PROMETNA MARGINALIZIRANOST NA PRIMJERU SREDNJOŠKOLACA GRADA ZAGREBA

TRANSPORT DISADVANTAGE: THE EXAMPLE OF HIGH SCHOOL POPULATION IN THE CITY OF ZAGREB

SLAVEN GAŠPAROVIĆ[1], MARTINA JAKOVČIĆ[1]

[1]Sveučilište u Zagrebu, Prirodoslovno-matematički fakultet, Geografski odsjek / *University of Zagreb, Faculty of Science, Department of Geography*

UDK: 656:316.344.7-057.874
(497.5 ZAGREB)=111=163.42
Primljeno / *Received*: 2014-01-31
Izvorni znanstveni rad
Original scientific paper

Mogućnost upravljanja automobilom smatra se važnim segmentom u životima ljudi. Osobe koje iz određenih razloga nemaju mogućnost upravljanja automobilom u znanstvenoj se literaturi vrlo često smatraju prometno marginaliziranim osobama. Prometna marginaliziranost može utjecati na pristupanje životnim prilikama i mogućnostima. Cilj ovoga rada je ispitati utjecaj prometne marginaliziranosti na svakodnevni život srednjoškolske populacije Grada Zagreba. Istraživanje se temelji na korištenju subjektivnih pokazatelja prometne marginaliziranosti i to putem korištenja metode vlastite procjene prometnih problema i fokus grupa. Podaci su dobiveni anketnim ispitivanjem 826 učenika srednjih škola Grada Zagreba te provođenjem osam fokus grupa. Učenici srednjih škola procjenjivali su utjecaj prometnih problema s aspekta važnosti i stupnja težine kojim ih rješavaju. Analizom podataka dobiveni su podaci koji pokazuju statistički značajne razlike između učenica i učenika što može upućivati na jaču prometnu marginaliziranost djevojaka (žena) u odnosu na mladiće (muškarce). Dobiveni podaci potkrijepljeni su navodima proizašlim iz uporabe metode fokus grupa.

Ključne riječi: metoda vlastite procjene, prometna marginaliziranost, srednjoškolci, Zagreb

The ability to drive a vehicle is seen as an important segment of human life. Individuals who do not have the possibility to drive a vehicle – for any given number of reasons – are often considered in the scientific literature as transport disadvantaged persons. Transport disadvantage can impact on access to many opportunities. The objective of this paper is to examine the influence of transport disadvantage on the daily life of high school population in the City of Zagreb. The research was based on the use of subjective indicators of transport disadvantage and on a self-reported measure of transport issues, as well as through the work of focus groups. The data were obtained in a survey of 826 high school students in the City of Zagreb, and with the participation of eight focus groups. High school students assessed the influence of transport issues based on the aspects of importance of issues in their lives and the degree of difficulty needed to overcome these issues. The analysis indicates that there is a statistically significant difference between male and female students, which could suggest a more prominent transport disadvantage for girls compared to boys. The collected data were also supported by claims obtained by the focus group method.

Key words: self-reported measure, transport disadvantage, high school population, Zagreb

Uvod

Promet je fenomen današnjice koji ima važnu ulogu u organizaciji i razvoju prostora te u životima ljudi. Kao djelatnost prijevoza ljudi, dobara i energije te prijenos informacija s jednog mjesta na drugo promet omogućuje zadovoljavanje životnih

Introduction

Transport plays an important role in the organisation and the development of space in human lives. As an activity of transport of people, goods and energy and the transmission of information from one place to another, transport

funkcija ljudi. Zbog toga su D. Partsch i F. Schaffer definirali promet kao jednu od osnovnih životnih funkcija (Vresk, 1997.).

Obavljanje životnih funkcija, bavljenje pojedinim aktivnostima i korištenje različitih usluga briga je socijalne politike u okviru "socijalne pravednosti" koju bi trebala provoditi svaka država, omogućujući svakom pojedincu barem minimum participiranja u životnim aktivnostima kako ne bi došlo do njegove isključenosti (Minogue, 1998.). Glavnu ulogu u promicanju socijalne pravednosti imat će promet (Foley, 2004.). Promet je jedan od temeljnih čimbenika u životima ljudi koji će utjecati na pristup odnosno mogućnost obavljanja različitih životnih funkcija. Pritom će dva elementa imati presudnu ulogu. To su mobilnost (fizička i virtualna), kao mogućnost kretanja pojedinca, te dostupnost, u smislu opsega u okviru kojeg se može doći do određene usluge ili aktivnosti. Primjerena mobilnost i dostupnost osnovni su zahtjevi današnjega globaliziranog društva (Hoyle, Knowles, 1998.).

Cilj rada je odrediti utjecaj prometne marginaliziranosti na svakodnevni život srednjoškolske populacije Grada Zagreba metodom vlastite procjene. Pritom je težište proučavanja stavljeno na određivanje razlika u prometnoj marginaliziranosti ponajprije na temelju spola. Na temelju vlastite procjene ispitivani srednjoškolci iskazivali su svoj stav o 17 prometnih problema, iskazujući putem skale važnost problema u životu te stupanj poteškoće s kojim se nose pri rješavanju pojedinih prometnih problema.

Zbog nedostataka dosadašnjih istraživanja prometne marginaliziranosti u domaćoj znanstvenoj literaturi, u prvom dijelu rada dan je teorijski okvir istraživanja s detaljnijim objašnjenjem fenomena prometne marginaliziranosti te pregledom inozemne znanstvene literature. Objašnjena je i metodologija istraživanja. U središnjem dijelu rada je analiza rezultata istraživanja pri čemu je analizirano 17 prometnih problema s aspekta važnosti problema u životu te stupnja poteškoće s kojim se srednjoškolci nose u rješavanju pojedinih problema. U nastavku je provedena detaljnija analiza s obzirom na spol srednjoškolaca.

enables people to satisfy their daily needs and functions. For that reason, Partsch and Schaffer defined transport as one of the fundamental life functions (Vresk, 1997).

The performance of life functions, carrying out individual activities and the use of various services are concerns of social policy, in the framework of "social justice" which every state should provide, enabling every individual to have at least the minimum participation in life activities to ensure there is no exclusion (Minogue, 1998). Therefore, transport plays a crucial role in the promotion of social justice (Foley, 2004). Transport is one of the key factors in human lives that will influence accessibility, i.e. the ability to perform various life functions. In doing so, two elements are of critical importance. These are mobility (both physical and virtual) as the possibility of movement of an individual, and accessibility as the extent to which one may access certain services or activities. Appropriate mobility and accessibility are among the fundamental demands of today's globalised society (Hoyle, Knowles, 1998).

The objective of this paper was to determine the influence of transport disadvantage on the daily life of a high school population in the City of Zagreb by using self-reported measures. The focus of the research was placed on determining the differences in transport disadvantage primarily on the basis of gender. Based on their self-assessments, the surveyed students expressed their opinion on 17 transport issues, expressed through a scale of the importance of issues in their lives, and the degree of difficulty required to overcome certain transport issues.

Due to the lack of previous research on transport disadvantage in the Croatian scientific literature, the first part of the paper provides a theoretical framework of the study, with a detailed explanation of the phenomenon of transport disadvantage, and an overview of the foreign scientific literature. The research methodology is outlined. The second part of the paper provides an analysis of the survey results, which addresses the 17 identified transport issues with aspects of the importance of each problem in the students' lives, and the degree of difficulty required for the students to overcome these problems. This is followed by a detailed analysis based on the students gender.

Teorijski okvir istraživanja

Omogućavanje održivog prometa postala je nova zadaća, ali i izazov za donosioce socijalne politike pa i prometne planere. Mobilnost i dostupnost imaju važnu ulogu u omogućavanju pristupa aktivnostima i uslugama. U slučaju otežane, ograničene ili čak onemogućene mobilnosti i dostupnosti ugroženo je i korištenje prometnih usluga. U takvoj situaciji nastupit će proces prometne marginaliziranosti[1]. Prometna marginaliziranost može otežati ili čak onemogućiti pristupanje životnim funkcijama, korištenje usluga ili sudjelovanje u željenim aktivnostima, što može dovesti i do socijalne isključenosti pojedinca ili čitave skupine ljudi (Seu, 2003.; Lucas, 2004a; Knowles i dr., 2008.; Yigitcanlar i dr., 2010.; Rosier, Mcdonald, 2011.). Uz ljude, prometna marginaliziranost može zahvatiti i prostore ako njegove značajke (npr. opseg dostupnih prometnih usluga) negativno djeluju na mobilnost i dostupnost. Prostor se može smatrati prometno marginaliziranim kada stupanj dostupnosti nije dovoljno visok da omogućuje nesmetan pristup životnim aktivnostima.

Iako je prometna marginaliziranost tema brojnih inozemnih istraživanja, ne postoji njezina jedinstvena definicija. Zajednički element svih definicija je višedimenzionalnost fenomena. U najširem smislu, prometna marginaliziranost može se definirati kao nemogućnost putovanja kada i kamo se želi bez poteškoća (Denmark, 1998.). Pritom se ističu dva osnovna elementa: želja za kretanjem i određene poteškoće. Dakle, pojedine osobe nisu u mogućnosti putovati bez poteškoća koje se javljaju zbog osobnih, pravnih, gospodarskih ili socijalnih razloga.

U skladu sa značenjem mobilnosti i dostupnosti u problematici prometne marginaliziranosti, prometna marginaliziranost može se definirati kao situacija u kojoj ljudi iz određenih razloga doživljavaju uskraćivanje korištenja prometnih mogućnosti, što ograničava njihovu mobilnost i pristup dobrima, uslugama i interakcijama. Razlozi ograničavanju mobilnosti i dostupnosti mogu biti fizičke osobine pojedinca, spol, starost, obiteljski status, zaposlenost, imovinsko stanje, mogućnost korištenja osobnog automobila, jezik

[1] U hrvatskoj znanstvenoj terminologiji ne postoji uvriježeni naziv za pojam koji se u međunarodnoj terminologiji navodi kao *transport disadvantage*. Autori su svjesni poteškoća u prevođenju ovoga pojma, stoga predlažu naziv *prometna marginaliziranost*.

Theoretical framework of the study

Providing sustainable transport has become a new task and challenge for social policy makers and transport planners. Mobility and accessibility play important roles in providing access to activities and services. In the case of hindered, limited or even disabled mobility and accessibility, the use of transport services is threatened. In such conditions, a transport disadvantage[1] will arise. Transport disadvantage can hinder or even disable access to life functions, the use of services or participation in desired activities, which ultimately can lead to social exclusion of an individual or entire groups of people (Seu, 2003; Lucas, 2004a; Knowles et al., 2008; Yigitcanlar et al., 2010; Rosier, Mcdonald, 2011). In addition to people, transport disadvantage can also encompass specific areas, if their properties (e.g. the scope of available transport services) negatively affect mobility and accessibility. Space can be considered to be at a transport disadvantage when the degree of accessibility is not sufficiently high to provide unhindered access to life activities.

Although transport disadvantage has been a topic of numerous international studies, there is no singular definition. The common element of all definitions is the multi-dimensionality of the phenomenon. In the broader sense, transport disadvantage can be identified as the inability to travel when and where one wants without difficulty (Denmark, 1998). In this, two basic elements are identified: the desire for mobility and certain difficulties in doing so. Therefore, individuals are not able to travel without difficulties that arise due to personal, legal, economic or social reasons.

In line with the significance of mobility and accessibility within the framework of the issue of transport disadvantage, transport disadvantage can be defined as a situation in which people experience, for whatever reason, a limitation in the use of transport options, which restricts their mobility and access to goods, services and interactions. The reasons for the restriction of mobility and accessibility can be the physical traits of an individual, such as gender, age, family status, employment status, financial status, ability to use a personal vehicle, language or education (Stanley,

[1] In Croatian terminology there is no conventional term for transport disadvantage.

i obrazovanje (Stanley, Stanley, 2004.). Može se zaključiti da će osobe kojima je u nekoj mjeri uskraćena mobilnost, imati ograničen pristup odnosno dostupnost životnim aktivnostima, što u određenom vremenskom razdoblju može dovesti i do socijalnog pada odnosno socijalne isključenosti.

Unatoč značenju automobila kao neizostavnog elementa suvremene civilizacije, javni prijevoz načelno bi trebao biti dostupan svima. Stoga se prometna marginaliziranost može odrediti kao situacija u kojoj ljudi nisu u mogućnosti služiti se javnim prijevozom ili prema njemu nemaju pristupa (Battelino, 2009.).

Visoke cijene goriva i održavanja automobila mogu izazvati određene poteškoće kod ljudi koji ih koriste. U odnosu na tu tvrdnju prometna marginaliziranost može se definirati i kao situacija u kojoj se javljaju poteškoće u dostupnosti prijevoza i u okviru korištenja vlastitog prijevoza (Currie i dr., 2009.).

Prometna marginaliziranost može se pojaviti na tri razine: na razini kućanstva, na lokalnoj razini i na metropolitanskoj razini. Na razini kućanstva, osobe mogu doživjeti prometnu marginaliziranost kao ograničenje mobilnosti. Na lokalnoj razini ljudi će doživjeti prometnu marginaliziranost ovisno o stupnju dostupnosti. Na metropolitanskoj razini ljudi mogu biti prometno marginalizirani jer prostor u kojem žive ima lošiju povezanost prema nekim specifičnim aktivnostima koje imaju značenje za šire, metropolitansko područje (npr. zračna luka, sveučilište i slično) (Hurni, 2006.).

S obzirom na opseg usluga i aktivnosti na nekom prostoru te dostupnosti tih aktivnosti i usluga putem različitih oblika prijevoza kojim se koriste različite društvene skupine da bi došle do tih aktivnosti i usluga, proučavati se može prometno marginaliziran prostor (npr. dio grada ili ruralni prostor) ili prometno marginalizirane skupine društva.

Prometna marginaliziranost može se određivati i mjeriti na mnogo načina (Dodson i dr., 2004.) te ne postoji neki univerzalni odnosno jedinstveni način za određivanje prometne marginaliziranosti. Metodologija određivanja ovisit će, ponajprije, o ciljevima istraživanja, ali i o objektu istraživanja. S obzirom na to da je prometna marginaliziranost multidimenzionalni fenomen, pri istraživanju prometne marginaliziranosti koristi se čitav niz metoda. Metode koje se koriste mogu se općenito svrstati u četiri glavne skupine: modeliranje, metode socio-prostorne analize, statističke metode

Stanley, 2004). It can be concluded that persons for whom mobility is somewhat limited will have limited access to life activities, which can lead to social decline or social exclusion over a certain period of time.

In spite of the significance of the automobile as an unavoidable element of contemporary civilisation, public transport should, in principle, be equally accessible to all. Therefore, transport disadvantage can be defined as a situation where people are not able to use public transport or have no access to it (Battelino, 2009).

The high fuel and automobile maintenance costs can cause certain difficulties for people who use them. In relation to that claim, transport disadvantage can be defined as a situation in which difficulties arise concerning the accessibility of transport options, and in the framework of the use of one's own transport (Currie et al., 2009).

Transport disadvantage can arise at three levels: household level, local level and metropolitan level. At the household level, persons can experience transport disadvantage as a restriction of mobility. At the local level, people can experience transport disadvantage depending on the degree of accessibility. At the metropolitan level, people can experience transport disadvantage because the area in which they live has poorer connections towards certain specific activities that have significance for broader, metropolitan areas (i.e. airport, university, etc.) (Hurni, 2006).

Considering the scope of services and activities in an area, and the accessibility of those activities and services via various forms of transport used by different social groups to reach those activities and services, transport disadvantaged areas (e.g. part of a city or rural area) or transport disadvantaged groups of society can be studied.

Transport disadvantage can be determined and measured in many ways (Dodson et al., 2004) and there is no universal or uniform way for determining transport disadvantage. The determination methodology will depend, above all, on the objectives of the research and on the actual subjects of the research. Considering that transport disadvantage is a multi-dimensional phenomenon, a series of methods can be employed in researching transport disadvantage. The methods used can generally be categorised into four main groups: modelling, socio-spatial analysis methods, statistical methods and qualitative methods. A number of other methods are also known, such

i kvalitativne metode. Uz njih se koristi niz drugih metoda. Tako se pri istraživanju prometne marginaliziranosti prostora koriste lokacijski uvjetovana mjerila. Ona uključuju pokazatelje kao što su vrijeme putovanja do određenih aktivnosti, udaljenost do određenih aktivnosti i slično (npr. Dijst, 1999.). Mobilnošću uvjetovana mjerila odnose se na istraživanja kao što su utvrđivanje razvijenosti prometnih usluga na nekom prostoru ili posjedovanje automobila (npr. Hine, Mitchell, 2003.). Navedene dvije skupine mjerila mogu se prema načinu prikupljanja uvrstiti u skupinu objektivnih pokazatelja. Utvrđivanje prometne marginaliziranosti pojedinih socijalnih skupina često se obavalja primjenom kvalitativnih metoda istraživanja (npr. fokus grupe), metodom vlastite procjene (utjecaja prometnih problema)[2], određivanjem problema kod pristupanja aktivnostima kao i posljedicama koje iz toga proizlaze i slično. Prethodno navedene metode mogu se ubrojiti u skupinu subjektivnih pokazatelja (npr. Seu, 2003.; Hurni, 2007.; Currie, Delbosc, 2011a). Uz navedene pokazatelje, istraživanja se provode kombinirajući pojedine aspekte koristeći time u istom trenutku više različitih mjerila, u okviru objektivnih ili subjektivnih pokazatelja.

Prometna marginaliziranost može se javiti u svim skupinama stanovništva. No ipak postoje skupine koje su osjetljivije na pojavu marginaliziranosti. Kada su je riječ o društvenim skupinama, prometna marginaliziranost može se najopćenitije definirati kao situacija u kojoj ljudi stalno imaju problem s mobilnošću ili dostupnošću (Travers, 1992.). Čimbenici koji tome pridonose mogu biti različiti. Ne postoji konačni i strogo definirani popis čimbenika. Ipak, dosadašnja istraživanja izdvajaju neke zajedničke čimbenike. Hurni (2006.) izdvaja sljedeće čimbenike: prihodi (imovinsko stanje), posjedovanje automobila i mogućnost upravljanja njime, spol, starost, fizičke karakteristike pojedinca, obilježja kućanstva, (ne)zaposlenost, znanje jezika i pismenost, etnicitet i migracije.

Iako spol može biti čimbenik koji pridonosi prometnoj marginaliziranosti, pojedini autori o njemu imaju različito mišljenje. Dok npr. Hine i Mitchell (2003.) smatraju kako je spol važan čimbenik prometne marginaliziranosti, izdvajajući pri tome žene kao prometno marginaliziranu skupinu društva, drugi autori smatraju kako se spol u ovoj problematici ne može uzeti jednoznačno

[2] U engleskoj znanstvenoj terminologiji ovaj se pojam navodi kao *self-reported measures* odnosno *self-reported difficulties*.

as the use of location-dependent measures. These include indicators such as travel time to certain activities, distance to certain activities, and the like (e.g., Dijst, 1999). Mobility-dependent measures pertain to research such as determining the development of transport services in an area, or owning an automobile (e.g. Hine, Mitchell, 2003). Depending on the collection methods, these two groups of measures can be grouped by their objective indicators. Determining the transport disadvantage of individual social groups is often carried out by using qualitative research methods (such as focus groups), self-reported measures (or self-reported difficulties)[2], determining problems in accessing activities and the consequences ensuing from those. Previously listed measures can be included in the group of subjective indicators (e.g. Seu, 2003; Hurni, 2007; Currie, Delbosc, 2011a). In addition to these indicators, research is carried out by combining individual aspects, using multiple measures simultaneously, either within the framework of objective or subjective indicators.

Transport disadvantage can appear in all groups of population. However, there are certain groups that are more vulnerable to the appearance of this disadvantage. With regard to social groups, transport disadvantage can most generally be defined as a situation in which people constantly have problems with mobility or accessibility (Travers, 1992). The contributing factors may vary. There does not exist an ultimate or strictly defined list of factors. However, the research up to date has pointed out several common factors. Hurni (2006) isolated the following factors: earnings (financial status), ownership of a vehicle and the ability to drive, gender, age, physical properties of an individual, characteristics of the household, unemployment, knowledge of a language and literacy, ethnicity and migration.

Though gender may be a factor that contributes to transport disadvantage, some authors have varying opinions on this matter. For example, while Hine and Mitchell (2003) consider gender to be an important factor of transport disadvantage, pointing to women as a transport disadvantaged group in society, other authors believe that in this issue, gender cannot be considered unequivocally, and instead should be viewed from the standpoint of employment, characteristics of the household, number of children, etc. (Hurni, 2006). Regardless

[2] In Croatian terminology there is no conventional term for self-reported measures or self-reported difficulties.

nego ga treba sagledati s aspekta zaposlenosti, obilježja kućanstva, broja djece i slično (Hurni, 2006.). Bez obzira na naša mišljenja i iskustva, ostaje činjenica kako je u Republici Hrvatskoj još uvijek daleko veći broj muškaraca s vozačkom dozvolom od žena[3], što može žene staviti ovisno o vožnji od strane muškarca ili potrebu korištenja nekog drugog oblika prometa. Svakako je važna i činjenica kako će žena biti izloženija nasilju u javnom prijevozu što daje dodatni argument njenoj prometnoj marginaliziranosti.

U skladu s činjenicom da ne postoje strogo definirani čimbenici koji određuju prometno marginalizirane skupine ljudi, pojedini autori na temelju različitih čimbenika izdvajaju prometno marginalizirane socijalne skupine. Tako Hurni (2006.) izdvaja sljedeće potencijalne prometno marginalizirane skupine ljudi: osobe s invaliditetom, starije žene koje žive same, samohrani roditelji s djecom, nezaposlene mlade osobe, urođenici, izbjeglice i azilanti. Kao što je vidljivo, njezina klasifikacija prilagođena je njezinu socijalnom okruženju i mjestu stanovanja. Nešto drugačiju klasifikaciju predlažu Dodson i dr. (2004.) koji izdvajaju sljedeće marginalizirane skupine: osobe s niskim novčanim primanjima, nezaposlene osobe, djeca i mladi, žene, stariji ljudi, osobe s invaliditetom, stanovnici izvangradskih prostora i etničke manjine. Kao što možemo vidjeti, prema Dodsonu i dr., prometna marginaliziranost ne pogađa samo gradsko stanovništvo nego se može javiti i u ruralnim prostorima.

Automobil kao glavno prijevozno sredstvo današnjice ima i značajnu ulogu kao čimbenik koji utječe na definiranje prometne marginaliziranosti na individualnoj razini. Taj čimbenik često služi kao kriterij za određivanje prometne marginaliziranosti pojedinih skupina populacije (Currie, Delbosc, 2011b). Neimanje ili nemogućnost vožnje automobila često se navodi glavnim čimbenikom koji dovodi do pojave prometne marginaliziranosti (Clifton, Lucas, 2004.). Struktura naselja, posebice gradova, u velikoj se mjeri prilagodila automobilskom prometu. Njihov prostorni rast i razvoj, posebice proces suburbanizacije, utjecali su na korištenje automobila kao prometnog sredstva koji omogućuje lakšu dostupnost pojedinih lokacija te znatno udobniji i efikasniji način korištenja u odnosu na ostale oblike prometa, posebice javni promet. U skladu s tim u društvu

[3] Prema Biltenu o sigurnosti, 2012. godine u Republici Hrvatskoj bilo je registrirano 1 369 665 vozača i 898 227 vozačica (MUP, 2013.).

of our opinion and experience, the fact remains that in the Republic of Croatia, the number of men holding a driver's license far exceeds the number of women,[3] which can place women in a position of dependence on men for driving, or for the need to use other forms of transport. The fact that women can be more exposed to violence in public transport is certainly another important fact, which further supports the argument of greater transport disadvantage for this group.

In line with the fact that there are no strictly defined factors that determine transport disadvantaged groups of people, certain authors have created classifications of transport disadvantaged social groups based on various factors. Hurni (2006) pointed out the following potentially transport disadvantaged groups of people: persons with disabilities, elderly women living alone, single parents with children, unemployed young people, natives, refugees and asylum seekers. This classification is adapted to the author's social environment and place of residence. A somewhat different classification was proposed by Dodson et al. (2004), who singled out the following disadvantaged groups: persons with low income, unemployed persons, children and youth, women, the elderly, persons with disabilities, residents of suburban areas and ethnic minorities. It is evident that according to Dodson et al., transport disadvantage does not affect only the urban population, but can also arise in rural areas.

Automobile as the primarily mean of transport today also has a significant role as the factor that influences the definition of transport disadvantage at an individual level. This factor is often used as a criterion for determining transport disadvantage of certain population groups (Currie, Delbosc, 2011b). Not having a vehicle or not being able to drive is often listed as the main factor that leads to the rise of transport disadvantage (Clifton, Lucas, 2004). The structure of settlements, particularly cities, is largely adapted to automobile traffic. The spatial growth and development of settlements, particularly in the process of suburbanisation, have influenced the use of automobile as a means of transport that enables one to have easier access to certain locations, and a substantially more comfortable and efficient means of use in comparison to other forms of transport,

[3] According to the 2012 Safety Bulletin, in the Republic of Croatia there were 1,369,665 male drivers and 898,227 female drivers holding licences (MUP, 2013).

se mogu izdvojiti određene socijalne skupine koje iz određenih razloga nemaju ili imaju vrlo ograničen pristup automobilu odnosno mogućnost upravljanja automobilom i koje su prema tome prometno marginalizirane (Hine, Mitchell, 2003.). Ti se razlozi uglavnom svode na nemogućnost upravljanja automobilom zbog zakonskih ograničenja, fizičkih nemogućnosti te situaciju u kojoj si osoba ne može priuštiti automobil. Osnovna je posljedica toga ovisnost o drugim osobama što se tiče vožnje i dostupnosti pojedinim životnim aktivnostima. Iako se mnogi autori slažu kako je neposjedovanje automobila jedan od najvažnijih čimbenika koji će pridonijeti pojavi prometne marginaliziranosti, ipak različiti autori i prema tom kriteriju izdvajaju različite marginalizirane skupine stanovništva. Tako Kroen (2011.) navodi kako je J. Morris još 1981. godine izdvojio sljedeće prometno marginalizirane skupine ljudi: mlade, starije ljude, ljude s niskim novčanim primanjima i osobe s invaliditetom. U novije vrijeme mogu se istaknuti Hine i Mitchell (2001.) koji definiraju sljedeće prometno marginalizirane socijalne skupine: ljude s niskim novčanim primanjima, žene, starije ljude, osobe s invaliditetom i djecu.

Možemo primijetiti da svi autori kao prometno marginalizirane skupine ljudi smatraju djecu i mlade. Iako mladi obuhvaćaju populaciju od nula do 19 godina, nisu sve dobne skupine mladih jednako izložene problemu prometne marginaliziranosti. Srednjoškolci u dobi od 15 do 18 godina smatraju se najizloženijima. Mala djeca i osnovnoškolci nemaju ni približno toliku potrebu za kretanjem kao što to imaju srednjoškolci što je povezano s udaljenošću od škole, izvanškolskim aktivnostima i provođenjem slobodnog vremena (posebice večernjim izlascima) (Hopkins 2010.; Horton i dr., 2011.). Osnovnoškolci i vrtićka populacija posljedice prometne marginaliziranosti mogu osjećati u okviru sigurnosti u prometu i s njima povezanim prometnim nesrećama te zdravstvenim posljedicama, što se može očitovati u prekomjernoj težini djece zbog slabije fizičke aktivnosti odnosno čestog prevoženja automobilom od roditelja (Schoeppe i dr., 2013.).

Iako je nemogućnost upravljanja automobilom glavni čimbenik koji izdvaja mlade kao prometno marginaliziranu skupinu društva, svakako treba uzeti u obzir i druge čimbenike koji utječu na tu pojavu. Vrlo bitni čimbenici koji će utjecati na život mladih su već spomenuti parametri dostupnosti. Pri tome će posebnu važnost imati prostorni parametar te, u određenoj mjeri, i

particularly public transport. Pursuant to these facts, certain groups in a society can be identified that, for any given reason, do not have or have only very limited access to an automobile or the ability of driving an automobile, and are thus accordingly disadvantaged (Hine, Mitchell, 2003).

These reasons are primarily based on the inability to drive an automobile due to legal restrictions, physical inability, or situations in which a person is not able to afford an automobile. The fundamental consequence of this is dependence on other people for driving, and reduced accessibility to certain life activities. Though many authors would agree that the non-ownership of an automobile is one of the most important factors that will contribute to the appearance of a transport disadvantage, different authors tend to isolate different disadvantaged population groups based on that criterion. As such, Kroen (2011) stated that even in 1981, Morris had isolated the following transport disadvantaged groups of people: youth, the elderly, persons with low incomes and persons with disabilities. In more recent times, Hine and Mitchell (2001) defined the following transport disadvantaged social groups: persons with low income, women, the elderly, persons with disabilities and children.

It can be observed that all authors deem children and youth to be among the transport disadvantaged groups. Though youth comprise the population from 0 to 19 years, not all groups of youth are equally subjected to the issue of transport disadvantage. High school students from the age of 15 to 18 are considered most affected. Small children and primarily school children have a much lower need for mobility in comparison to high school students, which is associated with distance from school, extracurricular activities and leisure time (particularly evening outings) (Hopkins, 2010; Horton et al., 2011). The primary school and preschool populations can experience the consequences of transport disadvantage within the framework of transport security and associated traffic accidents, as well as health consequences. This can be seen in excessive body weight in children due to fewer physical activities and frequently being driven around by their parents (Schoeppe et al., 2013).

Though the inability to drive an automobile is the main factor that isolates youth as a transport disadvantaged group of society, other factors affecting this should also be considered. Very important factors that influence the lives of young people are the previously mentioned accessibility parameters. Particular significance is seen in the

vremenski parametar. Naime mladi koji žive daleko od gradskog središta, npr. na gradskoj periferiji, u gradskoj regiji odnosno u ruralnim prostorima, bit će u znatno nepovoljnijoj situaciji u odnosu na mlade koji žive bliže središtu grada. Uzevši u obzir potrebu oslanjanja na druge osobe radi prijevoza te, u pravilu, lošije razvijene mreže javnog prometa, mladi koji žive u tim prostorima najčešće će se susretati s problemom duljine odnosno vremena putovanja do određenih aktivnosti (Winter, 1994). Taj će problem zahvatiti ne samo mlade ljude koji žive u tim prostorima nego i osobe koje ih moraju prevoziti. U tom će segmentu mladi koji žive u ili bliže gradskom središtu biti u prednosti, unatoč tome što nisu u mogućnosti voziti automobil, no javni prijevoz je bolje razvijen u tim prostorima, a mogu koristiti i pješačenje ili biciklistički promet s obzirom na manje udaljenosti do točaka odvijanja željenih aktivnosti. Važan čimbenik predstavlja i frekvencija javnog prijevoza. U pravilu se broj polazaka smanjuje prema večernjim satima i u dane vikenda. Također autobusi imaju nižu frekvenciju polazaka od tramvajskog prometa što ponovno u povoljniji položaj stavlja mlade koji žive u središtu grada ili u zoni tramvajskog prometa.

Osim parametara dostupnosti, na prometnu marginaliziranost mladih utjecat će čimbenici koji utječu na prometnu marginaliziranost ostalih skupina ljudi. Važan čimbenik predstavlja imovinsko stanje obitelji. Imovinsko stanje svakako valja sagledati s aspekta međusobne ovisnosti s parametrima dostupnosti. Mladi koji žive u obitelji boljega imovinskog statusa lakše će podnositi troškove javnog prijevoza te ostale troškove koji nastaju kao posljedica prevoženja mladih od roditelja za potrebe izvanškolskih aktivnosti ili večernjih izlazaka odnosno korištenja taksija. U tom će segmentu mladi iz obitelji s lošijim imovinskim statusom biti dodatno prometno marginalizirani, posebice ako žive na gradskoj periferiji ili izvan grada.

Čimbenik spola posebno će doći do izražaja u segmentu osobne sigurnosti u prometu. Naime možemo pretpostaviti da će, po pitanju sigurnosti, djevojke imati više problema u javnom prijevozu od dječaka. Osjećaj straha bit će više izražen kod djevojaka posebno pri vožnji noćnim javnim prijevozom (Hine, Mitchell, 2003.; Currie, 2007.). U tom će dijelu svakodnevnog života djevojke biti u nepovoljnijem položaju u odnosu na dječake.

Mladi najčešće koriste prijevozna sredstva radi odlaska u školu (obrazovne potrebe), odlaska

spatial parameters and, to a certain extent, in time parameters. Namely, youth that live far from the town centre, i.e. at the town periphery, in the rural areas of the town region, will be in a significantly less favourable situation in relation to those young people living nearer the town centre. Considering the need to rely on others for transport and, as a rule, the less developed network of public transport, youth living in these areas most often face problems with the length of time it takes to travel to a certain activity (Winter, 1994). This problem affects not only young people living in these areas, but also the persons they rely on to drive them. In that segment, youth living in or near the city centre will be at an advantage, despite the fact that they are not able to drive, as public transport is better developed in those areas, and they can also walk or cycle due to the shorter distance to the desired activities. An important factor is also the frequency of public transportation. As a rule, the frequency of public transport decreases towards the evening hours and on the weekends. Buses also have a lower frequency than trams, which again places those young persons living in the city centre or in the tram zone in a more favourable position.

In addition to accessibility parameters, the transport disadvantage of youth will also be affected by the same factors affecting other groups of people. An important factor is the family financial status. The financial status should certainly be viewed from the aspect of mutual dependence on accessibility parameters. Youth living in families with a higher financial status will more easily bear the costs of public transport and other costs that arise as a consequence of parents driving their children around for extracurricular activities or evening outings, or the cost of taxis. In that segment, youth from families with a lower financial status will be further transport disadvantaged, particularly if they live at the city periphery or outside the city limits.

The factor of gender is particularly pronounced in the segment of personal safety in transport. Namely, it can be assumed that girls will experience greater issues regarding safety in public transport than boys. The feeling of fear will be more pronounced for girls, particularly when using public transport at night (Hine, Mitchell, 2003; Currie, 2007). In this segment of daily life, girls will certainly be in a less favourable position in comparison to boys.

The young are most often using some means of transport for going to school (educational

na neku izvanškolsku aktivnost (npr. trening sporta i slično) te izlazak i druženje s prijateljima (socijalna funkcija). U segmentu obrazovnih aktivnosti, s problemom dostupnosti pretežito će se susretati mladi koji žive na rubu grada ili u ruralnim prostorima. S obzirom na to da se obrazovne institucije uglavnom nalaze bliže gradskom središtu, problem može nastati zbog udaljenosti mjesta stanovanja od gradskog središta i s time povezanim vremenom putovanja, kao i s povećanim prijevoznim troškovima koje moraju podmirivati. Ti se problemi mogu reflektirati na lošiji školski uspjeh u odnosu na djecu koja žive u gradu, odnosno bliže gradskom središtu (Lin i dr., 2013.), kao i na niži udio mladih koji pohađaju srednjoškolsko obrazovanje (npr. u Ujedinjenom Kraljevstvu, vidi SEU, 2003.; za Australiju vidi Currie, 2007.). Isti problemi prisutni su i u segmentu slobodnog vremena i rekreacije. S najviše problema susrest će se mladi koji žive na rubu grada ili u ruralnim prostorima. Problemi će se očitovati u smanjenim mogućnostima provođenja slobodnog vremena i druženja s prijateljima, posebice u večernjim izlascima. Takvi će problemi imati izravan utjecaj na ograničenje socijalne interakcije. Problemi će se javiti i u segmentu nemogućnosti bavljenja nekom aktivnošću (npr. trening, tečajevi i slično). Razlozi prethodno navedenim problemima su, kao i kod obrazovnih aktivnosti, lošija usluga javnog prijevoza (posebice noću), podmirivanje prijevoznih troškova te udaljenost lokacije življenja od tih aktivnosti koje su često smještene bliže gradskim središtima (Seu, 2003.; Currie, 2007.).

Brojne su posljedice prometne marginaliziranosti. Osobe zahvaćene prometnom marginaliziranošću, u bilo kojem obliku, bit će u nepovoljnijem položaju u odnosu na prometno nemarginalizirane osobe. Taj nepovoljniji položaj reflektirat će se u određenim socioekonomskim posljedicama s kojima će se prometno marginalizirane osobe morati nositi. Socijalne posljedice uglavnom se odnose na prepreke ili isključenost spram sudjelovanja u nekim aktivnostima ili korištenja određenih usluga.

Mladi će posebno biti pogođeni ograničenjem sudjelovanja u obrazovnim aktivnostima. Naime mladi koji žive na gradskoj periferiji ili izvan grada, posebice u udaljenijim ruralnim prostorima, zbog veće udaljenosti koju moraju prijeći te slabije razvijenih prometnih usluga imat će manje mogućnosti za sudjelovanje u izvanškolskim aktivnostima, poput tečajeva stranih jezika ili nekih drugih izvanškolskih obrazovnih aktivnosti.

purposes), going to extracurricular activities (e.g. sports, etc.) and for going out with friends (social function). In the segment of educational activities, accessibility issues will primarily be faced by young people living at the city periphery or in rural areas. Considering that educational institutions are primarily found near the city centre, this problem can arise due to the distance between home and the town centre and with that associated increased travel time, and the increased transport costs involved. These problems can be reflected in poor academic results compared to children living in the city, or nearer to the city centre (LIN et al., 2013), and on the lower share of youth attending high schools (e.g. in the UK see SEU, 2003; for Australia see Currie, 2007). The same problems are also present in the segment of leisure time and recreation. The most difficult problems will be faced by the youth living at the city periphery or in rural areas. These problems mostly involve the reduced possibilities of ways to spend free time and socialising with friends, particularly in evening outings. Such problems can have a more direct influence on restricting social interactions. Furthermore, problems will arise in the segment of the inability to participate in certain activities (e.g. sports, courses, etc.). The reasons for the previously listed problems are, as in the case of educational activities, the poorer service of public transport (particularly at night), the cost of transport, and the distance from home to those activities, which are most often situated near the city centre (Seu, 2003; Currie, 2007).

There are numerous consequences of transport disadvantage. Persons affected by transport disadvantage (in any form) will be in a less favourable position in comparison to persons not so disadvantaged. This less favourable position is reflected in certain socioeconomic consequences that the transport disadvantaged person must bear. These primarily pertain to limitations or exclusion concerning participation in activities or the use of certain services.

Young persons are most affected by limitations to participate in educational activities. Namely, young people living at the city periphery or outside the city limits (particularly in remote rural areas) have fewer opportunities to participate in extracurricular activities, such as foreign language courses or other educational activities, due to the greater distance and poorer organisation of transport services. For that reason, these young people lose opportunities for additional education. The selection of a high school to attend also

Samim time, mladi mogu propustiti mogućnost za dodatnim mogućnostima obrazovanja. Odabir srednje škole koju treba pohađati također donekle ovisi i o razini prometnih usluga odnosno o udaljenosti od škole. U pojedinim državama uočava se razlika u postotku pohađanja srednje škole između mladih koji žive na rubu grada i mladih iz grada. Putovanje do škole i obrnuto utjecat će na raspoloživo vrijeme za učenje i slobodno vrijeme u smislu da će mladi koji žive daleko od škole imati manje vremena za učenje i posljedično manje slobodnog vremena od mladih koji troše malo vremena na put do i od škole. Valja istaknuti kako razina prometnih usluga na prostoru gdje žive i udaljenost utječu na odluku o nastavljanju visokoškolskog obrazovanja. Mladi iz urbanih područja češće će upisati fakultet od mladih iz ruralnih krajeva. Probleme s ograničenjem sudjelovanja u obrazovnim aktivnostima iskusit će i ostale prometno marginalizirane skupine ljude, posebice osobe s invaliditetom (Winter, 1994.; Currie, 2007.; Hurni, 2007.).

Osim ograničenja u sudjelovanju u obrazovnim aktivnostima, mladi će biti izloženi i problemu ograničenja pristupa aktivnostima slobodnog vremena (npr. rekreacija ili večernji izlasci). Nemogućnost upravljanja automobilom, pojačana s eventualnom lošijom razinom prometnih usluga te udaljenost prebivališta, utjecat će na ograničenje prilika za fizičkom aktivnošću i ostalim koristima koje donosi bavljenje rekreacijom. Ograničena mogućnost večernjih izlazaka, ali i odlaska u kino, kazalište ili muzeje negativno će utjecati na socijalne interakcije mladih odnosno na njihov cjelokupni društveni život. Pritom će veća ograničenja doživjeti osobe koje žive na gradskom rubu ili u ruralnim prostorima. Kao i kod problema ograničenja u sudjelovanju u obrazovnim aktivnostima, i ovdje će se čak i u većem obimu s istim problemima susresti i ostale prometno marginalizirane socijalne skupine (Winter, 1994.; Hurni 2006.).

Prethodna istraživanja

Unatoč današnjoj važnosti mobilnosti i dostupnosti, njihova uloga u prošlosti često je bila zanemarivana te se značajkama i posljedicama kretanja ljudi (i roba) u okviru društvenih znanosti (pa i geografije) nije posvećivala dovoljna pažnja. Posljednjih godina mobilnost i dostupnost postaju česta tema interdisciplinarnih istraživanja, naglašavajući pritom postojanje i

somewhat depends on the level of transport services and the distance from home to school. In some countries, there are differences in the percentages of high school attendees between youth living at the city periphery and youth living in the city. Travel to and from school impacts on the available time for learning and free time, in the sense that youth living far from school will have less time for studying and less free time than those young people who spend little time travelling to and from school. It should also be noted that the level of transport services in the area where they live, and distance to schools, affect the decision to continue higher education. Youth from urban areas are more likely to enrol in university than youth from rural regions. It is also necessary to emphasise that the problems concerning limited participation in educational activities will also be experienced by other transport disadvantaged groups, particularly the persons with disabilities (Winter, 1994; Currie, 2007; Hurni, 2007).

In addition to limitations to participation in educational activities, youth will be subjected to the problem of limited access to leisure time activities (e.g. recreation or evening outings). The inability to drive an automobile, increased with a poorer level of transport services and the distance from one's home, will limit the opportunities for physical activities and other benefits that recreational activities bring about. Furthermore, the limited opportunities for evening outings, and outings to the cinema, theatre or museums, will negatively impact on social interactions among young people, i.e. on their overall social life. Therefore, there are greater limitations faced by persons living at the city periphery or in rural areas. As with the problems of limitations to participate in educational activities, all other transport disadvantaged social groups will face the same issues concerning social problems, perhaps even to a larger extent (Winter, 1994; Hurni 2006).

Previous research

In spite of the high significance of mobility and accessibility, their role in the past was often neglected, and the properties and consequences of the movement of people (and goods) in the framework of social sciences (including geography) did not pay enough attention to this area. In recent years, mobility and accessibility have become very common topics in interdisciplinary research, emphasizing the existence and importance of the

važnost "paradigme mobilnosti" (Knowles i dr., 2008.). Važnosti mobilnosti i dostupnosti pridonijela je i upotreba kvalitativnih metoda znanstvenog istraživanja. Unatoč velikom utjecaju kvantitativnih metoda pri istraživanju prometne problematike još od vremena "kvantitativne revolucije" iz 60-ih i početka 70-ih godina 20. stoljeća, ta metodologija uzrokovala je i neke, uvjetno rečeno, pogrešne odluke u prometnom planiranju. Ne ulazeći u ono "specifično" i "subjektivno" kod mobilnosti i dostupnosti, na temelju agregiranih podataka i upotrebom kvantitativnih metoda, prometni planeri su pod utjecajem rastuće automobilizacije željeli povećati mobilnost ljudi. Posljedica toga bilo je poboljšanje mobilnosti i dostupnosti ljudi koji imaju pristup automobilu, a zanemarene su ostale skupine društva koje nemaju pristup automobilu, nemaju automobil ili ga ne mogu koristiti zbog zakonskih ograničenja. U mnogim gradovima u svijetu nastupila je izgradnja novih i obnova već postojećih cesta te, u isto vrijeme, pogoršavanje javnog prometa.

Upotreba kvalitativnih metoda, kao što su dnevnici putovanja, dubinski intervjui i fokus grupe, pridonijeli su jačanju svijesti o potrebi omogućavanja dostatne razine mobilnosti i dostupnosti za sve skupine društva. Pritom se težište stavlja na proučavanje prometne potražnje i jačanje prometne ponude u javnom prijevozu, pješačkom i biciklističkom prometu. U središte pozornosti stavlja se pojdinac odnosno subjekt, dok se fokus istraživanja pomiče s agregiranog i općenitog na specifično, pri čemu se žele ustanoviti osobni stavovi i problemi pojedinaca i pojedinih socijalnih skupina prema prometu (Hoyle, Knowles, 1998; Knowles i dr., 2008.).

Unatoč čestom izdvajanju mladih kao prometno marginalizirane skupine ljudi, ta problematika nije česta tema znanstvenih istraživanja. Relativno rijetki radovi proučavaju prometnu marginaliziranost mladih s različitih aspekata. Schaeffer i Sclar (1975.) bave se problematikom negativnih utjecaja na osobnu samostalnost i društveni razvoj zbog ovisnosti o osobama s vozačkom dozvolom u kontekstu njihova prevoženja u automobilu radi različitih aktivnosti (često i na roditeljsku inicijativu zbog njihove zabrinutosti za djetetovu sigurnost).

Hurni se u svojem radu iz 2006. bavi utjecajem neposjedovanja vozačke dozvole na pokretljivost i ovisnost mladih o stariijima. Brownlee i McDonald (1992.) bave se utjecajem mjesta stanovanja na

"mobility paradigm" (Knowles et al., 2008). The significance of mobility and accessibility is also related to the use of qualitative research methods. In spite of the great influence of quantitative methods on researching transport issues since the period of the "quantitative revolution" of the 1960s and early 1970s, this methodology has been a cause, so to say, for some erroneous decisions in transport planning. Without more detailed examination of 'specificity' and 'subjectivity' in mobility and accessibility, transport planners, who were under the influence of growing automobilisation, wanted to increase human mobility on the basis of aggregate data and the use of quantitative methods. The result was improved mobility and accessibility for those with access to automobiles, while other groups in a society without access to an automobile, without an automobile or unable to use one due to legal restrictions, were neglected. In many global cities, new roads were constructed and existing roads repaired while, at the same time, public transport stagnated.

The use of qualitative methods, such as travel diaries, in-depth interviews and focus groups, contributed to raising awareness of the need to provide a sufficient level of mobility and accessibility for all groups in a society. In doing so, the focus is placed on studying transport demand and strengthening transport supply in terms of public transport, pedestrian and cycling transport. The individual is placed in the centre of attention, while the focus of research is shifted from the aggregated and general to the specific, with the aim to obtain personal attitudes and problems of individuals and individual social groups in regards to transport (Hoyle, Knowles, 1998; Knowles et al., 2008).

Notwithstanding the fact that youth have been frequently singled out as a transport disadvantaged group of people, this issue has not been a common topic in scientific research. Few papers have examined the issue of transport disadvantage with youth, from various aspects. Schaeffer & Sclar (1975) addressed the issue of negative influence on personal independence and social development due to the dependence on persons with a driver's license, in the context of their transport in automobiles for various activities (often at the parents' initiative, because of their concern for their children's safety).

Hurni (2006) addressed the influence of not possessing a driver's licence on mobility and the dependence of youth on older persons. Brownlee & McDonald (1992) investigated the influence of

putovanje u školu te na provođenje slobodnog vremena. Mjestom stanovanja i njegovom ulogom u ograničavanju obrazovnih i socijalnih mogućnosti i prilika bavi se i Winnter (1994.) te Ridgewell i drugi (2005.). Kegerris (1993.) se bavio utjecajem automobila na smanjenje pokretljivosti mladih te utjecajem na intelektualni i psihološki razvoj. Morris (1981.) istražuje problematiku utjecaja prometa na socijalnu jednakost gradskog stanovništva Australije. Pritom istražuje u kojoj mjeri organiziranost javnoga gradskog prometa omogućuje socijalnu jednakost, s posebnim osvrtom na društvene skupine podložne kako socijalnoj tako i prometnoj marginaliziranosti. U tom je istraživanju uključio i mlade te je ustanovio da oni, uz ljude s niskim novčanim primanjima, ljude s invaliditetom i starije ljude često nailaze na problem dostupnosti i korištenja prometa. Iako je javni prijevoz omogućen, on ne mora nužno zadovoljavati prijevozne potrebe ljudi. Tako Hurni (2007.) ističe nepodudarnost između raširenosti mreže javnog prijevoza na prostoru zapadnog dijela Sydneyja i nezaposlenih mladih ljudi koji imaju problem s visokom cijenom prijevozne karte, osjećajem straha i nesigurnosti pri njegovu korištenju, probleme s frekvencijama prometovanja i slično.

Iako se prometna marginaliziranost pretežito proučava u kontekstu urbanih i suburbanih prostora, niz je istraživanja provedeno i u ruralnim prostorima. Utjecajem prometa na ograničenje pristupa obrazovanju u ruralnim krajevima bave se Burkhardt i dr. (1998.) te Fletcher i dr. (2010.), ističući pritom presudni značaj prometa kao glavnog čimbenika za nedostatan pristup obrazovnim mogućnostima i zapošljavanju. Iste teze potvrđuju i Rugg i Jones (1999.) ustvrdivši da je mladim ljudima iz ruralnih prostora potreban osobni prijevoz kako bi mogli ostvariti pristup zapošljavanju. Da je promet presudni čimbenik koji onemogućuje mladima iz ruralnih krajeva dostup obrazovnim prilikama, izvanškolskim aktivnostima, slobodnom vremenu i socijalnim interakcijama naglašavaju Cullinane i Stokes (1998.) te SEU (2003.). O prometnim problemima u ruralnim prostorima pišu i Schaeffer i Sclar (1975.) koji fenomenu pristupaju s aspekta međuodnosa slabije ponude prometnih usluga te potrebe mladih za oslanjanjem na druge radi prijevoza (uglavnom na roditelje).

Sveobuhvatnu studiju o problemima s kojima se susreću mladi zbog prometa izradio je Currie (2007.). Pritom se bavio problemom mladih i njihove rastuće želje za neovisnošću te nedostatka prometnih mogućnosti kojima bi tu želju zadovoljili.

the place of residence on travels to school and on how children spend their free time. The place of residence and its role in restricting educational and social opportunities was addressed by Winter (1994) and Ridgewell et al. (2005). Kegerris (1993) considered the influence of the automobile on reducing mobility of youth and the impacts on their intellectual and psychological development. Morris (1981) researched the issue of how transport affected social equality of the urban population in Australia. The author examined the extent to which the organisation of city public transport enables social equality, with an emphasis on social groups inclined to be at a social and transport disadvantage. That study also included youth, and it was established that this group, alongside those with low earnings, the disabled and elderly, often face issues of accessibility and use of transport. Hurni (2007) stressed the lack of correlation between the distribution of the public transport network in the western part of the city of Sydney and unemployed youth who face problems such as the high price of transport, feelings of fear and insecurity while using transport, the issue of transport frequency, and others.

Though transport disadvantage has been primarily examined in the context of urban and suburban areas, a number of studies have also been carried out in rural areas. The influence of transport on limiting access to education in rural areas was carried out by Burkhardt et al. (1998) and Fletcher et al. (2010), who stressed the critical influence of transport as the main factor for the lack of access to educational and employment opportunities. The same hypothesis was confirmed by Rugg & Jones (1999), who stated that young people from rural areas require personal transport in order to achieve access to employment. Transport was highlighted as a key factor that disables the youth from rural areas in having access to educational opportunities, extracurricular activities, free time and social interactions by Cullinane & Stokes (1998) and SEU (2003). Schaeffer & Sclar (1975) addressed the transport issues in rural areas: they approached the topic from the perspective of the relationship between poor transport service offer and the need for young people to rely on others for transport (primarily their parents).

A comprehensive study on the transport issues faced by youth was conducted by Currie (2007). This study addressed the issues of youth and their growing desire for independence and the lack of transport options that would allow them to meet this desire. They stressed that the problems

U okviru toga ističe kako se s problemom pristupa obrazovnim aktivnostima, mogućnostima zapošljavanja, aktivnostima vezanim sa slobodno vrijeme i socijalnim interakcijama najteže nose mladi koji žive na rubu grada, odnosno u široj gradskoj regiji te u ruralnim prostorima.

U hrvatskoj znanstvenoj bibliografiji problematika prometne marginaliziranosti do sada nije obrađivana. Pregledom relevantne znanstvene i stručne literature uočava se kako je utjecaj prometa na život mladih obrađivan isključivo s aspekta sigurnosti u prometu, ali ne u kontekstu prometne marginaliziranosti. Tek se rijetki radovi posredno dotiču prometne marginaliziranosti. Tako Šakaja i Višnić (2011.) istražuju kako mladi percipiraju Karlovac kao dnevni okoliš, spominjući pritom problem nedostatka adekvatne prometne infrastrukture i javnog prijevoza što se održava na poteškoće tijekom provođenja slobodnog vremena. Spevec (2011.) razmatra promet (odnosno dostupnost i prometnu povezanost) kao čimbenik koji utječe na procese migracije i cirkulacije stanovništva sjeverozapadnog dijela Republike Hrvatske. Osim toga, u "Nacionalnom programu za mlade" (2009.) promet se navodi kao jedan od čimbenika zbog kojih mladi ne završavaju školu ili ne upisuju srednju školu. Također, u dokumentu UNDP-a (2006.) promet se navodi kao čimbenik koji može utjecati na socijalnu isključenost nacionalnih manjina i osoba s tjelesnim oštećenjima.

Metodologija istraživanja

Pri izradi ovoga rada korištena je metodologija karakteristična za istraživanje problematike prometne marginaliziranosti. Kako bi se ispitali stavovi srednjoškolaca o problemima u prometu s kojima se svakodnevno ili povremeno susreću, korištene su metode anketnog istraživanja i intervjuiranja.

Metoda anketiranja korištena je kako bi se prikupili stavovi i mišljenja srednjoškolaca o problemima prometne marginaliziranosti i njezina utjecaja na njihov svakodnevni život. S obzirom na složenost anketnog upitnika, kvalitetu provođenja anketiranja te potrebu da anketno ispitivanje bude provedeno u što kraćem roku kako bi prometni uvjeti u Gradu Zagrebu bili što sličniji, kao metoda uzorkovanja korišten je prigodni uzorak. Anketno ispitivanje provedeno je u sedam srednjih škola u Zagrebu (X. gimnaziji, XI. gimnaziji,

of access to educational activities, possibilities of employment, leisure time activities and social interactions were most difficult for the youth living at the city periphery, or in the broader urban area, and in rural areas.

In the Croatian scientific literature, the issue of transport disadvantage has not been previously addressed. A review of the relevant scientific and expert literature shows that the influence of transport on the lives of young people has been examined exclusively in the context of traffic safety, but not from the perspective of transport disadvantage. Only a few papers have directly touched upon the issue of transport disadvantage. Šakaja & Višnić (2011) examined how the youth perceive the city of Karlovac as a daytime environment, mentioning the lack of adequate transport infrastructure and public transport, which hinders quality leisure time. Spevec (2011) considered transport (i.e. accessibility and transport connections) as a factor that influences the processes of migration and circulation of the population in the North-western Croatia. Furthermore, the National Youth Programme (2009) has listed transport as one of the factors that causes youth to leave school earlier and completing it, or to not enrol in high school. Furthermore, the UNDP (2006) has listed transport as a factor that can influence social exclusion of national minorities and persons with physical disabilities.

Research methodology

In this study, the methodology was used that is characteristic of researching the issue of transport disadvantage. A survey and interview methods were used in order to examine the attitudes of high school students about the issues of transport that they face daily or occasionally.

The survey method was employed to compile the opinions of high school students on the issues of transport disadvantage and its influence on their daily lives. Considering the complexity of the survey questionnaire, the quality of conducting the survey and the need for the survey to be carried out in the shortest possible time so that the transport conditions in the City of Zagreb would be as similar as possible, convenience sampling was selected as a method of sampling. The survey was conducted in seven high schools in the City of Zagreb (10th Grammar School, 11th Grammar School, 18th Grammar School, 1st School of Economics, The

XVIII. gimnaziji, I. ekonomskoj školi, Srednjoj školi "Tesla", Školi za medicinske sestre Vrapče i Hotelijersko-turističkoj školi). Izbor škola u kojima će biti izvršeno anketiranje obavljen je po načelu heterogenosti učenika s obzirom na njihovo mjesto stanovanja kako bi se dobili što raznolikiji podaci. Ukupno je anketirano 1053 učenika, što čini nešto više od 3% ukupne srednjoškolske populacije Grada Zagreba (30 970 učenika[4]). Anketno istraživanje u 44 razreda provedeno je od 2. travnja do 12. travnja 2013. (devet radnih dana), dok je anketno ispitivanje u preostala dva razreda provedeno 19. travnja 2013. (zbog organizacije). Nakon obrade anketnih upitnika ostalo je 826 učenika, s obzirom na to da su u obzir uzeti samo učenici koji imaju prebivalište na prostoru Grada Zagreba (151 učenik nije bio s teritorija Grada Zagreba), 68 anketa je bilo nevažećih, a osam učenika ima vozačku dozvolu pa samim time ne pripadaju istraživanoj skupini prometno marginaliziranih srednjoškolaca. S obzirom na sastav prema spolu, u anketi je sudjelovalo 429 (51,9%) učenica i 397 (48,1%) učenika. S obzirom na razred koji pohađaju, u anketnom ispitivanju sudjelovalo je po 186 učenika (22,5%) prvog i četvrtog razreda, 220 (26,6%) učenika drugog razreda i 234 (28,3%) učenika trećeg razreda.

Anketni upitnik sastojao se od ukupno 46 pitanja podijeljenih u tri skupine. Prva skupina pitanja obuhvaća pitanja vezana uz opće podatke o sudioniku anketnog ispitivanja. Druga skupina odnosi se na ispitivanje fizičke mobilnosti i dostupnosti aktivnostima. U toj skupini pitanja učenici su ispitivani o stavovima i mišljenjima spram dostupnosti školskim i izvanškolskim aktivnostima te večernjim izlascima, kao i o problemima s kojima se eventualno susreću pri dostupnosti tim aktivnostima.[5] Učenici su iznosili i podatke o načinu pristupa tim aktivnostima te vremenskoj udaljenosti do tih aktivnosti. U toj skupini pitanja učenici su iznosili i stavove o 25 prometnih problema (17 iz područja fizičke mobilnosti i osam iz područja virtualne mobilnosti) i to na načelu Likertove skale, ocjenjujući svaki prometni problem ocjenama

[4] Prema podacima Gradskog ureda za obrazovanje, kulturu i sport Grada Zagreba.

[5] Ovo istraživanje dio je istraživanja u sklopu doktorske disertacije "Utjecaj prometne marginaliziranosti na svakodnevni život srednjoškolske populacije Grada Zagreba" pri čemu je ovdje interpretiran samo dio rezultata korištenjem metode vlastite procjene koja do sada nije korištena u hrvatskoj prometno-geografskoj literaturi.

Tesla High School, Vrapče High School for Nurses and the Hotel-Tourism High School). The selection of schools in which the survey would be conducted was done on the principle of heterogeneity of students with regard to their place of residence, in order to obtain diverse results. A total of 1053 students were surveyed, which is just over 3% of the total high school population in the City of Zagreb (30,970 students[4]). The survey was conducted in 44 classrooms in the period from 2 to 12 April 2013 (9 working days), while in the remaining two classes it was conducted on 19 April 2013 (for organisational reasons). After the processing of the questionnaire, 826 students remained, considering that only those students with permanent residence within the boundaries of the City of Zagreb could be included (151 students had residence outside the city limits), 68 questionnaires were invalid, and 8 students possessed a driver's licence and therefore did not belong to the survey group of transport disadvantaged high school students. Regarding the gender ratio in the survey, there were 429 females (51.9%) and 397 males (48.1%). With regard to the school level the surveyed students were enrolled in, 186 students (22.5%) were in the first year of high school, 220 (26.6%) in the second year, 234 (28.3%) in the third year, and 186 (22.5%) in the fourth year.

The questionnaire consisted of a total of 46 questions divided into three groups. The first group of questions included the questions related to general information about the students. The second group of questions were related to examining the physical mobility and access to activities. Within these questions, the students were asked about their attitudes and opinions relating to the access to school activities, to extracurricular activities and evening outings, as well as on problems they might face in regards to the access to these activities.[5] Furthermore, students also provided data on how they access these activities, and the length of time it takes to reach these activities. Within these questions, students were asked to give their opinions about 25 transport issues (17 pertaining to physical mobility, 8 to virtual mobility), according to the Likert scale, in which each transport issue was assessed from 1

[4] According to the data of the City office for Education, Culture and Sport of the City of Zagreb.

[5] This research is part of the study conducted in the doctoral dissertation "Impact of transport disadvantage on everyday life of high school population of the City of Zagreb", in which only a portion of the results are interpreted here, based on a self-reported measures, which has not previously been used in the Croatian transport-geographic literature.

od 1 do 5. Te su prometne probleme ocjenjivali iz perspektive njegove važnosti za samog učenika (ocjena 1 – nema važnosti/vrlo slaba važnost; ocjena 5 – vrlo značajna važnost) te iz perspektive iskustva odnosno stupnja poteškoće s kojim rješavaju pojedini prometni problem (ocjena 1 – vrlo lako; ocjena 5 – vrlo teško). Treću skupinu pitanja činila su pitanja o stavovima i mišljenjima o utjecaju virtualne mobilnosti na svakodnevni život učenika. Pritom su pitanja bila usmjerena na oblike i načine korištenja mobilne i internetske tehnologije, korištenje društvenih mreža te probleme s kojima se eventualno susreću pri korištenju navedenih tehnologija. Radi boljeg uvida u međuodnos utjecaja interneta i mobilne tehnologije te socijalnih interakcija, pitanja su bila usmjerena i na ispitivanje broja dobrih prijatelja, kao i na komunikaciju (virtualnu i fizičku) s njima.

Kako bi se dobili dubinski podaci[6] o problemima s prometnom marginaliziranošću kod srednjoškolske populacije, istraživanje je uključivalo i provođenje ispitivanja putem fokus grupa[7]. Istraživanja na temelju fokus grupe provedena su 16. i 17. prosinca 2013. u XVIII. gimnaziji i 22., 23., 24. i 27. siječnja 2014. u X. gimnaziji. Škole u kojima su odabrani učenici koji su sudjelovali u fokus grupama odabrane su, kao i kod anketnog upitnika, na temelju heterogenosti učenika. Učenici su u svakoj školi bili podijeljeni u četiri skupine prema starosti i spolu. Tako su I. grupu činile učenice 1. i 2. razreda, II. grupu učenici 1. i 2. razreda, III. grupu učenice 3. i 4. razreda i IV. grupu učenici 3. i 4. razreda. U svakoj skupini izražena je dihotomija učenika s obzirom na njihovo mjesto stanovanja (pola učenika koji živi bliže središtu grada i pola učenika koji živi bliže periferiji grada). Teme su bile podijeljene u dvije skupine. Prva skupina obuhvaćala je ispitivanje fizičke mobilnosti i dostupnosti aktivnostima. U tom segmentu učenici su ispitivani o stavovima i mišljenjima spram problema s kojima se eventualno susreću u dostupnosti školskim i izvanškolskim aktivnostima te večernjim izlascima. Drugu skupinu pitanja činila su pitanja usmjerena na oblike i način korištenja mobilne i internetske tehnologije. Pritom su

[6] Milas, 2005.

[7] Istraživanje putem fokus grupa jedno je od oblika intervjuiranja. Intervjuiranje je kvalitativni oblik istraživanja, a odnosi se na razgovor kojim se nastoje prikupiti određeni podaci i informacije, često i u znanstvene svrhe. Provođenje fokus grupa označava intervjuiranje više ispitanika odjeddanput kako bi se dobili podaci o željenoj problematici (Zelenika, 2000.).

to 5. These transport issues were assessed from the perspective of their importance for the student (on the scale: 1 – no importance/very little importance; 5 – very high importance), and from the perspective of experiences of the degree of difficulty required to overcome certain transport issues (scale: 1 – very easy, 5 – very difficult). The third group of questions were made up of questions regarding the attitudes and opinions on the influence of virtual mobility on the students' daily life. These questions were related to the form and manner of using mobile and internet technology, the use of social networking and the problems the students face in using these technologies. In order to get a better insight into the relationships of the internet and mobile technology, with social interactions, the questions were also directed at an examination of the numbers of good friends, and at communication with these friends (i.e. virtual and physical).

In order to obtain more in-depth information[6] on the issues with transport disadvantage in the high school population, the research also included an examination using a focus group method.[7] The focus group was conducted on 16–17 December 2013 at the 18th Grammar School and on 22–24 January and 27 January 2014 at the 10th Grammar School. The schools in which the selected students participated in focus groups were chosen on the basis of student heterogeneity, similarly to the survey part. Students in each school were divided into four groups based on their age and gender. Group I included female students of the 1st and 2nd grades, Group II male students of the 1st and 2nd grades, Group III female students of the 3rd and 4th grades, and Group IV male students of the 3rd and 4th grades. Within each group, there was an evident dichotomy among the students with regard to their place of residence (e.g. half of the students lived near the city centre and half lived nearer to the city periphery). The topics were divided into two groups. The first group included an examination of physical mobility and access to activities. In that segment, students were asked about their attitudes and opinions on the issues that they might meet concerning the access to school and extracurricular activities, and evening outings. The second set of

[6] Milas, 2005

[7] Focus group research is a form of interviewing. Interviewing is a type of qualitative research, in which the participants' answers are used to collect certain data and information, often for scientific purposes. Conducting focus groups means interviewing multiple subjects simultaneously so as to obtain data on the topic (Zelenika, 2000).

učenici ispitivani o stavovima i mišljenjima u vezi s problemima s kojima se eventualno susreću pri korištenju navedenih tehnologija, kao i o utjecaju tih tehnologija na njihov svakodnevni život (posebice na socijalnu interakciju). U fokus grupama sudjelovalo je 37 (51,4%) učenica i 35 (48,6%) učenika.

Podaci prikupljeni anketiranjem obrađeni su korištenjem programa SPSS Statistics 20.0 primjenom različitih statističkih metoda.

U ovom radu korišteni su dijelovi anketnog upitnika i intervju provedenog u fokus grupama koji su se odnosili na evaluaciju prometnih problema i poteškoća s kojima se učenici susreću prigodom njihova rješavanja.

Za razliku od puno češće korištenih objektivnih pokazatelja, istraživanje subjektivnih činitelja omogućuje dublje istraživanje problematike prometne marginaliziranosti. Posebice se to odnosi na bolje razumijevanje problema s kojima se pojedinci ili socijalne grupe susreću u prometnoj marginaliziranosti. Kako bi se ti problemi bolje apsolvirali, jedna od metoda istraživanja je i metoda vlastite procjene (prometnih problema). Ta se vrsta istraživanja može pronaći u istraživanjima problematike prometne marginaliziranosti. Tako se npr. u izvješću SEU može pronaći niz različitih prometnih problema i njihovih posljedica na svakodnevni život ljudi koje su u subjektivnoj skupini pokazatelja definirali mladi, hendikepirani ili oni koji ne posjeduju automobil (SEU, 2003.).

Subjektivno određivanje prometne marginaliziranosti

Prigodom razmatranja problematike prometne marginaliziranosti osobito je važno utvrditi prometne potrebe istraživane skupine ljudi. Istraživanja su pokazala kako su osobni čimbenici koji utječu na ostvarivanje nekog putovanja međusobno povezani s parametrima dostupnosti koji utječu na prometnu marginaliziranost (pritom se posebice ističu prostorni i vremenski parametar) (Hine, Mitchell, 2001.; Hurni, 2007.).

Prometne potrebe mogu se definirati s dva aspekta. Jedan se odnosi na putničke potrebe srednjoškolaca kao i na modus prijevoza koji se koriste pri zadovoljavanju tih potreba (Tab. 1.). U istraživanju prometne marginaliziranosti putničke potrebe srednjoškolaca razmatrat će se u segmentima u kojima su te potrebe izrazito

questions addressed the form and manner of using mobile and internet technology. The students were asked about their attitude and opinions on issues they might face when using this technology, and the influence of this technology on their daily life (particularly on social interactions). The focus groups included the participation of 37 female students (51.4%) and 35 male students (48.6%).

The data collected in the survey were processed using the SPSS Statistics 20.0 software package, applying a variety of statistical models.

This paper is based on the parts of the survey questionnaire and the interviews conducted in the focus group pertaining to the evaluation of transport issues and difficulties that students face to resolve these issues.

Unlike the more commonly used objective indicators, the research of subjective factors enables a researcher to obtain a deeper look into the issue of transport disadvantage. In particular, this relates to better understanding of the issues that individuals or social groups face when being at a transport disadvantage. In order to better understand these issues, one of the research methods employed was a self-reported measure (for transport issues). This type of research can be found in research on transport disadvantage. For example, the SEU report (2003) has outlined a number of different transport problems and their consequences for the daily life of people, that were defined within the framework of subjective group of indicators by young, disabled or those who are not in possession of an automobile.

Subjective determination of transport disadvantage

In considering the issues of transport disadvantage, it is particularly important to determine the transport needs of the investigated group of people. Research has shown that personal factors influencing the realisation of travel are mutually associated with the parameters of accessibility that impact on transport disadvantage (in particularly, this pertains to the spatial and temporal parameters) (Hine, Mitchell, 2001; Hurni, 2007).

Transport needs can be defined from two perspectives. The first relates to the travel needs of high school students and the mode of transport used to satisfy those needs (Tab. 1). Within the frame of research on transport disadvantage,

Tablica 1. Putničke potrebe srednjoškolske populacije Grada Zagreba
Table 1 Travel needs of high school population in the City of Zagreb

	Škola	Izvanškolske aktivnosti	Večernji izlasci	
			Dolazak	Povratak
	School	Extracurricular activities	Evening outings	
			Going out	Returning home
Pješke, biciklom, rolama, skateboardom, romobilom... *On foot, by bicycle, rollerblades, skateboard, etc.*	71 8,6%	123 32,4%	27 3,8%	33 4,6%
Taksijem zbog udobnosti i jednostavnosti *Taxi due to comfort and simplicity*	- -	1 0,3%	69 9,7%	117 16,4%
Autom, iako imam mogućnost javnog gradskog prijevoza, ali me vozi netko drugi *Vehicle, though I have the possibility of using public transport, but someone else drives me*	4 0,5%	33 8,7%	86 12,0%	93 13,0%
Javnim gradskim prijevozom *Public transport*	750 90,8%	222 58,4%	513 71,8%	261 36,6%
Autom ili taksijem jer nemam mogućnosti javnim gradskim prijevozom *Vehicle or taxi because I have no possibility of using public transport*	- -	1 0,3%	19 2,7%	208 29,1%
Na neki drugi način *Some other way*	1 0,1%	- -	- -	2 0,3%
	N = 826	N = 380	N = 714	N = 714

Izvor: anketno istraživanje, 2013.
Source: Survey, 2013

izražene: školske aktivnosti i slobodno vrijeme (izvanškolske aktivnosti i večernji izlasci). Drugi aspekt se odnosi na prijevozne potrebe ljudi odnosno na njihova prijevozna iskustva u kontekstu problema s mobilnošću i dostupnošću (tj. s prometnom marginaliziranošću) s kojima se mladi susreću.

Način dolaska u i odlaska iz škole izravno će ovisiti o udaljenosti doma od škole. Učenici će u školu ići pješke (ili npr. biciklom) ako žive nešto bliže školi, dok će javni gradski prijevoz koristiti ako stanuju na većoj udaljenosti od škole. U Gradu Zagrebu su to tramvaj, autobus i vlak.

Situacija pri korištenju oblika prijevoza za pohađanje izvanškolskih aktivnosti relativno je slična situaciji kod školskih aktivnosti. Učenici kojima su izvanškolske aktivnosti bliže njihovu mjestu stanovanja do njih će dolaziti pješke (ili biciklom, rolama, skateboardom...). I u ovom slučaju prednjači korištenje javnoga gradskog prijevoza, iako ne u tolikoj mjeri kao u slučaju

the travel needs of high school students will be considered in those segments in which these needs are most pronounced: school activities and leisure time (extracurricular activity and evening outings). The second aspect pertains to the transport needs of people or to their transport experiences in the context of problems with mobility and accessibility (i.e. with transport disadvantage) that young people face.

The manner of going to and returning from school will directly depend on the distance of the student's residence from the school. Students living near the school will travel on foot (or by bicycle) while those living farther from the school will use public transport. In the City of Zagreb, public transport includes trams, buses and trains.

The situation concerning the means of transport used for attending extracurricular activities is relatively similar to those attending school activities. Students attending activities near their home primarily go on foot (or by bicycle,

pohađanja škole. Za razliku od pristupa školskim aktivnostima, prigodom pohađanja izvanškolskih aktivnosti učenici u nešto većoj mjeri koriste prijevoz automobilom kada ih netko vozi, iako imaju mogućnost javnoga gradskog prijevoza. Najčešće su to roditelji koji vožnjom automobila omogućuju djeci nešto brži dolazak na izvanškolske aktivnosti u odnosu na javni gradski prijevoz.

Kao i u slučaju školskih i izvanškolskih aktivnosti, i kod večernjih izlazaka će učenici koji žive bliže mjestu izlaska do njega dolaziti pješke. Učenici koji žive dalje od mjesta njihova večernjeg izlaska koristit će ponajviše javni gradski prijevoz. Za razliku od školskih i izvanškolskih aktivnosti, u slučaju putovanja na mjesto večernjeg izlaska u nešto znatnijoj mjeri koristi se i taksi (i to u svrhu udobnosti, jednostavnosti korištenja te brzine putovanja, iako kod takvih učenika postoji i mogućnost korištenja javnoga gradskog prijevoza). Osim taksija, korištenje prijevoza automobilom od roditelja ili neke druge osobe također je veće nego u slučaju školskih i izvanškolskih aktivnosti. U nešto manjoj mjeri učenici koriste i automobilski prijevoz od roditelja ili neke druge osobe ili taksi prijevoz, i to u slučaju da nemaju odgovarajuću mogućnost korištenja javnoga gradskog prijevoza (predaleko je, neodgovarajuća frekvencija i slično). Putničke potrebe srednjoškolaca na povratku kući s mjesta večernjeg izlaska u određenoj će se mjeri razlikovati od putničkih potreba koje srednjoškolci imaju prigodom dolaska na to mjesto. Iako će učenici koristiti iste oblike prijevoza, potreba za određenim oblicima bit će nešto drukčija. Učenici koji su pješke dolazili do mjesta večernjeg izlaska u gotovo istoj će se mjeri i vraćati kući s obzirom na prihvatljivu udaljenost za pješačenje. Najveća se promjena događa kod korištenja javnoga gradskog prijevoza gdje su zbog noćnog režima njegova funkcioniranja učenici u većoj mjeri prisiljeni koristiti druge oblike prometa. Stoga se znatno povećava korištenje automobila ili taksija (u slučaju kada je noćni javni gradski prijevoz neodgovarajući za korištenje jer je predaleko od mjesta stanovanja učenika ili ga uopće nema u njihovoj široj okolici) te taksija radi udobnosti i jednostavnosti (iako učenici imaju mogućnost korištenja noćnoga javnog gradskog prijevoza). Zbog noćnog režima rada javnoga gradskog prijevoza, neki se učenici odlučuju i na pješačenje stoga je maksimalno vrijeme pješačenja nešto veće u odnosu na dolazak na mjesto večernjeg izlaska. Dio učenika i dalje koristi mogućnost prijevoza automobilom od roditelja ili neke druge osobe,

rollerblades, skateboard, etc.). In this case, the use of public transport is predominant, although to a lesser extent than for attending school. Unlike the access to school activities, for attending extracurricular activities students use automobile transport to a greater extent, i.e. somebody drives them, though they have the possibility of using public transport. Most often, these are parents who drive their children to enable them to return home from extracurricular activities faster in comparison to public transport.

As in the case of school and extracurricular activities, the students living near the venue for evening outings go on foot. The students who live farther from the outing venue most often use public transport. Unlike the school and extracurricular activities, in the case of travelling to the venue for an evening outing, taxis are used to a greater extent (for the purpose of comfort, simplicity and speed of transport, even though these students also have the possibility of using public transport). Apart from taxis, the use of automobile transport, i.e. being driven by parents or someone else, is also higher than in the case of school and extracurricular activities. To a lesser extent, the students use automobile transport, i.e. are driven by parents or someone else, or use taxi transport, in the case where they do not have an adequate possibility to use public transport (due to the distance, inadequate travel frequency, etc.). The travel needs of high school students for the return home after an evening outing differ somewhat from their needs when going out. Though the students use the same forms of transport, the need for certain forms varies. The students who go out on foot in the evening return home the same way in virtually the same ratio, given the acceptable walking distance. The major changes are observed in the use of public transport, due to the night-time regime, the students are more often forced to use other forms of transport. Therefore, the use of automobiles or taxis increases significantly (in the case when the night-time public transport is inadequate for use as it is too far from the student's place of residence or not present in their wider areas) and taxies due to simplicity (even though the students have the possibility of using night-time public transport). Due to the sparser night-time schedule of public transport, some students decide to walk home, and therefore, the maximum walking time is somewhat higher in comparison to that of going out for the evening. A share of students still uses the possibility of automobile transport, i.e. they are driven by parents or

iako imaju mogućnost korištenja noćnoga javnog gradskog prijevoza.

Kako bi se dublje istražila problematika utjecaja prometne marginaliziranosti na život srednjoškolskih učenika Grada Zagreba, primijenjena je metoda vlastite procjene (prometnih problema). U okviru toga određeno je 17 prometnih problema za koje je procijenjeno da bi mogli imati utjecaj na svakodnevni život učenika. Ti su prometni problemi određeni na temelju proučavanja relevantne inozemne znanstvene literature i sličnih znanstvenih istraživanja (npr. Seu, 2003.; Currie, Delbosc, 2010.; Currie, Delbosc, 2011a; Delbosc, Currie, 2011a; Delbosc, Currie, 2011b). Definirani prometni problemi artikulirani su u segmentima javnog gradskog prijevoza, pješačkog (i biciklističkog) prometa, taksi prijevoza i osobnog prijevoza kako slijedi:

a) podmirivanje prometnih troškova (npr. cijena prijevozne karte, cijena goriva, cijena taksija…),
b) brzi dolazak na odredište,
c) izbor mogućnosti prijevoza,
d) mogućnost putovanja kad god želite,
e) potreba oslanjanja na druge radi prijevoza,
f) gužva u prometu,
g) prilagođenost vozila javnoga gradskog prijevoza lakšem ulasku/izlasku (npr. niskopodni tramvaji),
h) noćni javni gradski prijevoz,
i) javni gradski prijevoz vikendom,
j) česte linije javnoga gradskog prijevoza,
k) mogućnost dobivanja informacija na stanicama o prometovanju javnoga gradskog prijevoza (displeji),
l) mogućnost dobivanja informacija u vozilima javnoga gradskog prijevoza (npr. naziv stanice...),
m) sigurnost u dnevnom javnom gradskom prijevozu,
n) sigurnost u noćnom javnom gradskom prijevozu,
o) sigurnost u pješačkom ili biciklističkom prometu,
p) gradska prometna infrastruktura (semafori, nogostupi, biciklističke staze...),
r) odnos drugih sudionika u prometu prema vama.

someone else, though they have the possibility of using night-time public transport.

In order to examine in more detail the issues of the influence of transport disadvantage on the life of high school students in the City of Zagreb, the method of self-reported measure was applied (transport issues). In this process, 17 transport issues were assessed to have a possible impact on the daily life of students. These transport issues were determined on the basis of relevant scientific literature in the world and similar studies (e.g. Seu, 2003; Currie, Delbosc, 2010; Currie, Delbosc, 2011a; Delbosc, Currie, 2011a; Delbosc, Currie, 2011b). The transport issues were determined within the frame of the segment of public transport, pedestrian (and cycling) transport, taxi transport and personal transport, as follows:

a) Covering transportation costs (e.g. public transport costs, fuel costs, taxi costs, etc.);
b) Reaching the destination quickly;
c) Choice of various transport modes;
d) Ability to travel whenever you want to;
e) Relying on others for transport;
f) Traffic congestions;
g) Vehicle adapted for easy entrance/exit (i.e. low-floor trams);
h) Public transport at night;
i) Public transport at weekends;
j) High frequency of public transport;
k) Availability of information about transportation at public transport stations (digital displays);
l) Being able to get information on public transport vehicles (i.e. name of station);
m) Safety in the daily public transport;
n) Safety in public transport at night;
o) Safety in pedestrian or bicycle traffic;
p) Urban transport infrastructure (traffic lights, sidewalks, cycling trails, etc.), and
r) Relationship with other participants in transportation system.

Podmirivanje prometnih troškova (npr. cijena prijevozne karte, cijena goriva, cijena taxija…) kao prometni problem izravno je vezan za mogućnost putovanja pojedinca. Pristupanje određenoj aktivnosti i njezino kvalitetno obavljanje ovisit će o brzini dolaska na odredište. Brzi dolazak na odredište omogućit će manji gubitak vremena u prometu te bolje iskorišteno vrijeme za obavljanje ostalih predviđenih aktivnosti. Dostup do određenih aktivnosti izravno će ovisiti i o različitim oblicima prijevoza koji su pojedincu omogućeni. Naime, ako pojedinac ima više oblika prijevoza na izbor, svakako će odabrati sebi najefikasniji odnosno najpovoljniji u tom trenutku. S time je usko povezan i problem želje za putovanjem. Mobilnost kao osnovna ljudska aktivnost i potreba označava i želju za kretanjem. Ograničavanje potrebe odnosno želje za putovanjem označit će i ograničenje pristupa željenim aktivnostima. Kod mladih ljudi, a posebice kod srednjoškolaca, posebno je izražena želja za mobilnošću. No zbog nemogućnosti upravljanja automobilom njihova je mobilnost u određenoj mjeri ograničena. Samim time, srednjoškolski učenici imaju potrebu oslanjati se na druge radi prijevoza. Taj je problem posebice izražen pri večernjim izlascima, o čemu će više riječi biti u nastavku. Gužva u prometu gotovo je nepresušna tema kada se govori o gradskom prometu. Česti zastoji i zagušenja izravno će utjecati na pristup određenim aktivnostima. Osobe s invaliditetom (a katkad i ljudi bez razvojnih poteškoća) imaju problema s korištenjem javnoga gradskog prijevoza. Posebice se ti problemi odnose na ulazak u vozilo i izlazak iz vozila. Danas se takvi problemi pokušavaju ublažiti uvođenjem tzv. niskopodnih oblika javnoga gradskog prijevoza u promet. Pritom valja i kod osoba koje nisu hendikepirane razvijati svijest o potrebi olakšavanja korištenja različitih oblika prometa osobama s invaliditetom. Noćni javni gradski prijevoz obično je posebno organiziran u smislu izmijenjenih trasa ili frekvencija odvijanja. Slični problemi postoje i kod javnoga gradskog prijevoza vikendom. Radnim danima obično su frekvencije polazaka pojedinih oblika javnoga gradskog prijevoza znatno češće u odnosu na one vikendom ili po noći. S time je usko povezan i problem frekvencija javnoga gradskog prijevoza s obzirom na to da će pojedine linije funkcionirati znatno češće od drugih, što može dovesti do problema kod korisnika linija s malom frekvencijom. Obavijest o prometovanju odnosno vremenu polaska nekog oblika javnog gradskog prijevoza, bilo s terminala, bilo s neke stanice, dobivena putem displeja, utjecat će na organizaciju puta

The settlement of transport costs (e.g. ticket price, fuel price, taxi price) as a transport problem is directly linked to the possibility of travel for an individual. Accessing a certain activity and quality participation therein will depend on the speed of arriving at the destination. A fast arrival at the destination will ensure less time lost in transport, and better use of time for performing other planned activities. Access to certain activities will directly depend on the various forms of transport which are made possible for an individual. In other words, if an individual has multiple forms of transport available to him or her, he or she will certain to choose the most efficient or least expensive means of transport that is available at that time. This is closely associated with the desire to travel. Mobility as a fundamental human activity and need is marked by a desire for movement. Limitations to the need or desire for travelling also mean limitations to access to the one's desired activities. For young people, particularly for high school students, there is a marked desire for mobility. However, due to the inability to drive an automobile, their mobility is restricted to a certain extent. In this respect, high school students need to rely on others for transport. This problem is particularly pronounced as regards the evening outings, which will be later discussed in more detail. Traffic congestion is an almost inexhaustible topic when discussing city transport. Frequent stopping and congestion will also directly impact on access to certain activities. Persons with disabilities (and occasionally those without) have difficulties using public transport. This is particularly the case when entering and exiting the vehicle. Nowadays, efforts have been made to mitigate this problem through the introduction of low-floor forms of public city transport. It is also necessary to raise awareness among able-bodied persons of the need to facilitate the use of different types of transport for disabled persons. Public transport at night is usually specially organised in the sense of changed routes or frequencies of routes. Similar problems arise for public transport on the weekends. During the weekdays, the frequency of trips of individual forms of public transport is significantly higher than on weekends or at night. This is closely associated with the issue of frequency of public transport, considering that certain lines function more often than others, which can lead to a problem for users of those less frequent lines. Information on the transport schedule of a form of public transport, either at the terminal or at the station, obtained via a display,

kojim se namjerava putovati te na organizaciju i planiranje preostalih aktivnosti. U sličnom se kontekstu može razmotriti i dobivanje informacija o prometovanju u vozilu javnoga gradskog prijevoza (putem displeja u vozilima) koja se tiču npr. naziva stanice. Taj će problem svakako biti bitan osobama koje nisu dobro upoznate s linijom na kojoj putuju. Sigurnost u dnevnom javnom gradskom prijevozu i sigurnost u noćnom javnom gradskom prijevozu izrazito su bitne stavke koje će utjecati na želju za njegovim korištenjem. Razina sigurnosti jedna je od usluga koja mora biti na najvišoj razini. Loša razina sigurnosti utjecat će okretanje alternativnim oblicima prijevoza (npr. taksi). U pješačkom prometu sudjeluju gotovo svi, bilo da u potpunosti pješače do svojeg odredišta, bilo da hodaju do i od stanice javnog gradskog prijevoza. Njegova sigurnost također će biti važna stavka s obzirom na sve češće podređivanje cjelokupnoga gradskog prometa automobilskom prometu. U gotovo isti se kontekst može uvrstiti i biciklistički promet s obzirom na nezavidan položaj u cjelokupnom gradskom prometnom sustavu. S prethodnim problemom sigurnosti pješačkog i biciklističkog prometa u usku se vezu može dovesti i problem gradske prometne infrastrukture koja služi pješacima, kao što su nogostupi, semafori, bicklističke staze itd. S obzirom na sudjelovanju raznih subjekata u prometu, svakako valja promotriti odnos drugih sudionika u prometu prema pojedincu (u ovom slučaju prema srednjoškolskim učenicima).

Navedeni problemi na svakodnevni život srednjoškolaca mogu utjecati s dva aspekta. Jedan aspekt je njihova važnost u životu. Naime određeni prometni problemi neće imati jednaku važnost kod svih pojedinaca, neki će problemi nekome biti važniji, dok će drugome biti manje važni. Drugi će se aspekt odnositi na stupanj težine s kojim se srednjoškolci susreću pri rješavanju navedenih problema. Svaki će se pojedinac s nekim prometnim problemom nositi lakše, a s drugim teže.

Da bi se ispitao utjecaj navedenih prometnih problema na život srednjoškolaca, primijenjena je Likertova skala ocjenjivanja pomoću koje su učenici ocjenjivali prometne probleme s oba aspekta utjecaja na njihov život. Skala za aspekt važnost problema u životu sadržavala je ocjene: 1 – nema/vrlo slaba važnost; 2 – slaba važnost; 3 – umjerena važnost; 4 – značajna važnost; 5 – vrlo značajna važnost. Aspekt stupnja poteškoće s kojim se nose pri rješavanju prometnih problema sadržavao je ocjene: 1 – vrlo lako; 2 – lako; 3 – umjereno (lako/teško); 4 – teško; 5 – vrlo teško.

will influence the organisation of the planned trip, and of the organisation and planning of other activities. Obtaining information on travel within the public transport vehicle (via display in the vehicle), such as the name of the station, can be viewed in a similar context. This problem will certainly be important to those persons that are not well acquainted with the line they are travelling on. Safety in public transport by day and by night is an exceptionally important issue that will affect the desire for its use. The level of safety is one of the services that must be at the highest level. A low level of safety will force one to turn to alternative forms of transport (e.g. taxi). Pedestrian transport is practiced by virtually all those surveyed, whether they walk all the way to their destination, or walk to the public transport stop. Safety during walking is also an important issue, considering the increasing dominance of automobile traffic in the city traffic. Bicycle transport can be viewed in the same context, given its unfavourable position in the overall city transport system. The safety issues in pedestrian and cycling transport are closely linked to the issue of city transport infrastructure that serves pedestrians, such as sidewalks, traffic lights, bicycle lanes, etc. Considering the presence of various participants in transport, it is certainly necessary to consider the relation of other participants towards an individual (in this case, towards a high school student).

These issues can influence the life of high school students in one of two ways. One aspect is their importance in life. Namely, certain transport issues will not have equal importance amongst all individuals, i.e. some issues will be more important, while they are less important to others. The second aspect will relate to the degree of difficulty high school students face in resolving the issue. Each individual will deal with some issues more easily than others.

In order to investigate the influence of the said transport problems on the life of high school students, a Likert scale of self-assessment was used in which the students assessed transport issues from both aspects of influence on their lives. The scale for the aspect of importance of the issue in their life contained the grading: 1 – no importance/ very little importance; 2 – some importance; 3 – moderately important; 4 – important; 5 – very important. The aspects of the degree of difficulty needed to overcome the transport problem had the grading: 1 – very easy; 2 – easy; 3 – moderate (easy/difficult); 4 – difficult; 5 – very difficult.

Posebno je važno napomenuti da je stupanj prometne marginaliziranosti učenika to veći što su ocjene utjecaja prometnih problema na svakodnevni život veće (Currie, Delbosc, 2011a).

Analizom podataka dobiveni su rezultati koji podrazumijevaju srednje ocjene (aritmetičke sredine) svakog problema i to iz oba aspekta (Tab. 2.). Razmatrajući aspekte pojedinačno, može se

It is particularly important to note that the degree of transport disadvantage of students was even higher as the assessment of the transport issues in their daily life increased (Currie, Delbosc, 2011a).

An analysis of the data gave the results that implied the arithmetic mean for each problem, and for each aspect (Tab. 2). In examining the aspects individually, it can be observed which problems are the most important in the daily lives of students, and which issues they find most difficult to deal with.

Tablica 2. Ocjena prometnih problema s obzirom na važnost i stupanj poteškoće pri rješavanju
Table 2 Assessment of transport problems in terms of their importance and degree of difficulty to resolve them

Prometni problem	**Važnost**	**Poteškoća**
Transport Issue	**Importance**	**Difficulty**
Podmirivanje prometnih troškova *Covering transportation costs*	2,83	2,32
Brzi dolazak na odredište *Choice of various transport modes*	3,91	2,74
Imati na izbor različite mogućnosti prijevoza za korištenje *Reaching the destination quickly*	3,61	2,49
Mogućnost putovanja kad god želite *Ability to travel whenever you want to*	3,87	2,76
Potreba oslanjanja na druge radi prijevoza *Relying on others for transport*	2,88	2,59
Gužva u prometu *Traffic congestions*	3,83	3,41
Prilagođenost vozila javnoga gradskog prijevoza lakšem ulasku / izlasku *Vehicle adapted for easy entrance/exit*	2,42	1,88
Noćni javni gradski prijevoz *Public transport at night*	3,64	3,21
Javni gradski prijevoz vikendom *Public transport at weekends*	3,71	2,92
Česte linije javnoga gradskog prijevoza *High frequency of public transport*	3,89	2,79
Mogućnost dobivanja obavijesti na stanicama o prometovanju javnoga gradskog prijevoza *Availability of information about transportation at public transport stations*	3,53	2,59
Mogućnost dobivanja obavijesti u vozilima javnoga gradskog prijevoza *Being able to get information on public transport vehicles*	3,10	2,19
Sigurnost u dnevnom javnom gradskom prijevozu *Safety in the daily public transport*	3,49	2,32
Sigurnost u noćnom javnom gradskom prijevozu *Safety in public transport at night*	3,79	2,77
Sigurnost u pješačkom ili biciklističkom prometu *Safety in pedestrian or bicycle traffic*	3,58	2,50
Gradska prometna infrastruktura *Urban transport infrastructure*	3,51	2,48
Odnos drugih sudionika u prometu prema Vama *Relationship with other participants in transportation system*	3,63	2,63
PROSJEK / MEAN	**3,48**	**2,62**

Izvor: anketno ispitivanje, 2013.
Source: Survey, 2013

uočiti koji su u svakodnevnim životima učenika najvažniji problemi, a s kojima se najteže nose.

U važnosti se posebno ističu problemi brzog dolaska na odredište, čestih linija javnoga gradskog prijevoza i mogućnosti putovanja kad god učenici žele. Učestalo korištenje javnoga gradskog prijevoza te želja za što manjim gubitkom vremena tijekom putovanja uz povećanu potrebu za mobilnošću razlozi su koji utječu na važnost ovih problema u svakodnevnim životima srednjoškolaca. Očito je da se navedeni problemi u određenoj mjeri teško rješavaju s obzirom na to da je prema stupnju težine rješavanja u vrhu prometni problem gužve u prometu. Veće probleme pri rješavanju predstavljaju i noćni javni gradski prijevoz i javni gradski prijevoz vikendom s obzirom na izmijenjenu organizaciju njegova odvijanja.

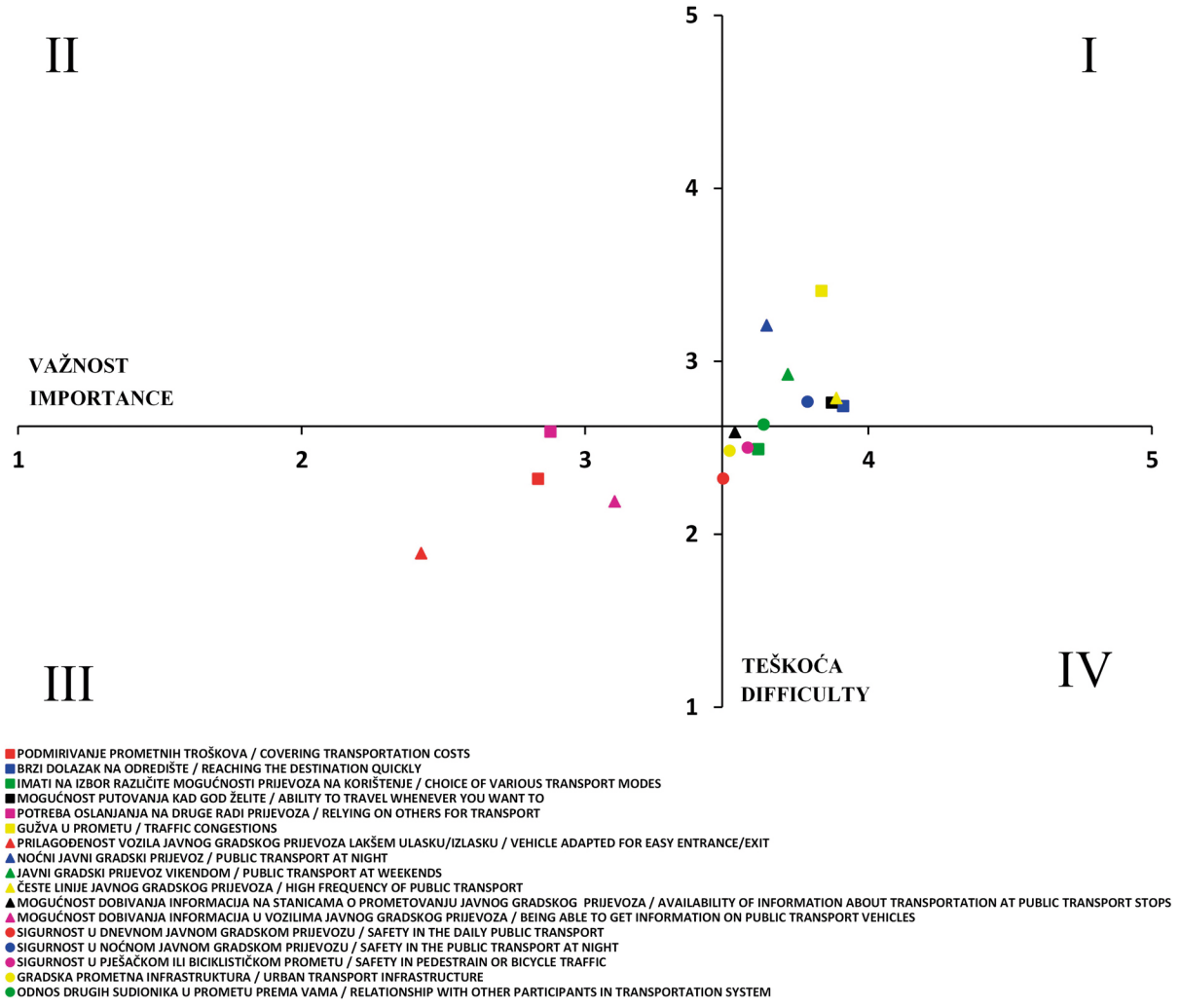
Za određivanje prometne marginaliziranosti važna su oba aspekta istodobno, stoga će se dobiveni rezultati prikazati metodom analize kvadranata (Sl. 1.). Navedena se metoda najčešće koristi u ekonomskim znanostima pri istraživanju tržišta kako bi se ustanovilo zadovoljstvo kupaca. Svoju primjenu nalazi i u prometnim znanostima mjereći zadovoljstvo korisnika javnog prijevoza putem usporedbe kvalitete prijevoza i stupnja zadovoljstva putnika koji ga koriste (Currie, Delbosc, 2011a). Metoda analize kvadranata temelji se na pravokutnom koordinatnom sustavu pri čemu se dva aspekta koja se ispituju smještaju na os x odnosno os y. Osi se sijeku u aritmetičkim sredinama ocjenjivanih aspekata pri čemu tvore četiri kvadranta koja predstavljaju polja s određenim obilježjima (ovisno o ocjenjivanim aspektima). Pritom se varijable ocijenjene s oba aspekta smještaju u jedan od kvadranata na temelju koordinata x i y (koordinate su zapravo aritmetičke sredine ocjena koje su im dodijelili ispitanici).

Kvadranti su označeni brojkama I., II., III. i IV. Kvadrant I. je u kontekstu ovoga istraživanja najvažniji kvadrant s obzirom na to da su u njemu pozicionirani problemi koji u svakodnevnom životu učenika imaju veliku važnost i s kojima se teško nose pri njihovu rješavanju. Kvadrant II. je drugi po važnosti s obzirom na to da bi trebao obuhvaćati prometne probleme srednjoškolaca s kojima se učenici teško nose, ali im ne predstavljaju veliku važnost u svakodnevnom životu. No u tom kvadrantu nema prometnih problema. U kvadrantu IV. su prometni problemi koji su učenicima važni u svakodnevnom životu, premda ih relativno lako rješavaju. Na kraju, kvadrant III.

Within the aspect of importance, the most prominent issues were the speed of arriving to the destination, frequency of public transport lines and the possibility of travelling whenever the students want. The frequency of public transport lines and the desire to spend as little time as possible while travelling, with an increased need for mobility are the reasons that influence the importance of these issues in the daily lives of high school students. It is evident that these problems will, to a certain degree, be difficult to resolve, considering that the most difficult issue to deal with was to assess traffic congestion. Greater problems in dealing with issues also arise in a night-time public transport and weekend public transport, due to the changes in the organisation of the schedules.

In order to determine transport disadvantage, it is important to examine both aspects simultaneously, and therefore, the obtained results will be shown using the quadrant analysis method (Fig. 1). This method is most often used in the economics science when conducting market research, in order to determine customer satisfaction. Its application is also found in the transport sciences, for measuring public transport user satisfaction by comparing the quality of a ride with the degree of user satisfaction (Currie, Delbosc, 2011a). The quadrant analysis method is based on a rectangular coordinates system, in which the two aspects being measured are placed on the x and y axes. The axes cross at the arithmetic means of the assessed aspects, thereby creating four quadrants that represent fields of certain properties (depending on the assessed aspects). The variables assessed on both aspects are positioned in one quadrant on the basis of their x and y coordinates (the coordinates are in fact the means of grades assigned to each variable by survey subjects).

The quadrants were marked by the numbers I, II, III and IV. In the context of this research, Quadrant I is the most important quadrant, as this represents the potential issues that have great importance in the daily life of high school students, and which they find difficult to deal with. Quadrant II is the second most important, as these should include those transport issues that are difficult for high school students to resolve, though they are not highly important in their lives. However, none of the transport issues addressed in the study fell into this quadrant. Quadrant IV includes the transport issues that are important to students in their daily lives, but they can be relatively easily resolved. Quadrant III includes transport issues that are not highly important in the daily lives of high school students and which are easily resolved.



Slika 1. Ocjene važnosti i stupnja poteškoće rješavanja prometnih problema
Izvor: anketno ispitivanje, 2013.

Figure 1 Assessment of importance of transport issues and the degree of difficulty required to overcome them
Source: Survey, 2013

obuhvaća prometne probleme koji nemaju veliku važnost u svakodnevnim životima srednjoškolaca i lako ih rješavaju.

Takva vrsta analize pokazuje kako većina istraživanih prometnih problema leži u gornjem desnom kvadrantu odnosno kvadrantu I. (viši stupanj važnosti i viši stupanj težine pri njihovu rješavanju). Pritom se posebno ističe problem gužve u prometu kao problem s kojim se učenici najteže nose u svakodnevnom životu. Taj je problem sveprisutan u gradskom prometu pa tako i prometu Grada Zagreba. Učenici se teško nose i s problemom noćnoga javnog gradskog prijevoza s obzirom na njegovu organizaciju prometnih

The analysis shows that the majority of the investigated transport problems lie in the upper right quadrant, i.e. quadrant I (higher level of importance and high level of difficulty to resolve). The issue of traffic congestion is particularly highlighted as a problem that students find most difficult to deal with in their daily lives. This issue is widely present in urban traffic, and it is also present in the City of Zagreb. Students also often have difficulties dealing with the issues of night-time public transport, considering the organisation and frequency of transport routes and lines at night. Public transport on the weekends can be viewed in a similar aspect. In regards to importance, the highest grade was assigned to quickly reaching the destination. This is

linija i frekvenciju odvijanja. U istom se aspektu može sagledati i javni gradski prijevoz vikendom. Kod aspekta važnosti dominira brzi dolazak na odredište. Posljedica je to želje za što efikasnijim iskorištavanjem vremena (posebice za što manjim gubitkom vremena u prometu). Njegovo je ostvarivanje očito u određenoj mjeri otežano s obzirom na problem gužvi u prometu. Osim njega, učenici veliku važnost pridaju i čestim linijama javnoga gradskog prijevoza, što ne treba čuditi s obzirom na čestinu korištenja javnoga gradskog prijevoza u srednjoškolskoj populaciji. Pritom je vidljivo da se s tim problemom učenici i nešto teže nose u svakodnevnom životu što upućuje na možebitnu prisutnost pojedinih prometnih linija u Gradu Zagrebu koje ne prometuju prema željama ili potrebama srednjoškolskih učenika. Povećana želja i potreba za mobilnošću svakako će biti razlog da značajnu važnost u njihovim životima ima i problem mogućnost putovanja kad god žele. Problem je učenicima teže rješiv, što može upućivati na segment roditeljske skrbi koji im određuju uvjete putovanja, ali i na organizaciju prometa u gradu koji na neki način ograničava mogućnosti putovanja učenika. Pritom se ovaj problem može povezati s noćnim javnim gradskim prijevozom i javnim gradskim prijevozom vikendom koji je organiziran na nižoj frekvenciji prometovanja, kao i s problemom gužvi i zastoja u prometu. Sigurnost u noćnom javnom gradskom prijevozu ubraja se skupinu važnih i teže rješivih problema. Budući da mladi često koriste i javni gradski prijevoz noću, ne čudi njegov smještaj u ovom kvadrantu. Također, vidljivo je da se učenici s tim problemom nešto teže nose što može upućivati i na značajke javnoga gradskog prijevoza Grada Zagreba noću. U ovaj se kvadrant ubraja i problem odnosa drugih sudionika u prometu prema učenicima koji ima gotovo graničnu vrijednost s obzirom na težinu rješavanja, ali se donekle ističe prema važnosti. Ovaj se problem može sagledati u zajedništvu s javnim gradskim prijevozom koji učenici često koriste, a posebice s problemima noćnoga javnog gradskog prijevoza, kao i s problemom sigurnosti u noćnom javnom gradskom prijevozu pri kojima je učenicima važan odnos ostalih putnika prema njima. I pri korištenju pješačkog ili biciklističkog prometa ističe se važnost odnosa vozača motornih vozila prema učenicima.

Donji desni kvadrant, tj. kvadrant IV. (viši stupanj važnosti i niži stupanj težine pri njihovu rješavanju), drugi je kvadrant po brojnosti prometnih problema. Najveću važnost među njima ima problem posjedovanja izbora različitih

the result of the desire to efficiently manage one's time (particularly for ensuring that as little time as possible is wasted in traffic). Achieving this is hindered to a certain extent by the issue of traffic congestion. Furthermore, the students placed great importance on the frequency of public transport lines, which could be expected given the regular use of public transport by high school population. It is evident that the students find this issue more difficult to deal with, which indicates that there are transport lines in the City of Zagreb that do not run as frequently as the students might want or need. The increased desire and the need for mobility will certainly be a reason for assigning high importance to the issue of the ability to travel whenever they want. This problem is very difficult for students to resolve: this can indicate the segment of parental care, which dictates the conditions of travel, and the organisation of transport in the city restricting the student's travel possibilities to a certain extent. This issue can also be associated with public transport at night and on weekends, which is organised at a lower frequency, and with the issue of traffic congestion. Safety in public transport at night fell within the group of important though difficult to resolve issues. Considering that young people often use public transport at night, its positioning in this quadrant is not surprising. Furthermore, it is evident that the students find this issue difficult to deal with, which can also be indicative of the characteristics of public transport in the City of Zagreb at night. This quadrant also includes the issue of the attitudes of other traffic participants towards the students, which has virtually borderline value in terms of the difficulty in resolving this issue, but stands out due to its importance. This issue can be viewed together with the public transport that students often use, and particularly with the issues of using public transport at night, and the issues of safety in public transport at night, in which the attitudes of other passengers towards them are significant to the students. In pedestrian and bicycle transport, the students also find important the attitudes of those driving automobiles.

The lower right quadrant, i.e. Quadrant IV (higher level of importance, lower level of difficult to resolve) is the second most filled quadrant. The issue with the highest importance in this quadrant is the issue of having a choice of various possibilities for transport. Its importance is the result of the increased desire and the need for mobility among high school students, and certain parallels can be drawn between this issue and

mogućnosti prijevoza za korištenje. Njegova važnost posljedica je povećane želje i potrebe za mobilnošću srednjoškolskih učenika, pri čemu se u nekoj mjeri može povući paralela s problemom mogućnosti putovanja kad god učenici žele. Problem sigurnosti u pješačkom ili biciklističkom prometu povezan je s problemom gradske prometne infrastrukture (semafori, nogostupi, biciklističke staze...). Iako učenicima važni, ta dva problema, iz segmenta pješačkog (i biciklističkog) prometa, upućuju na njihovo relativno povoljno stanje u gradskom prometu s obzirom na to da se učenici s njima relativno lako nose. Mogućnost dobivanja obavijesti na stanicama o prometovanju javnoga gradskog prijevoza (putem displeja) problem je koji u ovom kvadrantu ima najvišu ocjenu u segmentu težine rješavanja (iako ispod prosjeka). Ističe se njegova važnost za učenike pri organizaciji putovanja, kao i za planiranje ostalih aktivnosti. Za razliku od problema sigurnosti u noćnom javnom gradskom prijevozu problem sigurnosti u dnevnom javnom gradskom prijevozu pokazuje graničnu vrijednost prema problemima s manjom važnošću i lakšim rješavanjem. Manje poteškoća pri njegovu rješavanju upućuje na povoljnije stanje u odnosu na noćni javni gradski prijevoz. Samim time, njegova je važnost i za učenike manja.

Preostali problemi smješteni su u donji lijevi kvadrant, tj. kvadrant III. (niži stupanj važnosti i niži stupanj težine pri njihovu rješavanju). Graničnu vrijednost prema kvadrantu koji bi predstavljao probleme s manjom važnošću i višim stupnjem težine pri njihovu rješavanju pokazuje problem oslanjanja na druge radi prijevoza (bilo da koriste javni gradski prijevoz ili prijevoz od roditelja ili prijatelja). S obzirom na to da većina srednjoškolaca još ne vozi automobil, prisiljeni su koristiti mogućnost da ih netko drugi prevozi što očito može izazvati i određene poteškoće. Subvencioniranje cijene javnoga gradskog prijevoza u Gradu Zagrebu i smanjenje cijene taksi prijevoza utjecali su i na smanjenu važnost problema koji se odnosi na podmirivanje prometnih troškova, kao i na njegovo lakše rješavanje. Uvođenje obavještavanja putnika u sredstva javnoga gradskog prijevoza omogućilo je korisnicima lakše snalaženje u njegovu odvijanju. Taj je proces prisutan u sve većem broju vozila stoga se taj problem relativno lako apsolvira, a njegova važnost učenicima je mala s obzirom na to da su svi učenici s prostora Grada Zagreba te pri tome poznaju prometovanje linija javnoga gradskog prijevoza. S obzirom na to da velika većina srednjoškolaca nema problema s fizičkom

the issue of the possibility to travel whenever the students want. The issue of safety in pedestrian or bicycle traffic is associated with the issue of the city transport infrastructure (traffic lights, sidewalks, bicycle lanes, etc.). Though these two issues from the segment of pedestrian and bicycle transport are important to students, they appear to have a relatively favourable status within the frame of the city transport, considering that the students find them relatively easy to deal with. The possibility of obtaining travel information for public transport at stations (via displays) is the issue in this quadrant that has the highest value for difficulty to resolve (though it is lower than the average). This stresses the importance of this issue for students in planning their travels, and in planning other activities. Unlike the issue of safety in public transport at night, the issue of safety in public transport during the day shows borderline values in comparison to the issues with lower importance and which are easier to resolve. Less difficulty in resolving this issue indicates a more favourable state in comparison to public transport at night. Therefore, its importance for the students is lower.

The remaining issues are situated in the lower left-hand quadrant, i.e. Quadrant III (lower degree of importance and lower degree of difficulty to resolve them). The borderline values towards the quadrant that would represent issues with lower importance and a higher level of difficulty to resolve them is seen in the issue of relying on others for transport (either using public transport or being driven by parents or friends). Taking into consideration that the majority of high school students do not drive, they are forced to use the possibility that they would be driven by someone else, which can obviously lead to certain difficulties. The subsidised price of public transport in the City of Zagreb and reduced taxi prices have led to the reduction of the importance of this issue, which relates to settling transport costs, and easier resolution. The introduction of passenger information in public transport vehicles would enable the users to more easily participate in transport. This process is present in an increasing number of vehicles, and therefore, this issue is relatively easy to resolve. Consequently, its importance among students is low, given that all the students reside in the City of Zagreb and therefore are familiar with the public transport lines. Taking into consideration that a great majority of high school students have no problem with physical mobility (in the sense of being disabled), the least important and the easiest way to resolve the issue in the lives of high school students is the adaptation

mobilnošću (u smislu invalidnosti), najmanje važan i najlakše rješiv prometni problem u životima srednjoškolaca jest prilagođenost vozila javnoga gradskog prijevoza lakšem ulasku/izlasku (npr. niskopodni tramvaji). To može upućivati i na eventualan nedostatak svijesti kod srednjoškolaca što se tiče potreba slabije pokretnih osoba ili osoba s malom djecom prema prilagođenim vozilima javnoga gradskog prijevoza.

Prethodno analizirani podaci pokazali su različitu distribuciju prometnih problema s obzirom na važnost i stupanj težine s kojim ih učenici rješavaju u svakodnevnom životu. Kako se u mnogim segmentima života učenici razlikuju, a posebice u kontekstu spola i dobi, za pretpostaviti je da postoje razlike u važnosti i stupnju težine rješavanja prometnih problema. Da bi se istražile navedene razlike, najprije je upotrijebljena metoda korelacije. Za određivanje povezanosti dobi s važnošću i stupnjem težine rješavanja prometnih problema korišten je Pearsonov koeficijent korelacije. S obzirom na to da je spol dihotomna varijabla, utvrđivanje povezanosti spola i važnosti odnosno stupnja težine rješavanja prometnih problema provedeno je korištenjem point-biserijalnog koeficijenta korelacije (Tab. 3.). Za aproksimaciju visine povezanosti između dvije varijable korištena je ljestvica koju predlaže Petz (2004.).

Prikazani podaci upućuju na pretpostavku veće važnosti međuodnosa spola i prometnih problema u odnosu na međuodnos dobi i prometnih problema. Statistički značajna povezanost dobi i prometnih problema pojavljuje se tek sporadično. Pritom valja napomenuti kako je u tim slučajevima riječ o relativno niskim stupnjevima povezanosti (sve u kategoriji niske ili neznatne povezanosti), iako statistički značajnima. Tako su npr. stariji učenici u segmentu važnosti davali nešto veće ocjene problemima noćnoga javnog gradskog prijevoza i sigurnosti u noćnom javnom gradskom prijevozu, kao i npr. problemu izbora različitih mogućnosti prijevoza za korištenje. U dijelu stupnja težine s kojim rješavaju prometne probleme stariji učenici nešto su većim vrijednostima ocjenjivali problem noćnoga javnog gradskog prijevoza, dok su mlađi učenici nešto više ocjenjivali probleme brzog dolaska na odredište i sigurnosti u dnevnom javnom gradskom prijevozu.

Kod analize povezanosti spola i prometnih problema podaci su nešto drugačiji. Iz dobivenih rezultata uočljivo je kako postoji statistički značajna povezanost, iako niska, spola i prometnih

of public transport vehicles for easier entrance/exit (i.e. low-floor trams). This can also indicate a lack of awareness among high school students as regards the need for adapted public transport vehicles of poorly mobile persons or persons with small children.

The previously analysed data indicate that the distribution of transport issues varies with the importance and the degree of difficulty required to deal with them in daily life. As students differ in many segments of their lives, particularly in the context of age and gender, it can be assumed that they assign different levels of importance to these issues and different degrees of difficulty to resolve them. In order to investigate these differences, the correlation method was employed. In order to determine a possible association of age with the importance and the degree of difficulty in resolving the transport issues, the Pearson's correlation coefficient was used. Considering that gender is a dichotomous variable, determining the association of gender and importance of the issue, or degree of difficulty in resolving these issues, a point-biserial correlation coefficient (Tab. 3) was used. To approximate the level of association between the two variables, a scale proposed by Petz (2004) was applied.

Based on the data shown, it is possible to assume that the association between gender and transport issues is stronger than the association between age and transport issues. A statistically significant correlation between age and transport issues appeared only sporadically. Moreover, it should be noted that in the cases of significant correlation the degrees of correlation are relatively low though statistically significant (all in the category of low or slight correlation). For example, older students in the segment of importance gave higher grades to the issues of public transport at night and safety in public transport at night, and to the issue of having a choice of different means of transport. In the segment of the degree of difficulty needed to overcome transport issues, older students gave somewhat higher grades to the issues of public transport at night, while younger students assigned higher grades to the issues of quick arrival at the destination and the safety in public transport during the day.

In the correlation analysis for gender and transport issues, the results clearly indicate a statistically significant correlation, though low, between gender and transport issues. This correlation was significant for all transport issues

Tablica 3. Povezanost dobi i spola s važnošću i stupnjem težine rješavanja prometnih problema
Table 3 Association of age and gender with importance of transport issues and the degree of difficulty required to deal with them

PROMETNI PROBLEMI		DOB			SPOL	
		V	T		V	T
TRANSPORT ISSUE		AGE			GENDER	
		I	D		I	D
Podmirivanje prometnih troškova *Covering transportation costs*	r	,018	,028	r_{pb}	**,179****	**,126****
	p	,608	,415	p	,000	,000
Brzi dolazak na odredište *Choice of various transport modes*	r	-,015	**-,099****	r_{pb}	**,194****	**,131****
	p	,676	,004	p	,000	,000
Imati na izbor različite mogućnosti prijevoza za korištenje *Reaching the destination quickly*	r	**,088***	-,024	r_{pb}	**,185****	,038
	p	,012	,498	p	,000	,271
Mogućnost putovanja kad god želite *Ability to travel whenever you want to*	r	,051	-,022	r_{pb}	**,198****	,066
	p	,141	,529	p	,000	,057
Potreba oslanjanja na druge radi prijevoza *Relying on others for transport*	r	,010	,007	r_{pb}	**,180****	**,120****
	p	,776	,842	p	,000	,001
Gužva u prometu *Traffic congestions*	r	-,038	-,005	r_{pb}	**,178****	**,133****
	p	,273	,883	p	,000	,000
Prilagođenost vozila javnoga gradskog prijevoza lakšem ulasku/izlasku *Vehicle adapted for easy entrance/exit*	r	-,011	-,050	r_{pb}	**,145****	,057
	p	,752	,150	p	,000	,099
Noćni javni gradski prijevoz *Public transport at night*	r	**,145****	**,137****	r_{pb}	**,131****	**,096****
	p	,000	,000	p	,000	,006
Javni gradski prijevoz vikendom *Public transport at weekends*	r	,049	,007	r_{pb}	**,224****	**,106****
	p	,159	,835	p	,000	,002
Česte linije javnoga gradskog prijevoza *High frequency of public transport*	r	,065	-,010	r_{pb}	**,212****	**,145****
	p	,061	,774	p	,000	,000
Mogućnost dobivanja informacija na stanicama o prometovanju javnoga gradskog prijevoza *Availability of information about transportation at public transport stations*	r	,041	-,010	r_{pb}	**,156****	,046
	p	,239	,781	p	,000	,182
Mogućnost dobivanja informacija u vozilima javnoga gradskog prijevoza *Being able to get information on public transport vehicles*	r	,037	-,036	r_{pb}	**,210****	,026
	p	,288	,296	p	,000	,447
Sigurnost u dnevnom javnom gradskom prijevozu *Safety in the daily public transport*	r	,011	**-,069***	r_{pb}	**,334****	**,173****
	p	,752	,048	p	,000	,000
Sigurnost u noćnom javnom gradskom prijevozu *Safety in public transport at night*	r	**,100****	-,033	r_{pb}	**,363****	**,281****
	p	,004	,340	p	,000	,000
Sigurnost u pješačkom ili biciklističkom prometu *Safety in pedestrian or bicycle traffic*	r	,025	-,027	r_{pb}	**,217****	,048
	p	,467	,437	p	,000	,167
Gradska prometna infrastruktura *Urban transport infrastructure*	r	,039	-,032	r_{pb}	**,148****	-,013
	p	,263	,359	p	,000	,719
Odnos drugih sudionika u prometu prema vama *Relationship with other participants in transportation system*	r	**,080***	-,046	r_{pb}	**,183****	**,129****
	p	,022	,189	p	,000	,000

V = važnost; T = poteškoća
r = Pearsonov koeficijent korelacije; r_{pb} = point-biserijalni koeficijent korelacije
p = vjerojatnost slučajnog pojavljivanja vrijednosti
* p < 0,05
** p < 0,01
Izvor: anketno ispitivanje, 2013.
I = importance; D = difficulty
r = Pearson's correlation coefficient; r_{pb} = point-biserial correlation coefficient
p = statistical significance
* p<0.05
** p<0.01
Source: Survey, 2013

problema i to kod svih prometnih problema u segmentu važnosti te pojedinih problema u segmentu poteškoća. Valja istaknuti kako su u svim slučajevima pri segmentu važnosti djevojke davale nešto veće ocjene prometnim problemima od mladića. Takvi rezultati mogu upućivati na pretpostavku kako su djevojkama (predloženi) prometni problemi važniji u svakodnevnom životu u odnosu na mladiće. U skladu s prikazanim rezultatima i ljestvicom visine povezanosti, nešto se više ističu problemi sigurnosti u noćnom javnom gradskom prijevozu i sigurnosti u dnevnom javnom gradskom prijevozu pri čemu je riječ o lakoj povezanosti. U tu kategoriju još se mogu svrstati i problemi javnoga gradskog prijevoza vikendom, čestih linija javnoga gradskog prijevoza, mogućnosti dobivanja informacija u vozilima javnoga gradskog prijevoza te sigurnosti u pješačkom ili biciklističkom prometu. Ostali prometni problemi ulaze u kategoriju nikakve ili neznatne povezanosti.

U segmentu stupnja težine s kojim se učenici susreću pri rješavanju prometnih problema vidljiva je statistički značajna povezanost između spola i pojedinih prometnih problema (ne svih kao u segmentu važnosti), s time da su i u tom segmentu djevojke s nešto većim ocjenama ocjenjivale prometne probleme od mladića. U odnosu na druge prometne probleme, tek donekle značajnija povezanost (laka povezanost) sa spolom uočava se kod problema sigurnosti u noćnom javnom gradskom prijevozu. Svi preostali prometni problemi potpadaju u kategoriju nikakve ili neznatne povezanosti. Analogno aspektu važnosti prometnih problema, ovi rezultati mogu upućivati na pretpostavku nešto težeg rješavanja nekih prometnih problema u svakodnevnom životu u slučaju djevojaka.

S obzirom na to da dobiveni rezultati uglavnom ne upućuju na statistički značajnu povezanost dobi i prometnih problema, osim nekih izuzetaka gdje je povezanost, iako statistički značajna, u kategoriji nikakve ili neznatne povezanosti, daljnja će se analiza provoditi iz aspekta povezanosti spola i prometnih problema.

Kako bi se pobliže pokušalo istražiti postojanje razlika između djevojaka i mladića u okviru pojedinih prometnih problema, statistička značajnost razlika između muških i ženskih sudionika za niz ispitanih varijabli provjerena je t-testom (Tab. 4.).

Iako općenito nije riječ o izrazito velikim razlikama u ocjenama (posebice u smislu

in the aspect of importance, and in individual issues in terms of difficulty. It is necessary to note that in all cases, girls gave higher grades to transport issues with regard to their importance than boys did. These results might indicate that girls find the proposed transport issues more important in their daily lives than boys do. In line with these results and the correlation scale, safety issues in public transport at night and safety in public transport during the day stand out, though the correlation is weak. The issues of public transport on weekends, frequency of public transport lines, possibility of obtaining information in public transport vehicles and safety in pedestrian and bicycle transport can also be included in this category. Other transport issues had little or negligible correlation.

In terms of the degree of difficulty needed to overcome the issues, a statistically significant correlation is evident between gender and certain transport issues (but not in all as in the segment of importance), such that girls gave somewhat higher grades to transport issues than boys. In comparison to other transport issues, only slightly significant association (slight correlation) with gender was observed for the issue of safety in public transport at night. All other transport issues fall into the category of no or negligible correlation. Analogous to the aspect of importance of transport issues, these results could indicate that some transport issues are considered as more difficult to overcome in the daily life of girls.

The results, for the most part, do not point to a statistically significant association between age and transport issues, with some exceptions where the correlation, though statistically significant, is in the category of negligible to no correlation. Therefore, further analysis will be conducted in regards to the aspects of gender and transport issues.

In order to better examine the differences between girls and boys within the frame of certain transport issues, the statistical significance of differences between male and female subjects for a series of test variables was tested using a t-test (Tab. 4).

Though these are not exceptionally large differences in the grade assigned (particularly in terms of their means), the t-test indicates that there is a statistically significant difference in the responses between girls and boys. The obtained results are in line with the correlation results.

Tab. 4. Aritmetičke sredine rezultata ocjenjivanja utjecaja prometnih problema na svakodnevni život srednjoškolaca i vrijednosti t-testa
Table 4 Mean values for the results of assessing the influence of transport issues on the daily life of high school students and the values of t-test

PROMETNI PROBLEMI			M_M	$M_Ž$	t	p
TRANSPORT ISSUE			M_M	M_F	t	p
Podmirivanje prometnih troškova *Covering transportation costs*	V	I	2,59	3,06	**-5,225***	,000
	T	D	2,18	2,45	**-3,641***	,000
Brzi dolazak na odredište *Choice of various transport modes*	V	I	3,70	4,11	**-5,679***	,000
	T	D	2,61	2,86	**-3,798***	,000
Imati na izbor različite mogućnosti prijevoza za korištenje *Reaching the destination quickly*	V	I	3,38	3,83	**-5,413***	,000
	T	D	2,45	2,53	-1,102	,271
Mogućnost putovanja kad god želite *Ability to travel whenever you want to*	V	I	3,64	4,09	**-5,784***	,000
	T	D	2,68	2,83	-1,910	,057
Potreba oslanjanja na druge radi prijevoza *Relying on others for transport*	V	I	2,65	3,09	**-5,253***	,000
	T	D	2,46	2,72	**-3,469***	,001
Gužva u prometu *Traffic congestions*	V	I	3,63	4,03	**-5,189***	,000
	T	D	3,26	3,55	**-3,866***	,000
Prilagođenost vozila javnog gradskog prijevoza lakšem ulasku/izlasku *Vehicle adapted for easy entrance/exit*	V	I	2,23	2,60	**-4,195***	,000
	T	D	1,83	1,95	-1,651	,099
Noćni javni gradski prijevoz *Public transport at night*	V	I	3,46	3,81	**-3,788***	,000
	T	D	3,08	3,33	**-2,778***	,006
Javni gradski prijevoz vikendom *Public transport at weekends*	V	I	3,44	3,97	**-6,604***	,000
	T	D	2,80	3,04	**-3,050***	,002
Česte linije javnoga gradskog prijevoza *High frequency of public transport*	V	I	3,63	4,12	**-6,239***	,000
	T	D	2,63	2,93	**-4,214***	,000
Mogućnost dobivanja informacija na stanicama o prometovanju javnoga gradskog prijevoza *Availability of information about transportation at public transport stations*	V	I	3,32	3,72	**-4,523***	,000
	T	D	2,54	2,64	-1,335	,182
Mogućnost dobivanja informacija u vozilima javnoga gradskog prijevoza *Being able to get information on public transport vehicles*	V	I	2,82	3,36	**-6,166***	,000
	T	D	2,16	2,22	-,761	,447
Sigurnost u dnevnom javnom gradskom prijevozu *Safety in the daily public transport*	V	I	3,04	3,90	**-10,165***	,000
	T	D	2,14	2,49	**-5,034***	,000
Sigurnost u noćnom javnom gradskom prijevozu *Safety in public transport at night*	V	I	3,30	4,24	**-11,178***	,000
	T	D	2,44	3,07	**-8,413***	,000
Sigurnost u pješačkom ili biciklističkom prometu *Safety in pedestrian or bicycle traffic*	V	I	3,27	3,85	**-6,390***	,000
	T	D	2,45	2,55	-1,383	,167
Gradska prometna infrastruktura *Urban transport infrastructure*	V	I	3,32	3,68	**-4,289***	,000
	T	D	2,50	2,47	,360	,719
Odnos drugih sudionika u prometu prema Vama *Relationship with other participants in transportation system*	V	I	3,40	3,84	**-5,346***	,000
	T	D	2,50	2,76	**-3,738***	,000

V = aspekt važnosti; T = aspekt stupnja težine s kojom učenici rješavaju problem
M_M = aritmetička sredina rezultata za muškarce; $M_Ž$ = aritmetička sredina rezultata za žene
t = vrijednost t-testa; p = vjerojatnost slučajnog pojavljivanja vrijednosti
* $p < 0,05$
Izvor: anketno ispitivanje, 2013.
I = importance; T = difficulty
M_M = mean of the results for males; M_F = mean of the results for females
t = value of t-test; p = statistical significance
* $p<0.05$
Source: Survey, 2013

aritmetičkih sredina), t-test upućuje na statistički značajne razlike u odgovorima između dječaka i djevojaka. Dobiveni rezultati u skladu su s rezultatima korelacije. Rezultati t-testa upućuju kako su djevojke davale nešto veće ocjene prometnim problemima iz aspekta važnosti u svakodnevnom životu, što je već i ranije ustanovljeno. Sve vrijednosti t-testa su statistički značajne na razini rizika manjoj od 5%. Takvi rezultati mogu upućivati na veću važnost prometnih problema u svakodnevnom životu djevojaka u odnosu na mladiće. Kao i kod problematike korelacije, ovdje valja istaknuti nešto veće vrijednosti t-testa kod prometnih problema sigurnosti u noćnom javnom gradskom prijevozu i sigurnosti u dnevnom javnom gradskom prijevozu.

U slučaju aspekta stupnja težine s kojim srednjoškolci rješavaju prometne probleme, analogno stupnju korelacije, djevojke su s nešto većim ocjenama ocjenjivale utjecaj prometnih problema na svakodnevni život u odnosu na dječake (osim jednoga prometnog problema). Za razliku od aspekta važnosti, većina vrijednosti t-testa je statistički značajno i to na razini rizika manjoj od 5 % (šest ih nije statistički značajno). Među njima se posebno ističe problem sigurnosti u noćnom javnom gradskom prijevozu s najvećom vrijednošću t-testa. I ovdje se može iskazati pretpostavka da se djevojke nešto teže nose s prometnim problemima u svakodnevnom životu.

S obzirom na to da su djevojke gotovo uvijek s nešto višim ocjenama procjenjivale utjecaj prometnih problema na njihov svakodnevni život u odnosu na mladiće, može se zaključiti kako su djevojke nešto jače prometno marginalizirane od mladića.

Kako bi se provjerila značajnost razlike između dječaka i djevojčica spram stavova o važnosti prometnih problema u svakodnevnom životu i stupnja težine kojim ih rješavaju, frekvencije odgovora podvrgnute su χ^2 testu (hi-kvadrat testu) (Tab. 5.).

U skladu s prethodno navedenim rezultatima, statistička analiza upućuje na značajne razlike između mladića i djevojaka u svim segmentima važnosti prometnih problema u svakodnevnom životu s obzirom na to da su sve vrijednosti χ^2 testa statistički značajne na razini rizika manjoj od 5%. Za sve su prometne probleme kod djevojaka veće frekvencije odgovora u kategorijama značajna važnost (4) i vrlo značajna važnost (5). Kod mladića je pak situacija obrnuta pa su u velikoj većini slučajeva veće vrijednosti u kategorijama nema/vrlo slaba važnost (1) i slaba važnost (2). To svakako

The results of the t-test suggest that girls gave somewhat higher grades for transport issues from the aspect of importance in their daily lives, which was previously established. All the t-test values were statistically significant at the significance level of less than 5%. Such results could indicate a higher importance of transport issues in the daily life for girls than for boys. Similar to the correlation analysis, it is worthwhile noting that there are somewhat higher t-test values for issues of transport safety in public transport at night, and safety in public transport during the day.

In the case of the aspect of the degree of difficulty needed for high school students to overcome transport issues, analogous to the correlation analysis, girls gave somewhat higher grades to the impact of transport issues on their daily life than boys did (with the exception of a single transport issue). Unlike the aspect of importance, the majority of the t-test values were statistically significant, at a significance level of 5% (six issues were not statistically significant). Among them, the issue of safety in public transport at night had the highest t-test value. Here, it can also be assumed that girls find it more difficult to overcome transport issues in their daily lives.

Considering the fact that girls almost always assessed the influence of transport issues in their daily lives with higher grades than boys, it can be concluded that girls are at a higher transport disadvantage than boys.

In order to examine the significance of differences between boys and girls in their attitudes about the importance of transport issues in their daily life and the degree of difficulty needed to overcome them, the frequency of responses was subjected to the chi-square test (Table 5).

In line with the previously outlined results, the statistical analysis indicates there is a significant difference between boys and girls in all segments of importance of transport issues in their daily life, taking into consideration that all values of the chi-square test were statistically significant at a significance level lower than 5%. For all transport issues, girls gave a higher frequency of responses in the categories of high importance (4) and very high importance (5). For boys, the situation was the opposite, and in the majority of cases, they gave higher grades in the category of no importance/very little importance (1) and little importance (2). This certainly leads to the conclusion that girls are at a greater transport disadvantage than boys are.

Tablica 5. Vrijednosti χ^2 testa i vjerojatnost statističke značajnosti razlike između učenika i učenica za prometne probleme
Table 5 Values of chi-square test and likelihood of a statistically significant difference between male and female students concerning the transport issues

PROMETNI PROBLEMI			χ^2	p
TRANSPORT ISSUES			χ^2	p
Podmirivanje prometnih troškova	V	I	**38,514***	**,000**
Covering transportation costs	T	D	**26,119***	**,000**
Brzi dolazak na odredište	V	I	**38,662***	**,000**
Reaching the destination quickly	T	D	**16,198***	**,003**
Imati na izbor različite mogućnosti prijevoza za korištenje	V	I	**28,813***	**,000**
Choice of various transport modes	T	D	4,150	,386
Mogućnost putovanja kad god želite	V	I	**34,342***	**,000**
Ability to travel whenever you want to	T	D	8,274	,082
Potreba oslanjanja na druge radi prijevoza	V	I	**33,485***	**,000**
Relying on others for transport	T	D	**17,098***	**,002**
Gužva u prometu	V	I	**34,219***	**,000**
Traffic congestions	T	D	**15,795***	**,003**
Prilagođenost vozila javnoga gradskog prijevoza lakšem ulasku/izlasku	V	I	**20,824***	**,000**
Vehicle adapted for easy entrance/exit	T	D	**10,455***	**,033**
Noćni javni gradski prijevoz	V	I	**16,518***	**,002**
Public transport at night	T	D	**10,710***	**,030**
Javni gradski prijevoz vikendom	V	I	**48,278***	**,000**
Public transport at weekends	T	D	**16,329***	**,003**
Česte linije javnoga gradskog prijevoza	V	I	**44,271***	**,000**
High frequency of public transport	T	D	**21,140***	**,000**
Mogućnost dobivanja informacija na stanicama o prometovanju javnoga gradskog prijevoza	V	I	**22,350***	**,000**
Availability of information about transportation at public transport stations	T	D	3,767	,438
Mogućnost dobivanja informacija u vozilima javnoga gradskog prijevoza	V	I	**37,658***	**,000**
Being able to get information on public transport vehicles	T	D	6,999	,136
Sigurnost u dnevnom javnom gradskom prijevozu	V	I	**98,185***	**,000**
Safety in the daily public transport	T	D	**32,967***	**,000**
Sigurnost u noćnom javnom gradskom prijevozu	V	I	**118,875***	**,000**
Safety in public transport at night	T	D	**73,584***	**,000**
Sigurnost u pješačkom ili biciklističkom prometu	V	I	**47,687***	**,000**
Safety in pedestrian or bicycle traffic	T	D	**15,068***	**,005**
Gradska prometna infrastruktura	V	I	**21,043***	**,000**
Urban transport infrastructure	T	D	**16,661***	**,002**
Odnos drugih sudionika u prometu prema vama	V	I	**28,911***	**,000**
Relationship with other participants in transportation system	T	D	**21,759***	**,000**

V = aspekt važnost; T = aspekt stupnja težine s kojom učenici rješavaju problem
χ^2 = vrijednost χ^2 testa; p = vjerojatnost slučajnog pojavljivanja vrijednosti
* $p < 0,05$
Izvor: anketno ispitivanje, 2013.
I= importance; D = difficulty
χ^2 = value of χ^2test; p = statistical significance
* $p<0.05$
Source: Survey, 2013

dovodi do činjenice o nešto jačoj prometnoj marginaliziranosti djevojaka u odnosu na mladiće.

Razlike su posebno očite kod prometnih problema sigurnosti u noćnom javnom gradskom prijevozu i sigurnosti u dnevnom javnom gradskom prijevozu. Više od tri četvrtine djevojaka (80,2%) izrazilo je stav kako im je sigurnost u noćnom javnom gradskom prijevozu značajno i vrlo značajno važna. Usporedi li se to sa stavom mladića, uočava se znatna razlika s obzirom na to da je tek 45,3% mladića izjavilo kako im je taj problem značajno i vrlo značajno važan u svakodnevnom životu. Pridodaju li se tome i vrijednosti iz kategorije umjerena važnost dobiva se stav djevojaka od više od 90% (91,4%) koje smatraju da im je taj problem umjereno, značajno i vrlo značajno važan u svakodnevnom životu. Kod mladića je taj rezultat ipak niži i iznosi 72%.

O da, to nam je vrlo važno u životu. Nama se lakše nešt' dogodi neg' dečkima.
(učenica, 18 godina, Šestine)

Vrlo mi je važan problem sigurnosti u noćnom prijevozu. ...dečki su nekak' sigurniji i imaju više pouzdanja u sebe, a i roditelji imaju više povjerenja u njih...
(učenica, 16 godina, Medveščak)

Ne, nama to uopće nije važno, ne mislimo uopće na to. Ma ono, mislimo mi na to, ali nije nam to jako važno.
(učenik, 16 godina, Rudeš)

Djevojke u relativno visokom postotku smatraju i da im je sigurnost u dnevnom javnom gradskom prijevozu važan problem u svakodnevnom životu. Tako je gotovo 90% djevojaka (88,1%) izjavilo da im je taj problem umjereno, značajno i vrlo značajno važan. Usporedba sa stavovima mladića pokazuje nešto manju važnost toga problema kod njih s obzirom na to da ih je 66,2% izjavilo kako im je sigurnost u dnevnom javnom gradskom prometu umjereno, značajno i vrlo značajno važna.

Nama (curama) *je to važno. Stvarno nikad se ne zna 'ko se vozi pokraj nas...*
(učenica, 15 godina, Remetinec)

Iako su i ostale spolne razlike u ovom segmentu statistički značajne, razlike u frekvencijama odgovora (u kategorijama umjerena, značajna i vrlo značajna važnost) nisu toliko velike kao kod dva prethodno navedena problema, premda su

The differences are particularly evident for the transport issues of safety in public transport at night and safety in public transport during the day. More than three-quarters of girls (80.2%) expressed the opinion that the issue of safety in public transport at night is of high importance and very high importance. If this is compared to the attitudes of boys, a significant difference can be observed, as only 45.3% of boys said that this issue was of high importance and very high importance in their daily lives. If the values from the category of moderately important are added, then more than 90% of girls (91.4%) responded that this issue is of moderate, high or very high importance in their daily lives. For boys, this figure was lower at 72%.

Oh yes, that is very important in our lives. Things are more likely to happen to us than to boys.
(female student, 18 years, Šestine)

The issue of safety in transport at night is very important to me... boys are somehow safer and have more self-confidence, and parents have more confidence in them.
(female student, 16 years, Medveščak)

No, that's not at all important to us, we don't think about it. Well, we do think about it, but it's not very important.
(male student, 16 years, Rudeš)

Girls also think that their safety in public transport during the day is an important issue in their daily life. Almost 90% of girls (88.1%) stated that this issue is of moderate, high or very high importance in their lives. In comparison, the boys' attitudes show somewhat lesser importance of this issue, since 66.2% of boys responded that the safety in transport during the day is of moderate, high or very high importance.

For us (girls), *this is important. You really never know who is riding next to you...*
(female student, 15 years, Remetinec)

Though other gender differences were also statistically significant in this segment, the difference in frequencies of responses (in the category of moderate, high and very high significance) were not as great as in the two previous issues. However, the frequency of grades given by girls in the sum of values for these three importance categories was

frekvencije ocjena koje su dale djevojke u zbroju vrijednosti za te tri navedene kategorije uvijek za desetak posto veće od frekvencija ocjena mladića.

U skladu s rezultatima dobivenim primjenom metode korelacije i t-testa, u slučaju ocjenjivanja stupnja težine s kojim učenici rješavaju prometne probleme u svakodnevnom životu rezultati dobiveni primjenom χ^2 testa upućuju na značajne razlike između mladića i djevojaka, ali ne kod svih prometnih problema kao u segmentu važnosti. Vrijednosti χ^2 testa nisu statistički značajne kod četiri prometna problema, dok su kod svih ostalih statistički značajne na razini rizika manjoj od 5% (Tab. 5.). U većini slučajeva frekvencije odgovora za kategorije teško (se nosim s problemima) (4) i vrlo teško (se nosim s problemima) (5) veće su kod djevojaka u odnosu na mladiće, dok su u kategorijama vrlo lako (se nosim s problemima) (1) i lako (se nosim s problemima) (2) frekvencije odgovora uglavnom veće kod mladića. Kao i kod segmenta važnosti, i ovdje se može potvrditi činjenica o nešto jačoj prometnoj marginaliziranosti djevojaka u odnosu na mladiće.

Vrijednosti χ^2 testa kod ocjenjivanja stupnja težine s kojom učenici rješavaju prometne probleme su općenito nešto niže u odnosu na segment važnosti u svakodnevnom životu što znači da su i razlike u spolu u tom segmentu nešto niže (iako uglavnom statistički značajne). Ipak, posebno se ističe problem sigurnosti u noćnom javnom gradskom prijevozu gdje je 31,7% djevojaka izjavilo da se teško i vrlo teško nose s tim problemom u svakodnevnom životu u odnosu na 15,9% mladića. Ako se tim rezultatima pridoda i vrijednost kategorije umjereno (lako/teško), tada proizlazi da gotovo tri četvrtine djevojaka (73%) ima problema s rješavanjem toga problema u svakodnevnom životu, u odnosu na 47,1% mladića.

I da noćni prijevoz ide češće ne bi ga koristila.
[Zašto?]
Zato što je pun skitnica i pijanaca koji onda dobacuju svašta, hoće nas dirat' i tako... Zato dolazi tata po nas, uzmemo taxi...
(učenica, 17 godina, Malešnica)

Mene je strah u tim tramvajima (noćnom prijevozu) *zato što su ljudi u tim tramvajima uglavnom pijanci i beskućnici... i kad se vraćam doma nije mi ugodno ni sigurno i malo se bojim, a i roditelji mi se boje pa rađe onda odem na taxi.*
(učenica, 16 godina, Gračani)

always some ten percent higher than the frequency of grades given by boys.

In line with the results obtained by the correlation and t-test methods, in the case of assessing the degree of difficulty needed by the students to overcome transport issues in their daily lives, the results obtained using the chi-square test indicate that there are significant differences between the two genders, though not for all transport issues as was the case of the segment of importance. The values of the chi-square test were not statistically significant for four transport issues, while the remaining issues were statistically significant at a significance level of 5% (Tab. 5). In the majority of cases, the frequency of responses for the category of difficult (to overcome the issue) (4) and very difficult (to overcome the issue) (5) was higher for girls than for boys, while the frequency of responses in the categories of very easy (to overcome the issue) (1) and easy (to overcome the issue) (2) was higher among boys. As in the segment of importance, here it was confirmed that girls are at a higher transport disadvantage than boys.

The values of the chi-square test in assessing the degree of difficulty with which the students overcome transport issues were generally lower in comparison to the segment of importance in their daily lives, meaning that the gender differences in this segment were somewhat lower (though mostly statistically significant). However, the issue of safety in transport at night was most prominent, where 31.7% of girls responded that they find it difficult or very difficult to deal with this issue, in comparison to 15.9% of boys who responded that way. If the values of the moderate category are added to these results, it becomes evident that almost three-quarters (73%) of girls find it difficult to overcome this issue in their daily life, in comparison to 47.1% of boys.

Even if night transport were more frequent, I wouldn't use it.
[Why?]
Because it's full of vagrants and drunks who come onto us, want to touch us... That's why our dads come to pick us up, or we take a taxi...
(female student, 17 years, Malešnica)

I get scared in those trams (night transport) *because they are mostly full of drunks and homeless people... and when I go home I don't feel comfortable or safe and I'm a little afraid, and my parents are afraid, so then I take a taxi.*
(female student, 16 years, Gračani)

Kad se vraćam doma (iz večernjeg izlaska) *ne volim se baš voziti tramvajima.*
[Zašto?]
Pa nekako su nesigurni... puno je "klošara" i pijanaca i onda tu zna biti svega...
(učenik, 17 godina, Gornji grad)

Osim toga, ističe se još i problem sigurnosti u dnevnom javnom gradskom prijevozu. Više od polovice djevojaka (50,1%) se umjereno (lako/teško), teško i vrlo teško nosi s tim problemom u svakodnevnom životu, u odnosu na 33,8% mladića.

Ja sam imala par neugodnih iskustava... čovjek se pritisnuo na mene i šapnuo mi nešto na uho, ja se želim maknut' od njega, a on se ne želi maknut' od mene dok mu drugi nisu rekli da se makne od mene.
(učenica, 15 godina, Remetinec)

Dogodilo mi se više puta da je gužva i da ljudi jedni druge pipkaju što je užasno. Nije ugodno uopće.
(učenica, 18 godina, Trnava)

Zaključak

Prometna marginaliziranost je proces koji može zahvatiti i ljude i prostore, a prisutan je na svim razinama. Njezine posljedice mogu biti izrazito negativne jer u konačnici mogu dovesti i do socijalne isključenosti. Iako čimbenici za određivanje prometne marginaliziranosti nisu konzistentni, većina autora danas se slaže kako je upravljanje automobilom jedan od najčešćih kriterija koji izdvaja prometno marginalizirane ljude. U skladu s tim, mladi ljudi jedna su od skupina koja pripada prometno marginaliziranoj skupini društva.

U ovom radu prikazan je utjecaj prometne marginaliziranosti na svakodnevni život srednjoškolske populacije Grada Zagreba s težištem određivanja razlika u prometnoj marginaliziranosti ponajprije na temelju spola. Pritom je korištena metoda vlastite procjene prometnih problema iz skupine subjektivnih čimbenika određivanja prometne marginaliziranosti. Učenici su procjenjivali značenje predloženih prometnih problema u svakodnevnom životu na temelju Likertove skale i to s aspekta njihove važnosti i stupnja težine s kojom rješavaju prometne probleme. Općenito,

When I go home (from an evening outing), *I don't really like to take the tram.*
[Why not?]
Well, they're sort of unsafe... there are a lot of 'bums' and drunks, and anything can happen...
(male student, 17 years, Gornji grad)

Furthermore, the issue of safety in transport during the day is prominent. More than half of the girls (50.1%) find is moderately difficult, difficult or very difficult to deal with that issue in their daily life, in comparison to 33.8% of boys.

I've had a few uncomfortable experiences... a man pressed himself up against me and whispered something in my ear, I tried to move away from him, but he didn't want to move away from me, until other people told him to move away.
(female student, 15 years, Remetinec)

Several times, when it's crowded, I've experienced that some people try to touch other people, which is awful. It's not at all comfortable.
(female student, 18 years, Donja Dubrava)

Conclusion

Transport disadvantage is a process that can affect both people and space, and is present at all levels. Its consequences can be pronouncedly negative because it can ultimately lead to social exclusion. Though the factors for determining transport disadvantage are not consistent, the majority of authors today agree that driving an automobile is one of the most common criteria that create transport disadvantage among people. Therefore, young people are one of the main social groups that can be at transport disadvantage.

This paper gives an overview of the impact of transport disadvantage on the daily life of high school population in the City of Zagreb, with a focus on determining the differences in transport disadvantage based primarily on gender. A self-reported measure was applied to transport issues from the group of subjective factors of determining transport disadvantage. The students assessed the importance of the proposed transport issues in their daily lives on the basis of a Likert scale, from the perspective of their importance, and the degree of difficulty needed to resolve them.

učenicima su najvažniji prometni problemi brzi dolazak na odredište, česte linije javnoga gradskog prijevoza, mogućnost putovanja kad god učenici žele i sigurnost u noćnom i dnevnom javnom gradskom prijevozu. Učenici se teško nose s problemom gužve u prometu, kao i noćnim javnim gradskim prijevozom i javnim gradskim prijevozom vikendom te s problemom sigurnosti.

Pri analizi međuodnosa dobi i prometnih problema statistički značajna povezanost se pojavljuje tek sporadično. Stoga je težište proučavanja stavljeno na međuodnos spola i prometnih problema kao indikatora stupnja prometne marginaliziranosti. Statistički značajna povezanost spola i prometnih problema, iako niska, može se uočiti kod svih prometnih problema u segmentu važnosti te pojedinih problema u segmentu poteškoća. Također, t-test upućuje na statistički značajne razlike u odgovorima između mladića i djevojaka. U skladu s dobivenim podacima, može se zaključiti kako promet općenito ima veću važnost u svakodnevnim životima srednjoškolki u odnosu na njihove muške kolege. Djevojke su u svim slučajevima u segmentu važnosti davale nešto veće ocjene prometnim problemima od mladića. Što se tiče stupnja težine s kojom učenici rješavaju prometne probleme, i u tom su segmentu djevojke s nešto većim ocjenama ocjenjivale prometne probleme od mladića. Pritom se, uz ostale prometne probleme, posebno ističu problemi sigurnosti u noćnom javnom gradskom prijevozu i sigurnosti u dnevnom javnom gradskom prijevozu. Djevojke se prema subjektivnom mišljenju i teže nose s prometnim problemima od dječaka, pri čemu se opet ističu prethodno navedeni problemi. U segmentu važnosti za sve su prometne probleme kod djevojaka veće vrijednosti u kategorijama značajna važnost (4) i vrlo značajna važnost (5). Kod mladića pak situacija je obrnuta pa su u velikoj većini slučajeva veće vrijednosti u kategorijama nema/vrlo slaba važnost (1) i slaba važnost (2). U slučaju ocjenjivanja stupnja težine s kojim učenici rješavaju prometne probleme u svakodnevnom životu frekvencije odgovora za kategorije teško (se nosim s problemima) (4) i vrlo teško (se nosim s problemima) (5) veće su kod djevojaka u odnosu na mladiće, dok su u kategorijama vrlo lako (se nosim s problemima) (1) i lako (se nosim s problemima) (2) frekvencije odgovora uglavnom veće kod mladića.

S obzirom na to da rezultati pokazuju kako su djevojkama prometni problemi u svakodnevnom životu važniji i kako se s njima uglavnom teže

In general, the students assessed that the most important transport issues were quick arrival to the destination, frequency of public transport lines, possibility of travelling whenever they wanted, and safety in public transport in both day and night travel. The students found it difficult to deal with traffic congestion, as well as with the availability of public transport at night and on weekends, and with the issue of safety.

In the analysis of the association between age and transport issues, a statistically significant correlation appeared only sporadically. Therefore the focus of the study was placed on examining the relations between gender and transport issues, as an indicator of the degree of transport disadvantage. A statistically significant association between gender and transport issues, although low, can be observed for all the transport issues in the segment of their importance, and also for certain issues in the segment of difficulty to resolve them. Furthermore, a t-test indicated a statistically significant difference in responses between girls and boys. In line with these results, it can be concluded that transport generally has higher importance in the daily life of female students than for their male colleagues. Girls gave somewhat higher grades to the importance of transport issues in their lives than boys did. With regard to the degree of difficulty needed to overcome these issues, in this segment girls also gave somewhat higher grades to the transport issues than boys did. Issues of safety in transport at night and safety in transport during the day arose as particular concerns. In addition, girls subjectively find it harder to deal with transport issues than boys do, in which the above stated issues again stand out. In the segment of difficulty, for all transport issues, girls assigned more grades to the categories of high importance (4) and very high importance (5). For boys, the situation was the opposite, and in most cases they gave more grades to the categories of no importance/very little importance (1) and some importance (2). In the case of assessing the degree of difficulty needed to overcome these transport issues in the daily lives, the frequency of responses for the category difficult (to resolve) (4) and very difficult (to resolve) (5) was higher for girls than for boys, while boys gave more responses to the categories of very easy (to deal with) (1) and easy (to deal with) (2).

The results indicate that transport issues are more important issues in the daily lives of girls, and that they have a harder time dealing with these issues than boys do. Therefore, it can be concluded that girls are at a greater transport

nose u svakodnevnom životu u odnosu na mladiće, može se zaključiti kako su djevojke jače prometno marginalizirane od svojih muških kolega. To svakako može imati posljedice u raznim segmentima svakodnevnog života, kao npr. u području školskih aktivnosti, izvanškolskih aktivnosti, slobodnog vremena, socijalnih interakcija i slično. Navedena problematika otvara mogućnosti za daljnje proučavanje utjecaja prometne marginaliziranosti na svakodnevni život, ne samo srednjoškolske populacije, već i ostalih socijalnih grupa.

disadvantage than their male colleagues. This can certainly have consequences at various levels of their daily life, such as those regarding the school activities, extracurricular activities, free time, social interactions and more. These issues indicate that there is need for further investigation of the influence of transport disadvantage on daily life, not only for high school population, but for other social groups as well.

LITERATURA I IZVORI / *BIBLIOGRAPHY AND SOURCES*

Battelino, H. (2009): *Transport for the transport disadvantaged: A review of service delivery solutions in New South Wales*, Transport Policy 16/3, 123-129.

Bilten o sigurnosti cestovnog prometa 2012. godine, Ministarstvo unutarnjih poslova Republike Hrvatske, Kabinet ministra, Odjel za strateško planiranje, analitiku i razvoj, Zagreb, 2013.

Brownlee, H., Mcdonald, P. (1992): *A safe place for children: Views from the outer suburbs*, Family Matters, 33, 22-26.

Burkhardt, J. E., Hedrick, J. L., Mcgavock, A. T. (1998): *Assessment of the economic impacts of rural public transportation, transit cooperative research program (TCRP) 34.*, Transportation Research Board, Washington, DC, pp. 210.

Clifton, K., Lucas, K. (2004): *Examining the empirical evidence of transport inequality in the US and UK*, u: K. Lucas (Ur.), Running on empty: Transport, social exclusion and environmental justice, The Policy Press, Bristol, 15-35.

Cullinane, S., Stokes, G. (1998): *Rural transport policy*, Pergamon, Amsterdam, pp. 352.

Currie, G. (2007): *Young Australians: No way to go*, u: G. Currie., J. Stanley, J. Stanley (Ur.), No way to go – Transport and social disadvantage in Australian communities, Monash University ePress, Clayton, 8.1-8,14.

Currie, G., Richardson, T., Smyth, P., Vella-Brodrick, D., Hine, J., Lucas, K., Stanley, J., Morris, J., Kinnear, R., Stanley, J. (2009): *Investigating links between transport disadvantage, social exclusion and well-being in Melbourne – Preliminary results*, Transport Policy 16/3, 97-105.

Currie, G., Delbosc, A. (2010): *Modeling the social and psychological impacts of transport disadvantage*, Transportation, 37/6, 953-966.

Currie, G., Delbosc, A. (2011a): *Exploring transport issues*, u: G. Currie (Ur.), New perspectives and methods in transport and social exclusion research, Emerald Group Publishing Limited, Bingley, 111-122.

Currie, G., Delbosc, A. (2011b): *Transport disadvantage: A review*, u: G. Currie (Ur.), New perspectives and methods in transport and social exclusion research, Emerald Group Publishing Limited, Bingley, 15-25.

Delbosc, A., Currie, G. (2011a): *Exploring the relative influences of transport disadvantage and social exclusion on well-being*, Transport Policy 18/4, 555-562.

Delbosc, A., Currie, G. (2011b): *Transport problems that matter – social and psychological links to transport disadvantage*, Journal of Transport Geography, 19/1, 170-178.

Denmark, D. (1998): *The outsiders: Planning and transport disadvantage*, Journal of Planning Education and Research 17/3, 231-245.

Dijst, M. (1999): *Two-earner families and their action spaces: a case study of two Dutch communities*, GeoJournal 48/3, 195-206.

Dodson, J., Gleeson, B., Sipe, N. (2004): *Transport disadvantage and social status: A review of literature and methods No. 5*, Griffith University, Brisbane, pp. 55.

Fletcher, C. N., Garasky, S. B., Jensen, H. H., Nielsen, R. B. (2010): *Transportation access: A key employment barrier for rural low-income families*, Journal of Poverty, 14/2, 123-144.

Foley, J., (2004): *Overview*, u: J. Foley (Ur.), Sustainability and social justice, Institute for Public Policy Research, London, 1-12.

Hine, J., Mitchell, F. (2001): *The role of transport in social exclusion in urban Scotland*, Scottish Executive Central Research Unit, Edinburgh, pp. 140.

Hine, J., Mitchell, F. (2003): *Transport disadvantage and social exclusion: Exclusionary mechanisms in transport in urban Scotland*, Ashgate, Surrey, Burlington, pp. 162.

Hopkins, P. E. (2010): *Young people, place and identity*, Routledge, London, pp. 320.

Horton, J., Kraftl, P., Tucker, F. (2011): *Spaces-in-the-making, childhoods-on-the-move*, u: P. Foley, S. Leverett (Ur.), Children and Young People's Spaces, Palgrave Macmillan, Basingstoke, pp. 240.

Hoyle, B., Knowles, R. (1998): *Transport geography: An introduction*, u: B. Hoyle, R. Knowles (Ur.), Modern Transport Geography, Second revised edition John Wiley & Sons, Chichester, 1-12.

Hurni, A. (2006): *Transport and social disadvantage in Western Sydney*: A Partnership Research Project, University of Western Sydney and Western Sydney Community Forum, Sydney, pp. 104.

Hurni, A. (2007): *Marginalised groups in Western Sydney: The experience of sole parents and unemployed young people*, u: G. Currie, J. Stanley, J. Stanley (Ur.), No Way To Go – Transport and Social Disadvantage in Australian Communities, Monash University ePress, Clayton, 10.1-10.11.

Kegerris, S. (1993): *independent mobility and children's mental and emotional development*, u: M. Hillman (Ur.), Children, transport and the quality of life, Policy Studies Institute, London, 28-34.

Knowles, R., Shaw, J., Docherty, I. (2008): *Transport geographies: Mobilities, flows and spaces*, Blackwell Publishing Ltd, Malden, Oxford, Carlton, pp. 320.

Kroen, A. (2011): *Addressing transport disadvantage of older, disabled and low income population groups*, AITPM 2011 National Conference, 1-15, preuzeto s: *www.aitpm.com.au*, 05. lipnja 2012.

Lin, J.-J., Huang, Y.-C., Ho, C.-H. (2013): *School accessibility and academic achievement in a rural area of Taiwan*, Children's Geographies, DOI:10.1080/14733285.2013.812308, objavljeno on-line 28. 6. 2013.

Lucas, K. (2004a): *Locating transport as a social policy problem*, u: K. Lucas (Ur.), Running on empty: Transport, social exclusion nad environmental justice, The Policy Press, Bristol, 7-13.

Milas, G. (2005): *Istraživačke metode u psihologiji i drugim društvenim znanostima*, Naklada Slap, Jastrebarsko, pp. 726.

Minogue, K. (1998): *Social justice in theory and practice*, u: D. Boucher, P. Kelly (Ur.), Social justice: from Hume to Walzer, Routledge, London, 253-266.

Morris, J. (1981): *Urban public transport*, u: P. Troy (Ur.), Equity in the city, George Allen & Unwin, Sydney, 21-49.

Nacionalni program za mlade, NN 82/09.

Petz, B. (2004): *Osnovne statističke metode za nematematičare*, V. izdanje, Naklada Slap, Jastrebarsko, pp. 384.

Ridgewell, C., Sipe, N., Buchanan, N. (2005): *School travel modes in Brisbane*, Griffith University, Brisbane, pp. 23.

Rosier, K., Mcdonald, M. (2011): *The relationship between transport and disadvantage in Australia*, Australian Institute of Family Studies, Melbourne, pp. 10, preuzeto s: *http://www.aifs.gov.au/cafca/pubs/sheets/rs/rs4.pdf*, 5. lipnja 2012.

Rugg, J., Jones, A. (1999): *Getting a job, finding a home: rural youth transitions*, The Policy Press, Bristol, pp. 40.

Schaeffer, K. H., Sclar, E. (1975): *Access for all: transportation and urban growth,* Penguin, Harmondsworth, pp. 182.

Schoeppe, S., Duncan, M. J., Badland, H., Oliver, M., Curtis, C. (2013): *Associations of children's independent mobility and active travel with physical activity, sedentary behaviour and weight status: A systematic review*, Journal of Science and Medicine in Sport, 16/4, 312-319.

Social Exclusion Unit (SEU) (2003): *Making the connections: Final report on transport and social exclusion*, Office of the Deputy Prime Minister, Ujedinjeno Kraljevstvo, pp. 147.

Spevec, D. (2011): *Prostorne značajke demografskih resursa i potencijala Krapinsko-zagorske, Varaždinske i Međimurske županije*, Hrvatsko geografsko društvo, Zagreb, pp. 217.

Stanley, J., Stanley, J. (2004): *Improving public transport to meet comunity needs: A Warrnambool case-study*, Bus Asociation Victoria and Warrnambool Bus Lines, Melbourne, pp. 92.

Šakaja, L., Višnić, S. (2011): *Experiencing a place: Karlovac as an older teenagers' daily environment*, Hrvatski geografski glasnik 73/1, 133-148.

Travers, M. (1992): *Strategies to overcome transport disadvantage*, Department of the Prime Minister and Cabinet, Canberra.

UNDP (2006): *Neumreženi: Lica socijalne isključenosti u Hrvatskoj – Izvješće o društvenom razvoju*, UNDP, Zagreb, pp. 171.

Vresk, M. (1997): *Uvod u geografiju. Razvoj, struktura, metodologija*, Školska knjiga, Zagreb, pp. 304.

Winter, I. (1994): *Young people living on the urban fringe*, Family Matters 38, 43-45.

Yigitcanlar, T., Kushairi, R., Dur, F. (2010): *Sustainable urban and transport development for transportation disadvantaged: A review*, The Open Transportation Journal 4, 1-8.

Zelenika, R. (2000): *Metodologija i tehnologija izrade znanstvenog i stručnog djela*, četvrto izdanje, Ekonomski fakultet u Rijeci, Rijeka, pp. 782.