DOES A ZIP CODE AFFECT ONE'S CHANCES OF GETTING INTO HIGHER EDUCATION? LOCAL AND REGIONAL INEQUALITIES OF ACCESS TO HIGHER EDUCATION IN CROATIA

By

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ABSTRACT

The focus of this research is threefold: to see the extent of inequalities regarding access to higher education among local, as well as regional self-government units in Croatia and examine if these differences are influenced by the level of socio-economic development; to map out the official normative position of the Croatian government on equal and equitable access; and lastly, to thoroughly explore one of the most important access-facilitating policy mechanisms employed in Croatia – financial aid policy. Content analysis of relevant official documents enabled me to conclude that the Croatian government recognizes that certain individuals and groups experience access problems and that these problems are contingent upon both socio-economic status and the urban/rural status of the place of residence, as well as that certain policy measures (among others, provision of scholarships) should be undertaken in order to alleviate these inequalities. However, after analyzing information on access rates, level of socio-economic development and scholarship provision on local and regional level through statistical methods, I gained insight into vast disparities in both access rates and scholarship availability between different units. This research shows that although normative prescriptions indicate that access problems are "diagnosed and managed", field data provide opposing evidence.

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This thesis is dedicated to all those who were capable and willing to enter higher education, but their socio-economic status hindered them from doing so.

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INTRODUCTION

In the past few decades there has been a dramatic increase in the number of students enrolled in higher education institutions in both developing and developed countries. However, although expansion of access, widening participation and a shift from elite to mass higher education are positive developments, these advances have not fully addressed the problem of inequality in access to higher education among certain historically underprivileged groups (racial and ethnic minorities - notably the Roma people in Europe, persons with disabilities, people of lower socioeconomic status etc.) and underprivileged less socio-economically developed, rural areas. Despite growing enrolment rates, many existing social and economic inequalities just perpetuated themselves in higher education, which impelled some countries to develop policies of equitable access, thus attempting to accommodate and meet the specific needs of disadvantaged groups or individuals.

In the debate of access and equity in higher education, the most important questions are how is access organized in a society, do specific access-facilitating mechanisms exist for certain groups/areas, what are the mechanisms and who are these groups/areas. According to the report "Who gets a degree? Access to tertiary education in Europe 1950–2009" by Koucky et. al, post-socialist European countries had vastly different outcomes compared to the rest of the Western world in terms of the participation of disadvantaged individuals and groups. The authors suggest that it is evident that inequity in most post-socialist European countries increased in the early 1990s, unlike in their Western counterparts where trends indicate a drop in social inequity. (Koucký et al. 2009). However, this research did not include Croatia since it was not the member of the European Union at the time, which makes it an

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interesting case for examination to see if it demonstrates the same access-inequality trends.

Following upon the research of Matković that concentrated upon the social structure of the student body in the Croatian higher education system (Matković 2008), Puzić, Dolenec and Doolan who worked upon the social dimension of the Bologna process and individual inequalities in access to higher education (Puzić et al. 2006) and Bajo who researched the adequacy of the Croatian financing system of higher education (Bajo 2008), I focus on a yet unexplored area: spatial aspects of access to higher education and provision of financial aid. The topic of this research is the spatial dimension of inequality, that is, local and regional inequalities in access to higher education in Croatia. More specifically, I'm interested if the level of socio-economic development of a local self government unit has any kind on influence on the rate of access to higher education institutions. Since equality of opportunities represents the core of the issue of inclusive higher education, I will also examine the normative stance the Croatian government has on equal access, as well as do an analysis of one of the policy mechanisms used to eliminate, or at least lessen the inherent inequalities.

Summarized, the research questions are: Does the level of socio-economic development of local and regional self-government units have an influence on the rate of access to higher education institutions among the corresponding age cohort of the unit's population; What is the normative position on equal access to higher education in Croatian laws, policy strategies and strategic documents; and is financial aid (scholarships), as an access facilitating policy mechanism, equally accessible throughout Croatia and can its administration be considered effective?

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After outlining the theoretical framework and methodology in Chapters I and II, this thesis will entail three levels of analysis. In Chapter III I will analyze the impact socio-economic indicators of a local self-government unit in Croatia have on the rate of access to higher education among the population of that unit using both inferential and descriptive statistical methods. Secondly, in Chapter IV I will do a normative framework analysis to see what's Croatia's stance on equitable access, and what does the Croatian government normatively commit itself to do to in order to alleviate socio-economic inequalities in the higher education system. Lastly, in Chapter V I will examine access facilitating mechanisms that the Croatian state employs to ensure more equitable access to disadvantaged individuals. My main focus will be on scholarship policy as the most "tangible" instrument of financial aid, as well as the only one explicitly stated to be used as an equity measure targeting people of lower socio-economic status. Using the concept of policy evaluation, I will try to evaluate the scholarship policy in place, focusing on: a) availability of scholarships in different parts of the country and b) the subsidiarity principle in scholarship provision: how effective in achieving equitable access is leaving the majority of scholarship provision to the local level. Finally, I will compare goals about equitable access stated in official documents (normative framework) with the outcomes of Croatian scholarship policy.

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Background information on Croatia

Croatia is administrative-territorially divided on two levels: regional and local. On the regional level, Croatia is divided into 21 units of regional self-government: 20 counties and the capital city of Zagreb which has the authority and legal status of

both a county and a city. The counties then subdivide into 127 cities and 429 municipalities on the local level. As defined by the Croatian Bureau of Statistics, a *county* is a unit of regional self-government which represents a natural, self-government unity and, as a rule; it comprises a number of towns and municipalities. Borders of a county are determined by borders of marginal municipalities and towns, respectively. A *municipality* is a unit of local self-government, established for a rural territory comprising a number of settlements that are considered a natural, economic and social entity, and are connected by common interests of inhabitants. A *town* is a unit of local self-government at the same level as a municipality which represents an urban natural, economic and social unity (CBS 2009).

The Croatian higher education system is a binary system which consists of university and professional studies (Polytechnics and colleges of applied sciences). According to the Croatian Agency for Science and Higher Education (AZVO 2010), there are 7 public and 3 private universities in Croatia, 13 public and 2 private Polytechnics, and 3 public and 27 private university colleges of applied sciences. The Ministry of Science, Education and Sports is in charge of the student support system. The Department for Student Affairs within the MSES deals with improvements to the student support system, scholarships, food, accommodation and transport. However, public financial aid (scholarships) is also distributed on local and regional level by territorially competent authorities, as well as by government-established trust funds on the national level. According to Croatian Bureau of Statistics data there has been an increase in total number of enrolled students over a five year period, between 2006 and 2010, on all levels of study. The total number of Croatian students has increased from 136,129 students in 2006/2007 to 153,960 students in 2010/2011 and this increase has been visible across the higher education sector (CBS 2010).

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CHAPTER 1. THEORETICAL FRAMEWORK

Subsequent to a brief introduction in which I explain the topic of my research and give an overview of its structure, I proceed to the explanation of theoretical concepts relevant for the research. According to Torraco, the theoretical framework "...consists of concepts, together with their definitions, and existing theory/theories that are used for the particular study" (Torraco 1997). The main concepts and theories underpinning my research are equal and equitable access to higher education, theories that link socio-economic status with access and policy evaluation.

1.1. Equal access and equitable access to higher education

The meaning of equity is close to that of fairness, and a fair distribution of any good is not necessarily an equal one (McCowan 2007). The concept of equity of access in higher education has been interpreted in many ways, but it mainly refers to measures designed to amend disproportionality in the representation of various status groups or strata in higher education in comparison to their shares in society (Evolving Diversity 2010). These measures include various mechanisms that improve access opportunities among historically underrepresented groups with an overarching goal of righting past injustices (Conner 2011). A useful conceptual framework developed by DesJardins divides equity into vertical and intergenerational one. While the former refers to unequal treatment of unequal groups (such as policies designed to improve access to higher education among students of disadvantaged backgrounds), the latter refers to the distribution of resources to ensure equity across generations (DesJardins 2003). The focus of my research will primarily be on vertical equity since it examines the issue of access to higher education for the socio-economically disadvantaged areas.

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Additionally, it is important to point out there is a semantic difference between “equal access” and “equitable access”. As DesJardins explains, the concept of equal access implies that educational resources and opportunities should be equally accessible to everyone regardless of their race, gender, age, religion, handicap, social origin *etc.*. Equitable access, on the other hand, is a concept that recognizes the need to address existing social and economic imbalances in the society when developing certain policies. It takes into account that certain groups or individuals do not have the same starting positions and starting chances in accessing education (on all levels; primary, secondary or tertiary) and that they should be subject to unequal treatment, that is, specially designed policies that target previously and historically disadvantaged groups in order to reach equality of opportunities for all (DesJardins 2003). The OECD thematic review of tertiary education defines equitable higher education systems as those that „ensure that access to, participation in and outcomes of tertiary education are based only on individuals’ innate ability and study effort. They ensure that educational potential at tertiary level is not the result of personal and social circumstances, including of factors such as socio-economic status, gender, ethnic origin, immigrant status, place of residence, age, or disability” (OECD 2008). The shift from equality to equity is a part of the ongoing debate in political theory. The prerequisite of achieving equal access is that every potential student has the equality of opportunities which means, in the words of John Rawls, that "those who are at the same level of talent and ability, and have the same willingness to use them should have the same prospects of success, regardless of their initial place in the social system" (Rawls 1971). Since social inequalities are inherent to all societies, from 1960's and the struggle for civil rights in western countries, governments started implementing public programs and policies devised to

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reduce the level of inequality, covered by the umbrella term *affirmative action* policies. Affirmative action refers to public policies that take factors including race, color, religion, gender, sexual orientation, national origin and socio-economic status into consideration, and have a purpose to benefit an underrepresented group (Moses 2010). According to Moses, one of the four common justifications for affirmative action is remediation - righting past wrongs and emphasizing compensatory function, that is recompensating for past discrimination, persecution or exploitation by the ruling class of a culture and implementing corrective action to address existing discrimination in order to remedy previous unfair treatment by morally arbitrary categories such as race, ethnicity, social origin *etc.*. (Moses 2010, Cohen 2003). Equitable access policies fall under the category of remediatory affirmative action policies.

1.2. Socio-economic status and access to education

As Bădescu and Pop say, "there is no public education system in the world that is entirely free of unequal educational opportunities" (Pop 2012). It is well known that educational success is influenced by many factors such as prior academic achievements of the individual, her cognitive capabilities, motivation, ability to do well on standardized tests *etc.*, but many studies argue that educational accomplishments are heavily influenced by the socio-economic status of the individual (Heward 1993, World Bank 2006, Altbach 2009, Ball 2010, Lucas 2010). These studies give a few examples of influenced areas: the school system a person gets enrolled into, the completion of secondary schooling, adaptation to the school experience, availability of private tuition and aspirations for higher education are just some of the areas significantly influenced by it. The inequalities manifested in the earlier stages of education (primary and secondary) continue to exist in higher

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education, which results in the underrepresentation and unequal participation rates of students from socioeconomically disadvantaged backgrounds (Mora 1997, James 2001, McCowan 2007, Altbach 2009, Yang 2010, Lucas 2010). This is vastly important for the issue of access to higher education, since it is highly dependent upon successful participation at earlier stages of education in all educational systems.

The relationship between socio-economic status and both access to education as well as educational attainment has been studied by many scholars, especially by the prominent French sociologist *Pierre Bourdieu*. Together with Passeron in Reproduction in Education, Society and Culture (1977), he described society as a plurality of social fields and developed the sociological concept of different forms of capital to explain the origin of educational inequalities. The forms of capital possessed by actors in the field define their positions and possibilities, depending on the relative importance of the forms of capital involved in that specific field. The most simple to understand is *economic capital*, referring to the material wealth (money, property etc.) behind a person or their family. The correlation with the problem of equity in education is quite trivial: for children of poorer families the cost of education represents a bigger challenge than for their peers with richer parents. More complex are the forms of cultural and social capital and their influence on an individual's educational path and status in society. *Social capital* stems from networks of social relationships, connections and the ensuing influences. An individual's acquaintances, their circle of peers, and the social network of their parents considerably influence the position in their education and society. *Cultural capital* represents the accumulated cultural knowledge that confers power and status (forms of knowledge, skills, education, and advantages) which give a person higher status in society. Children

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from lower social strata with less educated parents are inherently disadvantaged because parents provide their children with cultural capital by transmitting the attitudes and knowledge needed to succeed in the current educational system (Lucas 2010). Individuals with a lower socio-economic status have on average less economic, social and cultural capital and therefore have lesser opportunities on all levels of education then individuals of higher socio-economic status. Hence, Bordieu argues that education is the prime mechanism for perpetuating inequalities in society.

Similarly to Bourdieu, Raymond Boudon approached the same issue but from another perspective, the rational education decisions theory. His theory argues that the inequality in education can be explained by the rational choice of the individuals or their parents about the educational paths to be undertaken. Boudon claims that s persons social class heavily influences the rationale underlying educational and career decisions which results in educational stratification in society. The effects of this stratification are twofold. He sums up the primary effect as "the lower the social status, the poorer the cultural background and hence the lower the school achievement, age upon reaching high school etc" (Evolving Diversity 2010). The secondary effect manifests in the influence family's socioeconomic status has on a decision based on costs and utilities, forcing "less advantaged children into less reputable education choices or leaving school earlier" (Evolving Diversity 2010). Furthermore, he asserts that even if two children from different social backgrounds are not differentiated upon the primary effect, it is highly probable that their own, family's and status peers perceptions on the gain of education would influence the schooling path.

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1.3. Policy evaluation

The idea that the policy process can be divided and decomposed into stages was first put forward by Lasswell and further developed by authors such as Wildavsky, Anderson and Jenkins. Today, the conventional and mainstream theory divides the policy process into five stages: agenda-setting, policy formulation, decision making, implementation and evaluation, in that chronological order (Fischer et al 2007). Since policy-making is supposed to contribute to problem solving or at least to the reduction of the problem, it is important to evaluate its effectiveness after it has been implemented to determine "is it doing what it is supposed to be doing" (Theodoulou and Kofina 2004). In *Studying Public Policy: Policy Cycles and Policy Subsystems,* Howlett and Ramesh define the concept of policy evaluation as ”the stage of the policy process at which it is determined how a public policy has actually fared in action, that is, when an evaluation of means being employed and objectives being served is made” (Howlett & Ramesh 1995). Similarly, Theodoulou and Kofina describe policy evaluation as a "process by which general judgments about quality, goal attainment, program effectiveness, impact, and costs can be determined" (Theodoulou and Kofina 2004). Through evaluation, it is possible to ascertain whether a policy's effects were intended or unintended and whether the results were positive or negative for the target population and society as a whole.

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CHAPTER 2. METHODOLOGY

In his article "Application of a Case Study Methodology", Winston Tellis combines the work of acclaimed authors such as Robert K. Yin and Robert Stake to make a comprehensive overview that covers all aspects of the case study method. The author states that a case study is an ideal methodology when a holistic, in-depth investigation is needed, and uses Yin's typology to divide it into three distinct categories: *exploratory*, e*xplanatory*, and d*escriptive* (Tellis 1997). *Exploratory* cases are sometimes considered a prelude to social research and are focused on researching new areas and issues where little theory is available or where measurements are unclear; *explanatory* case studies are mostly used for conducting causal investigations on complex phenomena, while *descriptive* case-studies try to obtain information on the particular features of an issue and require an underlying theory to either "confirm or challenge [it], or to represent a unique or extreme case" (Tellis 1997). My research would fall under the category of a descriptive single-case study, because my unit of analysis is a single country - Croatia, I study the issue of access to higher education institutions in-depth and I try to confirm theories I use. Like in Yin's hospital-patient analogy where he noted that although a researcher may have data on a thousand patients in a hospital, the "case" is still a single hospital, with all of its patients being the embedded unit (Kohn 1997), the single case of this research is Croatia, although I conduct my analysis on many subnational units. According to a report "Who gets a degree? Access to tertiary education in Europe 1950–2009", post-socialist European countries had vastly different outcomes compared to the rest of the Western world in terms of the participation of disadvantaged groups. According to Koucký et al. it is evident that inequity in most post-socialist European countries increased in the early 1990s, unlike in their

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Western counterparts where trends indicate a drop in social inequity. However, this research did not include Croatia since it was not the member of the European Union at the time, which makes it an interesting case for examination to see if it follows the same trends (Koucký et al. 2009).

This research entails three levels of analysis: the impact of socio-economic indicators of a local self-government unit in Croatia on the rate of access to higher education among the population of the age cohort of that unit; the analysis of normative documents referencing to the issues of equal or equitable access in Croatia and subsequently the examination and policy evaluation of access facilitating mechanisms that the Croatian state employs to ensure more equitable access to disadvantaged individuals, with a clear focus on scholarship policy as the most "tangible" instrument of financial aid, as well as the only one explicitly stated to be used as an equity measure targeting individuals of lower socio-economic status.

2.1. Socioeconomic status and access to higher education

The first part of my thesis is focused on the impact socio-economic indicators of a local self-government unit[1] in Croatia have on the rate of access to higher education among the population of that unit, and here I use theoretical underpinnings of Bourdieu, Passeron, and Boudon, who are a few of many authors that linked socio-economic status with access to (all levels of) education, as well as educational attainment. My focus is on access to higher education institutions (both Universities and Polytechnics) in Croatia. In order examine the connection between the two, I firstly built a dataset with information about socioeconomic indicators of each LSU in

[1] Croatia is territorially divided on two levels:
a) county (regional) level: there are 20 counties and the city of Zagreb which has a county status
b) local-self government unit (LSU) level: entire territory of Croatia is divided into five hundred and fifty-six LSU's which are either legally classified as towns (urban areas) or municipalities (rural areas).

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Croatia, five hundred and fifty-six in total. Then, I did a large N cross-sectional subnational study by constructing a statistical model that uses multiple linear regression. The unit of analysis is a local self-government unit (with a possibility of extrapolating to municipality/regional level). The model compares socio-economic indicators of a local self-government unit with the rate of the enrolment in the age cohort (15-24)[2] in that unit, to test if there is a positive relationship. The model will be thoroughly explained in Chapter III. Research on the relationship between socio-economic status and access to higher education has predominantly been done on individual level (Mora 1997, James 2001, McCowan 2007). More precisely, students already enrolled into higher education institutions were compared on the basis of their individual socio-economic status (SES), that is comprised of family income, level of parents' education and parents' occupation, to see if the composition of the student body is representative of the population in general. Instead of the individual level, my research is conducted on the level of a local self-government unit for several reasons: initially, there is no statistical data available on the individual SES of the student body (MSES 2007, OECD 2008), secondly, I'm interested in local and regional, not individual, disparities in access rates, and finally, the analysis on the level of the local self-government unit is needed for the second part of my research about access facilitating policy mechanisms and their accessibility throughout Croatia.

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2.2. Normative framework analysis

The second part of my research entails a normative framework analysis about equitable access to higher education institutions, both on European and national

[2] In higher education research, it's customary to use 18-24 age cohort for the analysis of access to HE institutions. In the National census (2001), Croatian Bureau of Statistics divided age categories into age cohorts from 15-19 and 20-24, so I decided to go for the second best option and summed up these two categories.

level. I used descriptive content analysis in order to devise the Croatian normative framework. According to Krippendorf, "content analysis entails a systematic reading of a body of texts, images and symbolic matter, not necessary from the author's perspective" (Krippendorf 1980). Furthermore, it is defined as "a research tool used to determine the presence of certain words or concepts within texts or sets of texts" (CSU 2012) where texts are broadly defined as books, book chapters, essays, administrative documents, newspaper headlines and articles, historical documents etc. The documents I used for content analysis are official intergovernmental and governmental documents (declarations, communiqués, national laws regulating the higher education sector, strategic and policy documents, developmental strategies and governmental progress reports). I give answers to the following questions: What does the state commit itself to do to in order to alleviate inequalities in access to the higher education system? What are Croatian official policies on equitable access?

2.3. Policy evaluation of scholarship policy as an access-facilitating mechanism

After mapping out a normative stance on (equitable) access, my research shifts to policy mechanisms that the Croatian government uses in order achieve these stated goals of equitable access among its population. After I explored all of the available access-facilitating policy mechanisms using several reports made by the Institute for the Development of Education[3] and due to a limited time-frame, I decided to focus in-depth on only one mechanism: direct financial aid, that is, scholarship policy in Croatia. Access-facilitating policy mechanisms have a role to alleviate participation in higher education institutions for previously underrepresented groups in these institutions (St John 1989). Moreover, widening participation is not a

[3] Institute for the Development of Education is a Croatian non-profit, non-governmental organization that that is dedicated to the development, advocacy and implementation of higher education policies, with a special focus on issues of social inclusion and equity.

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praiseworthy goal in itself, but has a function of reducing inherent, existing and persisting inequalities in the society as a government-induced measure. As a mechanism designed to reduce inequalities, it should be equally accessible to all citizens of Croatia, and not contingent upon arbitrary factors such as place of permanent residence. Using public policy theory as my theoretical framework, mainly Howlett and Ramesh's framework for public policy analysis, I will apply the concept of policy evaluation on scholarship policy in Croatia. Evaluation is a final stage of a policy process (Hill 2004) and before-mentioned authors define it as "the stage of the policy process at which it is determined how a public policy has actually fared in action, that is, when an evaluation of means being employed and objectives being served is made" (Howlett & Ramesh 1995). In the first part of the thesis, I have shown that a) inequality of access to higher education between different local self-government units and municipalities exists; and b) that the different rates of access are contingent upon socio-economic status of the unit. In order to alleviate inequalities between different local and regional areas, financial aid should be equally accessible to all of them. This brings me to the second research question: Is financial aid, as a mechanism designed to reduce inequalities in access to higher education, equally accessible throughout Croatia?

Since there are no available aggregated data about direct financial aid in Croatia (Bajo 2008) I did a research about all state-funded scholarships, on national, regional (municipality) and local level, with an explicit focus on scholarships provided by local self-government units and municipalities. I obtained information about scholarship provision from public tenders published on the official websites of local self-government units and municipalities, and when these were not available, via telephone surveys. I built a dataset with information about scholarships in all five

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hundred fifty-six local self-government units and twenty-one municipalities, and analyzed the obtained data mainly through descriptive statistical methods. This research gave me insight into the equality of distribution of this access facilitating mechanism throughout Croatia, in the following categories: availability of financial aid, amount of financial aid, the ratio between need-based and merit-based scholarships and insight if the financial aid exists only on the undergraduate level, or on both graduate and post-graduate levels. The obtained data was then compared and used to make an overview of the Croatian scholarship policy.

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CHAPTER 3. ACCESS TO HIGHER EDUCATION AND THE LEVEL OF SOCIO-ECONOMIC DEVELOPMENT

The expansion of higher education from elite to mass universities resulted in widened participation in general, including some of previously excluded, less privileged social groups. This increasing demand for higher education was also present in Croatia. The number of students enrolled in all tertiary education institutions in Croatia in academic year 1991/1992 amounted to approximately 66,113 and in 2001/2002 to 112,537 (Bajo 2006). Yearly statistical reports show enrolment is constantly increasing, totalling 153,960 in 2010 (CBS 2011). This is partly due to an expansion and increase of student enrolment in existing older universities, but also due to new Universities and Polytechnics being created throughout the country which made them geographically and financially more easily available to a larger number of people. However, widened participation and easier access by itself do not guarantee that members of all existing social strata will be proportionally represented. Since access to higher education is influenced by many factors, not only by the sheer existence of more places in tertiary programs, it remains important to analyze if it is somewhat more difficult for certain individuals or groups. Even though there are no formal barriers for access on the basis of morally objectionable factors such as race, gender, or socio-economic status in Croatia, these characteristics still influence opportunities of access for some individuals.

According to the 2011 Eurostudent report[4] for Croatia, individuals with less educated parents, individuals from low-income families, people with disabilities and the Roma minority are still exceedingly underrepresented in higher education

[4] The Eurostudent Survey is a European-wide survey about the social, economic and living conditions of higher education students in EU states, covering topics such as demographic profile (includes age, gender, marital/family status, socio-economic background), income (includes employment patterns, state subsidisation), expenditure, well-being (includes financial well-being, workload, health) etc.

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institutions (Eurostudent 2011). However, the Eurostudent survey was done on a sample of approximately four thousand students (out of around 150,000 in Croatia) using individual level data and with no mechanism that allows to verify if the information given by the respondents were accurate. Following on the indications presented in this report, I intend to document if indeed the socio-economic status has any kind of influence on access to higher education. As I mentioned in Chapter II, due to the lack of official statistical data I cannot conduct this research on the individual level. Instead, I will use the available data relating to the socio-economic status of local self government units and try to answer my first research question: Do socio-economic characteristics of a local self-government unit have an influence on access to higher education institutions?

Previous research on the topic used the socio-economic status of an individual (defined by three factors: family income, level of parents' education and parents' occupation) as a predictive variable of access (Mora 1997, James 2001, McCowan 2007). That is, the unit of analysis for researchers illustrating this approach was the individual and/or her family. This type of research logically leads to inferences regarding access to higher education at the level of the individual or the family. Since my interests are local and regional inequalities in access, and I want to study the issue of access regarding the local and regional level, my unit of analysis are local self-government units (towns and municipalities) and counties.

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3.1. The model

In order to test if the level of socio-economic development of a local self governance unit has a significant impact on enrolment to higher education I constructed a statistical model that uses multiple linear regression. I first built a dataset with information about socioeconomic indicators and some geographic

indicators of all local self-government units in Croatia (five hundred and fifty-six in total). Data were obtained from the web pages of the Croatian Bureau of Statistics and Ministry of Regional Development, Forestry and Water Management. Then, I did a large N cross-sectional subnational study in which my units of analysis were before-mentioned local self-government units, with a possibility of extrapolating to county (regional) level.

The model regresses the dependent variable – the *enrolment index* on predictor (independent) variables – *socioeconomic development* indicators and some geographic indicators. The **enrolment inde*x*** is a variable I constructed by extracting the percentage of population enrolled to higher education institutions (Universities and Polytechnics, both undergraduate, graduate and postgraduate) from the age cohort (15 - 24) of the overall population for each local self government unit using data from the Croatia Bureau of Statistics (CBS 2001, Students in Academic Year 2010). By constructing the variable this way, I was able to account for differences in population size of different local self-government units. **Socio-economic development indicators** were attained from the *Development Ind*ex, introduced by the Croatia government in 2010 as a measurement for assessing the degree of socio-economic development of local and regional self-government units (MRDEF 2010). It is computed on the basis of following indicators (values for three years prior to constructing the index):

- *unemployment rate*
- *average income per capita*
- *budgetary revenue of local or regional self-government per capita*
- *general population migration trends between last two national censuses*
- *education rate* (the percentage of population between age 16 - 65 that have a high school diploma which is equivalent to ISCED level 3 of UNESCO's International Standard Classification of Education)

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The **geographic indicators** are comprised of variables that map out physical access - the existence of a higher education institution in the local self-government unit and rural/urban context - if the unit is legally classified as a town (urban) or municipality (rural). Table 1. shows the summary of all variables included in the model.

Table 1. **List of all variables included in the model**

VARIABLE NAME	VARIABLE DESCRIPTION	VARIABLE CODING
CAPITAL	Is the local self government unit the capital	*0 - not capital, 1 - capital*
URBAN ~ RURAL	The administrative- legal classification of the unit as a town (*urban*) or municipality (*rural*)	*0 - municipality (rural), 1 - town (urban)*
UNIVERSITY CITY	The existence of a higher education institution(HEI) on the territory of a local self-government unit	*0 - doesn't have a HEI, 1 - does have a HEI*
DEVELOPMENT INDEX	Measurement of socio-economic development of local and regional self-government units	1 (lowest) - 164 (highest)[5]
ENROLMENT INDEX	The percentage of the age cohort (15 - 24) of the LSU population enroled into higher education institutions	1 - 100 (percent)

The formula for the model is the following:

Enrolment Index = a + (Capital)b_1 + (Urban)b_2 + (University City)b_3 + (Development Index)b_4 + e

The analysis I used is a multiple linear regression because I wanted to see whether the predictor variables have any influence on the response variable, in what direction it goes and how strong that influence is (Lewis-Beck 1980). In other words, I regressed *Capital, Urban~rural, University City* and *Development Index* variables on the Enrolment Index variable to see if the changes in these socioeconomic predictors

[5] Already coded by the Ministry of Regional Development, Forestry and Water Management. I decided not to recode them to a standardized scale in order not to lose the variance between units. However, I eliminated one influential outlier (Dugopolje county) that had a development index of 282 which was not essential to my model in order not to get skewed results.

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affect access to higher education. I checked for all the regression assumptions: the residuals were normally distributed and the mean independency proviso was satisfied; the Q-Q plot looked normal except there was a slight deviation from normality for the really high and really low values; the homoskedasticity condition was satisfied as well, the scatter around the expected value for the whole range of the dependent variable was random and I eliminated one influential outlier which was not essential to my model. Also, I checked for the linearity of the relationship between the dependent variable and the only non-dichotomous variable - the Development Index, and it was fairly linear. In addition, I checked for multicollinearity with the Variance Inflation Factor (VIF) test and there was none.

This model is designed to give me insight into the existence of inequalities regarding access to higher education on both the local and the regional level, their severity, the distribution across the country and the insight into which indicators produce most variance in the enrolment index. Insight into access disparities among local and regional units will be of great importance because I compared them with the findings about existence, types and amounts of scholarships in these units in the last chapter.

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3.2. Findings

3.2.1. Local level

Firstly, I ran the *multiple linear regression* model and the results are shown in Table 2. The formula with the inserted results is the following:

Enrolment Index = **3.892***** - **2.958**b1 + **1.777**b2** + **4.421**b3** + **0.178**b4*** + e

Table 2. **Multiple regression model results**

VARIABLE	COEFFICIENT	STD. ERROR	t-STATISTIC	SIGNIFICANCE
*Intercept	3.892	0.808	4.813	1.93e-06 ***
CAPITAL	-2.958	5.321	-0.556	0.57852
URBAN~RURAL	1.777	0.572	3.104	0.00201 **
UNIVERSITY CITY	4.421	1.453	3.041	0.00247 **
DEVELOPMENT INDEX	0.178	0.010	17.511	< 2e-16 ***
Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.'				
R-squared	0.452	**Adjusted R-squared**	0.448	

The intercept implies making an inference outside the range of data: the local self government units with the Development Index of 0, which are not the capital, don't have the legal status of a city and do not host any higher education institutions will have an Enrolment Index of 3.89. Since there are no local self government units with the Development Index value of zero and we don't expect any units not to have any of the population enrolled to a higher education institution, the intercept is non-interpretable.

As Table 2. shows, the *Capital* variable is not statistically significant, so I am not going to interpret it. However, if the unit has the administrative-legal status of a municipality (rural area) or a town (urban area) passes the threshold for statistical significance and it points out to a relevant finding. If the local self-government unit is

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classified as a town, the Enrolment Index increases by 1.77 points. This means that with everything else held constant, the model predicts that a classification of a unit as a town (urban) results in a 1.77% increase in the Enrolment Index. This puts urban areas in a more favourable position compared to rural areas, regarding access to higher education institutions.

The *University City* variable expectedly shows that the Enrolment index increases by 4.42 points if the unit hosts a higher education institution on its territory. As previous research shows (Mora 1997, Western et. al 1998, James 2001), the proximity of a higher education institution to a place of residence significantly increases access rates.

Furthermore, for every one point increase in the *Development Index*, the Enrolment index raises for 0.18 points. Although it seems a rather small increase, it is important to mention that the scale for the Development Index has a range from 1 to 164, which is a rather large range. If it is changed into a 10 point increase, it implies that for every 10 points in the Development Index, the Enrolment Index rises for 1.80 points. Since the Enrolment Index ranges from 0.36% to 45.54% with a mean of 18.67% and a standard deviation of 6.89, a 1.80 point increase can be considered noteworthy. Finally, as can be seen in the Table XX, this model explains 45% of the variance (R^2= 0.451).

The implication of these results is that there is a moderately strong positive relationship between the increase in Development Index and the Enrolment Index of local self government units. In other words, the level of socio-economic development of local self-government unit influences the rate of access to higher education institutions for that population. Moreover, on average, having a legal status of a

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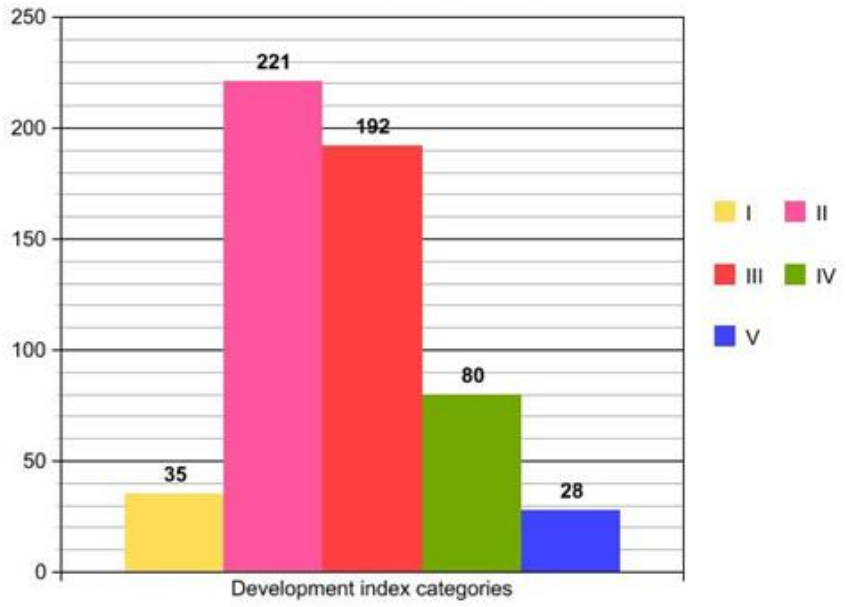
urban area and hosting higher education institutions results in a higher rate of access to higher education in the local self-government unit.

Secondly, I used the obtained data for *descriptive statistical analysis* of all five hundred fifty-six (556) local self government units. First, I analyzed the **Development Index**. As shown in Table 3., the Development Index is divided in five categories by the Ministry of Regional Development and EU Funds. Also, the Ministry set the ranges for the underdeveloped, developed and very developed categories (MRDEF 2010). Figure 1.[6] shows the distribution of local self governments in Development Index categories explained in Table 3.

Table 3. **Categories of the Development Index**

I	<50	UNDERDEVELOPED
II	50 - 75	
III	75 - 100	DEVELOPED
IV	100 - 125	VERY DEVELOPED
V	>125	

Figure 1. **The distribution of local self-government units into Development Index categories**



[6] All tables and figures (graphs and maps) in this thesis were made by me, unless noted otherwise.

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The average Development Index (DI) is 80.11% with a standard deviation of 23.30, which makes the average range 56.78 - 103.44%, as can be seen in Table 4. Additionally, 80 out of 556 units score below the average range, while 105 units score above it. The average value as well as average range for municipalities (rural areas) is significantly lower than the same values for towns (urban areas) which indicates that urban areas are on average, more socioeconomically developed than rural areas. Although it seems at the first sight that municipalities have a considerably higher "highest value" for the Development Index, the average value shows that it is due to a couple of outliers that have disproportionately high values compared to rest of municipality units.

Table 4. **Development Index (DI) values for local self-government units**

	All	**Municipalities**	**Towns**
Lowest value	16.13%	16.13%	54.22%
Highest value	163.71%	163.71%	143.28%
Average value *(mean)*	80.11%	75.83%	94.38%
Average range *(mean ± standard deviation)*	56.78 - 103.44%	53.32 - 98.34%	74.34 - 114.42%

Furthermore, as it is shown in Figure 2. and Table 5., 255 units were classified as socio-economically underdeveloped, which means they had a DI lower that 75%. Out of these 255 underdeveloped units, 234 (or 92%) are municipalities, that is, rural areas and only 21 (or 8%) are towns, that is, urban areas. This indicates that, on average, rural areas are more often classified as socio-economically underdeveloped than urban areas.

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Figure 2. **Socio-economically underdeveloped areas (<75% DI) by legal-administrative status of the unit**

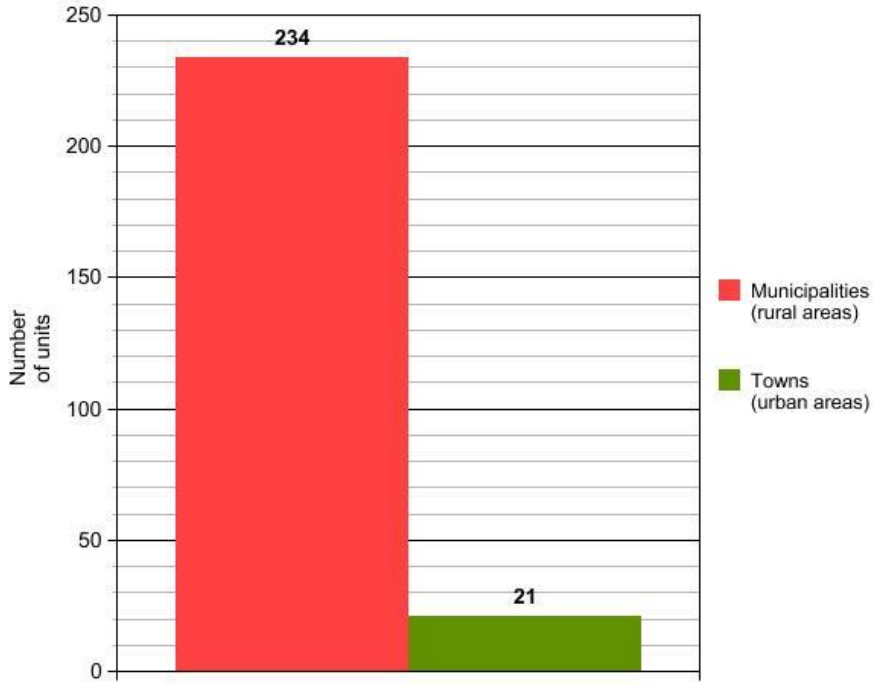

Table 5. **Number of underdeveloped local self government units (<75% DI)**		
	Municipalities	**Towns**
Total = 255	**234** (92%)	**21** (8%)

Table 6. and Figure 3. contain data on the **Enrolment Index (EI)**. This Index ranges from 0.36% for Šodolovci municipality to 45.54% for the Sv. Petar u Šumi municipality. When compared among local self-government units, the average enrolment index (EI) is 18.67% with a standard deviation of 6.89, which means that the average range spans from 11.78 - 25.56%. When stratified by the *Urban~Rural variable*, towns have an average EI of 22.8% while municipalities have an average of 17.35%. Again, at the first sight seems that municipalities have a significantly higher "highest value" of the Enrolment Index, but the average value shows that it is due to a couple of outliers that have disproportionately high values compared to rest of municipality units. It is mostly due to a small number of inhabitants (and subsequently

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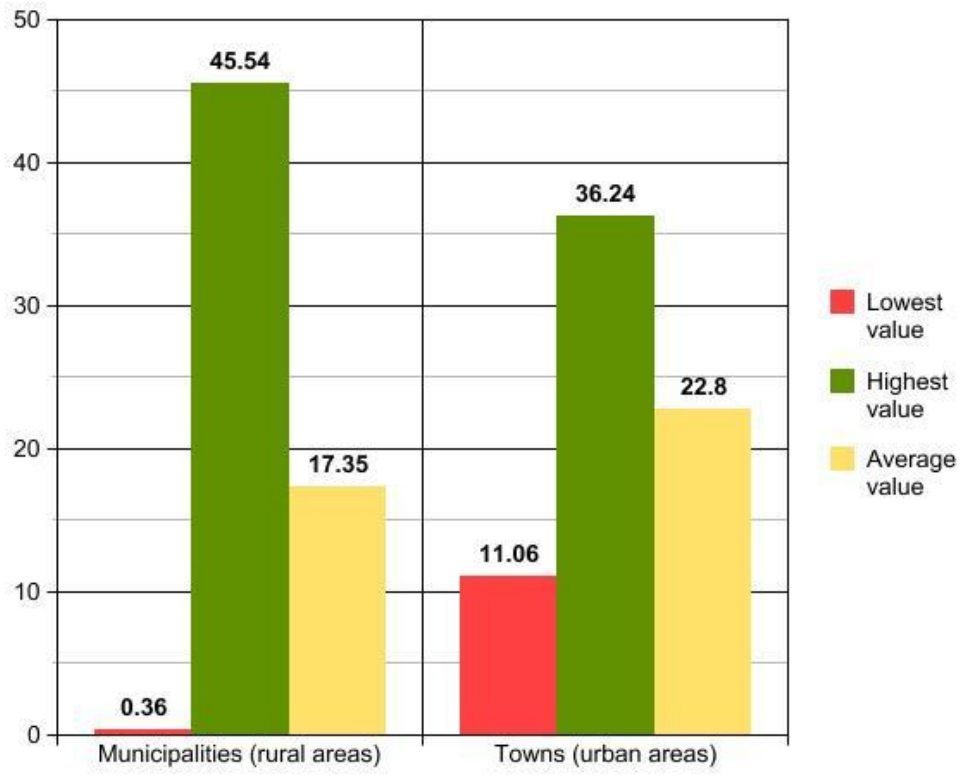
age cohorts) of the respective local self-government unit. Furthermore, Figure 3. shows that, on average, urban areas have a higher Enrolment Index than rural areas with a difference of five (5) percentage points. Given the fact that the average range for municipalities spans across 14 percentage points, while the same range for towns spans across 10 percentage points, the difference of five percentage points can be considered significant.

Table 6. **Enrolment Index (EI) values for local self-government units**

	All	**Municipalities**	**Towns**
Lowest value	0.36%	0.36%	11.06%
Highest value	45.54%	45.54%	36.24%
Average value *(mean)*	18.67%	17.35%	22.8%
Average range *(mean ± standard deviation)*	11.78 - 25.56%	10.54 - 24.16%	17.77 - 28.19%

Figure 3. **Enrolment Index (EI) percentage values by the legal-administrative status of the unit**



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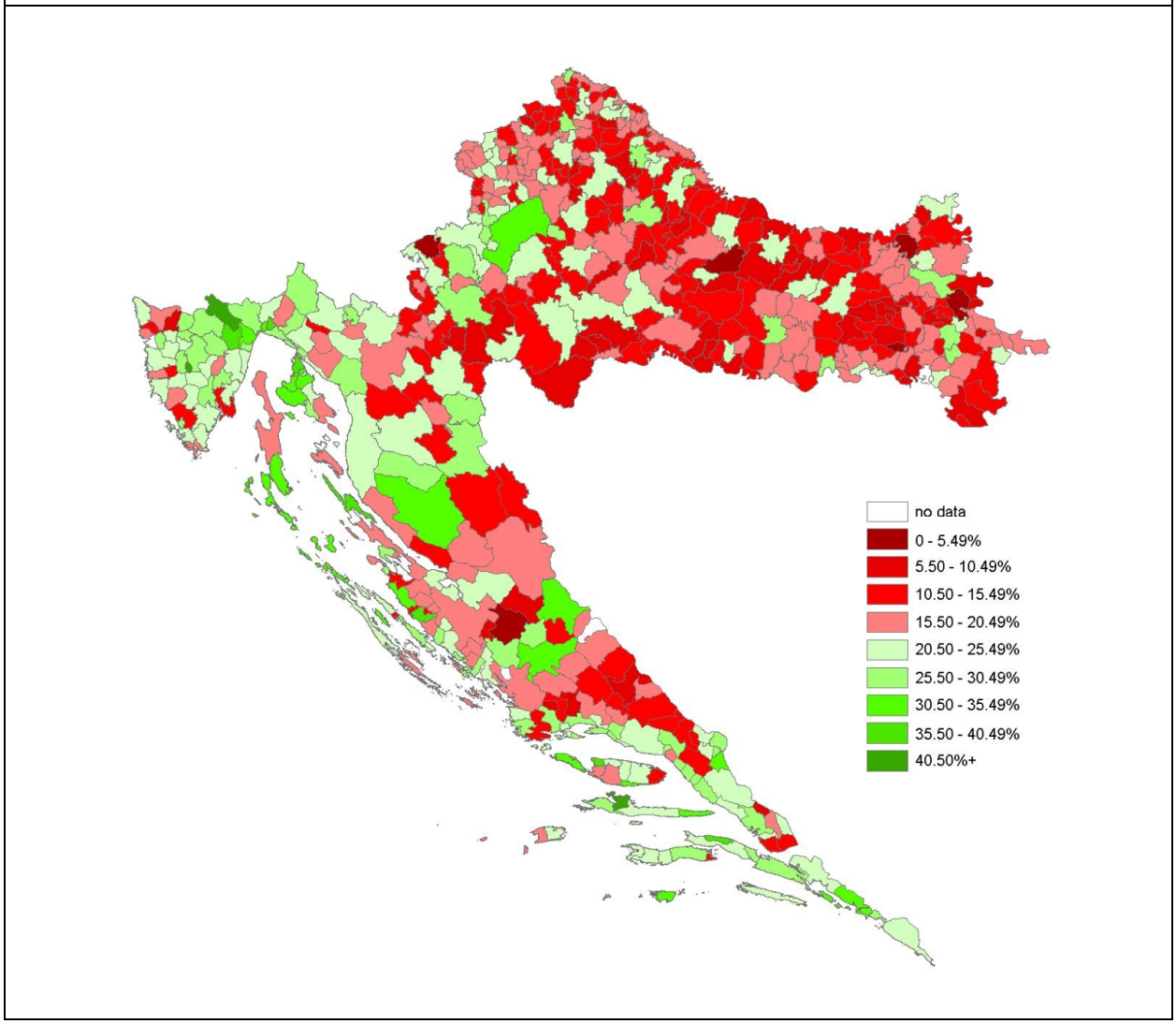
Moreover, Figure 4. illustrates the distribution of categorized Enrolment Indexes throughout Croatia and shows that areas with lowest and highest enrolment indexes are roughly clustered into high-scoring western and coastal southern local units with the addition of the units around the capital, and low-scoring eastern units.

Figure 4. **The distribution of categorized Enrolment Indexes on the level of local self-government units**



As shown in Table 7., 80 units out of 556 score *below* the average range, and 73 (or *91%*) of those are categorized as socio-economically underdeveloped. On the other hand, 92 units scored *above* the average range, and only 7 (or 8%) are categorized as socio-economically underdeveloped.

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Table 7. **Enrolment Index values for units below and above average range**			
	All	**Municipalities**	**Towns**
BELOW average range	**80 units** - 73 out of 80 (91%) are classified as socio-economically underdeveloped	**79 units** - 73 of them classified as socio-economically underdeveloped	**1 unit** - none of them classified as socio-economically underdeveloped
ABOVE average range	**92 units** (17%) - 7 out of 92 (8%) are classified as socio-economically underdeveloped	**51 units** - 5 out of 51 (10%) of them classified as socio-economically underdeveloped	**41 units** - 2 out of 41 (5%) of them classified as socio-economically underdeveloped

What this data shows is that the units that score *below* the average range of the enrolment index are predominantly socio-economically underdeveloped rural units (municipalities), while units that score above the average range are evenly urban and rural units. The latter can be explained by the fact that there is a considerable number of municipalities in Croatia located in socio-economically highly developed areas (compared to the rest of the country) that score rather high on the Development Index. As the model showed, these units then have a higher probability of having a higher Enrolment Index as well. Figure 5. shows that both below and above average scoring units can be find roughly clustered in certain parts of Croatia. Again, above average scoring units can be found in western and coastal southern areas, as well as around the capital, while below average scoring unit can be found in eastern areas.

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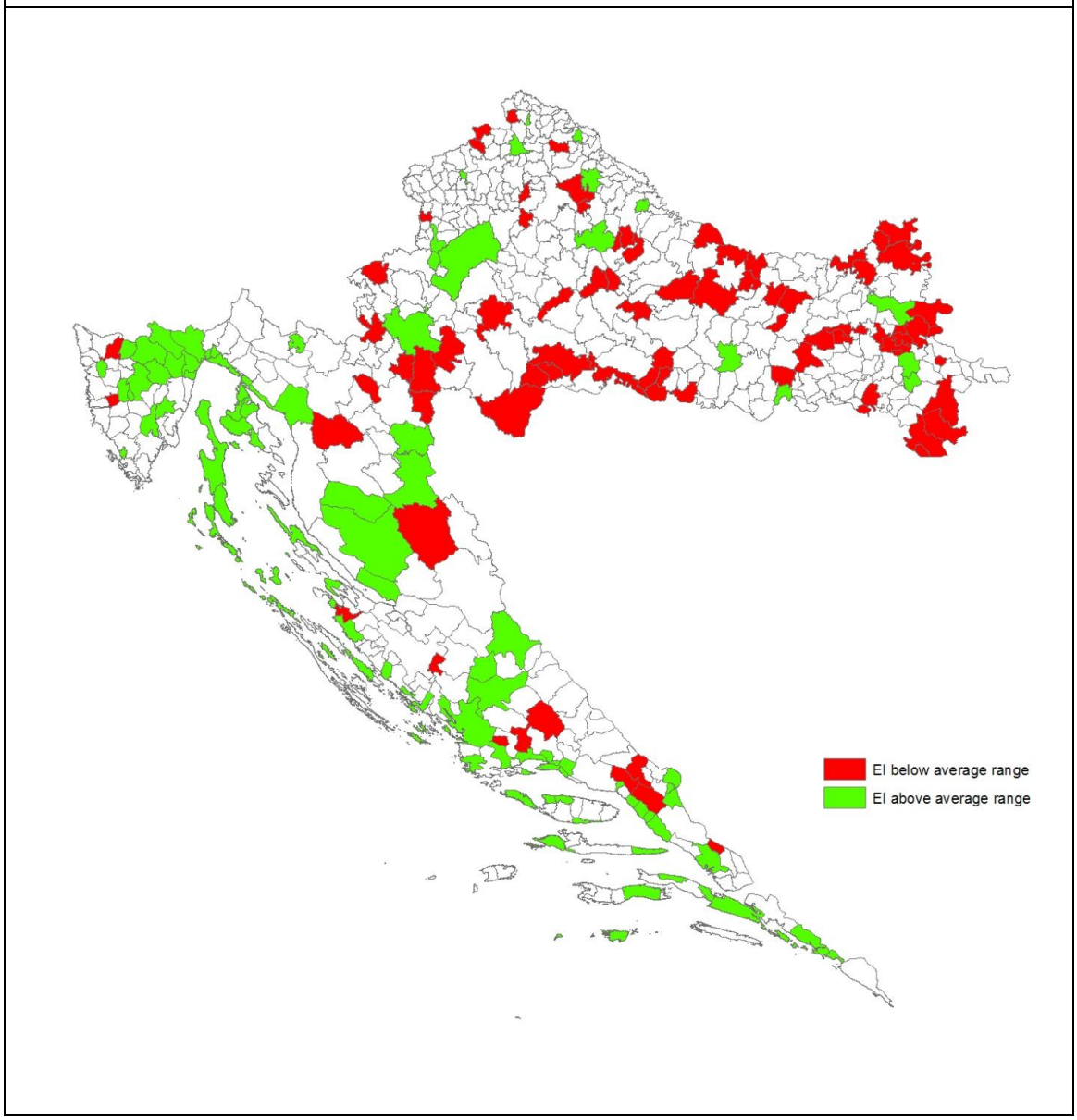
Figure 5. **Local self-government units scoring below and above average range of the EI**



Additionally, Table 8. and Figure 6. show that if Enrolment Index data are stratified on Development Index categories (I - V), it can be observed that the average value for the Enrolment Index increases significantly with each category. In other words, the lower the socio-economic status of the local self-government unit, the lower the Enrolment Index and *viceversa*.

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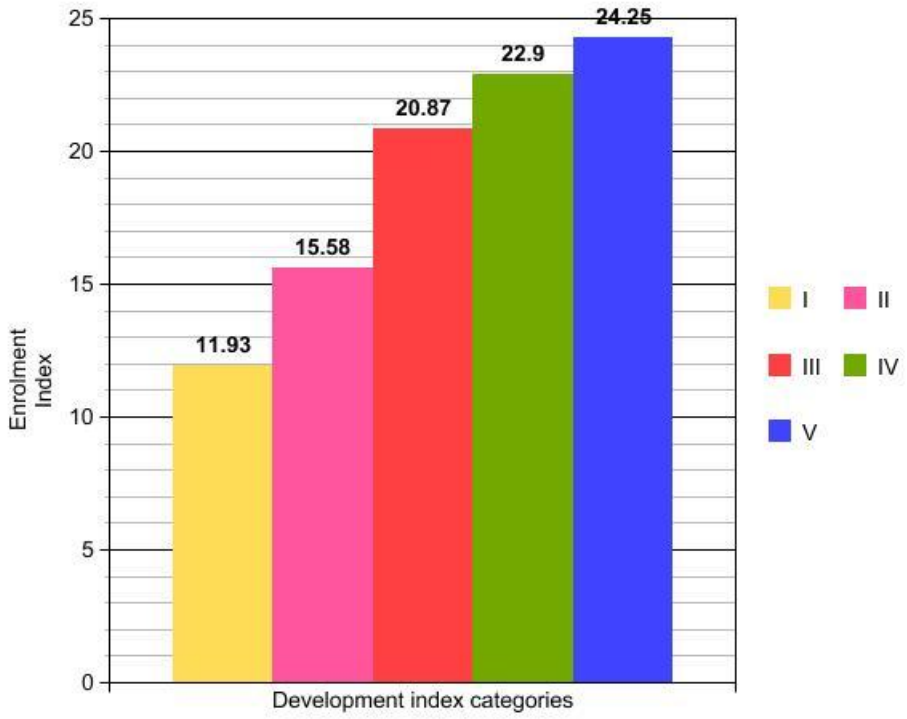
Table 8. **Enrolment Index stratified by categories of the Development Index**					
	I	**II**	**III**	**IV**	**V**
Average value *(mean)*	11.93%	15.58%	20.87%	22.90%	24.25%
Increase		+ 3.65	+ 5.29	+ 2.03	+ 1.35

Figure 6. **Enrolment Index *(in percentages)* stratified by categories of the Development Index**



The descriptive statistical analysis confirms the same as the multiple regression model: on average, the level of socio-economic development of the local self-government unit has an influence on the Enrolment Index, that is, the rate of access to higher education institutions among the population of that unit. The relationship is positive: the higher the level of socio-economic development, the higher the access rate. However, this data provides the possibility to differentiate between municipalities (rural areas) and towns (urban areas).

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There are several important features that should be highlighted:

- On average, municipalities (rural areas) have a **5 percentage points lower average value** of the Enrolment Index than towns (urban areas);
- Out of all units that score below the average range of the Enrolment Index, **99% are municipalities** (rural areas) and **91% are classified as socio-economically underdeveloped;**
- If the Enrolment Index data are stratified on Development Index categories, it is shown that the average value for the Enrolment Index **increases gradually with each category for an average of 3.08%.**

3.2.2. Regional level

The territory of Croatia is divided into twenty-one counties. Due to the small number of cases (21) I could not run the multiple regression model on the regional units, however, I was able to do descriptive statistical analysis with the available data. As was the case with the local self-government units, regional units were also assigned a Development Index based on the categories that indicate the level of socio-economic development. The average Development Index (DI) is 77.78% with a standard deviation of 44.88, which makes the average range 32.90 - 122.66% as can be seen in Table 9. Figure 7. shows the distribution of counties in Development Index categories, as explained in Table 1., while Figure 8. shows the territorial distribution of the Development Index categories on the county map of Croatia.

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Figure 7. **The distribution of counties into Development Index categories**

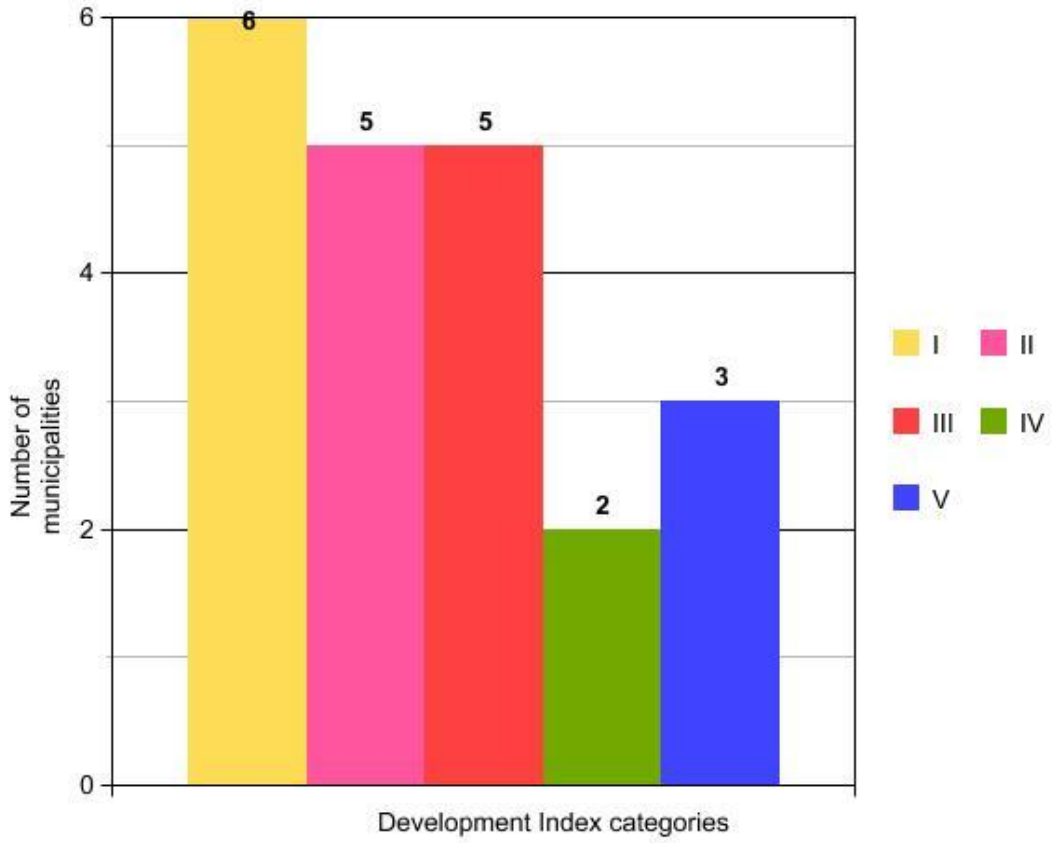

Table 9. Development Index (DI) values for counties	
Lowest value	20.51%
Highest value	187.54%
Average value *(mean)*	77.78%
Average range *(mean ± standard deviation)*	32.90 - 122.66%

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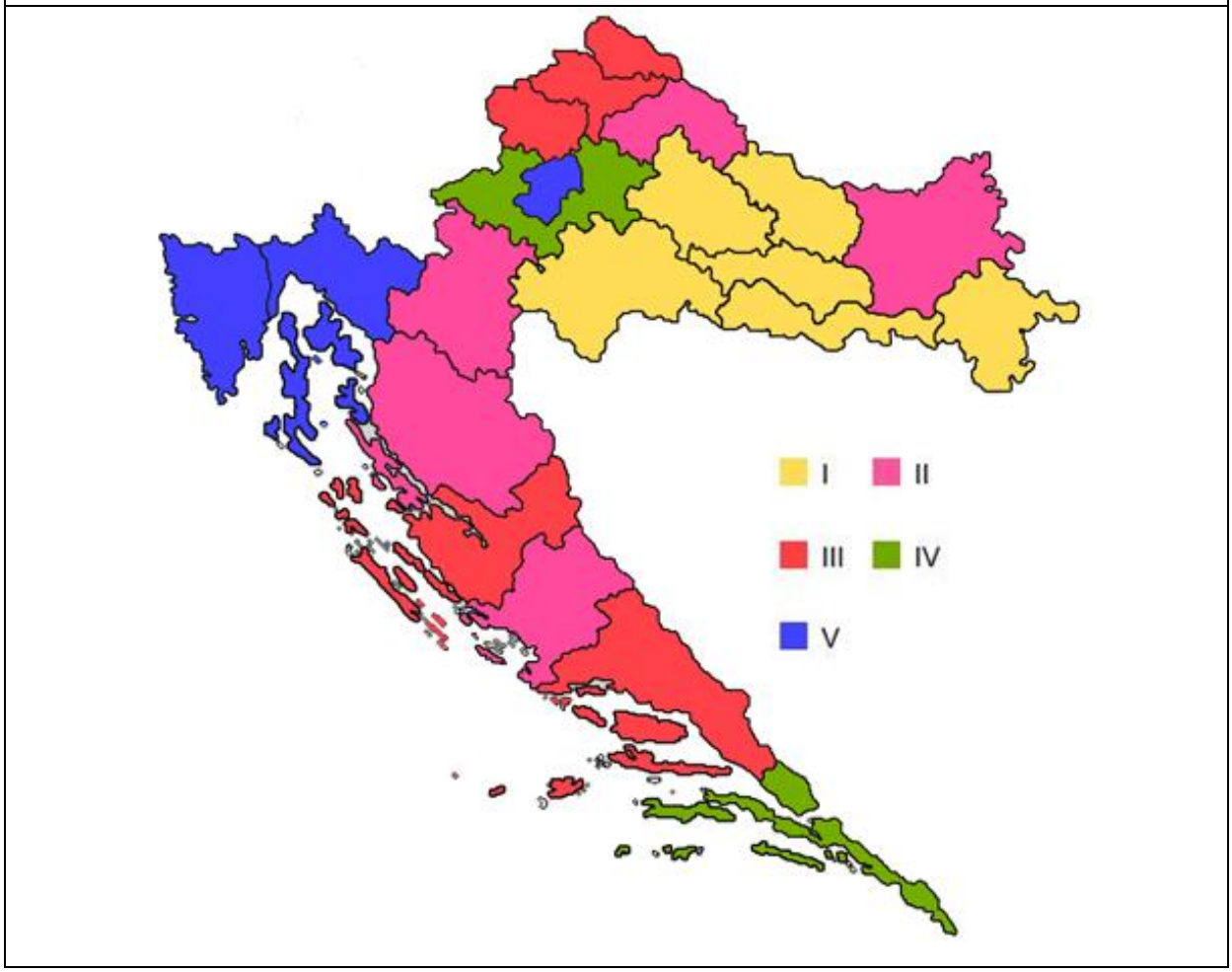
Figure 8. **Territorial distribution of the DI categories on the county map of Croatia**



The Enrolment Index for counties has been calculated in the same way as for local unit: the percentage of the age cohort (15 - 24) of the county population enrolled into higher education institutions. Table 10 shows that the Index ranges from 17.25% for Vukovarsko-Srijemska county to 32,54% for Zagreb county. When compared among counties, the average Enrolment Index (EI) is 22.86% with a standard deviation of 3.93 which means that the average range spans from 18.93 - 26.79%.

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Table 10. **Enrolment Index (DI) values for counties**	
Lowest value	17.25%
Highest value	32.54%
Average value *(mean)*	22.86%
Average range *(mean ± standard deviation)*	18.93 - 26.79%

Moreover, Figure 9. illustrates the distribution of categorized Enrolment Indexes throughout counties and shows that areas with lowest and highest enrolment indexes are roughly clustered into high-scoring western, coastal southern and counties around the capital in central Croatia, and low-scoring eastern counties.

Figure 9. **The distribution of categorized Enrolment Indexes on the county level**

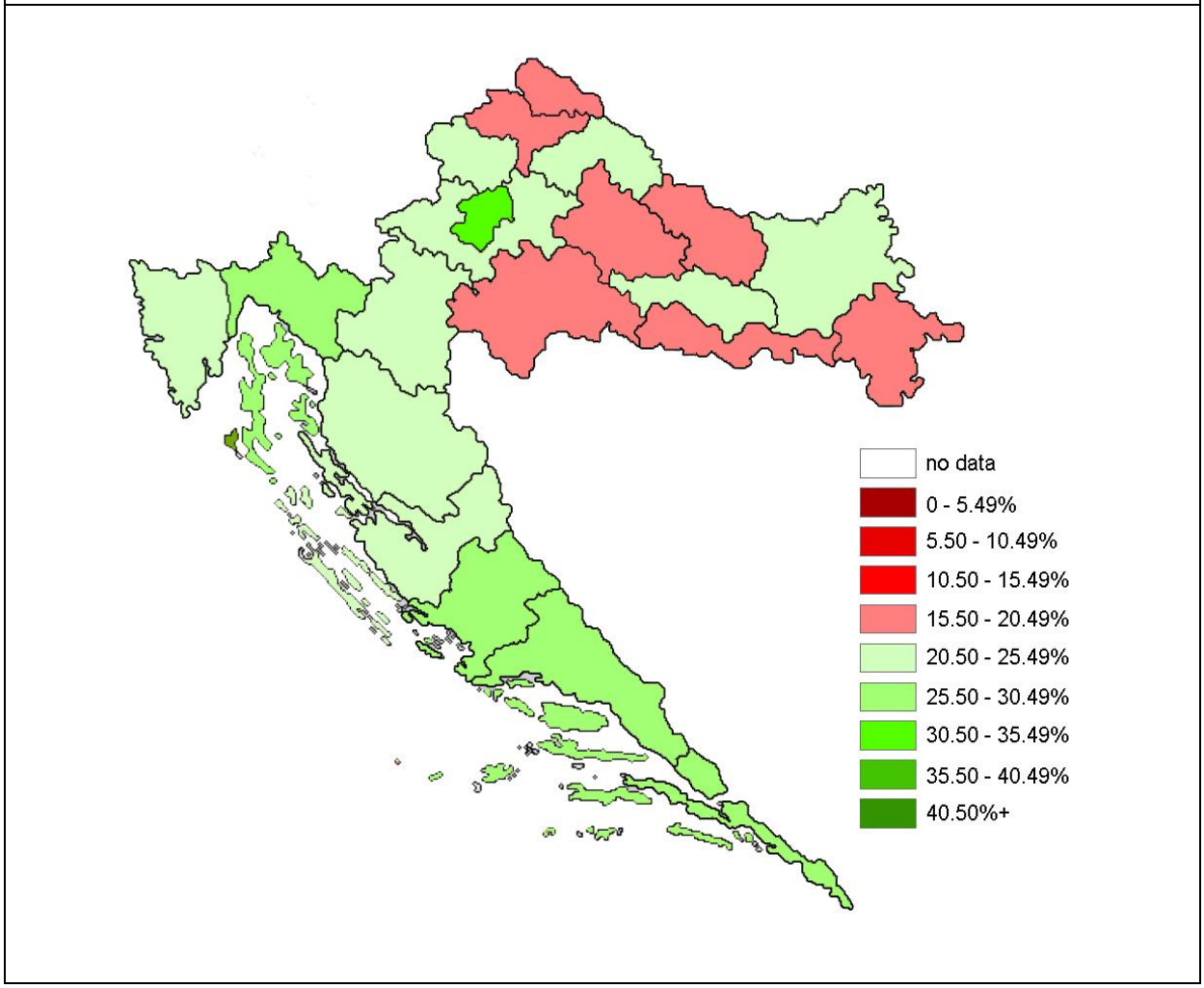

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Table 11**. Enrolment Index stratified by categories of the Development Index**					
	I	**II**	**III**	**IV**	**V**
Average value *(mean)*	19.55%	23.30%	22.43%	24.79%	28.19%
Increase		+ 3.75	- 0.87	+ 2.36	+3.40

Although I was unable to run a model, I could stratify the Enrolment Index data on Development Index categories and see if there was a constant change with the increase of the level of socio-economic development. As expected, it can be observed that the average value for the Enrolment Index increases with almost each category, as it was the case with local self-government units. But, the increase is non-linear, there's a decline on the transition from the third to fourth category. However, the data from Table 11. show that, on average, the Index still increases, for an average of 3.01% per category. The increase is similar to the one on the local level and it indicates that even on the county level it can be noted that, on average, the lower the socio-economic status of the county is, the lower the Enrolment Index would be and *viceversa*.

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CHAPTER 4. ANALYSIS OF THE NORMATIVE FRAMEWORK ON EQUITY AND EQUITY POLICIES IN HIGHER EDUCATION: THE EUROPEAN HIGHER EDUCATION AREA and CROATIA

In the previous chapter I've shown that Croatia faces a problem with access to higher education institutions contingent upon socio-economic indicators of a local self-government unit. Mainly, when I compared the enrolment ratio with a set of socioeconomic indicators for each unit, the results shown a statistically significant relationship indicating that access rates are influenced by the socioeconomic status of a local self-government unit. After I've "diagnosed" that there is an access problem, I will try to map out what does the Croatian state say about equal and equitable access. In order to do that, I will do an analysis of the normative framework of both European and Croatian policies on equity in higher education. I've included the European level (mainly the European Higher Education Area as envisaged by the Bologna Process), because Croatian policies of higher education did not develop in a vacuum, but are highly influenced by the Bologna Process since Croatia became a full member in 2001. As a part of the Process, the 2005-2007 social dimension working group, which had been set up after the Bergen ministerial meeting, recommended that each country develops its own strategy, including an action plan, for the social dimension. Although Croatian government did not develop a separate action plan or a strategy for the social dimension, almost all normative postulates and some policy measures outlined throughout the Process have been included in the body of national laws and various policy strategies, and can best be traced through national report on the progress of Bologna reforms.

Additionally, it is important to point out there is a difference between "equal access" and "equitable access". As DesJardins explains, the concept of equal access

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implies that educational resources and opportunities should be equally accessible to everyone regardless of their race, gender, age, religion, handicap, social origin etc. Equitable access, on the other hand, is a concept that recognizes the need to address existing social and economic imbalances when developing certain policies. It takes into account that certain groups or individuals do not have the same starting positions and starting chances in accessing education (on all levels; primary, secondary or tertiary) and that they should be subject to unequal treatment. Unequal treatment has a goal to right past injustices and consists of policies specially designed to improve access to higher education among students of historically disadvantaged backgrounds (DesJardins, 2003).

4.1. European normative framework on equity and equity policies in higher education

Over the past decade, equity and equity policies have found their place in Europe in the Social dimension of the Bologna Process. The Social dimension of the envisaged European Higher Education Area aims at **equality of opportunities in higher education** in terms of: access, participation and successful completion of studies; studying and living conditions; guidance and counselling; financial support, and student participation in higher education governance. (Bologna Process website) Within the Process, the social dimension is more precisely defined and should be regarded as the process leading to the objective that the "student body entering, participating in and completing higher education should reflect the diversity of the respective country's population" (Social dimension and mobility report 2007). The rationale why European countries insist on social dimension is the belief that it will foster social cohesion, reduce inequalities and raise the overall level of competencies

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in society and also maximize the potential of individuals in terms of their personal development and their contribution to a sustainable and democratic knowledge society. The social dimension itself was first mentioned in the Prague Communiqué (2001) as an issue raised by students, and was affirmed by ministers as something to be explored. In the subsequent communiqués since 2001, it has become better elaborated and more precisely defined as well as recognized as crucial for the success of the European Higher Education Area. What started as a legalistic notion of "ensuring equal access for everyone" regardless of arbitrary factors such as race, gender, age or socio-economic status, developed into a detailed normative framework that describes what is understood by equitable access to higher education intuitions, who are the historically underrepresented groups, but also prescribes possible actions and tools that should be implemented in participating countries in order to transform undertaken political commitments into concrete actions.

Table 12. **Equity commitments made in the official documents of the Bologna process**

Berlin Communiqué (2003)	"…higher education [should be] equally accessible to all, on the basis of capacity, by every appropriate means." (p.4) "[there is a] need for appropriate studying and living conditions for the students, so that they can successfully complete their studies within an appropriate period of time without obstacles related to their social and economic background." (p.5) " [there is a] need to improve opportunities [in higher education] for all citizens, in accordance with their aspirations and abilities, to follow the lifelong learning paths into and within higher education." (p.6)

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Bergen Communiqué (2005)	"We therefore renew our commitment to making quality higher education equally accessible to all, and stress the need for appropriate conditions for students so that they can complete their studies without obstacles related to their social and economic background. The social dimension includes measures taken by governments to help students, especially from socially disadvantaged groups, in financial and economic aspects and to provide them with guidance and counseling services with a view to widening access." (p.4)
London Communiqué (2007)	"The principles of nondiscrimination and equitable access should be respected and promoted throughout the EHEA." (p.2) "Higher education should play a strong role in fostering social cohesion and reducing inequalities. […]We share the societal aspiration that the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations. We reaffirm the importance of students being able to complete their studies without obstacles related to their social and economic background. We therefore continue our efforts to […] widen participation at all levels on the basis of equal opportunity." (p.5)
Leuven/Louvain-la-Neuve Communiqué (2009)	"Access into higher education should be widened by fostering the potential of students from underrepresented groups and by providing adequate conditions for the completion of their studies. This involves improving the learning environment, removing all barriers to study, and creating the appropriate economic conditions for students to be able to benefit from the study opportunities at all levels." (p.2)
Budapest-Vienna Declaration (2010)	"We shall […] increase our efforts on the social dimension in order to provide equal opportunities to quality education, paying particular attention to underrepresented groups." (p.2)

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These are the most important excerpts among the number of references to equity issues concerning the social dimension made in the official Bologna documents and show that the social dimension is relevant to all action lines within the Process. Policy measures however, were mostly not explicated in the declarations and communiqués, but in the follow-up documents and reports. Most important policy measures to promote equal opportunities for access were summarized in the "Key

issues for the European Higher Education Area – Social Dimension and Mobility" report as*:* anti-discrimination legislation covering higher education, nationally defined outreach programs for underrepresented groups, flexible learning paths into higher education and targeted incentives for higher education institutions to take different kinds of action in order to widen access and participation.

4.2. Croatian normative framework on equity and equity policies in higher education

In order to map out what do Croatian official normative documents prescribe about equal and equitable access, I will try to answer two simple questions: "What does the state normatively commit itself to do in order to alleviate inequalities in the higher education system?" and "What's Croatia's official stance on equitable access to higher education"? To be able to answer these questions, I will do a normative framework analysis of all relevant official documents. My focus will be on Croatian laws regulating the higher education sector, strategic and policy documents, developmental strategies and national reports on Bologna process. However, along the lines of the differentiation of equal and equitable access I mentioned earlier, it's important to point out that Croatian language does not linguistically differentiate "equal" and "equitable" as two separate words: it uses the word "*jednak(o)*" which means "equal" but it can semantically indicate both "equal" and "equitable" depending on the context. Since Croatian laws are not available in English translation, I always translated "*jednak pristup*" as "*equal access*"[7]-but included following sentences which provide a contextual background and make it fairly easy to distinguish between these two potential meanings.

[7] Since there are no available English versions of the documents I analyzed, all the translations in this paper are done by me.

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Croatia has put in substantial effort to address both equal and equitable access in the normative sense and the crucial strategic documents are quite explicit in that regard. However, my previous statistical analysis and some other surveys (Eurostudent 2011) show that equity issues on the ground are still problematic, regardless of a fairly well developed normative framework. Although there is no direct prohibition of entry to higher education based on race, sex, disability or other characteristics, the fact is that there are a number of "indirect" barriers that prevent equal access to higher education to certain social groups. According to the available analyses, higher education in Croatia is least accessible to individuals from lower income families, students from vocational schools, people with disabilities and members of the Roma minority (Eurostudent 2011).

4.2.1. The Constitution and laws regulating higher education

Higher education found its way into the **Croatian Constitution** as the highest legal document that entails the fundamental political principles on which the state is governed. It is mentioned under section three “Economic, social and cultural rights” in Article 65: “*Everyone has access, under equal conditions, to secondary and higher education in accordance with their abilities*.” This formulation uses the concept of equal, not equitable access - however it has to be taken into account that the Constitution of the Republic of Croatia was written in 1990, and the changes from equality to equity in European discourse about higher education mostly happened after 2000. However, the shift to the conception of equitable access can be noticed in the most important national document regulating higher education: **the Act on Scientific Activity and Higher Education** that was enacted in 2003 and amended in 2004. Under the section “Basic principles of science and higher education”, Article 2 reads that “[higher education] *is based on the openness of higher education to the*

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public, citizens and the local community, the European humanistic and democratic tradition and harmonization with the European system of higher education as well as the respect and recognition of human rights." Moreover, Article 77 prescribes that all higher education institutions "*must ensure enrolment in a way that guarantees equality of all applicants regardless of race, skin color, gender, mother tongue, religion, political or other conviction, national or social origin, belongings, social position, birth, disability, sexual orientation and age*". The laws preceding the 2003 one, mainly the 1993 Act on Tertiary Education Institutions and Act on Scientific Research Activity, which regulated the entire higher education sector up to 2003, did not mention equal (or equitable) access at all.

4.2.2. Strategic documents

The most important strategic policy document in the sector of higher education is the **National Plan for the Development of Education 2005 – 2010**. The plan includes two sub-sections important for equitable policies: "Improving educational opportunities and equal access" (3.1.4) and "Developing educational opportunities for adults" (3.1.3). As for access to higher education, it is stated that "*although we witness an increase in the number of institutions and programs of higher education, many young people do not enroll into higher education institutions and programs that fit their expectations and abilities because of their financial situation, which reduces equal educational opportunities for all*". Regarding policy measures designed to ensure equal access, the plan indicates that "*certain measures will be undertaken to ensure equal access to higher education for all; scholarships will be provided in collaboration with business and other partners for enrolled students with insufficient income, while the introduction of state graduation ("state matura") will facilitate the inflow of potential entrants to higher education*".

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Furthermore, there's a subsection named **Regional Justice** which states that "*Croatia faces a problem of large regional differences with regard to inclusion in secondary and tertiary education. Therefore, The Ministry of Science, Education and Sport, in cooperation with the ministries responsible for economic, regional development and employment, alongside social partners and local authorities, will develop educational opportunities, professional development and training in accordance with the economic and social need of the regional and local population. Providing equal opportunities of access to all levels of education in various parts of the country will be taken into account.*" Although this is not a classic example of a group in need of equitable policies in higher education (most often the basis for targeting certain groups with equitable policies is race, gender, age, ethnicity, religion, handicap and social origin, not so much the place of permanent residence), it still indicates that there is no equality in starting positions among different regions and therefore the government recognizes the need to implement targeted policies in order to equalize opportunities of access.

Another important policy document is the **Joint Memorandum on Social Inclusion in the Republic of Croatia** jointly issued in 2007 by Croatian Ministry of Health and Welfare and the European Commission. This joint inclusion memorandum enumerates major challenges in dealing with issues of poverty and social exclusion, presents major policy measures taken by Croatia in the light of agreement that common goals of the European Union should be translated into national policies, and identifies key policy issues for future monitoring and review. In Section 4: Education it is stated that "*specific developmental goals were adopted […] related to increasing the ratio of enrollment and graduation as well as overall participation in tertiary education*", while in the policy measures subsection it is noted that "*since educational*

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opportunities are largely associated with financial capabilities, measures to increase scholarship opportunities (given on both "merit-based" and "need-based" criteria) will be undertaken".

There are three significant documents that deal with groups usually targeted by equity policies: women, people with disabilities and the Roma minority. **The National Policy for the Promotion of Gender Equality 2006 - 2010** in Section 3: Gender Sensitive Education states that the "*national priority is the introduction of gender sensitivity in the entire educational system on all levels; elimination of gender stereotypes from textbooks and curricula; systematic training on gender equality for educators on all levels of the educational system; achieving gender balance in individual selection of the areas of education in secondary schools and higher education institutions and the facilitation of knowledge acquisition about gender issues at the academic level*".

The **National Strategy for the Equalization of Opportunities for Persons with Disabilities 2007 – 2015** also includes educational issues of people with disabilities. It is prescribed that the Ministry of Science, Education and Sports will "*develop contents and forms of involvement in the world of education […] for people with disabilities. In order to prevent social disintegration and exclusion of these individuals and groups, measures will be undertaken to ensure equal access to educational services on all levels throughout the country*".

There are two strategic documents addressing educational issues of Roma people: The government's **National Program for Roma Minority** issued in 2004 and the **Action Plan for the Decade of Roma Inclusion 2005 – 2015**. The former states the "*educational goal for Roma children in Croatia is to ensure equal opportunities, anti-discrimination and desegregation, to combat social marginalization, to promote*

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social integration with respect for minority rights and rights to equality, as well as inclusion of all Roma children in primary education while encouraging access to secondary and tertiary education". The policy measures related to higher education in the National Program include encouraging Roma students to access higher education, organizing and financing the preparation for higher education entrance exams, acknowledging extra points on state graduation for socio-economic conditions in which they live and providing accommodation in student dorms as well as special scholarships exclusively for Roma students. The Action Plan complements that National Program and it encourages the resolution of difficulties faced by the Roma population in four areas: education, health, employment and housing. The main objective of the Action Plan in the field of higher education is "*increasing the number of Roma students (both male and female) who enroll and successfully complete higher education*" through the same policy measures enlisted in the National Program.

4.2.3. Bologna progress reports

Croatia has submitted four national reports on the implementation of Bologna reforms so far as a membership requirement, in 2003, 2005, 2007 and 2009. In the 2003 report there's no mention on equity, while in the 2005 report there's a short and strictly legalistic remark about ensuring equal access to all citizens, providing they fulfill the admission requirements. The remark is accompanied by the same phrasing as in the Act on Scientific Activity and Higher Education stating that higher education institutions should "ensure the equality [of access] for all applicants regardless of race, colour, gender, language, religious, political or other affiliation, ethnic or social origin, property, birth, social status, disability, sexual orientation and age" (National

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Report 2005, p.7). However, there's an explicit reference to spatial dimension of access in the 2007 report. It states that "*the most important development in the last two years is the adoption of a policy of polycentric development of higher education, especially the development of professional studies in smaller urban areas. The aim is to increase the availability of higher education that is adapted to regional needs and particularities and to increase the number of persons with higher education in these areas and in the general population*" (National Report 2007, p.3). Moreover, the paragraph titled "The Social Dimension" enlists policy measures being taken by the Croatian government to widen access to quality higher education for specific groups such as Roma minority students, students with disabilities, students whose parents are of low income, war veterans, citizens of the town of Vukovar[8], students of disadvantaged social and economic background, those who plan to begin their professional careers in regions under special state care etc. The 2009 National Report addresses equity issues most extensively, dedicating an entire chapter to "The national strategy on the social dimension of the Bologna process". The Croatian government recognizes that some groups in society are still underrepresented in the national higher education system and that obstacles to participative equity in terms of access do exist for these groups. Furthermore, a part of the chapter is specifically concentrated on people with unfavorable social or economic backgrounds. It is explicitly stated that "*there is a need to introduce stronger support mechanisms for students from socially disadvantaged backgrounds [because] recently there have been some studies published which indicate that the level of representation of students originating from lower income families may be lower than it had been assumed until now*". Most importantly, in the final part of the report that explicates the

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[8] One of the cities most severly devastated in the Serbo-Croatian military conflict in the 1990's.

strategy for the future, increasing percentage of students from underrepresented groups in higher education is listed as one of the five concrete goals which the Republic of Croatia aims to achieve until the end of 2010 (National report 2009, p.46).

Normatively speaking, Croatia vigorously advocates equitable access to higher education institutions. After analyzing most of the relevant publicly accessible documents that normatively prescribe Croatia's stance on equ(al)ity in higher education on the national level, the skies do not look so grim. The Croatian state does recognize inherent inequalities in access to all levels of education (including higher education) for some historically underrepresented groups, and acknowledges that certain measures should be undertaken in order to suppress these inequalities. In my opinion, it is extremely important that (alongside people with disabilities and Roma minority), people of lower socio-economic status are recognized as a historically and structurally disadvantaged group eligible for equity policies. Maybe surprisingly, the Croatian government explicitly recognizes that both people of lower socio-economic status and people from socio-economically underdeveloped areas of Croatia face access problems. These two groups certainly overlap most of the times, but it is important to keep a clear distinction between them since the economic picture of Croatia is changing rapidly, and many previously economically developed local self-government units face a problem of the decline in the socio-economic status of their population due to the unfavorable state of national economy. However, although the state explicitly affirms normative values of equal access for all on the basis of merit and equitable access for the ones unequally capable of achieving these levels of merit, the real affirmation happens "on the ground" with the formulation and implementation of adequate policy measures. The statistical analysis

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from the previous chapter showed that there are still major differences in access rates throughout Croatia, and that these differences are contingent upon the socio-economic status of that part of the country. In the following chapters I will examine the policy measures implemented by the Croatian government proclaimed to facilitate access to higher education in order to make it equal for all individuals and groups. Which access facilitating policy mechanisms does the state use in order to suppress socioeconomic inequalities in the higher education system? Are there any mechanisms in higher education which the state implements that directly collide with the proclaimed goal of equitable access to higher education? Besides answering these questions, I will use policy evaluation to explore if one specific mechanism (financial aid) is equally accessible throughout Croatia, and assess if it can overall be considered effective.

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CHAPTER 5. ACCESS FACILITATING POLICY MECHANISMS IN CROATIA

In the previous chapter I provided evidence that the Croatian government normatively both recognizes the problem of unequal access for certain individuals and groups and acknowledges that adequate policy measures targeting these individuals and/or groups should be implemented. In other words, prescribing such policy measures that target specific groups indicates that Croatian government explicitly advocates equitable, not equal, access. According to the "OECD Thematic Review of Tertiary Education - Croatia", the Croatian government has used "various programs, projects and financial initiatives to stimulate and support the education and training of different social groups [with a] goal of improving educational opportunities" (MSES 2007). In order to see if the government's normative prescriptions have a base in actual implemented policy measures, I conducted an analysis of existing access facilitating policy mechanisms in Croatia. Another OECD report on tertiary education (OECD 2008) enumerates these as:

- *Tuition fee remissions;*
- *Financial support for accommodation, meal and transportation costs;*
- *Income tax reductions;*
- *Health insurance;*
- *Financial aid: Scholarships (merit-based, need-based, specially targeted - Roma minority and children of war veterans).*

However, due to the limited time frame for this research, I was able to extensively examine only one of the existing measures: financial aid or Croatian scholarship policy.

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5.1. Scholarship policy

Scholarships and grants are one of the allocation mechanisms designed and used to help students on all levels of higher education cover the studying expenses. Usually they cover tuition costs, living costs or both, depending on the financing system implemented in the respective country. Many authors agree that financial aid programs are beneficial for increasing overall access rates to higher education (Fife 1976, Jackson 1978, Hansen 1983, St. John 1989). According to the Croatian Eurostudent report (Eurostudent 2011), students' average cost of study per semester is 15,755 HRK (*approx. 2,098 EUR*) which includes both study and living costs. Since the average Croatian monthly net wage for March 2012 amounted to 5,499 HRK (*approx. 733 EUR*) (CBS 2012), scholarships can be considered a much needed auxiliary mechanism available to Croatian students. There are four main public providers of scholarships in Croatia:

- *The government* – scholarships funded from the national budget distributed by the Ministry of Science, Education and Sport;
- *The regional self-government units (counties*) – regionally available scholarships funded from county budgets;
- *Local self-government units* – locally available scholarships financed from local budgets;
- *State founded trust funds* – funded through state owned lottery and donations.

Due to the lack of a national scholarship policy register or any aggregated scholarship data for Croatia provided by the amenable institutions, I did a research about all state-funded scholarships, on national, regional and local level. In order to get information on the provision of scholarships, I analyzed all public tenders for the provision of scholarships in the academic year 2011/2012 on a national level, regional level (twenty-one counties) and local level (five hundred fifty-six local self-government units). Most of the tenders were available online, and for those that

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weren't, I conducted phone surveys. With the collected data I built a dataset with information in the following categories:

- *Availability (existence) of financial aid;*
- *Number of scholarships provided;*
- *Study level on which aid was provided (undergraduate, graduate, postgraduate);*
- *Ratio between merit-based and need-based scholarships;*
- *Amount of the scholarship;*
- *Repayability of the scholarship.*

Due to inconsistent data across the examined units, I could make inferences only about the following categories: availability (existence) of financial aid, number of scholarships provided and amount of the scholarship. However, these categories are enough to make a meaningful comparison across counties and local self-government units. Furthermore, due to the limited time-frame I was not able to make a longitudinal research and compare the trends in scholarship provision over a certain amount of time (e.g. five, ten years). Nonetheless, the data I obtained gives a clear picture of a Croatian scholarship policy for the academic year 2011/2012 which is in itself a notable insight since no similar comprehensive research has been conducted on the topic.

As can be seen in Table 13., data showed that most scholarships are provided on the local level, than on national and lastly on regional level. Since I am interested mostly in regional and local disparities, I will focus mostly on these levels.

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Table 13. **Basic information on scholarships provided in academic year 2011/2012**					
LEVEL		**NUMBER of SCHOLARSHIPS**		**PERCENTAGE OF STUDENT BODY COVERED[9]**	
National	The Ministry of Science, Education and Sports	2200	2673	1.48%	1.80%
	Trust funds	473		0.32%	
Regional		529		0.36%	
Local		6248+[10]		approx. 4.20%	

5.1.1. National level

The Ministry of Science, Education and Sports (MSES) awarded 2200 scholarships to both University and professional study students in 2012 (MSES 2011). The basic requirement for eligibility was that the student has a Croatian citizenship and is enrolled into an accredited University or professional study program. The amount of the scholarship varies from 500 HRK (*approx. 67 EUR*) to 800 HRK (*approx. 107 EUR*) per month and covers approximately 1.48% of the student body.

There are two government-established trust funds that provide scholarships in Croatia: the National Foundation for Supporting the Pupil and Student Standard and the Croatia for Children Foundation. Scholarships provided by these trust funds are also available to all students with a Croatian citizenship that are enrolled into an accredited University or professional study program. In 2012 these foundations awarded 473 scholarships of 1000 HRK (*approx. 133 EUR*) that cover 0.32% of the overall student body.

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[9] The calculation is based on the total number of students (148,747) in the 2010/2011 academic year (CBS 2011).

[10] This is not a definite number of scholarships provided. Firstly, I was unable to get information on scholarships from 16 local self-government units. Secondly, at least 22 units do not have a definite scholarship number, but provide scholarships to all eligible candidates that applied without disclosing their full number.

5.1.2. Regional level

In academic year 2011/2012 there were 529 scholarships provided by regional self-government units. The formal eligibility criterion for the county scholarship is that a person has permanent residence on the territory of that county. Out of 21 counties, 3 did not provide any kind of financial aid, while one (Splitsko -Dalmatinska county) provided financial aid only to families that have five or more children. Figure 10 shows that the number of scholarships varies from 4 to 122 while the amounts vary from 600 HRK (*approx. 80 EUR*) to 3900 HRK (*approx. 520 HRK*) as shown in Figure 11.

Figure 10. **The overall number of scholarships per county in academic year 2011/2012**

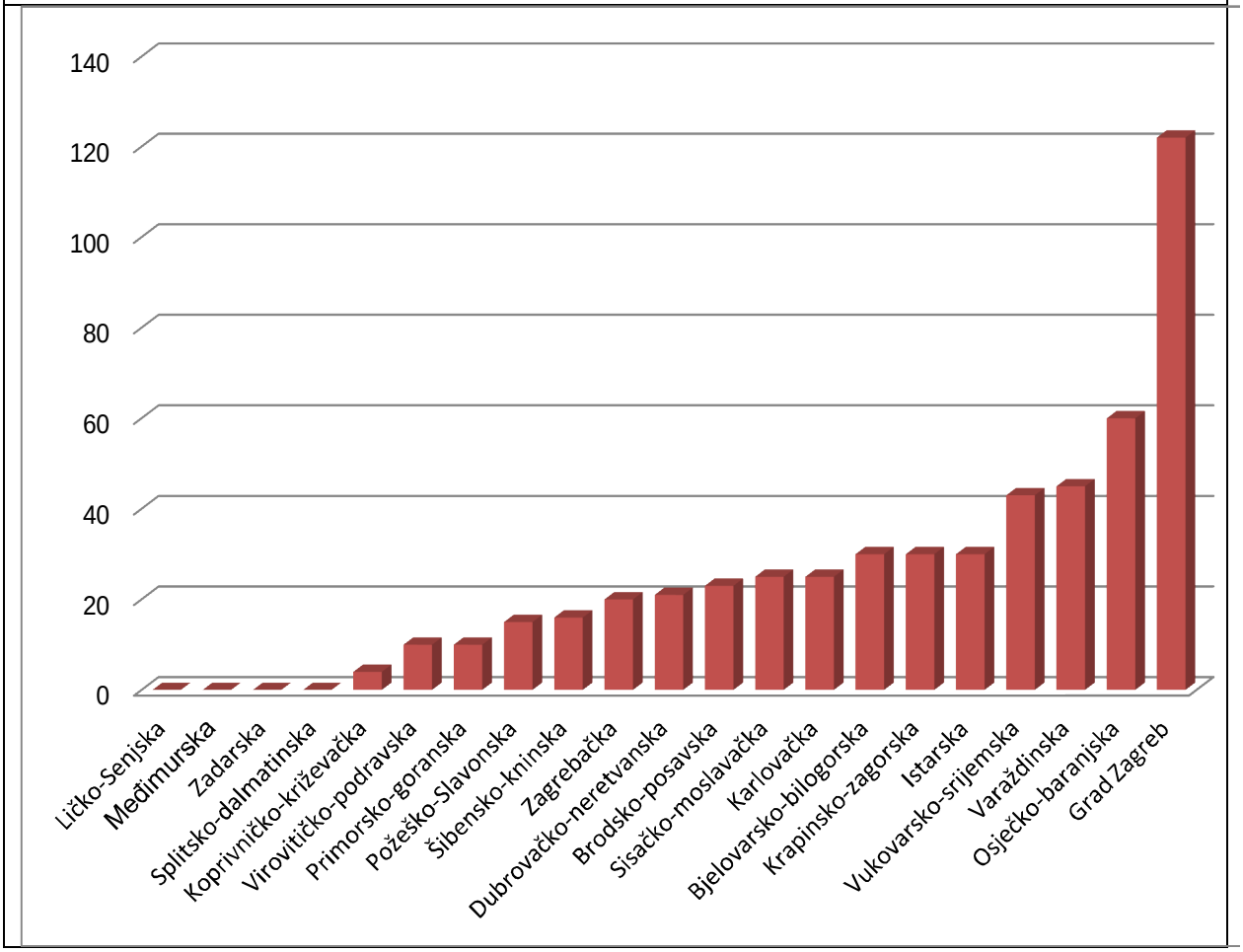

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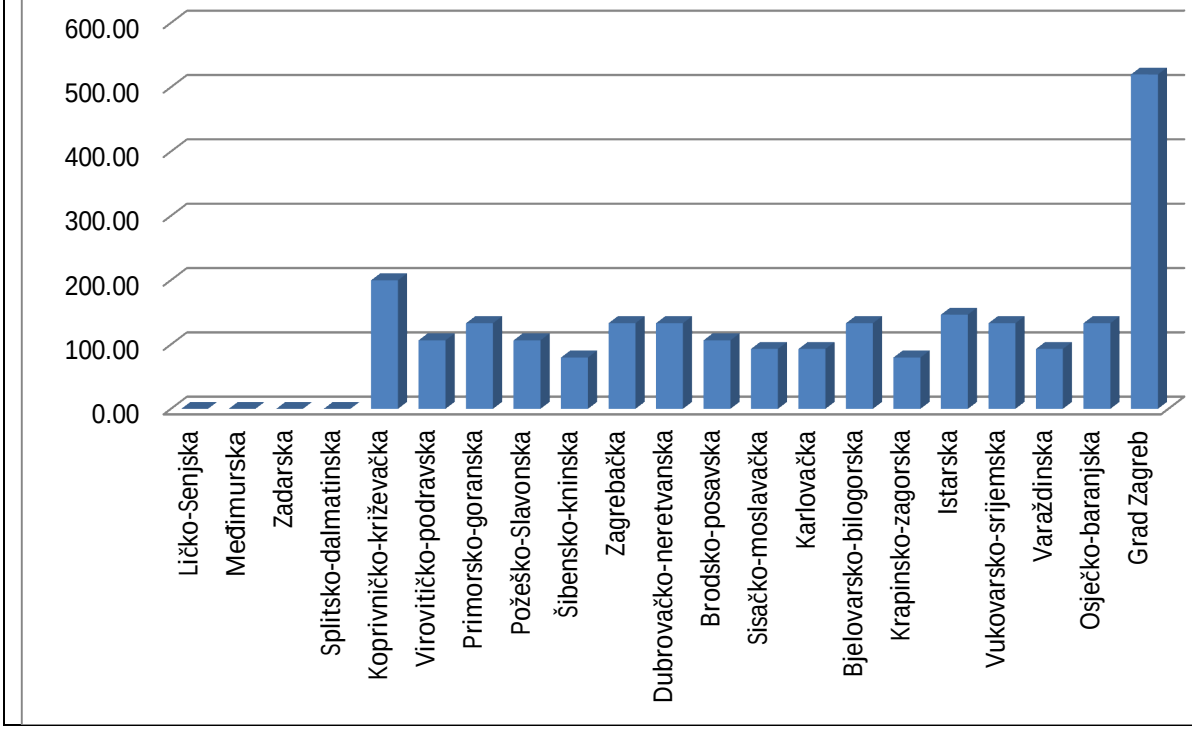
Figure 11. **The amount of scholarships per month and county (in EUR)**



What can be observed is that, as expected, there are big differences both in the number and amount of scholarships between the capital (Zagreb) and other counties. However, the differences in monthly *amount of the scholarship* among other counties that provide scholarships in the monthly are not so immense. With regard to the *number of scholarships* provided per year, Figure 10. shows that differences are still noticeable even among other units (excluding Zagreb). More importantly, comparing the number of students in the county population enrolled into higher education institutions with the number of scholarships offered in the same county, it is evident that none of the counties cover even 1% of the respective student population (Table 14.).

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Table 14. **Percentage of student population covered by scholarships per county**			
COUNTY	**PERCENTAGE OF STUDENT BODY COVERED[11]**	**COUNTY**	**PERCENTAGE OF STUDENT BODY COVERED**
Ličko-Senjska	0,00%	**Brodsko-posavska**	0,47%
Međimurska	0,00%	**Sisačko-moslavačka**	0,57%
Zadarska	0,00%	**Karlovačka**	0,60%
Splitsko-dalmatinska	0,00%	**Bjelovarsko-bilogorska**	0,86%
Koprivničko-križevačka	0,12%	**Krapinsko-zagorska**	0,79%
Virovitičko-podravska	0,43%	**Istarska**	0,47%
Primorsko-goranska	0,09%	**Vukovarsko-srijemska**	0,88%
Požeško-Slavonska	0,57%	**Varaždinska**	0,94%
Šibensko-kninska	0,42%	**Osječko-baranjska**	0,66%
Zagrebačka	0,21%	**Zagreb county**	0,37%
Dubrovačko-neretvanska	0,47%		

5.1.3. Local level

Out of 556 local self-government units, I was able to get scholarship information for 540 of them. The formal eligibility criterion for scholarships on local level is that a person has permanent residence on the territory of that local unit. As Figure 12. shows, 344 or 61% of the units provide scholarships for their students, while 192 or 34% of them don't. Out of these 192 units that do not provide scholarship opportunities, 141 or 74% are classified as socio-economically underdeveloped.

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[11] Calculated as the number of scholarships divided by the number of students from the respective county enrolled into higher education institutions.

Figure 13. **Availability of scholarships on local self-government unit level**

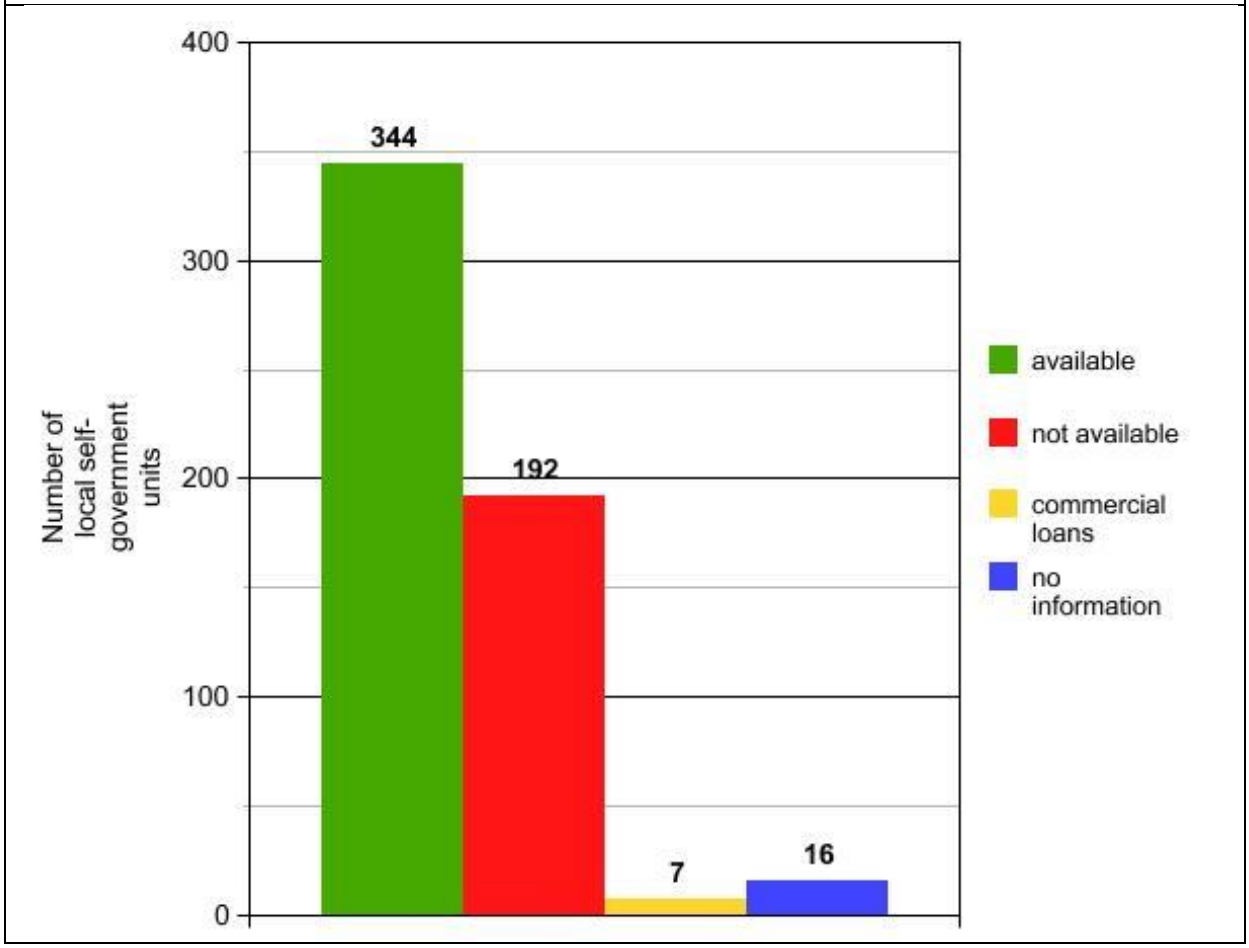

Figure 13. shows the availability of scholarships across local self-government units on a map of Croatia. As it was with areas of high and low enrolment, it is possible to see a clustering trend. While expectedly most of the areas that scored higher on the Development Index and some that scored higher on Enrolment Index provide scholarship opportunities, three clusters of units that do not provide scholarships can be seen. These clusters (in areas of Slavonija and Lika) territorially mostly overlap with areas that scored lower (less that 20% of the age cohort of population enrolled) on the Enrolment Index.

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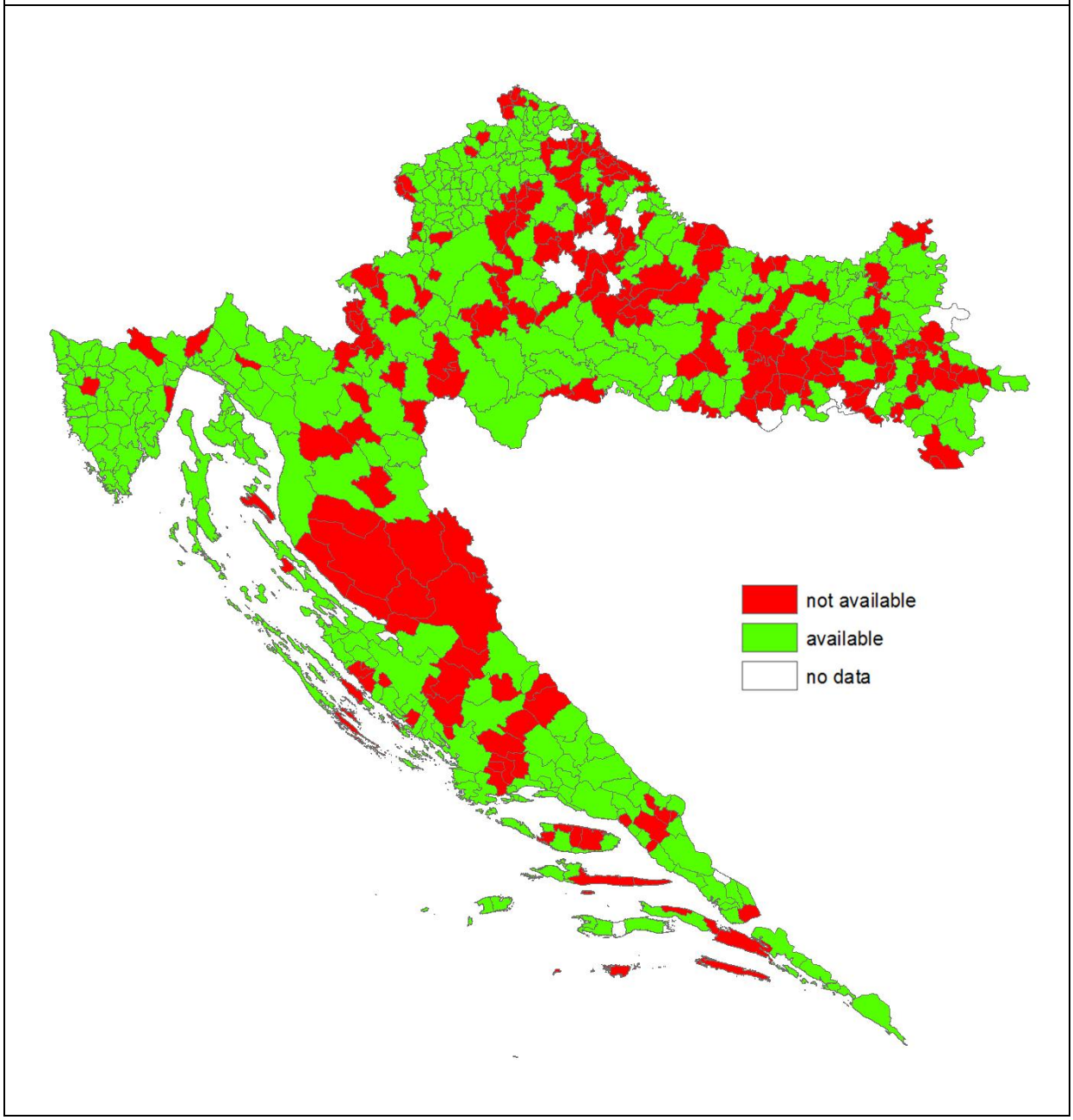
Figure 13. **Availability of scholarship opportunities on local-self government unit level**



If the data about scholarship availability are stratified by the legal-administrative status of the unit, it is evident that a much higher percent of towns (urban areas) than municipalities (rural areas) provide scholarship opportunities which, on average, puts student from urban areas in a more favourable position (Figure 14.).

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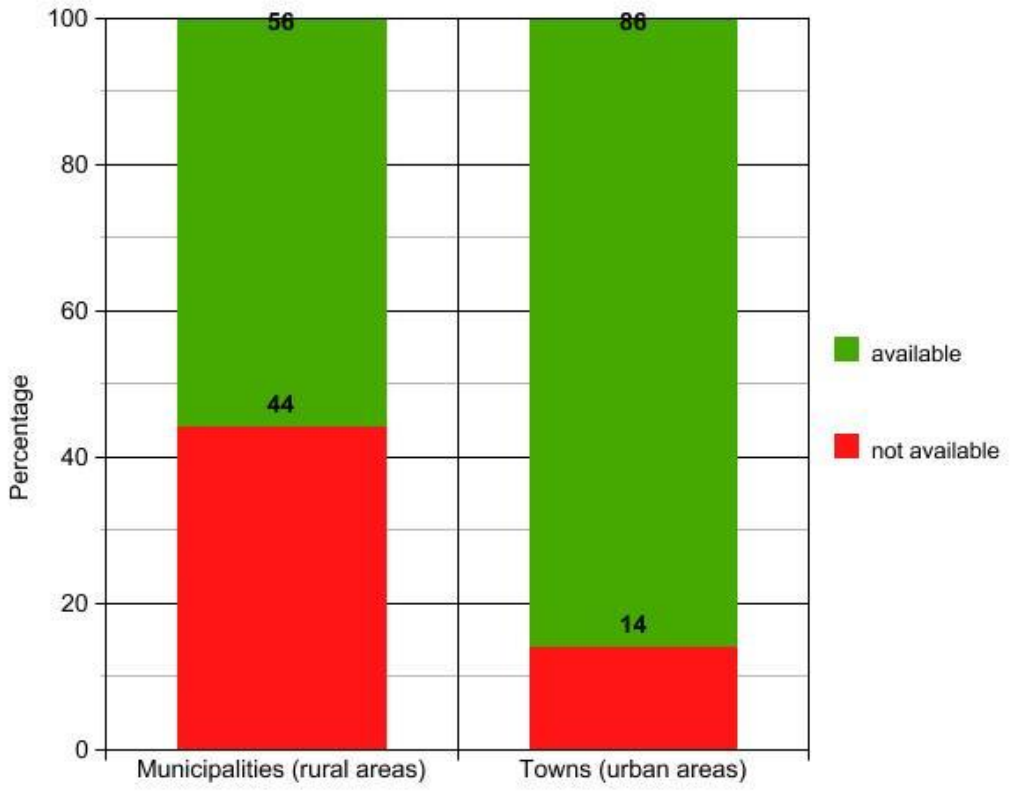
Figure 14. **Availability of scholarships stratified by legal-administrative status of the unit**



If the number of enrolled students is included in the stratification, another kind of inequality is shown. As table 15. shows, the inequality is twofold: firstly, 14319 students did not have the option of applying for a scholarship on a local level in the academic year 2011/2012 and secondly, there was twice as much of these students from rural then urban areas.

Table 15. **Availability of scholarships by legal-administrative status of the unit and number of enrolled students**

	AVAILABILITY STATUS	NUMBER OF UNITS	NUMBER OF ENROLLED STUDENTS
TOWNS ***(urban areas)***	Available	110	108,977
	Not available	14	4,492
MUNICIPALITES ***(rural areas)***	Available	237	20,396
	Not available	183	9,827

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Furthermore, If these information are cross-listed with the information about scholarship non-availability on the county level, it becomes evident that a total of 2675 enrolled students from 42 local self-government units[12] did not have the option of applying for a scholarship either on local or county level. Out of these 42 units, 39 are municipalities (rural areas) and only 3 are towns (urban areas).

As mentioned before, Croatia is divided territorially on two levels: the subdivisions on the first level are the counties and on the second level these are local self-government units (municipalities and towns). However, a county can also be disaggregated into the second level units - local units[13]. If counties are disaggregated in that way, we get an insight into another type of regional inequality. Table 16. shows that the percentage of the student body covered by local scholarships on county level ranges from 0.05% to 13.77%. These data also indicate that Zadarska, Međimurska and Koprivničko-Križevačka County compensate for the lack (or low number) of scholarships on the regional level with scholarship on the local level. However, this still does not resolve the above-mentioned problem of 42 units that do not have the opportunity to apply for any scholarship except national ones which are highly competitive since they are few. Moreover, some counties like Istarska or Varaždinska County also have a relatively higher percentage of student body covered by local scholarships while providing county scholarships as well.

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[12] Lička-Senjska County: Brinje, Donji Lapac, Karlobag, Lovinac, Perušić, Udbina, Vrhovine, Gospić; Međimurska County: Dekanovec, Donji Vidovec, Gornji Mihaljevec, Selnica, Sveti Martin na Muri, Štrigova, Vratišinec; Zadarska County: Galovac, Gračac, Jasenice, Kolan, Lišane Ostrovičke, Pašman, Polača, Starigrad, Sukošan, Sveti Filip i Jakov; Splitsko-Dalmatinska County: Brela, Jelsa, Lećevica, Lokvičići, Milna, Podbablje, Postira, Prgomet, Primorski Dolac, Pučišća, Seget, Sućuraj, Tučepi, , Zagvozd, Zmijavci, Supetar, Vrlika.

[13] With the exception of Zagreb county.

Table 16. **Percentage of student population covered by scholarships per county disaggregated in local self government units**			
COUNTY	**PERCENTAGE OF STUDENT BODY COVERED[14]**	**COUNTY**	**PERCENTAGE OF STUDENT BODY COVERED**
Bjelovarsko-bilogorska	0,05%	**Vukovarsko-srijemska**	5,18%
Šibensko-kninska	1,88%	**Primorsko-goranska**	5,60%
Požeško-Slavonska	2,13%	**Splitsko-dalmatinska**	6,05%
Zagrebačka	2,32%	**Ličko-Senjska**	6,82%
Karlovačka	2,40%	**Međimurska**	8,72%
Brodsko-posavska	3,01%	**Varaždinska**	9,34%
Sisačko-moslavačka	3,02%	**Krapinsko-zagorska**	9,85%
Virovitičko-podravska	3,67%	**Zadarska**	11,68%
Osječko-baranjska	4,66%	**Koprivničko-križevačka**	12,10%
Dubrovačko-neretvanska	5,12%	**Istarska**	13,77%

Another interesting inequality among local units can be seen if they are divided according to the level of socio-economic development, into five Development Index categories (I being least and V most developed, as explained in Table 1., p. 31). As data in Table 17. and Figure 15. show, the percentage of units that provide scholarships rises with each Development Index category. This can be interpreted as an indication that the provision of scholarships partly depends on socio-economic status of the unit. In other word, the data shows that more socio-economically developed units are more likely to provide scholarships.

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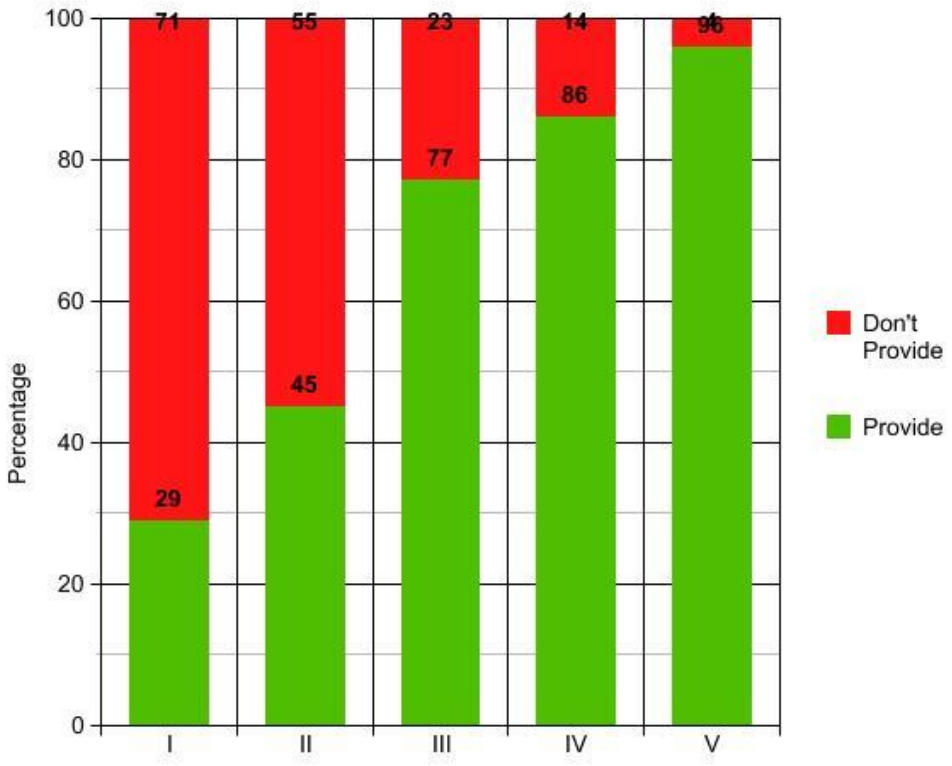
[14] Calculated as the number of scholarships divided by the number of students enrolled into higher education institutions from all local units in the respective county.

Table 17. **Number of local self-government unit that provide scholarships stratified by Development Index (DI) categories**

CATEGORY	STATUS	NUMBER of UNITS THAT PROVIDE SCHOLARSHIPS	PERCENTAGE of UNITS THAT PROVIDE SCHOLARSHIPS	INCREASE in % of UNITS THAT PROVIDE SCHOLARSHIPS
I	Provide	10	**29%**	
	Don't provide	25	71%	
II	Provide	99	**45%**	**+ 16%**
	Don't provide	118	55%	
III	Provide	148	**77%**	**+32%**
	Don't provide	44	23%	
IV	Provide	69	**86%**	**+9%**
	Don't provide	11	14%	
V	Provide	27	**96%**	**+10%**
	Don't provide	1	4%	

Figure 15. Percentage of **local self-government unit that provide scholarships stratified by Development Index categories**



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With regard to the monthly amount of scholarships, local scholarships range from 100 HRK (*approx. 13 EUR*) to 3900 HRK (*approx. 520 EUR*), while the average amount for all local units is 600 HRK (*approx. 80 EUR*). The average monthly amounts do not differ significantly for counties disaggregated on local self-government units. However, the obtained data pointed out to another inequality based on the level of socio-economic development. As with the percentage of units that provide scholarships, the average monthly amount of scholarships increases with the level of socio-economic developments. As shown in Table 18., the monthly scholarship amount increases for an average of 93 HRK (*approx. 12.5 EUR*) per category.

Table 18. **Average monthly amount of local scholarships stratified by Development Index categories**

CATEGORY	Average monthly amount of scholarship in HRK	Average monthly amount of scholarship in EUR (approx.)	INCREASE in EUR per category
I	500 HRK	**67 EUR**	
II	525 HRK	**70 EUR**	**+ 3 EUR**
III	580 HRK	**77 EUR**	**+ 7 EUR**
IV	680 HRK	**91 EUR**	**+ 14 EUR**
V	880 HRK	**117 EUR**	**+ 26 EUR**

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In conclusion, the obtained data indicates on several types of more or less severe inequalities:

- Inequality in **availability of scholarships** on both local and regional level
- Inequality in **overall number and amount of scholarships** provided on county level between the Zagreb county and other counties
- Inequality in overall number of scholarships provided on county level **among different counties** with Zagreb county excluded
- Inequality in availability of scholarships on local level **between urban areas (towns) and rural areas (municipalities)**
- Inequality in the **percentage of student body covered** by local scholarships on county level
- Inequality in the **percentage of local units providing scholarship opportunities** contingent upon the level of socio-economic development
- Inequality in the **average monthly amount of local scholarships** contingent upon the level of socio-economic development

5.2. Scholarship policy evaluation

As many scholars agree, there is no universal definition of public policy. Instead, there is general agreement that public policy can be broadly referred to as an attempt by a government to address a public issue by instituting laws, regulations, decisions, or actions pertinent to the problem at hand (Fischer et al 2007). As mentioned before, I will use public policy theory as my theoretical framework, mainly Howlett and Ramesh's framework for public policy analysis outlined in Studying Public Policy: Policy Cycles and Policy Subsystems, to analyze the financial aid policy in Croatia. The authors define policy evaluation as "the stage of the policy process at which it is determined how a public policy has actually fared in action, that is, when an evaluation of means being employed and objectives being served is made" (Howlett & Ramesh 1995). Through evaluation, we can determine

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whether the effects of a policy were intended or unintended and whether the results are positive or negative for the target population and society as a whole (Theodoulou and Kofina 2004). Among a few types of policy evaluation (performance, process, efficiency… evaluation) I am going to evaluate the effectiveness of the policy, that is, compare goals and outputs to see if it is "doing what it is supposed to be doing". Since I was not able to conduct a longitudinal study, I will not be able to assess if the provided financial aid actually increases access for disadvantaged individuals and/or areas. However, since financial aid is referred to as an access-facilitating and equity mechanism (MSES 2007, OECD 2008) designed to improve educational opportunities and decrease existing inequalities in access to higher education, I can evaluate it on the same criterion: equality. Equality of financial aid availability and equality of financial aid amount.

The descriptive statistical analysis conducted in the first part of this chapter indicated that the overall policy fails on both levels. Firstly, financial aid is not equally available, but contingent upon an arbitrary criterion such as a place of permanent residence. On the regional level 4 out of 21 counties (19%) did not provide financial aid in academic year 2011/2012. On the local level 192 out 556 (35%) local self-government units did not provide financial aid. If the local units were stratified into urban and rural units, it can be observed that 45% or rural areas did not provide financial aid compared to only 14% of urban areas. Furthermore, data showed that if local and regional scholarship opportunities were cross-referenced, there were a total of 42 units in which both enrolled and potential students did not have access to neither local or county scholarship. Briefly, the financial aid was neither equally accessible among students from different counties, neither among students from different local units, nor among students from rural and urban areas.

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Moreover, in the units where financial aid was available, there were inequalities in the number of scholarships per enrolled student. Since this comparison is almost impossible to report on the level of a local self-government unit, I reported it on county level. If counties were disaggregated in local units, the differences in the percentage of the student body covered by scholarship opportunities ranged from 0,05% to 13,77%. Even among the local units that provide financial aid, some students were twice, thrice or even thirteen times more likely to get the scholarship, depending on place of their residence.

As designated in the National Plan for the Development of Education 2005 - 2010 (2005) and in the Joint Memorandum on Social Inclusion in Republic of Croatia (2007), "...because the educational opportunities are largely associated with financial means […] measures will be undertaken to ensure provision of scholarships for enrolled students with insufficient income" and additionally, the government will "increase scholarship opportunities" for these individuals. However, if the local self-governments are stratified based on the level of socio-economic development into belonging Development Index categories, a twofold inequality can be seen. Firstly, there is a vast increase in the percentage of units providing financial aid following the increase of Development Index categories. On average, a student from a unit in Category V (a very developed area) is 3.5 times more likely to have an option for applying for a financial aid than a student from Category I (underdeveloped area). Secondly, even if the student obtained the scholarship, its amount will on average be almost twice higher in Category V than in Category I. As indicated by the data, neither the availability, nor the amount is equal across units with different levels of socio-economic development.

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Finally, as can be seen from the data, at least three times more scholarships are provided on local level than on the national level. This indicates that the provision of scholarships was in larger extent left to the local level. It may be interpreted as the national government following the subsidiarity principle and allowing local authorities to decide whether they want to provide financial aid at all, to what extent and in what amount. However, the decision about provision, number and amount will most likely be influenced by the economic situation in the unit, which puts economically more prosperous units in advantageous position. Regardless of how this situation is labelled or defined, the outcome of it is that students and prospective student from some areas have a bigger chance of obtaining financial aid and that these chances are contingent upon a completely arbitrary factor as place of permanent residence. Moreover, the odds are in favor of (prospective) students from socio-economically well-developed urban areas which already have higher enrolment rates then socio-economically less developed rural areas. The National Plan for Education specifically indicates that “equal opportunities of access to all levels of education in various parts of the country" should be provided (National Plan 2005). However, the outcome of financial aid policy was exactly the opposite.

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CONCLUSION

The first conclusion of this master thesis which is also the answer to the first research question is that, as shown in Chapter III, unequal access to higher education institutions contingent upon socio-economic status is "the problem at hand" in Croatia. More specifically, the level of socio-economic development of a local self government unit does have an influence on the rate of access to higher education among the age cohort (15-24) of the respective unit's population. As expected, the relationship is positive which indicates that the access rate will be higher as the level of socio-economic development increases. While multiple linear regression model provided statistical evidence that the relationship exists, descriptive statistics enabled to pinpoint exactly which local units have "access problems", that is, access rates below the average range. The inequality in access is manifested on two levels: spatial and socio-economic. The obtained data gave an insight in the stratification among these low-scoring units: on average, lowest access rates can be found among units that were classified as rural and/or socio-economically underdeveloped.

The examination of all the relevant official normative documents showed that the Croatian government acknowledges that inequalities in access to higher education institutions exist among the population. Several societal categories were singled out as underrepresented in the existing student body: most notably persons with disabilities, the Roma minority and people of disadvantaged social and economic background. Not only that unequal access opportunities for certain groups or individuals were recognized, but the government devised quite extensive and detailed policy strategies of equitable access designed to address and alleviate these inequalities. However, although the government explicitly affirms normative values of *equal* access for all on the basis of merit and *equitable* access for those unequally

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capable of competing on the merit criteria, the actual affirmation happens with the formulation and implementation of adequate policy measures.

The third research question was addressing exactly that issue: the effectiveness of financial aid policy as one of several access facilitating mechanisms directed at reducing access inequalities. Conversely, the policy mechanism designed to minimize one kind of inequality ended up creating another kind of inequality: the one based on the place of permanent residence. As data from Chapter V shows, financial aid was unequally accessible throughout Croatia, both on local and regional level. Moreover, the higher level of socioeconomic development indicated the higher probability of financial aid being available, as well as a comparably higher amount of scholarship. In conclusion, although the envisionaged goal of financial aid as a policy mechanism was to improve access opportunities for all students, I must conclude that this goal has not been achieved in Croatia in the academic year 2011/2012.

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