 (33%)	2 (100%)
Textile and Leather	4	4 (100%)	3 (75%)
Civil Engineering and Geodesy	7	3 (42%)	2 (66%)
Agriculture-food processing	17	15 (90%)	11 (73%)

Table 7: Vacant places in secondary school departments in South Bačka District (Novi Sad with its surroundings), source Vocational Schools Forum

If this trend continues, the Vocational Schools Forum foresees the closure of 50 high schools in the near future, especially those offering training in wood processing, textile, construction, mechanical and agricultural industry activities.

As stated, there is no official, comprehensive data on the number of closed departments, but for now, available to the general public is the information that the Forum presented at the end of August, when enrolment in secondary schools was completed. The information says that in

mechanical engineering high schools around Serbia there were 56 courses with under 15 students, in agricultural and food schools 23, in civil engineering and geodesy schools 19 courses, and the list also includes woodwork, forestry, textile and leather processing schools. In some districts, all textile and leather processing courses remained without a single student. It has been allowed to form courses with 15 students, however, problems appeared because in the meantime children left the departments with insufficient number of students and transferred to other schools.

The Ministry of Education, Science and Technological Development, should come out with final data on enrolment in secondary schools in 2013/14 by the end of this school year.

Until then, practice examples confirm that a number of departments in schools has been shut down and that in the abovementioned schools, there really is little interest.

The Civil Engineering School in Belgrade has three vacant educational profiles (masonry, carpentry and bending) and it has been planned to merge hydraulic engineering technician and dry construction fitter into one department due to a lack of students. It is interesting that there was one student who applied for the roofers department but he was transferred to the carpenters department because in general lessons cannot be held to a single child. This year Civil Engineering School had 2.5 times less students enrolled than planned although it provides accommodation to students in the campus across the street, scholarships, employment prospects right after graduation etc.

The situation was similar in the School of Design and Textile Processing Leskovac, a town which was once known as the "Serbian Manchester" for its textile industry. This year, however, the textile processing departments were half empty despite the fact that the German company Falke in this town is constantly seeking employees and also awarding scholarships to students of two departments in the school, offering the possibility of doing an internship and later getting a job in their factory. A similar interest in this school has been shown by Benetton and Fiorentino, but the students were those who were not interested - for the third year in a row, not a single child has been enrolled in the knitters department, the department of textile machinery mechanics has five, and the garment workers department was attractive for only eight children.

The situation with the welders is even more interesting. There is so little demand for this course that not even a school exists that specializes in welding. There are courses and a variety of trainings, but obviously they are attended by a small number of people, since we are already importing welders from distant China. However, what rises curiosity is how Serbia will meet the expectations of Russian investors in the construction of the South Stream which will require a large number of welders, and why it has not trained them by now if this project has been known for years.

Another issue is troubling the economy and educators - when will the education strategy, i.e. the number of departments in schools, be consistent with demographic trends that show that every year the number of children enrolling in the first grade of primary school is reducing by 1,000.

Milan Vukobrat, Vice President of the Center for Vocational and Adult Learning, confirmed that the Serbian education system is not harmonized with demographic trends - year after year the number of students has been decreasing, and there are more and more teachers and high school teachers who have become redundant. And yet, because the education system is following these changes slowly, high schools and universities have to step in the market and make an effort to attract as many students as possible. The less attractive ones do not succeed to and are forced to shut down departments.

4. Employers' views on improving education policy

For the purposes of this study, six surveyors interviewed 20 employers from six regions of Serbia (Vojvodina, Central Serbia, Eastern, Western and Southern Serbia and Belgrade).

The majority of surveyed employers is from the construction sector (25%), hospitality and hotel industry (15%), and 10% goes to companies from textile, IT and locksmith industry. Others are involved in the production of lacquers and dyes, food processing, construction of hydroelectric plants, production of aluminum and PVC joinery and mining equipment.

In line with the industries they come from, the majority of employers claim that scarce occupations are welders, followed by machine operators, construction workers (benders, carpenters, bricklayers), weavers, knitters, tailors, and it is interesting that even companies that are in the hospitality businesses complain that in their cities there are not enough good cooks. Out of 20 employers, only three (15%) claim that they do not lack workforce at all - these are one construction company that hired workers from large bankrupt enterprises, a hotel, since hotel and hospitality industry offers some of the more popular professions and an IT company that employs programmers and web designers.

Employers claim that there is a great discrepancy between education policy and market needs, and that it is completely unnecessary that each year some schools deliver thousands of professionals to the labor market who will find it difficult to get a job in the future. Economists are among the top redundant occupations for 60% of employers, 45% choose lawyers and 40% managers.

When it comes to education quality employers have rather similar views. In this year's survey of the Union of Employers of Serbia, 40% of employers said they did not want to hire young people while 41% stated that they would hire them provided they got incentives. To the question "why do employers have a tendency to refuse youth employment," 15 out of 20 employers replied that the reason for this was the lack of practical knowledge of young people after leaving school, three said that young people lacked work habits, two that they were not responsible enough, and one employer said that they were not motivated to work due to the wages they receive.

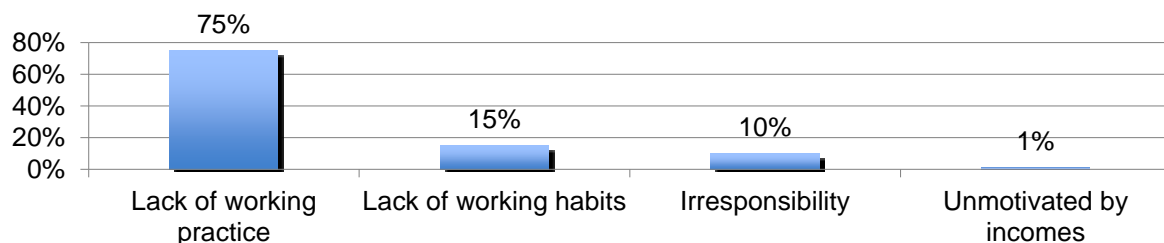


Figure 4: The reasons behind employers' tendency to refuse youth employment

Milan Vukobrat, vice president of the Center for Vocational and Adult Learning, believes that it is possible to increase the quality of training in Serbia and by implementation and legitimization of the recommendations of the Education Development Strategy in Serbia until 2020. “Only some of the solutions are enabling the existence of accredited student jobs, training mentors and employees in companies to work with students but also to provide quality and modern equipment for practical education and training because the machines and devices that children practice on are very outdated,” said Vukobrat.

This is one of the reasons why employers, 85% of them, are not satisfied with the competences which young people bring out of high school. As the main reason for employers’ dissatisfaction is said to be lack of practical knowledge, and in some cases, of communication skills and ability to work in teams. One employer claims that when you first hire a young person “you must not entrust them even the simplest of tasks” without prior training.

In general, employers do not have a low opinion of their employees - 60% of them claim that domestic workforce is not lazy, and only 30% think that it is. Others believe that employees are either partially lazy or poorly motivated by their wages, with the note of one interviewee that more hard working people come from rural areas.

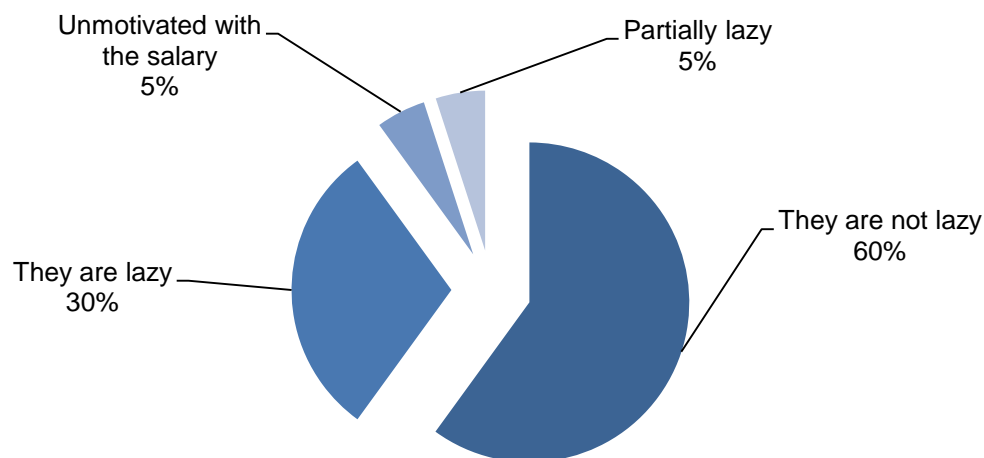


Figure 5: The employers’ views on employees’ work habits

Employers themselves are aware that many craft and technical occupations in Serbia are disappearing. Asked whether they would get involved in programs to help high schools attract students, if they were in need of personnel, 70% of employers said they would and that they would do this by providing practical education and training to students. Only one of them would offer scholarships in addition to practical education and training. 20% of employers would not start a cooperation with high schools, and the rest of them are not in need of additional

workforce and therefore they do not think about this issue. It is interesting that one of the employers who answered “yes” to this question, had already provided practical education and training to students before, but had stopped to do so because the department that he trained was shut down.

Employers are familiar with the practice in some EU countries where companies hire teachers who receive the elementary and secondary schools students for practical education and training, meet them with the qualification framework for occupations, requirements, tools, equipment, materials, skills for the occupation and contraindications. These teachers allow students to try out occupations, meet with representatives of their occupations who teach them from direct experience about directions of their training and career development; they establish monitoring and provide feedback in relation to the skills that students demonstrate while they get to know and test occupations... When asked what they thought about this practice, more than 80% of employers answered that this system of working was a good idea, but most of them, due to their financial situation, would not be able to hire a teacher, unless the state helped them with incentives.

Employers’ suggestions for this and similar projects indicate that the children in the final year of elementary school are perhaps too young to understand the pros and cons of certain professions, that this can only be carried out in large companies, that teachers are not necessary because young people can also learn from their older colleagues, that the majority of local companies would not opt for this because “they only think about the profit,” and one of them asked “what would you need schools for then”. Two of the 20 surveyed employers said that they had already been implemented something similar in their companies, and only one of them unequivocally claimed that he would hire a teacher.

5. The importance of local governments' participation in creating education strategies

Education Development Strategy in Serbia until 2020 indicates that the major problem of the current education system is “inadequate structure of the enrolment plan and the discrepancy between educational profiles and the structure of the economy and its needs (training profiles for which there is no need or there is a surplus in the labor market, while on the other hand nobody is enrolling in some craft occupations that the market needs.” In that respect, the Strategy, among other things, recommends harmonizing the new vocational schools network with the needs of the economy and demographic developments in the region and the local government.

Local governments, however, have the legal authority to affect only the creation of strategies for preschool, although they have information on the structure of the population, economy and investments that can be of use to the creators of education strategies for improving the monitoring of market needs. Vocational education and training is decided upon at the national level, although there are more and more suggestions that the creation of education policy should also engage local governments, precisely because of the specifics of the local economy and labor market. The examples of two towns, Kragujevac and Leskovac, show how important it is to strategically train educational profiles needed by the local market - the economy of Kragujevac is based on the automotive industry while Leskovac is seeing reconstruction of textile manufacturing, once the pillar of the local industry. Neither town has a sufficient number people in training required for the major industries.

Six representatives of local governments from all regions of Serbia (Čačak, Kragujevac, Kikinda, Niš, Beograd, Bor) have confirmed that local authorities have little influence on the development of education strategies for vocational schools at the local level. 33.3% of the local governments can partially influence the opening of new profiles in vocational schools, with their reporting on the needs of the economy, while the rest believe that they have little or no impact on policy making. Those that “partially” affect mostly do this by proposing the creation of new departments or through “local employment councils.”

When asked whether the Ministry of Education, Science and Technological Development, in prescribing and adopting educational programs for high schools and universities, listens to the needs of the local economy, the needs of local community members, local educators and other stakeholders in the field of education, 33.3% of the representatives of local governments said they did not know, 33.3% of them claimed that this is not the case, while the representative of Kikinda claimed that it is not the Ministry that does it but that “the Provincial Department of Education provides support for our proposals.” One representative of the local government said yes to the above question, and one in six said that the Ministry is somewhat listening to the needs of local communities.

If the Ministry of Education, Science and Technological Development would consult them with regard to the adoption of educational strategies, all interviewed representatives of local

governments would advise the harmonization of education policies with the market demands, and would impose more practical education and training in schools, according to the model from the 70s, and they would insist on narrow specialization in high schools and would try to provide children the knowledge of modern technologies.

All cities and municipalities are trying to implement in their work the basic recommendations of the Education Development Strategy until 2020, but some say that in some parts this document is not in accordance with the real situation: "Lack of funds, poor motivation of employees in education and lack of awareness that they need to work on personal competences are the main obstacles to achieving the goals set in the Strategy."

When asked how local governments could help in harmonizing the education system with the needs of the market, the answer could be found in a standard conversation with the representatives of local governments, which contained basic demographic and economic data on these cities and municipalities, as well as their information about scarce occupations in local communities.

5.1. Kikinda

Questions answered by Stanislava Hrnjak, a member of the Municipal Council of Kikinda responsible for the departments of education, culture and information

"The municipality of Kikinda has a population of 59,329, 21,768 of which are households and 25,238 live in apartments. 'Dragoljub Udicki' preschool has 18 kindergartens, while in the municipality there are 17 primary schools, including a music school and a school for children with special needs. We have 4 high schools in our town, one of which is 'Dušan Vasiljev' gymnasium. Unemployment is evident and it is at the level of the national cross section, but two categories stand out: youth category with people aged 20 to 35 and the category of workers whom bad privatization made redundant or their companies went bankrupt. A significant number of unemployed people aged 40 to 55. Salaries are below national average - RSD 40,500. Kikinda is an industrially developed area, industrial capacities are very diverse with a potential for raw material processing and product finalization. Particularly significant are the metallurgy, petroleum and chemical industry, as well as food industry and processing. About 40 percent of oil refining and gas comes from our municipality. In the food industry particularly significant are, "Banini", "Kikindski mlin", "Prima product", "Mokrin mlek", "Grindex", "Novum", "Atler fontana". Currently there is stagnation in the development of agricultural and food industry, which is the chance for development of the municipality, but the further development of the metals and processing industries should not be neglected. Regarding this, the new agricultural industry zone is a potential that should be developed. Lately in Kikinda the trade sector has stood out and in particular the companies "Angropromet", "Bus computers" and "Pro-media".

According to industries that have a development opportunity, at the moment we lack experts in the field of electrical engineering, information technology and agriculture. We are currently preparing studies for a new enrollment department general agricultural-pilot. For years tutors and teachers have been trained in Kikinda, and it is a profession that has no employment

prospects. Textile industry in our community was once an industry that lived through Kikinda “Trikotaža”, but today it no longer exists and not too many young people should be trained for these occupations. Occupations that are always welcome are those that rely on traditional trades such as shoemakers, watchmakers, peasant shoe makers...”

5.2. Stari grad municipality, Belgrade

Questions answered by Kosta Andrić, a Council member at Stari grad municipality, Belgrade

“According to the 2002 Census our municipality has a population of 55,543 and over 24,040 households. About 27% of the residents are over 60 years old. Around the same number of residents own a university degree. It is estimated that today Stari grad has more than 70,000 residents, since the total number of people registered in the electoral roll is 59,337.

In the City Municipality of Stari grad there is a large number of administrative and other institutions of national and metropolitan significance. Many economic, culture and citizens associations are headquartered here. In this municipality there are 13 faculties, the Rectorate of the University of Belgrade and the University of Arts, Serbian Academy of Sciences and Arts, ten secondary and eight primary schools, 18 museums, six theaters and a dozen other culture institutions.

Central location, value and importance of cultural and historical heritage make Stari grad very attractive for many economic activities, especially in service industries, commerce and banking. In 2009¹ there were 9,132 companies and 2,416 shops registered in Stari grad. In economy and non-economy that year there was a total of 74,832 employees. In the category of “employees of enterprises, institutions, cooperatives and organizations” there were 62,199 employees, and in “private entrepreneurs” there were 12,633 employees registered. Of the total number of employees nearly half - 30,098, are women.

Unfortunately we do not have data on all scarce occupations, especially due to the fact that in the central city municipality there are no industry facilities. What we do know is that there is a need for personnel mainly in the service sector.”

5.3. Kragujevac

Questions answered by Suzana Pavlović, Secretary at the Education, Culture and Information Secretariat in Kragujevac

“According to the 2011 census, Kragujevac had 179,417 inhabitants. Representing educational institutions there are 22 elementary schools, 6 vocational schools, 2 gymnasiums and a University center with the Faculty of Mechanical Engineering, Medical school, the Faculty of

¹ Source: Statistical Yearbook of Belgrade 2009, Institute for Informatics and Statistics

Economics, the Faculty of Law, the Faculty of Mathematics and the Faculty of Philology and Arts.

The unemployment rate is 33.1% and the majority of people in the unemployment register are lawyers, economists, physicists, chemistry technicians, language teachers, P.E. teachers... The average gross income is 480 euros per month (RSD 52,700). The largest employer is the car factory "FIAT" which also attracted cooperators "Moneti Marelli", "Johnson Controls", "Sigit Control".

As regards scarce occupations, I would mention retailers, cooks and craftsmen of different profiles."

5.4. Čačak

Questions answered by Miroslav Vujović, Head of the City Department for Social Services and Dragan Čuković, officer at the City Department for Local Economic Development

"Čačak has 115,337 inhabitants, 7 city elementary schools, 9 rural elementary schools, an Elementary school for adult education, a music school and a school for children with special needs. There are also 5 secondary schools and a gymnasium, and of higher education institutions, there are the Faculty of Engineering, Faculty of Agriculture, College of Technical Vocational Studies and two private faculties for economic profiles.

On 30 November 2012 there were 10,589 unemployed people in Čačak, 5,971 of which were women. The number of unemployed young people (aged 15 to 29) is 2,770.

In August 2013 the net income was RSD 44,770.

For the first eight months of 2012 there was a decline in industrial production 3.1% compared to the same period of last year. The largest decline was recorded in durable and non-durable consumer goods, 40%, and increase was registered for capital products, 14%².

In 2012 in the city of Čačak there were 1,581 active companies and 4,337 shops, which was a decrease compared to the 2011 (when there were 1,666 companies and 4,350 shops).

In the total number of companies, trade companies had the largest share with 40.8% followed by the processing industry with 34.58% and companies in the construction sector with 4.24%.

Scarce occupations are: handler of greenery and development of urban settlements, paper processing machine operator, wood processing handler, municipal janitor, bus driver, packer, preschool teacher, ticket officer-monitor, other and personal services occupations.

² Data source Employment Action Plan for 2012, the city of Čačak

Scarce occupations are machine technician - quality controller, chemical and technological technician, chemical products maker, salesman; merchant; shop-assistant in mixed retail, road traffic technician, assistant typist, construction technician, gymnasium graduate, assistant hairdresser for women, milling-machine technician, salesman - third degree, economy technician”.

5.5. Bor

Questions answered by Lidija Načić, Vice president of Local Employment Council of the Municipality of Bor, a member of the Municipal Council

“The Municipality of Bor has 48,615 inhabitants and of educational institutions we have 1 pre-school institution, 10 elementary schools, 1 gymnasium and 3 vocational schools, 1 faculty of the University of Belgrade, Regional Center of Excellence, Regional Center for Adult Education, and a number of private education institutions.

The number of unemployed people in Bor is 6,068, of which 3,475 are women. There are 2,084 unemployed young people under 30.

The average income in Bor is RSD 47,226.

The majority of population in Bor works in two sectors: manufacturing and mining (mining employment has risen by 8.6% in the past 12 months, while in manufacturing it has declined by 3.4%). There are not enough construction sectors, although there is strong investment activity in the municipality (workers have been brought from elsewhere, local workers are mostly hired through contract work or temporary work, a part of them works unreported).

The total number of enterprises in the municipality of Bor is 298, of which 4 large, 12 medium and 282 small businesses. The key sectors of the economy are processing industry, mining, transportation and storage, water supply and waste management, electricity supply, and wholesale and retail.

Bor had a great investment cycle in the carrier industry of the municipality, mining and metallurgy (construction of the New smelter, Sulfuric acid plant, opening new ore deposits, purchase of new mining equipment within the Mining Smelter Basin).

According to NES data education occupations are those that are mainly scarce: math teachers, music teachers, but also doctors specialists, as well as the civil engineering occupation, most of all builders and assistant construction workers.

Also in Bor there is a surplus in occupations where the number of unemployed people is far greater than demand and here we can point out the occupations in metallurgy and mining industry (especially bearing in mind that their age structure is unfavorable), followed by locksmiths, car mechanics, lathe operators, machine technicians, chemistry-technology

technicians, managers, economy technicians, gymnasium graduates, agricultural technicians, economists and lawyers college graduates, metallurgy engineers, economists and P.E. teachers.”

5.6. Niš

Questions answered by Jelica Velaja, Head of the Department for Education, Culture, Youth and Sports, Niš

“Niš has a population of 250,000, one preschool, 36 elementary schools, 19 secondary schools and one university. There are 39,000 people and the industry is in a very bad state.

We do not have data on scarce occupations.”

From the above it can be noted that the majority of local governments has useful information about the needs of the local market and that the occupations that are scarce in some cities and municipalities are at a surplus in others and vice versa. This is one of the reasons why the more active participation of local governments in the creation of education policy has been proposed.

6. The views of children in their final year of elementary school and the parents of these children on craft and technical occupations

In six regions of Serbia (Vojvodina, Central Serbia, Eastern, Western, Southern Serbia and Belgrade) a survey was conducted among children in their final year of elementary school and the parents of these children with a sample of 130 parents and 131 children.

The subject of the survey included their basic demographic characteristics, education, social status, impact of the environment, channels of information about professions, cultural habits and opinions about education and educational profiles, as well as plans regarding the future of their children's further education.

The survey for parents included 41 questions, and the one for children 34 questions, adapted to their age.

6.1. Parents

In the six regions of Serbia, the interviewers surveyed 130 adults who are taking care of children who are 7th and 8th grade of elementary school.

The first part of the survey focused on establishing the social and economic status of the interviewees, their living standard and creating an overview of an average family that raises schoolchildren in Serbia.

Most of the interviewees were mothers (58.3%), then fathers (40.8%) and only one interviewee is a guardian who is not blood related to the child (0.8%).

Regarding the education of interviewees, 6.2% of them has elementary school diploma, 13.8% have a crafts or three-year education diploma, 46.9% have a four-year vocational education and training diploma, 7.7% have grammar school diploma without a university degree, 21.5% have a university degree, while higher education (master, PhD) degree is held by 3.8%.

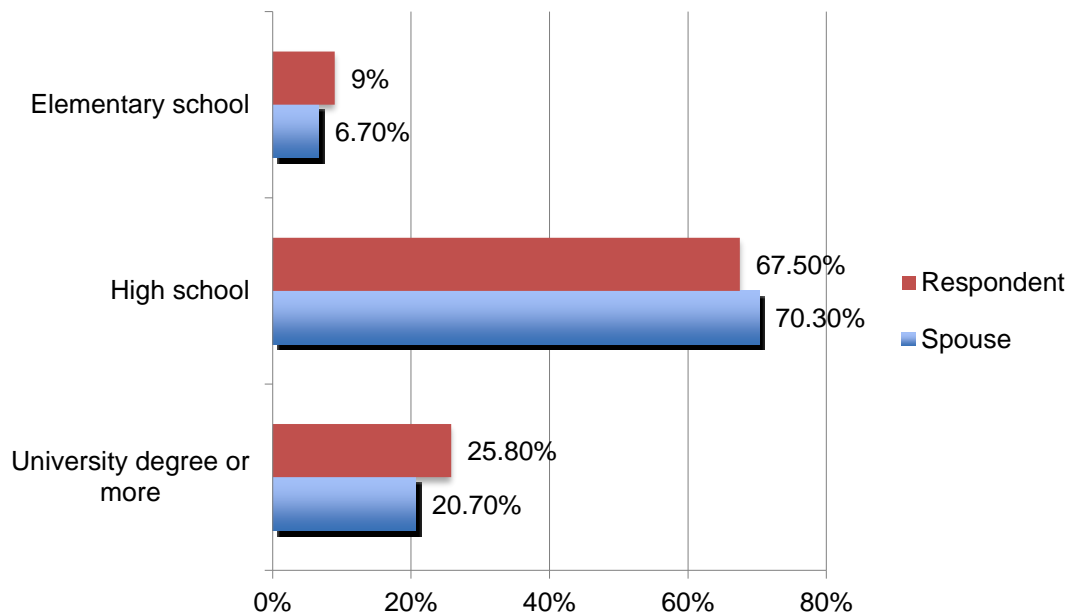


Figure 6: The interviewee's and spouse's education

Cumulatively, it can be said that 6.7% of interviewees and 9% of their spouses have elementary school education, 67.5% of interviewees and 70.3% of their spouses have high school diploma, while higher education degree is held by 25.8% of interviewees and 20.7% of their spouses. Therefore, as shown by the official statistics, the majority of the population has high school education.

However, in the majority of families there is at least one cousin (uncle, aunt, grandmother, grandfather...) who holds a university degree (62.5%). For 33.3% of interviewees, the highest level of education in the family environment is secondary vocational school, and for 4.2% it is elementary school.

Regarding employment, in most number of families (57.3%) both parents are employed, in almost half as many (34.2%) only one parent or guardian is employed, while in 8.5% of families, both parents are unemployed.

An average family in Serbia, according to this sample, in the majority of cases (36.9%) has five members, although half as many such five-member families has three children, which implies that living together with other family members (grandmothers, grandfathers, uncles, etc.) is not rare. The second most common number of household members is four – this many members are found among 32.3% of the interviewed households. Three members are common for 12.3% of families in Serbia, 6 members are common for 10.8% of families, 7 members for 5.7% and two members only are common for 2.3% of households.

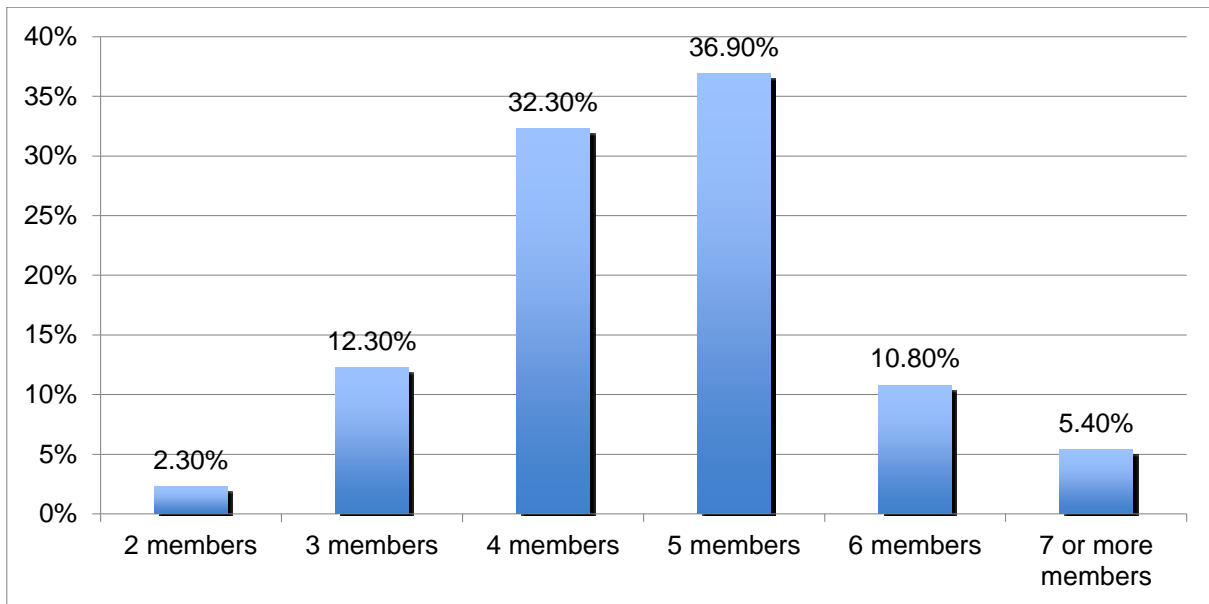


Figure 7: Number of members in the interviewee's household

As we have observed above, the number of household members and number of children mismatch in almost one half of cases. According to the statements given by the survey participants, the most numerous families are those with two children (65%), followed by households with one child (18.3%), then three children (15.8%) and of the total number of interviewees, only one family has four children, accounting for 0.8% of the interviewed. The random sample this time failed to include the families with four children.

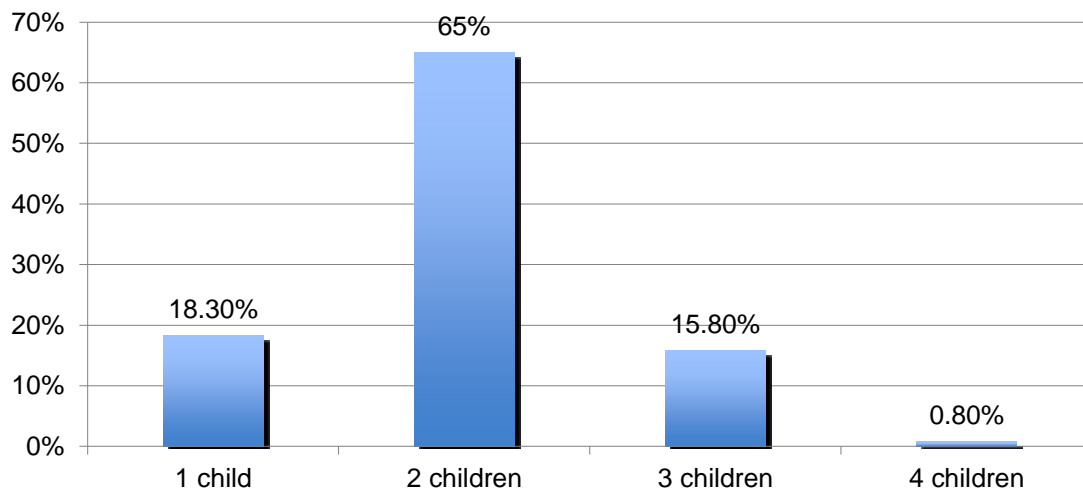


Figure 8: Number of children in the household

The income of the interviewees' households are generally below the country's average. The monthly income of 30.8% of the interviewees is below RSD 40,000, the income of 37.5% of households is between RSD 40,000 and RSD 60,000, 21.7% of households has between RSD 60,000 and RSD 100,000, while around 10% of the interviewees has income exceeding RSD 100,000.

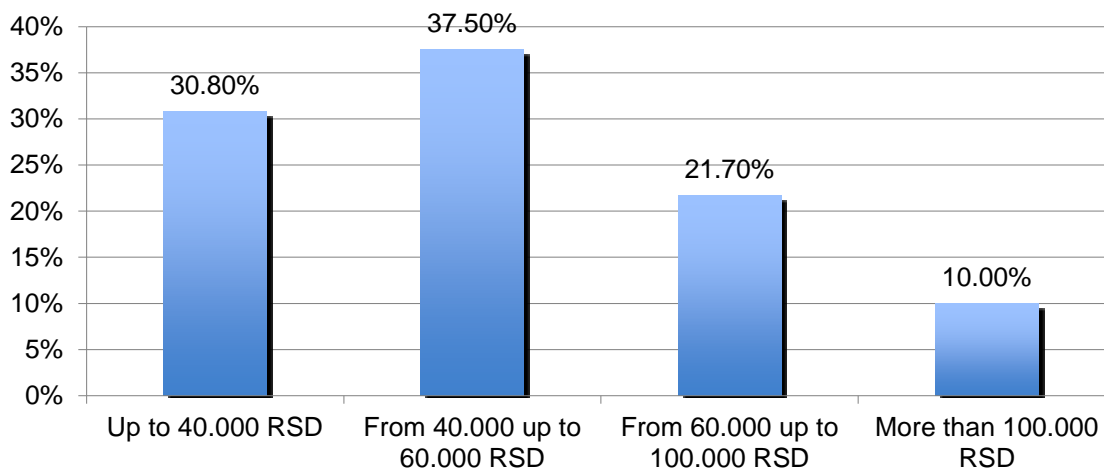


Figure 9: Monthly income of households

When these data are crossed, a typical family overview in Serbia is arrived at – in 85.4% cases there are four or more members, out of which two children (out of 65% of interviewees), and less than RSD 60,000 a month are at the average family's disposal, thus the amount is lower than the calculated monthly consumer basket for the month of August 2013.

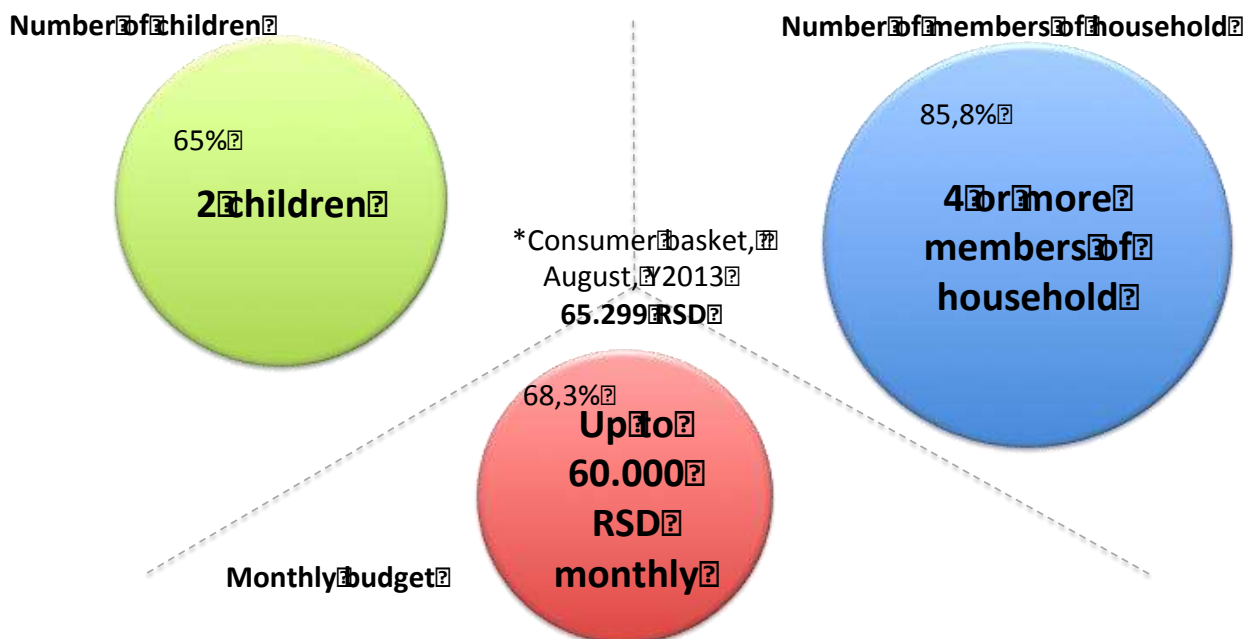


Figure 10: The picture of financial situation of an average family from the interviewed group

From the above data it becomes clearer why 66.2% of interviewees says that the monthly income of their household fails to meet their demands, while the rest claim that they have no problem providing for their family. When the responses by individual interviewees are crossed with the data on their monthly household budget, an interesting picture is arrived at – one part of the interviewees with higher monthly income is more dissatisfied with their living conditions than

the ones who have the lowest income. Namely, those who have less than RSD 40,000 per month can meet the demands of their household in 4.6% cases, while in 23.8% they cannot; then, 8.5% of those with income between RSD 40,000 and RSD 60,000 per month are positive about keeping the household running with these funds, but a large number of them (26.2%) claims that with the mentioned funds it is impossible; 11.5% of households having RSD 60,000 to RSD 100,000 per month manage to meet their basic needs, while 8.5% of them responded negatively to the same question; those with the highest income (over RSD 100,000) are largely satisfied (6.9%) and only 2.3% of them fails to keep the household running with such monthly income.

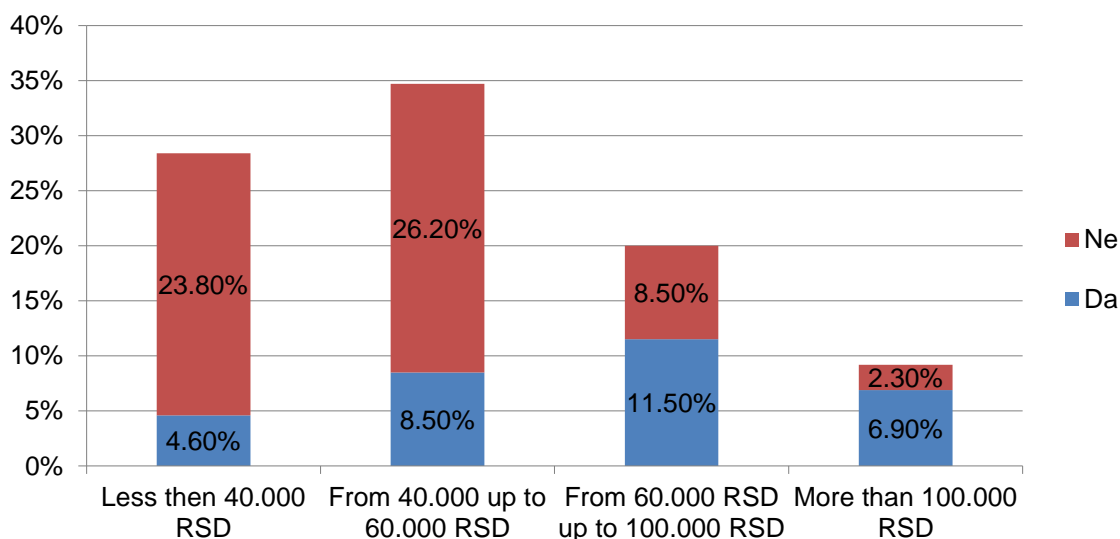


Figure 11: Does the monthly income meet the needs of the household?

Considering the poor financial situation in most households, the information that 63.1% of parents or guardians travels once or more times a year with children and that 16.2% does not travel at all, might even seem encouraging. However, when asked if they travel outside the borders of Serbia and the countries of former Yugoslavia (Bosnia and Herzegovina, Croatia, Slovenia, Montenegro, Macedonia), 66.2% of parents responded that they had not traveled outside the borders of these countries in the past 2 years, nor did their children in 56.9% cases.

Half of the interviewees did not visit cinema, theater or go to a concert in the past 6 months. One third claims not to have read a book in the past year.

The second part of the survey concentrated on establishing the main characteristics and motives of the interviewees' children in pursuing further studies, the parents' influence on their choice and parents awareness of their wishes and interests.

When asked about the major point of influence on the child's future occupation and/or future high school choice from among the family members or environment, one half of the interviewed parents and guardians responded that it is exclusively the child who decides. The occupation choice is influenced by both parents in 36.2% cases, and when

one parent is in question - it is normally mother (in 8.5% cases) and more rarely father (3.8%), while other members of the close family help in this decision in only 1.5% cases.

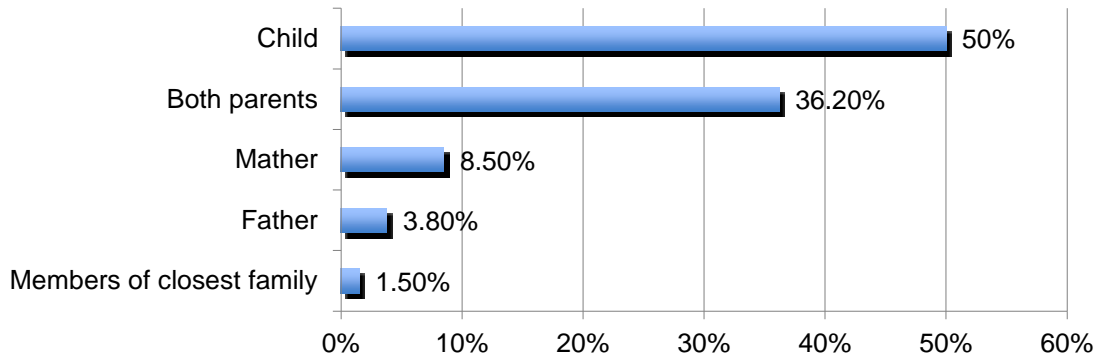


Figure 12: Who has the strongest influence on the child's future occupation selection?

This can be presented in a different way, too – in half the cases, the children choose their future occupation on their own, while the other half is influenced by members of the close family.

The fact is, however, that parents influence the choice of their child's future occupation in some respect. In doing so, they are guided by rational motives – their priority is good earnings prospects (35.4%), easy and fast employability (35.7%), followed by love for one's job, legal employability options and talent for a job.

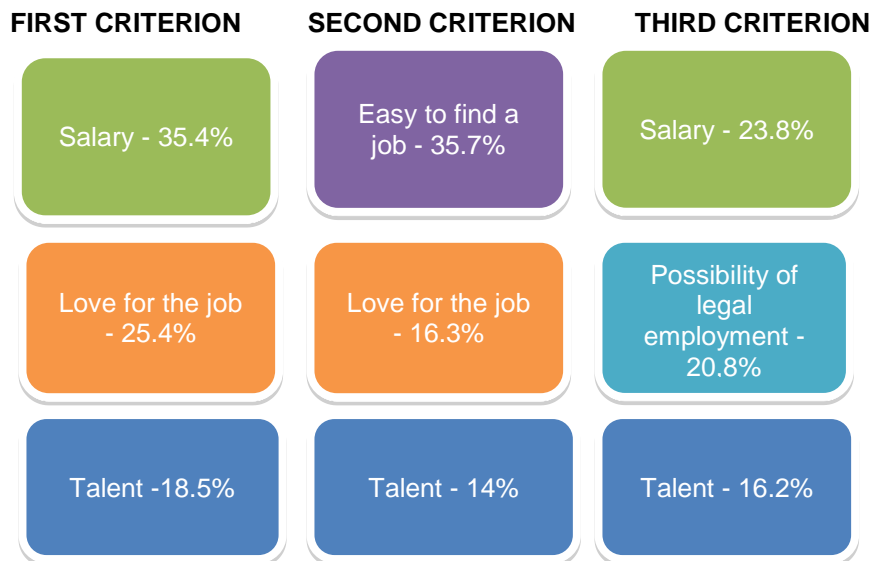


Figure 13: The three main parents' criteria in their children's occupation selection

When asked about their opinion of the main criteria their children used when selecting an occupation, the parents and guardians responded that their descendants think in a way similar to their own. Namely, they believe that children prefer earnings (43.8%) and then

easy and fast job landing (27.7%). Only after these they put love for one's job, talent and legal employability option.

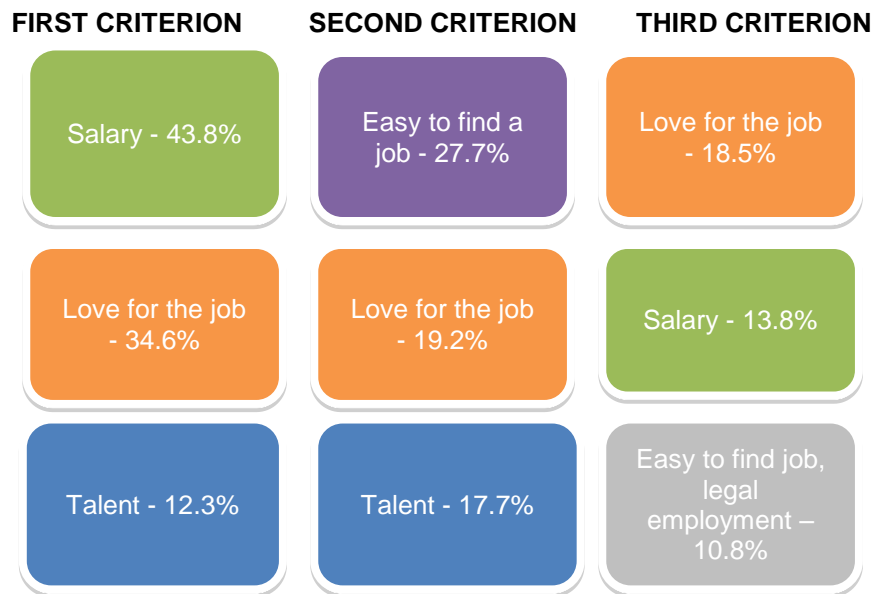


Figure 14: Parents' opinion about the three main criteria in their children's occupation selection

When children are asked the same question, completely different answers are received – children are primarily guided by emotional criteria, such as love for their job, talent, creativity and how interesting an occupation is.

Although the previous graph shows that the parents are not very well informed about their children's wishes, most parents claim to be talking with their children about their future decision every day (27.7%), while 16.9% of interviewees claim to be talking once in three days. 16.2% of the interviewed parents and guardians claim to be talking to their children once a week about their future profession, 10.8% of them once in a month, 10% of them twice a month, while only 8.5% of parents or guardians talk about this issue less frequently.

When talking with children about the choice of their future occupation, parents often do it by talking about their own job (66.2%), then informing the child about the different professions and discussing about them with the child (33.1%), inspiring the discussion about the different occupations with other people from the environment (20%), taking the child to the company they work in (18.5%), and in a smaller number of cases, by teaching the child how to independently get information about the future profession from different media, eventually taking the child to the companies of their friends that are in the business of interest to their child.

When asked if they wish their child to continue to college/university after high school, 9 out of 10 parents, i.e. 92.3% indubitably responds positively.

When crossing the parents education data we get the information that most parents with high school diploma (62.3%) wants university degree for their children, which is the case with 25.4% of university degree holders and 4.6% parents with elementary education.

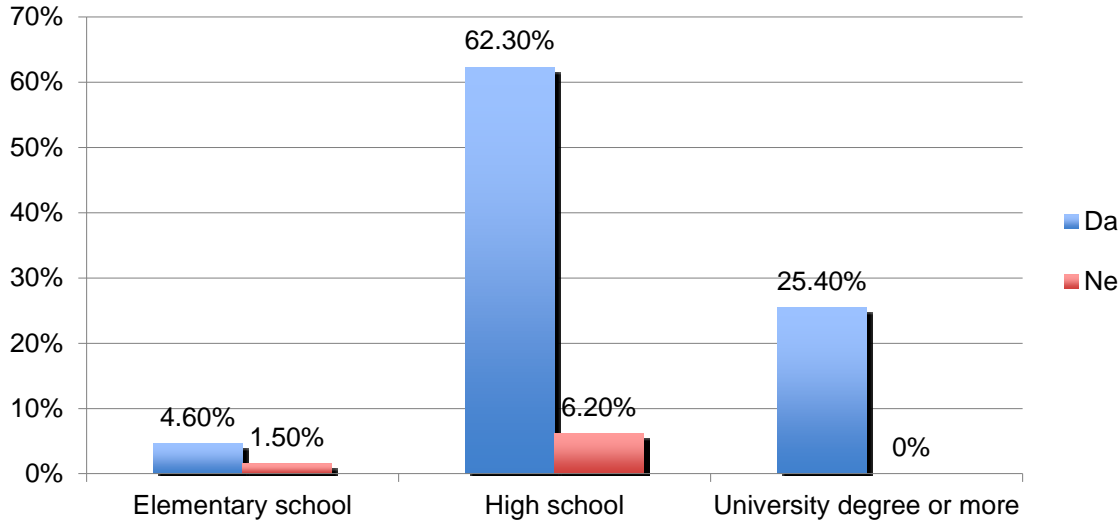


Figure 15: Do you want your child to go to university

Most (52.3%) claim that if their children did not want to enroll in university, they would not insist on it, while the rest is mostly indecisive (30%). Only 17.7% openly says that they would insist on their children finishing university studies.

Although the large majority wants their child to finish the university studies, more than a half of parents (59.2%) would not mind their child finishing a three-year high school or a craft. However, 40% of parents openly admit that it would bother them, while the rest of the interviewees did not opt to answer. Expectedly, a large number of highly educated parents would object to their child enrolling in a three-year high school (12.3%), while the number of parents holding a high school diploma is 24.6%, and those with elementary school 3.1%.

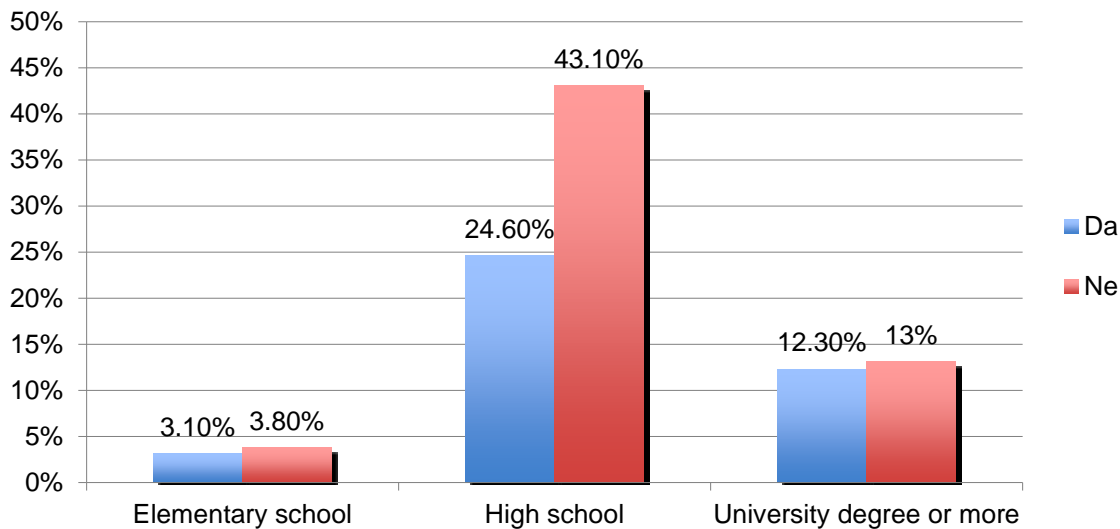


Figure 16: Would you object to your child graduating in crafts or a three-year school?

The parents who object to their children graduating in a three-year secondary school or in a craft, as the most frequent motive for such objection state that their child would have no major difficulties in finishing university studies (25%), but most of the responses are about difficult employability (blue fields) and low wages (orange fields).

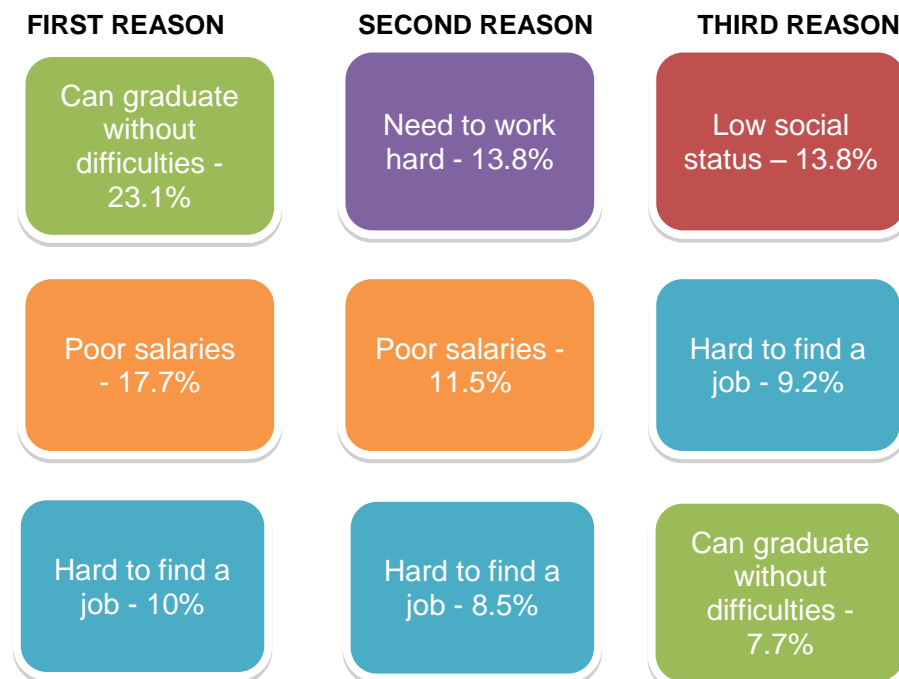


Figure 17: The main three reasons why parents would not like their children to graduate in a three-year school/craft

However, the surveyed interviewees in 57.7% cases did not know which professions are easiest and which are hardest in terms of employability in Serbia, while the rest claimed to have informed themselves about it. Therefore, one of the most frequently stated motive for choosing a high school must not necessarily reflect reality, as shown by the list of

scarce occupations, as well as the NES data about reducing unemployment for semi-qualified and three-year high school diploma holders.

Another frequent motive, low earnings, is harder to prove, as many craftsmen do business partially or entirely in the gray zone and do not report their income. Their income, however, is the subject of media researches, based on the price of their services multiplied by a certain number of working hours per month. So, the media company B92 recently published the data on “the gray economy of crafts” according to which the tilers, parquet technicians, plumbers, mechanics, electricians, heating technicians, assemblers, air-conditioning servicing technicians, painters, carpenters and similar professions earn between RSD 50,000 and RSD 140,000 a month. It should be noted that according to the RSO, the average net wage in Serbia in October was RSD 43,615.

However, even when all this is presented to the parents, they still do not prefer crafts – **these professions have low social reputation**. When asked if they would enroll their children in a craft if they had been promised employment right out of the pupils’ bench, 52.3% categorically claimed that they would not, 27.7% that they would think about it, and only 20% that they would.

So, from the previous data it can be seen that a large majority of people form their opinions based on prejudice and stereotype, and only 30% of interviewees says that they have a craftsman in the closer environment who they can learn from what it is really like to be one. 30% of people do not have craftsmen in the environment, and 40% answered that they “partially” do.

When asked about the sources of information regarding secondary schools and future professions of their children, most of the interviewees (23.8%) says that they learn a lot in discussions with friends. Right after friends, come social media (20%), followed by the internet which is the preferred channel of information for 13.8% parents. The rest of the parents are informed through the professional orientation programs and elementary schools or through some other channels.

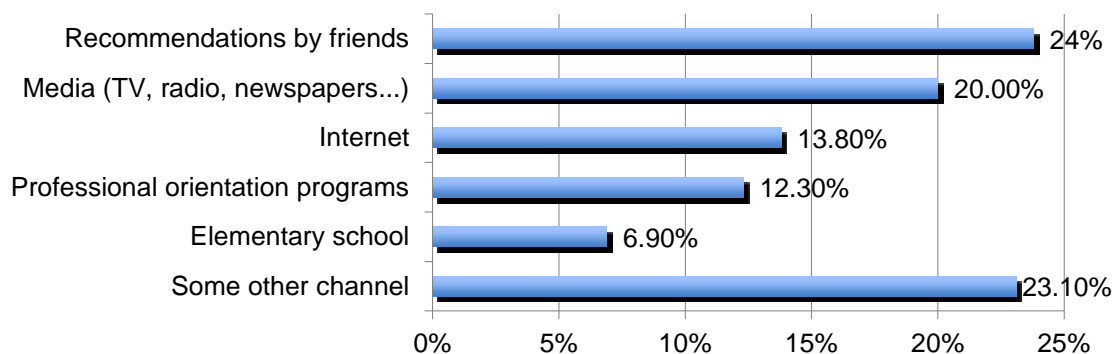


Figure 18: How do you get informed about high schools?

When asked about the websites they trust the most when searching for the information about high schools, most parents (40.8%) single out official school websites; however, the information

that 30.8% of them is not informed via the internet is not negligible. Those parents who used this channel of information, paid attention to the internet forums as well (8.5%), official websites of government bodies (4.6%), social networks (2.3%), and very few visited the media and the non-governmental organizations' websites.

However, not only one choice is put before children in life. As soon as they finish high school or university, comes the harder part – finding a job. All parents want the best for their children, but in some countries it means success in their children's career, while in Serbia it means a secure job.

The first choice of parents for their child's employment would be a government company (75.2%), while the second choice (47.7%) is "be your own boss", i.e. self-employment. It is interesting that in both cases employment in local private companies is at the bottom of the list since, as it seems by the answers provided, these do not respect the workers' rights very much nor do they pay them enough.

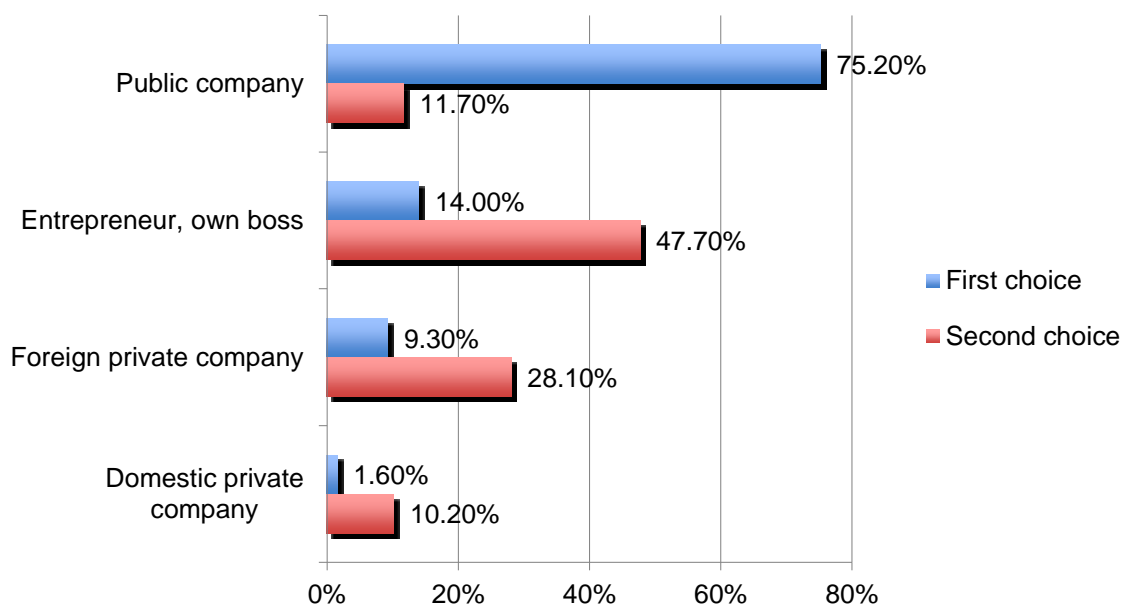


Figure 19: Where would you like your child to work?

Namely, when they were to prioritize the reasons why they want their child to work in a government company, most (58.1%) put "respecting the labor rights and good working conditions" in the first place. The second place saw the career progress (43.4%) and the third place was dominated by dues payment and potentially good pension (25.6%). Those who prefer the public sector do not find earnings as the driving motive (24%). It is interesting that 2.3% of parents responded that they want to employ the child in a government company because you don't need to work much there.

When parents who want their child to be “their own boss” prioritize, the situation changes significantly – the motivation list is topped by earnings (48.5%). Then there is the conviction that the child will “not be under pressure” (35.4%), that he/she will be able to build a career and advance (35.4%), followed by observing the labor rights, payment of dues and finally, conviction that entrepreneurs do not work a lot (2.3%).

6.1.1. Summary

From all the above it can be seen that the main parents’ motive for enrolling high school - earnings and job landing options - are valid in all cases except if the child wants to enroll a craft. Crafts, even in the poor regions in Serbia, are “below one’s dignity” to many. More than 90% of parents wants to see their child with a university degree, although almost 70% of households lives with less than what is necessary for an average consumer basket. The information channel most trusted by parents is friends, who cannot be influenced, and mass media, through which an information campaign can be organized regarding the real labor market needs, about which, as can be seen, there is little awareness.

6.2. Children

In the six regions of Serbia, the interviewers surveyed 131 children who are 7th and 8th grade of elementary school about their wishes, ambitions and manners of choosing the future occupation.

The survey includes almost equally both sexes, girls with 49.6% and boys with 50.4%. Most interviewees are 14 years old (70.2%), while the rest are 15 years old (16.8%) and 13 years old (13%). Most interviewees (60.3%) are excellent at school, 29% are very good and 10.7% are good.

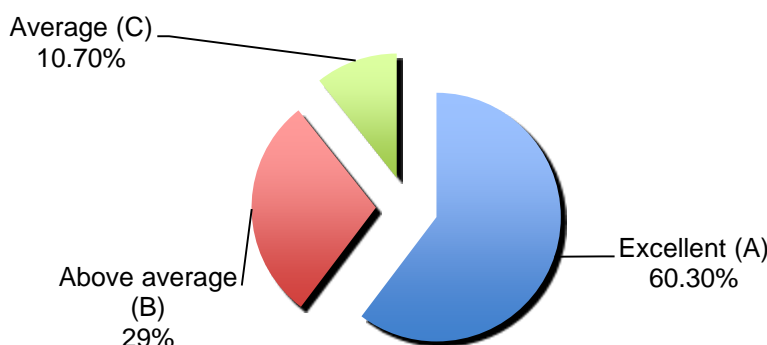


Figure 20: Children's elementary school achievement

At first glance it may seem that the survey participants do not adequately represent the sample for checking the opinions about three-year courses, primarily due to their high grades. However, the analysis of the June final exam in elementary schools conducted by the Institute for Education Quality Assessment showed that average grades of students in Serbia are unjustifiably high – 14% of students had all “5’s”, and in some regions, such as Leskovac, every fifth child was a valedictorian. The grades vary from one area to another, but it was found that most valedictorians, after Leskovac, come from Niš, Jagodina and Kosovska Mitrovica. These students, however, fared very poorly in the entrance exam – in 21 county, some valedictorians’ score in the Serbian language was below the country’s average, and in 14 counties from Maths.

The average grade of the last generation of elementary school students was 4.09, out of which there were 43% excellent students, 33.8% very good, around 20% good and 1.6% of fair ones.

Since this survey was conducted in the urban and rural areas of Kikinda, Belgrade, Čačak, Kragujevac, Bor and Niš, the average grade included even those that experts dealing with knowledge quality consider unjustifiably high. Of course, this does not mean that all interviewees received their grades as a gift, but in some areas, for an unknown reason, the rule that the development of local economy and municipality directly affects students’ achievements no longer applies.

Regarding the social status of the interviewees from these six regions, the children were not asked about their households' income, but about their life style, cultural needs and social habits. Most interviewees (65.6%) travels outside the country's borders at least once a year, 32.8% goes traveling less frequently, while 1.5% travels twice a year. Almost two thirds (69.5%) of the interviewees do sports, while interest in cultural content is notably lower. Cinema or theater are rarely visited by 55.7% of children, not at all by 21.4%, once a month by 16.8% of the interviewed students, while 6.1% of them visits these institutions many times a month.

When professional objectives of students are in question, most of them (59.5%) did not always know what they wanted to do, 16.8% said that they change their opinion often, while 20.7% knows for quite some time what it is that they want to do.

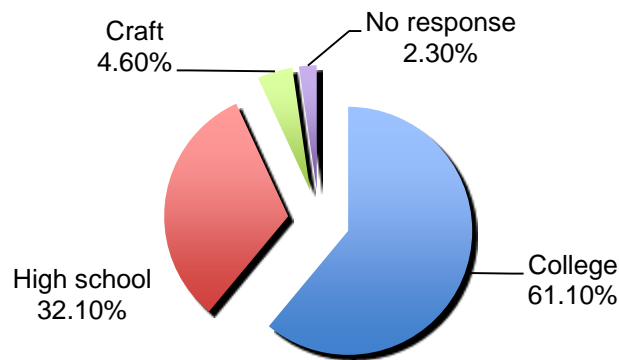


Figure 21: What the children want to study

However, despite the fact that most students does not have a long term interest in a certain profession, the large majority of them knows which degree level they want to acquire – 61.1% of the interviewed students wants to finish university studies, 32.1% a four-year high school, while 4.6% will take a craft or a three-year school.

Children are highly convinced (90.8%) that they will enroll the school of their choice, while only 9.2% believe that they will fail. Those 13 students who believe that they won't be able to enroll the desired secondary school, give as a main reason for their pessimism insufficient preparation (46.2%), poor achievement in the elementary school (30.8%), lack of money for further education (7.7%) and other.

Now that they are before one of the major choices in their life (or have already decided), children know what they want to do in 71% cases.

As opposed to their parents who believe that children are guided by good earnings and easier employability prospects in their profession selection, children have completely

different criteria: love for one's job (44.3%), talent for the job (23.7%) and the possibility to go abroad with a certain degree and find a job there (9.9%). Good earnings are ranked fourth only, while easier employability is ranked sixth.

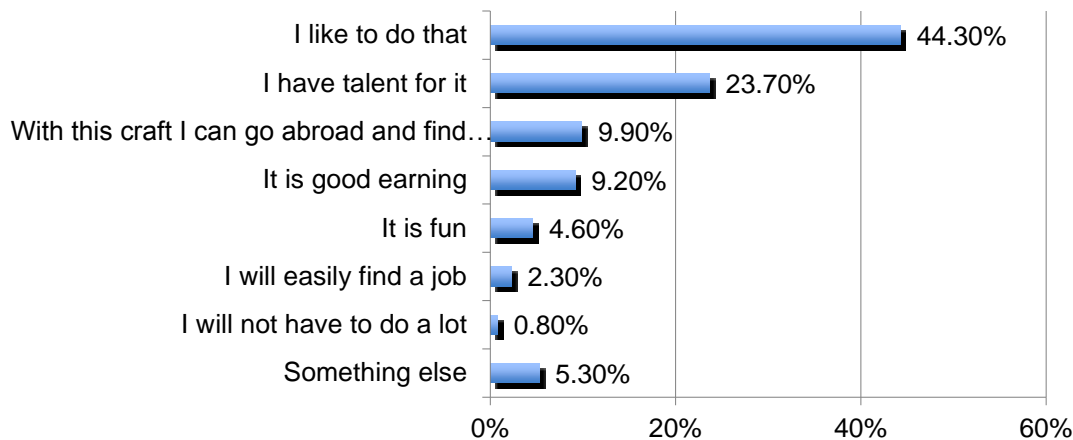


Figure 22: What attracts you most about the occupation you chose?

So, even though the parents dedicate their time to talking with the children about the choice of their future occupation, they are not fully aware of the motives the high school children have and of their priorities. Maybe, this is why children alone are the ones with the largest impact on the profession selection (56.5%), while parental impact is decisive in 32.1% cases.

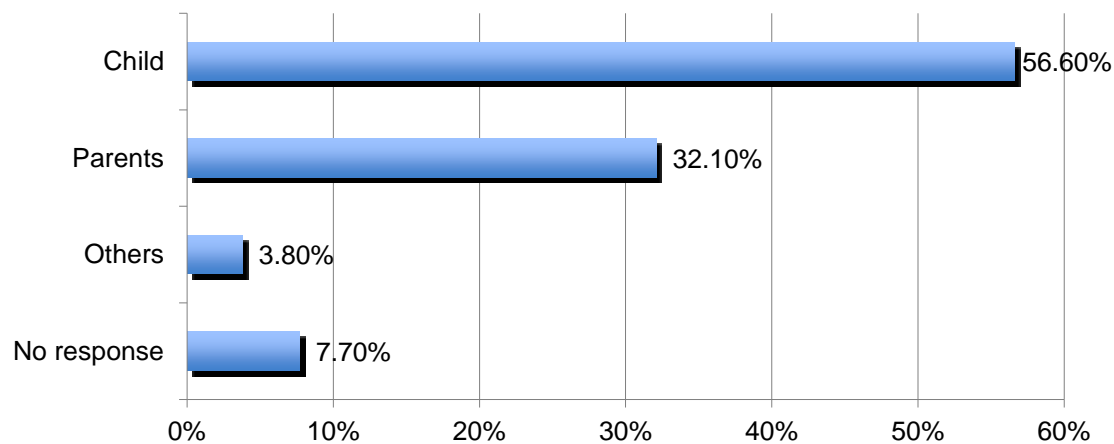


Figure 23: Who has the strongest influence on your high school selection?

Just as in the case of parents, the children also have prejudices in respect of the three-year and craft professions. When asked if they would enroll a craft if they were promised job right after graduation, 76.3% of children responded negatively; when asked if they would do it knowing that they would have the wage they want, the answer was again “no” in the majority of cases (55%), and it turned out that neither fulfilling their main motives for a profession selection – for the job to be fun and creative – was motivating enough for 52.7% of children.

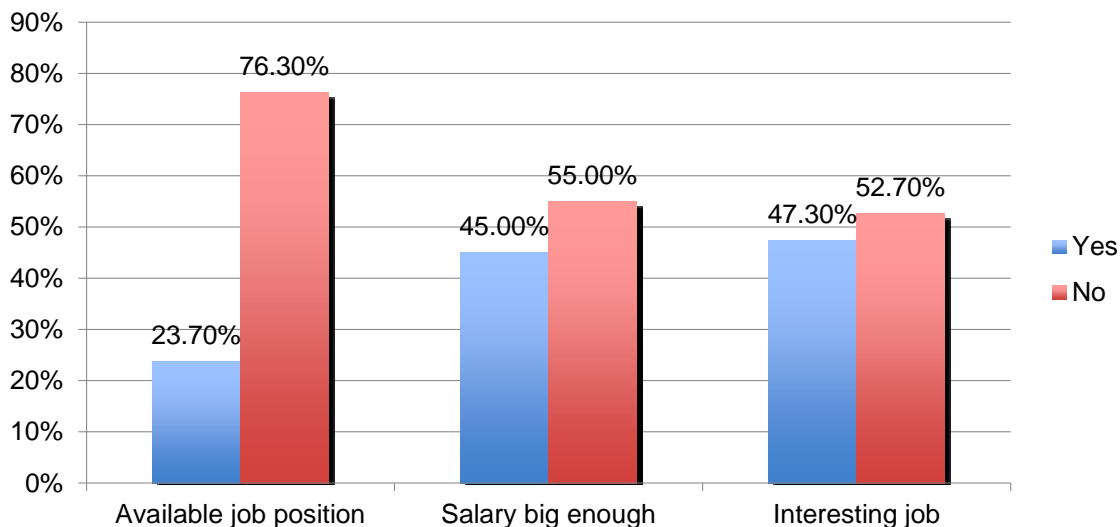


Figure 24: Would you enroll a craft or a three-year school if you had (1) a sure job, (2) high enough wage. (3) interesting job?

The job, wage, working conditions and social status image of craftsmen is generally not positive in the Serbian society, where the interviewed children come from. They believe that craftsmen are diligent (51.1%) above all, but also that they must work a lot (39.7%). One third of the children believes that the craftsmen did not choose their job because they loved it, but because they had poor grades in the elementary school, which corresponds to reality to a certain degree, if you take a look at the average mark of three-year or craft school students. Children also believe that the craftsmen earn little, live well, get dirty when they work, are not popular in the society, are dissatisfied with their job and, a small number of them thinks – that they earn a lot.

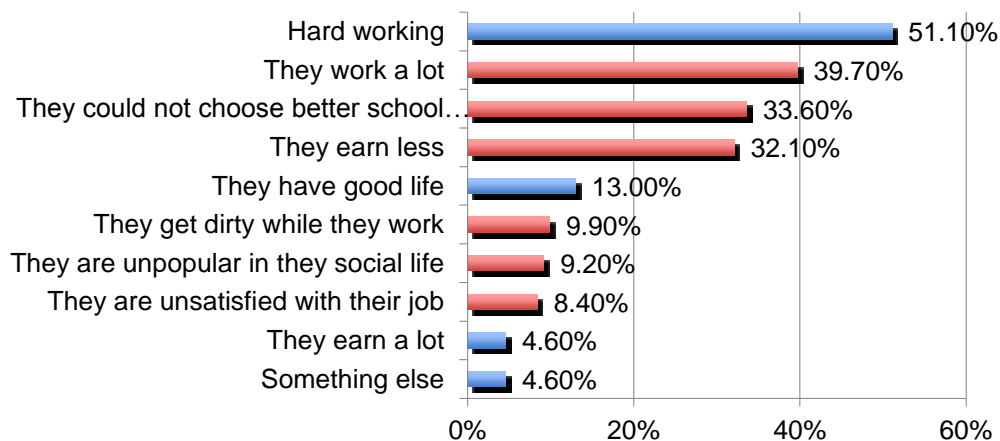


Figure 25: What do you think of people who graduated in a craft?

Also, the interviewed children mostly (64.9%) do not believe that in Serbia “if you are diligent and work a lot, you could be happy and satisfied and have what you need in life”. Many would say that this makes them realistic.

So far, the survey results shows that children see the craftsmen through the prism of stereotypes and prejudices. However, many of them (82.4%) know at least one craftsmen, which means that they have a chance to form an opinion of the craft professions based on real indicators.

In the craftsmen they know, children value the most their diligence (63.8%), fairness (37.7%), dedication (30%), many acquaintances (23.1%), while the list of valued characteristics and qualities is followed by good manners and courtesy, decent living standard, experience and wisdom. The percentage of children who do not know any craftsman is 16.2%.

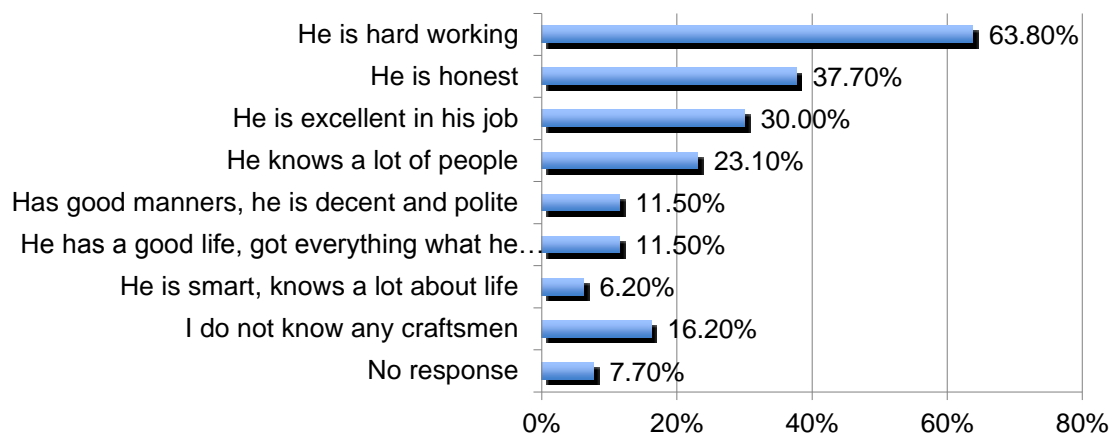


Figure 26: Which characteristics do you value in the craftsman you know?

When they imagine themselves in the craftsman’s shoes, 46.6% of children believe that they would not be happy, and only 14.5% believe that even with a degree in technical and crafts education one can be happy and satisfied in life, while others are indecisive. This is unusual, as many children had previously stated many virtues and somewhat satisfactory material situation of the craftsmen they know.

Also, young interviewees believe that with a crafts or three-year school degree they would not have the same social status as someone with a higher professional degree. However, a smaller number of children (38.2%) believe that in the near future, education in crafts could be an obstacle to friendship or even a love romance with someone, as “it could turn that person away”. Other interviewees say that the education degree would become unimportant to the given person once they get to know him/her.

Regarding friendship with someone who has a university degree, 62.6% of young people believe that their hypothetical degree in crafts would not present an obstacle to friendship, while 36.6% believe that their highly educated friend would look at them “down their nose”.

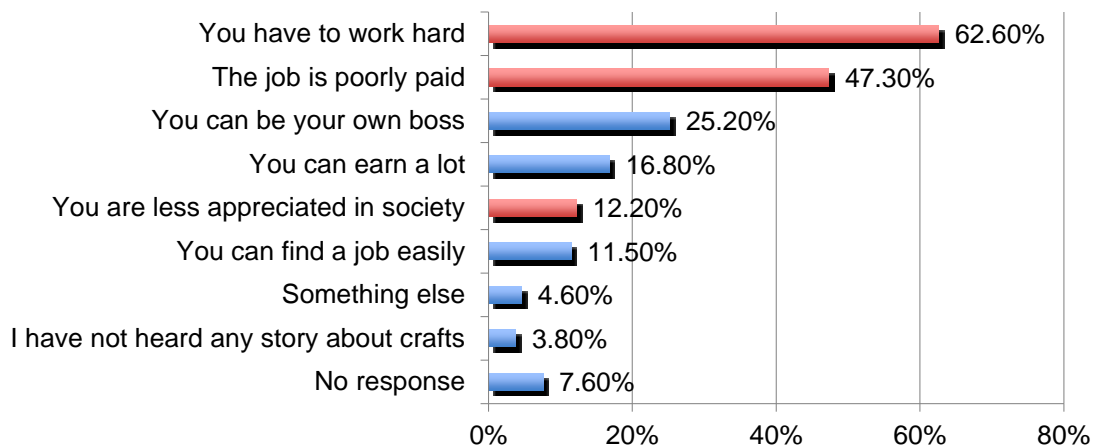


Figure 27: What kind of stories have you heard of crafts?

Students' opinion of crafts is therefore sometimes contradictory, but maybe a better insight into the motives for their resistance to crafts is provided by answers to the question what kind of stories they have heard of craftsmen. Most of them (62.6%) remembers the stories of adults about how the craftsmen work a lot for small wages (47.3%), but the positive thing is that they can be self-employed (25.2%). Some heard also that as craftsmen they could easily find a job and earn well, but they are also aware that "as craftsman you are less appreciated by the society", etc.

Less than a half of the interviewees (45.8%) has friends in crafts schools, but those who have them say that those friends of theirs are happy with their choice in 75% cases.

This did not influence the change of our interviewees' opinion about crafts – most of them are not even thinking about these schools. However, if forced to choose a craft in which to work, young people would mostly choose to be hairdressers, cooks and car mechanics. Their motives for choosing these professions match what they had said were their main criteria in choosing the future occupation – love for one's job, talent, fun, good earnings, easy employability, possibility of finding a job abroad, etc.

So far, the most striking reason for resistance to the three-year occupations are the responses of 74.6% children who want to finish university studies and 16.9% who are not sure of it yet. Only 8.5% of the interviewed children does not want to go to university. It is clear that the path to university is easier from the four-year high schools and grammar schools.

But why do children want a university degree? Is it about social status or the real need? **More than a half of the interviewed students (53.3%) believe that with higher education they would have better working conditions when they find a job, 44.2% say that it is easier to build a career and that there are more options of reaching a managerial or prestigious position, while earnings rank third, as 37.5% interviewees stated it as the reason. Of**

course, social reputation (20%), promise of less physical and work in general (10%) and parents' wishes (3.3%) are at stake.

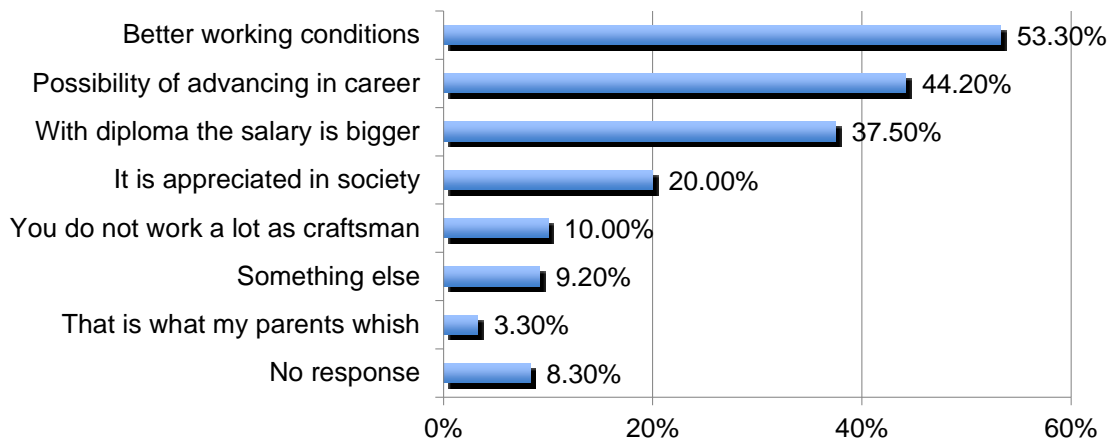


Figure 28: Main reasons for university education?

Before enrolling a high school, young people are most frequently informed about occupations in discussions with parents (52.7%) and through the internet (51.2%). Somewhat less than a third of them asks their elementary school for help about this important decision, while 28.7% relies on the information they get from friends. Family friends and other close family members are more important as source of information than television and other mass media.

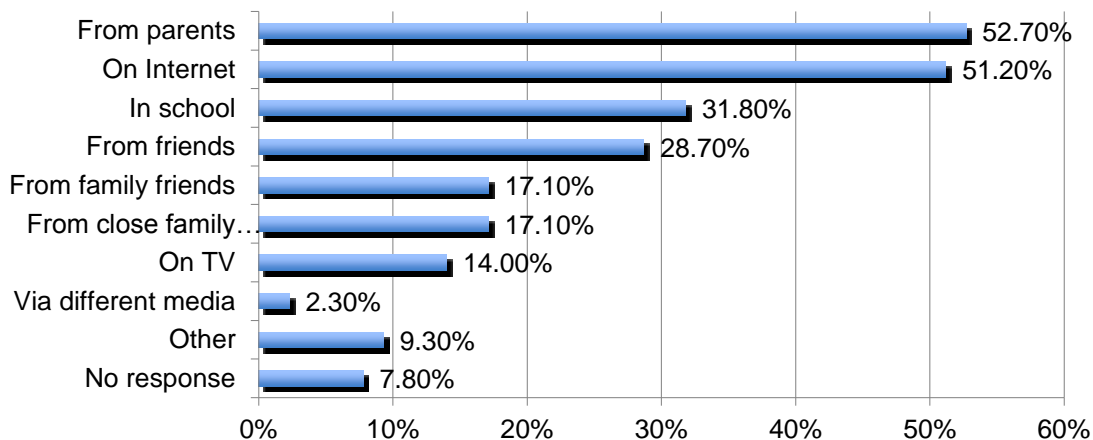


Figure 29: How do the children get informed of the future occupation?

Therefore, children are informed about the real labor market needs, advantages and disadvantages of certain professions from parents who, [as we were able to see](#), do not have enough adequate information either. The second most used channel of information is the

internet, that the children nowadays use a lot, much more than their parents ([only 14% of parents uses the internet for this purpose](#)). **Children trust the most school websites (41.6%), specialized websites dealing with their future education (29.2%), social networks (20.4%), forums (15%), media websites (8%) and many other internet pages.**

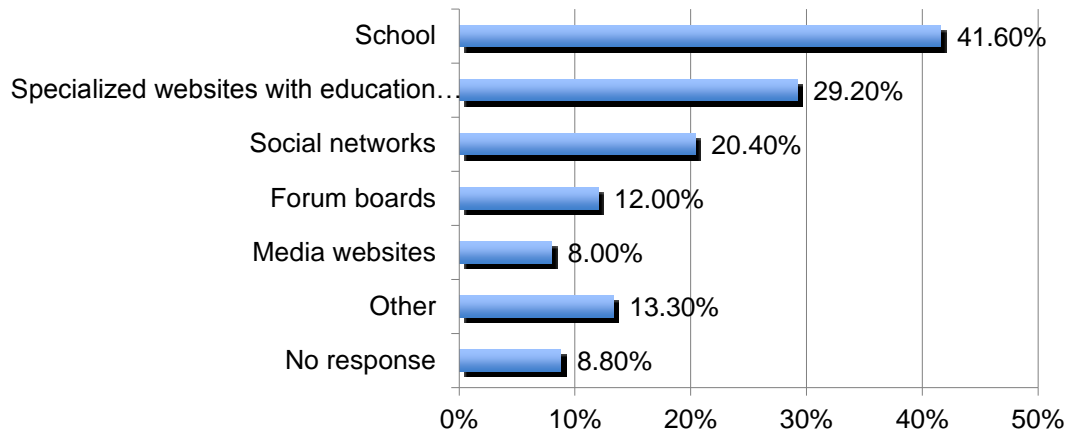


Figure 30: Which websites did you trust the most?

In elementary schools there are professional orientation programs, run by school counselors and psychologists, aimed at raising children's awareness about their own capacity in respect of the future occupations and career pathways, thus making it possible for them to make an informed decision. Children know about this in 52.7% cases, somewhat in 32.8% cases, while 14.5% know nothing about these programs. However, those who are aware of these programs say that they get most information and strongest support regarding the secondary school choice from teachers (42.7%), then from the professional orientation program (21.4%), parents (14.5%), school counselor (13.7%), psychologist (6.9%), from the school they are interested in (3.8%) and from cousins (1.5%).

The children, who this topic interests the most, know how they would like to be familiarized with the future professions – most of them (28.2%) would like to have an information point available, somewhat fewer children (21.4%) would like to visit the school they plan to enroll, while 20.6% would like to talk to an informed person. Children would also like to see practical education and training in the concrete schools.

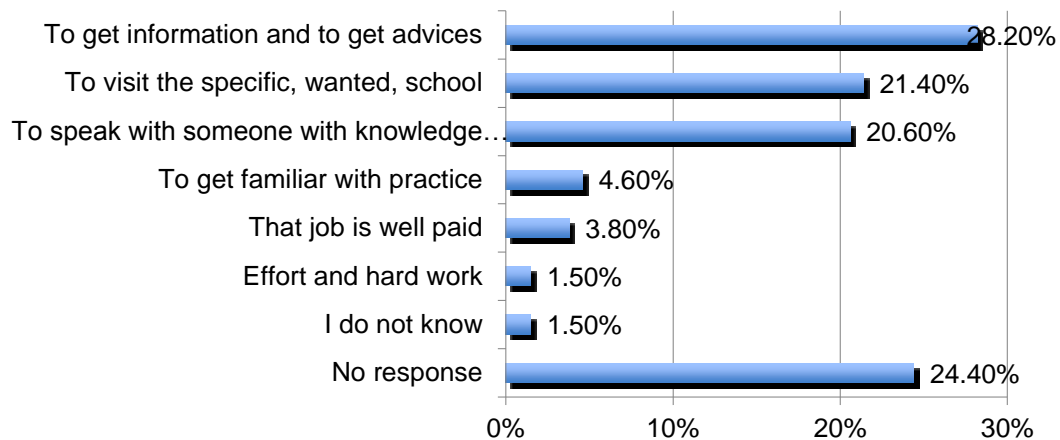


Figure 30: What is required for you to better familiarize yourself with a technical occupation and potentially choose to enroll a particular school?

6.2.1. Summary

From all the above we can conclude that children, even when they are not sure about what it is that they would like to do, one thing they are absolutely sure about – they want a university degree. As opposed to the parents' motives, their main motives for selecting a profession are love for one's job, talent for the job and employability abroad. The children heard that with craft and technical occupations you work a lot and earn a little, which might fend them off of these professions, but the positive thing is, as they say, that you can "be your own boss". When making the decision about the secondary school they wish to enroll, they inform themselves through conversations with parents and via the internet.

7. Conclusion

The labor market needs are insufficiently researched in Serbia. Employers are not obliged to report their personnel needs to the National Employment Service, which is why there is often a mismatch between the open job positions and the forecasts of scarce professions in the near future. Job postings and interviews with employers show that some occupations that the NES has registered a drop of demand for are actually in demand. Also, certain profiles (most often craftsmen) often do business in the “gray zone”, not registered, which is one of the reasons that there is no clear insight into the number of these professionals. NES is an employment statistics and forecast body, and if this institution does not have complete data, then neither the Ministry of Education, Science and Technological Development will have adequate records against which to form future education strategies.

Despite the tables showing a drop in certain job offers regarding some of these professions, both NES and employers emphasize the need for certain crafts and technical profiles that are ever decreasing in number.

As previously mentioned, the Ministry of Education, Science and Technological Development is not adequately informed of the market needs; however, it does not have its own data (or at least it does not make them available to public) which are also important for creating education strategies. At the moment, it is not possible to get the information about how many classes in secondary vocational schools were closed this year, and how many classes of different profiles were merged due to the lack of students.

However, from the data of the Statistical Office of the Republic of Serbia, it can be seen that most high school students in Serbia are trained in grammar schools, and that there is very little interest in manufacturing occupations. The interest is decreasing in three-year educational profile schools, although some of these professions are already scarce in the market. In some industries, companies are forced to reemploy retired craftsmen (which is the case with welders), but it seems that the Ministry of Education is too slow to respond to the market trends.

Employers resist employing young people because they are not happy with the competencies of young people upon graduation. Most employers claim that the people whose first job was with them have no practical skills and that they have to pay for their training or dedicate time to training them if small companies are in question. The only type of cooperation that most employers would offer to the education system is practical education and training in their company, but when employing a teacher who would be students’ mentor is mentioned (after the model from the EU countries), the employers respond that they are currently not financially capable for the venture.

Local governments are not empowered to influence creation of education policy, except in pre-school institutions. However, they can contribute a lot by identifying the necessary qualifications in local communities, i.e. reporting to the education authorities about the economic and industrial situation in their territory, attracting investments, future projects, etc., including the scarce professions in their local area. Also, left out, but very important factor of the education

reform are demographic trends, that local governments can report to the education policy creators.

Parents' opinions about the craft and technical occupations do not reflect the realistic picture of the market situation. In most families, the child has the strongest influence on the future profession selection. As many as 9 out of 10 parents want their child to go to university, and around 40% of them is adamantly against the idea of their child graduating in some of the three-year schools. They claim that the reason for their opposition is in the fact that it is hard to get a job with a craft and technical education and in the low wages of craftsmen, although they admit to not having inquired about the occupations that are easier or harder to find a job with in Serbia. Parents are not fully aware of their children's motives for choosing a future profession, but if they were the ones to decide they would most gladly employ the child in a government company or open them a company so the child can be "his/her own boss". Parents are mostly informed about high schools and education continuation prospects of their children in discussions with friends or by following mass media.

Children's opinions about the craft and technical occupations rarely match the parents' opinions about the topic, but neither these reflect the reality in Serbia. One of these cases is the children's claim to base the choice of their future professions on love for the job, personal talents and employability abroad, and not, as parents believe - wage and easier employability. Most children plan to enroll at a university, which is why they do not find the three-year educational profiles attractive. Apart from that, the poor social status of craftsmen makes identification with these professions difficult – it is believed that craftsmen work a lot and that they had chosen their job because of poor grades in elementary school. More importantly, 46.6% of children believe that they would not be happy and satisfied in life if they were craftsmen, while 14.5% of children would have found happiness in that case; others are indecisive. Elementary school children are informed about the continuation of their studies in conversation with their parents and over the internet. They use the internet as a communication channel with caution and trust the official school websites the most, specialized websites dealing with their future education and, finally, social networks, forums and the media websites.