



# Merit matters: Student perceptions of faculty quality and reward<sup>☆</sup>



Amra Sabic-El-Rayess<sup>\*</sup>

*Education Policy and Social Analysis Department, Teachers College, Columbia University, 2015*

## ARTICLE INFO

### Article history:

Received 28 April 2015

Received in revised form 11 November 2015

Accepted 13 November 2015

### Keywords:

Development

Higher education

Quality of teaching

Corruption

Mobility

Favor reciprocation

## ABSTRACT

This empirical research explores a role that the quality of teaching and students' competence play in shaping students' views about the upward mobility opportunities in their higher education institutions. It is often understood that the principal role of higher education is to promote merit-based mobility amongst students, as well as espouse the merit-based upward mobility amongst its faculty. How exactly students in higher education form their views about the presence of meritorious upward mobility is the question that remains largely unanswered, especially in developing societies. To help answer this question, the study relies on the binary logistic regression of data collected via 762 surveys from 6 public higher education institutions in Bosnia and Herzegovina and determines what factors help predict students' views on whether faculty promotions are merited or not. Findings in this article are sub-selected from a broader empirical work, and they point to a novel link: the quality of teaching and students' views on whether the most competent students are first to graduate in their faculties are the key predictors of whether students believe the faculty members within their higher education institutions are promoted based on merit. In the absence of meritocracy, students are, as this research finds, likely to categorize the educational system as corrupt. When the merit-based competition does not determine who moves up within higher education, one's belonging to the political, social, and economic elites tends to become the alternative basis for the upward mobility. Moving away from the merit-based mobility can have broad social consequences particularly in developing countries that are poorly equipped to react to such digressions, underlining the relevance of this work cross-nationally.

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## 1. Introduction

A key danger of educational corruption in developing societies rests in its systemic character and tendency to help hold the elites in power longer term. The merit-based social mobility – which is typically provided through higher education – malfunctions when the elites begin to engage and, gradually, normalize the corrupt behaviors within the educational system. I define corrupt behaviors in education as obtaining full or partial educational credentials and having access to ensuing benefits – to an individual or group, entity, class, or network – not only through bribes, but more importantly through favor reciprocations amongst the

members of the same group, class, or network. Corrupt behaviors do not only capture briberies resulting from the abuses of authority for monetary gain, but also favor exchanges and any other self-serving acts within the system in which an individual or group operates. Therefore, the corrupt behaviors presumably allow individuals benefiting from such favor reciprocations to move up in the society on a non-merit basis. For the purposes of this paper, I define favor reciprocations as mutually preferential treatments amongst the country's elites. Favor reciprocations in higher education may manifest in the form of professors, without merit, passing students who have political, familial, or social connections with the elites in expectation that such favors will be reciprocated in the future. In fact, I argue that this form of corruption, which does not include any bribes, is presently the most frequently occurring, yet uniquely destructive, form of educational corruption in Bosnia and Herzegovina.

As the most prominent form of non-pecuniary corruption in higher education (Sabic-El-Rayess, 2012), favor reciprocations most often help the members of the socio-economic and political elites or their protégés obtain academic credentials or passing grades. The elites tend to support and promote individuals based

<sup>☆</sup> This article was derived from a doctoral research, titled "Making of a Voiceless Youth: Corruption in Bosnia and Herzegovina's Higher Education", which was defended in 2012 at Columbia University's Teachers College. This research was conducted with funding from the International Research and Exchange Board and Columbia University's Harriman Institute for Russian, Eurasian, and Eastern European Studies.

<sup>\*</sup> Tel.: +1 16463190142.

E-mail address: [as2169@columbia.edu](mailto:as2169@columbia.edu)

on their belonging or connection to the elites rather than a merit-based competition. While academic credentials or faculty promotions that are awarded to the elites or their favorites are beneficial to the elites, these unmerited awards simultaneously limit merit-based opportunities for the non-elites. Consequently, higher education is the elites' pathway to legitimizing their power through sponsorship of their protégés. This non-pecuniary form of corruption in education is intangible and thereby difficult to detect. It not only minimizes meritocracy as the basis for the academic achievement but, more broadly, for one's social standing in a society.

The study does not quantify favor reciprocations given that they are the primary form of non-pecuniary corruption in higher education institutions, but it looks at how students' concern for the lack of merit within institutions of higher education shapes students' overall perceptions of the upward mobility opportunities available to their professors and peers. This empirical research explores a role that the quality of teaching<sup>1</sup> and students' competence play in shaping students' perceptions about the upward mobility opportunities in their higher education institutions. Herein, students' perceptions are defined as students' personal views on various concepts introduced to them during the survey process. Given the clandestine nature of corruption, having a better understanding on how students view corruption-related processes is presumed to be a reliable proxy for evaluating the actual corruption.

If there is no merit-based mobility both for students and their faculty, I assume the alternative is the elite's favoritism amongst the political, economic, academic, and social elites. Social mobility here refers to an individual's movement upward within institutional and social hierarchies. The basis upon which this upward movement occurs defines the type of social mobility, most often as either merit- or non-merit-based. In this work, the non-merit based upward mobility is presumed to take the form of sponsorship-based mobility (Turner, 1960), where upward movement is a function of the relationship with the existing elites and power holders.

Significant research (Heyneman, 2004; Temple and Petrov, 2004; Truex, 2010; Transparency International, 2013) explores various aspects of corruption in education. For instance, Heyneman's seminal piece from 2004 defines corruption in education, but also elaborates on interventions that can effectively lessen corruption. Temple and Petrov (2004) similarly theorize about the right approaches to fighting corruption; using cases of Russia and Azerbaijan, they rightly argue that only a comprehensive societal engagement can meaningfully lessen corruption. Exemplifying through the case of Russia, Denisova-Schmidt (2013) recognizes that educational corruption does not occur in isolation, so it is to be studied in a broader context of societal corruption. Truex (2010) interestingly looks at how education itself impacts one's attitudes towards corruption and finds that educating those in developing countries may lessen their proneness to corrupt behaviors. This study extends prior research on education and corruption by looking for formative impact the lack of merit has on how students view social mobility within their societies. Since research that links the upward mobility of faculty members, student perceptions of merit, and non-pecuniary corruption – herein interchangeably referred to as favors reciprocations – has not been sufficiently tackled within the education research, the study addresses this gap.

The study employs binary logistic regression to understand what factors shape youth's views on social mobility opportunities

available to their faculty members and their peers. Bosnia's higher education is a unique research venue for the study of social mobility because of the growing influence the post-war elites have had over higher education. I present only a segment of the quantitative analysis from a larger study that relies on a sample of 762 surveyed students from 6 public higher education institutions. This analysis specifically examines factors that help predict students' perceptions of merit-based upward mobility available to the faculty members at those institutions. Often, faculty members are presumed to be involved in bribes, but this research looks at factors that predict students' views on the upward mobility mechanisms available to faculty members within corrupt settings. In Bosnia, barriers to merit-based upward mobility in higher education for competent faculty members exist (Svevjesti, 2008, n. p.), but no substantive social science research has delved into the issue until this study.

Turner's (1960) pioneering work on sponsored and contest-based mobility principally guides the inquiry. Turner (1960) envisions a merit-based contest as one way to achieve mobility and elite status. He sees sponsorship by the power holders as an alternative pathway to obtaining the elite status. Recent protests against corruption in the government institutions in Bosnia suggest that the elites of developing countries often lack the will to substantively minimize and properly sanction corruption, including educational corruption, because it is the powerful elite circles that benefit from corruption in education and beyond. Turner's sponsored and contest-based mobility models are introduced into the analysis and contextually applied to help examine the relationship between social mobility and educational corruption present in Bosnia today. As Tomusk (2000, p. 240) interestingly states, "power is legitimizing itself through the educational systems", and, in Bosnia and Herzegovina's context, power is legitimizing itself through educational corruption. In such context, Turner's mobility models provide this research with a theoretical platform to ultimately understand a difference between the two modes of mobility, one based on merit and one based on ties to the existing elites.

The study's appeal rests in the applicability of the social mobility findings to countries that have similarly faced the challenge of pervasive societal corruption and favoritism amongst the elites. Recently, Sabic-El-Rayess (2014) has initiated work in this domain. She uniquely applies Albert Hirschman's theory of voice, exit, and loyalty to explain how and why youths in corrupt higher education systems react to corrupt behaviors. The author fundamentally redefines and introduces new forms of exit, voice, and loyalty that students practice in corrupt educational settings. Youths, as she evidences, uniquely react to corrupt higher education structures. New questions continue to emerge given the ongoing public outcries against corruption and lacking upward mobility opportunities for youths in Ukraine, Hungary, Mexico,<sup>2</sup> and other developing settings in recent years. The proclivity of developing countries towards growing instability and even violence as a reaction to corrupt practices of the national elites and lack of merit-based mobility for broader populations is a global policy concern. When the elites control education by controlling social mobility opportunities both for students and faculty members, they award individual success as they see fit rather than as merited. The study begins to address this problem by enabling the scholarly and policy communities to better understand the profound impact of non-pecuniary corruption in higher education.

<sup>1</sup> In this study, quality of teaching refers to perceptions measured as subjective opinions from students rather than objective measures collected by the institution.

<sup>2</sup> Please see the following article for an example of recent corruption-related protests: Tuckman, J. "Mexico on the brink: thousands protests over widespread corruption and student massacre." The Guardian. November 20th, 2014.

## 2. Background: Bosnia's fragmented education and corruption

The downfall of Communism in Eastern Europe in the late 1980s brought initial signs of instability to post-Tito Yugoslavia. By the early 1990s, political instability mounted in much of Yugoslavia, and attempts to peacefully resolve political differences between the Yugoslav republics of Bosnia and Herzegovina, Croatia, and Slovenia and the militarily dominant Serbia failed, resulting in consequent wars in Slovenia, Croatia, Bosnia, and later Kosovo. The Dayton Peace Accord, signed in November of 1995, ended violence, but ethnically divided Bosnia into two main entities – Federation of Bosnia and Herzegovina and the Serb Republic – and a third administratively separate Brcko District. The Annex 4 of the Dayton Peace Accord continues to serve as the country's Constitution. Though attempts have been made to reform the Constitution and current governing framework, Serb Republic continues to foster separatist sentiments jeopardizing national cohesion and the US-led push for a functional state (Jukic, 2013a,b).

While the Serb Republic, largely comprised of Bosnian Serbs, has a relatively homogeneous ethnic population, the Federation of Bosnia and Herzegovina has 10 cantons that were drawn based on the internal concentrations of Bosniaks and Bosnian Croats post ethnic cleansing. Today, each canton has its own ministry of education, and the Federation of Bosnia and Herzegovina's Ministry of Education is tasked with overseeing the work of all 10 cantonal ministries that independently run their educational sectors. On the Serb Republic side, there are no cantons, but there is the Ministry of Education and Culture that operates autonomously from the Federation's Ministry of Education. Given the lingering ethnic tensions, the country has not established the Ministry of Education at the national level, but the Ministry of Civil Affairs is "in charge of coordination of activities at the level of BiH [Bosnia and Herzegovina], enforcement of international obligations in the area of education, harmonization of plans of governmental bodies of Entities and strategy development concerning science and education" (UNDP, 2010, p. 22). Despite the existence of the education section within the Ministry of Civil Affairs, its role remains largely nominal. Serb Republic's recent request to participate in the EU's scholarship and student exchange program, Erasmus, as an independent state rather than as part of Bosnia has jeopardized Bosnia's participation in the program as well as the Bosnian students' mobility cross-nationally (Associated Press, 2013).

As the war ended in 1995, Bosnia and Herzegovina has entered a nation-wide socio-economic and political recovery, but without notable success. Approximately, every fifth Bosnian lived in poverty in 2007, with socio-economic circumstances worsening for many consequent to the 2008 global economic crisis. Of those employed, most Bosnians work in the public sector where job security and pay tend to be higher than those in the private sector (International Monetary Fund, 2010). Not surprisingly, given Bosnia's complex and partitioned governing structure, the country ranks as third in Europe when it comes to the public sector's size relative to the country's economy (International Monetary Report, 2010).

Within the country's elaborate governing structure that remains heavily dependent on international support and direction, societal and, particularly, educational corruption has become more endemic. In 2005, Transparency International B&H organized an anonymous corruption disclosure campaign, and, of the total complaints, 25% referenced educational corruption (Knezevic, 2005). Chapman (2002) similarly finds that 31%, 38%, and 42% of students in Croatia, Bosnia and Herzegovina, and Serbia, respectively, believe that corruption is widespread amongst university professors. Indicative of corruption's ubiquitous character in

present-day Bosnia, citizens bribe for employment; medical care; access to electricity, water, or phone; grades; and other benefits (Transparency International, 2004). The governing elites are corruption's primary beneficiaries with their power and legitimacy solidified via degree attainment. Bosnia's corrupt and partitioned state governed by *de novo* elites, coupled with the absence of scholarly work at the intersection of higher education and upward mobility, is a well-suited venue for the examination of the upward mobility processes in higher education.

## 3. Theoretical framework: merit, elite and social mobility

Existing research on corruption looks at various aspects of educational corruption (Heyneman et al., 2007; Heyneman, 2010; Rumyantseva, 2005). Heyneman et al. (2007)'s seminal piece discusses the costs of educational corruption. The study first evaluates perceptions of corruption in higher education in several countries of Central Asia and Europe, including Serbia, Croatia, Bulgaria, Moldova, Kazakhstan, and the Kyrgyz Republic, where students recognize educational corruption as present and some depict it as a "norm" (p. 5). In 2010, Heyneman revisits the issue and observes how essential it is to focus on developing social norms to compel people not to engage in corruption. Rumyantseva (2005) contributes to this discussion by suggesting that educational corruption is complex because it emerges in various forms, including, but not limited to, "favoritism in procurement, favoritism in personnel appointments, ghost teachers, selling admissions and grades, private tutoring, and skimming from project grants" (p. 84). She insightfully adds that corruption occurring within the administration does not impact the values and beliefs as directly as the student-related corruption does.

Being a part of the ethnically fragmented nation, Bosnia's higher education system tends to favor some groups over others. Given the pronounced ethnic divisions in the country, the first inclination is to think of the ethnicity-based favoritism. While ethnic tensions are inevitable in a nation designed as an arranged marriage of ethnically monotonous regions, this study concerns itself with a different kind of favoritism: the one practiced by the socio-economic and political elites who benefit from corruption while impairing the upward mobility of the non-elites.

Transparency International's research on corruption in higher education in Bosnia concludes that most students characterize corruption as the dominant feature (Federal Ministry of Education and Science, 2012) of the country's higher education. Other empirical research (Sabic-El-Rayess, 2012) further evidences that favoritism is the dominant form of Bosnia's higher education corruption. In response to the growing awareness of corruption in higher education, the Federal Ministry of Education and Science in Bosnia and Herzegovina's Federation formulated 62 recommendations to lessen higher education's proclivity towards corruption (Federal Ministry of Education and Science, 2012). Corruption, however, remains an acute problem in Bosnia, in part, because we rarely examine corruption's full impact on higher education. This study introduces a specific link between corruption and social mobility in higher education. I examine whether students' personal views about their faculty members' teaching competence and professional standing within their own institutions shape students' overall views on corruption in higher education.

In education, faculty members typically serve as the figures of authority and model acceptable behaviors in university settings. Students directly interact with their faculty members and, based on that interaction, form their views about their faculty members' work ethic, teaching, research, and professional standing. Teaching is the most direct form of interaction between faculty members and their students and, presumably, most likely to impact students' perceptions of faculty members' competence and their

social mobility opportunities within their institutions. If faculty members who teach and conduct research with students are incompetent, students are likelier to characterize their higher education institution as faulty and faculty members as corrupt. If not based on merit, faculty members are, I argue, awarded their positions based on their belonging to or affiliation with the elites.

When it comes to direct interaction with students, faculty members support the elites by passing students who have political, familial, or social connections with the elites in expectation that such favors will be reciprocated in the future. For instance, the faculty member may expect a promotion to a more senior position in exchange for his/her support of the political elites. Herein, faculty promotion is flexibly defined to include upward mobility from, for instance, an assistant professor towards the title of a full professor; however, it also refers to placing professors on various committees and administrative posts. In some cases, it may refer to simply obtaining professorship due to one's social proximity to the elites. Serving as a tenured faculty member, department chair, or faculty dean is arguably a highly visible outcome of upward mobility from the students' perspective. I examine these processes through quantitative analysis of the primary data on students' perceptions of their faculty members.

To add a theoretical backdrop to this empirical research, I draw on [Turner's \(1960\)](#) pioneering work on upward mobility as either merited or elite sponsored. In deriving his normative models, Turner compares two educational systems. He examines the educational system in the US, where he views mobility as contest-based, and that of the UK, where Turner sees mobility as sponsored. Turner focuses on simplified yet salient differences between the US and UK educational systems.

[Turner \(1960\)](#) sees the American educational system as allowing the competent to advance and receive their share of the society's wealth. The higher education system in the US, according to Turner, rewards hard work with the upward mobility and elite membership, resulting from an open contest. However, the British system, according to Turner, sponsors select few entrants only if they are similar to the established elites. He characterizes the UK educational system as sponsored because only a few are endorsed by the elites and attend top educational institutions. The elite selection is being justified using some semblance of merit: "under sponsored mobility elite recruits [were] chosen by the established elite or their agents, and elite status [was] given on the basis of some criterion of supposed merit [i. e. entry examination] and [could not] be taken by any amount of effort and strategy" ([Turner, 1960](#), p. 856). In Britain, he argues, no effort and no ability will secure one's elite membership without the explicit sponsorship of the existing members. Such a system is similar to belonging to a private club, where the existing members award the potential entrants with membership only if they are similar in their traits to the established members ([Turner, 1960](#)).

Turner's models of mobility provide a normative characterization of possible paths towards individual success in a society. However, his analysis does not examine how preferential treatment for some impacts the broader student populations who witness sponsorship overpower merit-based mobility. My work begins to address these issues and opens up a new area of interest for scholars researching higher education, corruption, and social mobility.

If a society persistently tolerates corruption, I argue, the balance eventually tilts toward a sponsor-based mobility, with the consequential impact onto other domains of social activity. [Turner \(1960\)](#) underlines that the sponsored mobility model emerges when there is "a social structure that fosters monopoly of elite credentials" (p. 858). Turner further claims that the "monopoly of credentials ... typically [is] a product of societies with well entrenched traditional aristocracies employing such credentials as

family line" (p. 858). In the absence of the aristocratic lineage, [Domhoff \(2013\)](#) looks at the composition of the elites in the US and introduces an alternative elite structure. He establishes that a new class of business owners within corporations and financial institutions has emerged into a powerful elite in the US though he does not specifically examine how such a structural change, if at all, has influenced social mobility models devised by Turner. The implication of Domhoff's work on Turner's social mobility theory is that Domhoff contributes a more flexible definition of the elites. In agreement with Domhoff, monopolies over production of credentials can fall into the hands of a few even if they are of non-aristocratic lineage. In the context of Bosnia, where many faculties lack clear guidelines as to the award of doctorates, decisions on who obtains the highest academic degrees are often dependent on the sponsorship by the corrupt faculty members.

Sponsored mobility maintains differentiation amongst classes via education, but that differentiation is not seeded in merit and is, therefore, unjustly and artificially created when the elites pick their favorites. In Bosnia, I do not compare two systems of education; instead, I examine to what extent Bosnia's system normatively mirrors Turner's sponsorship model. I uniquely apply Turner's concepts of social mobility: I test whether students' perceptions of the faculty members' social mobility within their faculties as either merit- or sponsorship-based impact students' views on corruption in higher education. Here, I assume that students see their faculty members as moving upward based on merit when faculty members are competent in teaching and perceived as hard working. If students are dissatisfied with faculty members' skillsets and view them as incompetent, students presumably label these faculty members as sponsored by the elites.

This research is the first empirical application of Turner's mobility theory in a corrupt higher education of a developing country. Others have tested Turner's work in different contexts. Specifically, [Wayne et al. \(1999\)](#) apply Turner's models of sponsorship and merit-based mobility to evaluate whether one's career success can be predicted based on, amongst other factors, the strength of the relationship that employees build with their supervisors. They in fact find that employee-supervisor relationship is essential in determining future career success of the sponsored individual. [Morgan \(1990\)](#) also agrees that the comparison between the British and American systems of education remains relevant several decades after [Turner \(1960\)](#). [Morgan \(1990\)](#) concurs that the American system of education propagates the suitability of higher education for all, while the British system remains largely selective and sponsored: "The elite themselves, and their agents, are the judges of whether [the] ability is present, and they select, recruit and train their successors rather than allowing them to emerge at the end of a mass competition" (p. 39). She further underscores that, in England, "the sponsored mobility norm favours controlled selection rather than a prolonged open contest," and the vast majority is directed toward "form[ing] more 'realistic' plans" (p. 40). Morgan builds predictive models for higher education entry in the US and England and expectedly finds that it is easier to predict entry into the higher education in England than is the case in the US. In the US, one's ability on standardized exams is only one among many factors predicting one's entry into the system of higher education, while the entry tests in Britain are key in determining who gets their sponsorship for higher education. Here, Morgan presumes that the entry tests are devised to benefit the elites.

Others challenge Turner's (1960) theory of mobility by suggesting that, despite the increasing relevance of achievement in determining social mobility, even in the American society, the ascribed qualities, such as the social status, of an individual continue to have an effect on one's social mobility ([Kinloch, 1969](#)).



Murphy et al. (1991) unveil the rationale behind “rent seeking” behavior and why sometimes even the most capable individuals may opt to engage in corruption. While, in the organized societies, the most gifted individuals may start businesses that would earn them the greatest return on their investment of time and effort relative to working for the government or military, there are countries where entrepreneurship is not a path toward highest earnings (Murphy et al., 1991). Instead, it is the “ability to solicit bribes for the benefit of one’s family and friends” (p. 505) that drives the most talented people, in some less functional societies, to disregard entrepreneurial jobs and seek those with government or military for their own benefit and the benefit of their closest networks.

The key to power in developing societies is to control the educational system by retaining direct control over the faculty pool that determines who passes exams and ultimately obtains diplomas. Having control over masses via education gives the elites a sense of superiority over the others (Turner, 1960). Turner (1960) agrees: “the most conspicuous control problem [in the society] is that of ensuring loyalty in the disadvantaged classes toward a system in which their members receive less than a proportional share of society’s goods” (p. 859). When such differences are vast, having educational pedigree helps the elites maintain class differentiation and legitimize their power over masses. It is easier to legitimize giving a coveted well-paid governmental position to an individual with a certain educational degree rather than openly give that job to a person that is a member of the elite social circle. The net effect is ultimately the same: a job was given to a selected person based on belonging to a social status, but conferring of the job was done in two steps. First, an educational degree was bestowed based on the elite sponsorship. Second, the job and ensuing benefits were awarded under the auspices of the educational degree. While it may be obvious to most observers of this system, it is harder to assail this non-pecuniary corruption because it is intractable as compared to outright bribes.

Another implication of this complex dynamic in higher education is that the existing faculty members who engage in favor reciprocations do not welcome new and competent faculty members in order to preserve their control over higher education and their favorable status with the socio-economic and political elites. Awarding academic credentials allows faculty members to exchange favors with the socio-economic and political elites. Faculty members help the elites pass exams or obtain their diplomas with minimal interruptions. In exchange, faculty members expect such favors to be reciprocated by the elites. Favor reciprocations are the most frequently practiced, and arguably the most concerning and complex, form of educational corruption within the studied population in Bosnia (Sabic-El-Rayess, 2012). Bosnia’s *de novo* elite is primarily composed of

nationalists, war profiteers, and new leaders that the 1990s war produced. Though the peace has entered the scene, the agendas of those that led the war have not fundamentally changed. The struggle for power continues to generate a fertile ground for favor reciprocations and the need for political legitimization through, amongst other means, reliance on the educational credentials and faculty members who will aid the bestowing of diplomas irrespective of merit.

#### 4. Methodological framework: quantitative approach

This research scrutinizes the rarely examined interaction between upward mobility, higher education, and educational corruption. Transparency International’s (2013) publication on educational corruption surveys issues ranging from ghost schools in Pakistan to nepotism in appointments in Nepal. The study deepens the global debate on corruption in higher education by surveying students’ views on social mobility within their higher education institutions. Derived from the broader mixed-methods empirical research (Sabic-El-Rayess, 2012), this is a pioneering step towards tackling a challenging topic in a post-war context.

##### 4.1. Key hypotheses

Using quantitative approach, the study addresses its main proposition that the quality of teaching and merit influence students’ overall views on upward mobility within their higher education institutions. The study hypothesizes (Table 1) that:

- (1) Faculty members are not always promoted based on merit. Consequent to a non-merit based faculty selection process, students are taught by incompetent faculty. Poor teaching quality affects students’ dissatisfaction with teaching and helps shape students’ overall views of how faculty members are selected and promoted within their higher education institutions.
- (2) Students believe that merit does not always determine one’s success in higher education institutions, so the most competent students are not always first to graduate. While in most Western societies a student typically completes an undergraduate degree within a period of four years, Bosnia is dealing with a phenomenon of many students taking years longer to graduate. As other research has pointed out (Sabic-El-Rayess, 2012), many professors attempt to filter students out of the system by repeatedly failing them and often on no basis, notably diminishing the number of those students that graduate within four years. For this reason, the study recognizes the importance of students’ views on timely completion of their studies and whether they believe that

**Table 1**  
Key Research hypotheses.

Research hypotheses	Sample size	Method	Variable(s)
1. Faculty promotion & merit: Poor quality of teaching shapes students’ views on upward mobility mechanisms as sponsored rather than merit based.	762	Binary logistic regression	Dependent: $Y$ = Faculty promotion Independents: $X_1$ = ECTS membership $X_2$ = Years of studying $X_3$ = Sex $X_4$ = Student satisfaction with teaching $X_5$ = Student satisfaction with procedures $X_6$ = Competent graduate first $X_7$ = Exams student completed Competent graduate first
2. Student upward mobility & merit: Students do not always find that the best students are first to graduate.	762	Descriptive statistics	

those who actually graduate first are the most competent ones or not.

This quantitative analysis is centered on examining students' perceptions of upward mobility in Bosnia's higher education, where the lack of merit-based mobility is the by-product of the elite's promotion of the elite-affiliated faculty and students irrespective of merit.

Both hypotheses are tested using randomly sampled group of 762 students from 6 public higher education institutions in Bosnia and Herzegovina. Of the two hypotheses, Hypotheses 1 is addressed via binary logistic regression model. Hypothesis 2 is addressed with a direct survey question, which measures whether students believe that their most competent peers are typically the ones who obtain their diplomas first. If the system is merit-based, I assume that the vast majority of students who obtain their diplomas in a timely manner are the most competent students. In the absence of merit-based system, elites determine who moves upwards, both within the faculty and student body.

#### 4.2. Key variables

Whether students believe that their faculty members are promoted based on merit is predicted by several variables. Variables (Table 1) used to test Hypothesis 1 are derived from a survey containing 39 questions (Appendix 1). The survey includes questions on students' demographics, education, and socio-economic background as well as their perceptions of the upward mobility, corruption, and EU-related reforms in Bosnia's higher education. For Hypothesis 2, a variable measuring whether the most competent students are the ones progressing fastest is derived from a direct survey question. For Hypothesis 1, the model's dependent is *Faculty Promotion*,<sup>3</sup> and it measures if students see faculty promotion as merited (Table 1). Given the binary nature of *Faculty Promotion*, I use simple binary logistic regression, where *Faculty Promotion* is dependent on: *ECTS Membership*, *Years of Studying*, *Sex*, *Student Satisfaction with Teaching*, *Student Satisfaction with Procedures*, *Competent Graduate First*, and *Exams Student Completed*. *ECTS Membership* measures if the student's higher education institution is a part of the European Credit-based Transfer System to differentiate students' institutions based on whether they are moving towards a uniformed and thereby more transparent European higher education system. Another relevant predictor measures students' academic progression based on the number of completed exams (*Exams Student Completed*).

*Competent Graduate First* is a variable reflecting whether the most skilled students are viewed as the ones who actually graduate first. In Bosnia, students are often failed numerous times, as evidenced by the low enrollment of seniors within the collected sample (Table 4). With the elites' sponsorship of their favorite students, the most competent students are not always the first ones to graduate. Inclusion of this predictor allows the study to account for how students view competence as it relates to timely completion of college degrees. As earlier noted, in Bosnia, many students do not complete their studies in four years but take much longer to complete their college degrees. While in the US, a measurement of relative success in university is based on grades or academic rankings of students, in Bosnia, time to achieve a degree is one of the dominant measures of relative academic success. Many students note that they are repeatedly failed irrespective of

their knowledge (Sabic-El-Rayess, 2012), so grades are unreliable in gauging one's competencies. In the US, grades are an important differentiator when graduating students compete for a job and time to graduate is typically viewed as a function of the student's choice. In Bosnia, the length of time to graduate is presumed to serve as one measure of a college student's academic success. Therefore, a student's perception of academic fairness is highly influenced by his/her perception of why one student graduates "first" or before another student. If a student is competent in his/her field of study, he/she would, in a merited system, be the first to graduate. In the absence of the merited system, it is likely to observe some deviation from this assumption and see those who graduate first not necessarily be the most prepared and hardworking students.

The model for Hypothesis 1 also includes *Years of Studying*, a factor that provides data on how long the participating students have studied. As earlier noted, many students are repeatedly failed, frequently taking multiple years to complete one year of coursework. Therefore, the length of study is presumed to have relevance in students' perceptions on upward mobility within their institutions. Additionally, *Student Satisfaction with Procedures* and *Student Satisfaction with Teaching* both measure how satisfied participants are with procedures and teaching at their faculties. If procedures are transparent and quality of teaching is high, the system is presumably merit-based and students are pleased with their faculty members. If faculty members are not qualified and are promoted based on their affiliation with the elites rather than merit, students are likely to be dissatisfied with the poor teaching and characterize their institutions as corrupt. Student's *Sex* was included in the binary regression model as the types of corruption students are exposed to can differ depending on students' gender, with female students frequently being asked for sexual favor (Sabic-El-Rayess, 2012). This segment of the larger study looks at the links within a subset of variables derived from the survey (Appendix 1). As per Table 2, each variable is appropriately coded and linked to a specific survey question.

**Table 2**  
List of relevant variables.

Variable name (abbreviation)	Values	Survey question
<i>Faculty promotion</i> (FPromotion)	Merited = 1, Not Merited = 0	11
<i>Student satisfaction with teaching</i> (SSTeaching)	Very satisfied = 1, Somewhat satisfied = 2, Neither satisfied nor dissatisfied = 3	12
<i>Student satisfaction with procedures</i> (SSProcedures)	Very satisfied = 1, Somewhat satisfied = 2, Neither satisfied nor dissatisfied = 3, Somewhat dissatisfied = 4, Very dissatisfied = 5	14
<i>ECTS membership</i> (ECTS)	Yes = 1, No = 2, Don't know = DK	8
<i>Competent graduate first</i> (GraduateFirst)	Always = 1, Almost always = 2, Often = 3, Rarely = 4, Almost never = 5, Never = 6	10
<i>Sex</i> (Sex)	Female = 0, Male = 1	3
<i>Years studying</i> (Yrsstudying)	1, 2, 3, 4, 5 ...	6
<i>Exams completed</i> (ExamsCompleted)	Some 1st year = 1, Some 2nd year = 2, Some 3rd year = 3, Some 4th year = 4	5

<sup>3</sup> Please note that *Faculty Promotion* is recoded for binary logistic regression, where the initial categories of 1, 2, and 3 ('always,' 'almost always,' and 'often,' respectively) were recoded into 1 (promotion merited), while 4, 5, and 6 ('rarely,' 'almost never,' 'never') were recoded into 0 (promotion not merited).

### 4.3. Sampling

Despite the emergence of private higher education institutions, the public higher education remains the backbone of the Bosnian education system. There are 9 public and 16 private universities as well as 17 two-year colleges and 2 private faculties (European Commission, 2012). In the academic 2013–2014 year, Bosnia and Herzegovina had 45 higher education institutions.<sup>4</sup> According to the Agency for Statistics of Bosnia and Herzegovina, there were 99,760 students enrolled in higher education institutions for the same year. However, the aggregate enrollment excludes students from two institutions that were reported inactive for the 2013–2014 academic year and one that did not report its enrollment numbers. Further, the Agency's total reported enrollment does not include students in Bologna-compliant programs or graduate students both at private and public institutions (Agency for Statistics of Bosnia and Herzegovina, 2014).

Of the reported total, 93,252 were at universities, 5,429 were in other higher education institutions, and 1,079 were enrolled in religious faculties (Agency for Statistics of Bosnia and Herzegovina, 2014). The Agency flexibly defines a higher education institution as one that provides “at least one study program from one field. . .” (p. 26). Some of the newly formed private institutions of higher education provide limited programs and services. For instance, Herzegovina University was formed in 2010 through a merger of three individual faculties and, currently, consists of only two faculties. Given that many of the private higher education institutions do not have international accreditations, their graduates have limited mobility opportunity later on (Dzebo, nd). This makes data collection at the private institutions even more difficult because they are still in the process of establishing their reputations yet have already attracted a fair amount of negative attention due to claims of corruption and lack of accreditation.

Obtaining permissions to conduct corruption research at any institution is a challenge. The case was no different in Bosnia and Herzegovina, resulting in some institutions declining to participate due to the topic of this study. Therefore, while the sampling process is biased towards public education institutions where this research was permissible, it is likely that the data reflects lesser corruption as compared to the institutions that declined their participation. As for the public versus private institutions enrollment, the Agency for Statistics of Bosnia and Herzegovina (thereafter, Agency) does not report enrollment by the type of higher education institution.<sup>4</sup> In the absence of the official statistics, I estimate the enrollment numbers for 8 out of 9 public universities (see Table 3).

The annual enrollment at the University of Sarajevo alone constitutes 40% of the total enrollment reported by the Agency for 2013–2014 academic year. This statistic is indicative of the public education's dominance in the country's higher education system. In fact, the total estimate of the public university enrollment at 8 out of 9 public institutions exceeds the enrollment reported by the Agency. While the Agency acknowledges the above noted exclusions in the total enrollment calculation of 99,760 for the academic 2013–2014 year, the estimated public enrollment reflects the importance of public higher education in Bosnia. Having 113,645 students enrolled at public universities still gives one a general sense of the public sector's prominence in the country's higher education. Consequently, the primary sites for the study's data collection are public higher education institutions.

Aside from the corruption research conducted by the Transparency International, this research on corruption in Bosnia's higher education is unparalleled in its size. The data consists of

**Table 3**

Estimated Public University Enrollment in Bosnia and Herzegovina.

Name	Established in	Annual enrollment
University of Sarajevo	1949	40,000
University of East Sarajevo	1992	16,000
University of Banja Luka	1975	17,000
University of Mostar	1977	10,712
University of Dzemal Bijedic	1993	2552
University of Zenica	2000	6000
University of Bihac	1997	4881
University of Tuzla	1976	16,500
University of Travnik	2007	NA
TOTAL		113,645

The Table 3 was derived by using publicly available enrollment data. If unavailable from the university websites, Wikipedia was used as the alternative source of enrollment data. For the University of Sarajevo, data was derived from Vodic za buduce studente/Guide for future students (Bosnian/English), retrieved from: <http://unsa.ba/s/images/stories/AMOB/vodic/vodic12.pdf>. For University of East Sarajevo, the data was derived from the current statement of the university rector, available from <http://www.ues.rs.ba/lat/univerzitet/o-univerzitetu/rijec-rektora>. Wikipedia was used for the data for the University of Banja Luka, University of Mostar, University of Dzemal Bijedic, University of Zenica, University of Bihac, and the University of Tuzla.

**Table 4**

Sample composition.

Variable	% of students	# of students
Sex		
Female	64	488
Male	34	259
No answer/Not applicable	2	15
Total sample (N)		762
Ethnicity		
Bosniaks	96	732
Croats	2	15
Serb	0.01	1
Bosnians	2	14
Years in school		
1st year students	48.0	366
2nd year students	32.9	251
3rd year students	11.7	89
4th year students	6.7	51
No answer/Not applicable	0.7	5
Faculties included		
F1	13.4	102
F2	8.9	68
F3	26.4	201
F4	21.9	167
F5	25.6	195
F6	3.8	29
Household income (HI)		
HI < 500	21.5	165
500 < HI < 1500	57.2	438
1500 < HI < 2500	14.0	107
2500 < HI < 3500	2.3	18
3500 < HI	2.6	20
No answer/Not applicable	2.3	18

Source: Sabic-El-Rayess (2012).

762 randomly collected surveys at 6 public higher education institutions where the institutional permissions to collect data were obtained. Last year, Bosnia was entangled in public protests over corruption at all levels of government, elevating the importance of substantive research on corruption in socio-economically and politically unstable settings. Given the country's proclivity for violence and political contention, the names of the six public faculties were coded from F1 through F6 (Table 4).

As to the surveyed sample's structure (Table 4), though the sample is tilted in favor of the female enrollment, it mirrors the overall matriculation rates observed in Bosnia nationally (Sabic-El-Rayess, 2014). Of the total, nearly half of the surveyed students are first year students (Table 4). A third of the sample is sophomores

<sup>4</sup> Email Correspondence on July 22, 2015, with Mirsada Adembegovic, Senior Adviser for Public Relations, Agency for Statistics of Bosnia and Herzegovina ([www.bhas.ba](http://www.bhas.ba)).

(Table 4). Only 11.7% and 6.7% are juniors and seniors, respectively (Table 4). Low enrollment in later years is indicative of the high dropout rates that are in line with the overall trends in Bosnia's higher education system. Over half of the surveyed students are in the household income range of 500 KM to 1500 KM, which is similar to the overall socioeconomic profile of the country. For the period from 2005 through 2013, monthly income averaged to 1120.37 KM (Trading Economics, 2014). The surveyed sample is largely monoethnic and mostly composed of Bosniaks, consequent to the logistical constraint of where institutional permissions were obtained for the data collection.

#### 4.4. Methods of analysis

The data was analyzed using binary logistic regression to examine Hypothesis 1 and ultimately understand whether there are any factors that can reliably predict students' views on the merit-based promotions amongst their faculty members. I used the binary logistic regression to analyze binary outcomes. As further elaborated in the forthcoming section, one of the key questions asked is whether students perceived their professors' upward mobility as merit-based or not, calling for the binary logistic regression as the appropriate tool of analysis. Hypothesis 2 looks into whether most skilled and hardworking students are those that graduate first, but this hypothesis is tested by looking at the survey question that directly asks students about their views on who amongst their peers gets to graduate first.

##### 4.4.1. Binary logistics regression

The simple binary logistic regression model employed in this study predicts "the logit, that is, the natural log of the odds of having made one or the other decision" (Wuensch, 2009, p. 2). The formula that captures this model is shown in Fig. 1.

Herein,  $\ln(\text{ODDS})$  stands for the natural log of the odds of one of the two possible events, while  $\hat{Y}$  is the predicted probability of the event coded as 1 (i.e., event occurred) and  $(1 - \hat{Y})$  represents the predicted probability of the other alternative that is coded as 0 (i.e., event did not occur). The dependent variable is the *logit*, where, *logit* is defined as the natural log of the odds. Another frequent expression for the binary logistics regression is:  $\text{Log}(\text{odds}) = \text{logit}(p) = \ln(p/1 - p)$ . *Logit* can also be called a *log* of the odds that a particular event will occur: it is the probability of an event occurring (coded as 1) versus probability the event not occurring (coded as 0).<sup>5</sup> Incorporating selected variables, this study examines dependency of the students' perceptions of faculty promotion as merited or not on a set of earlier discussed predictors (Fig. 2).

<sup>5</sup> The logistic regression's coefficients are expressed in log-odds units, but they are converted into the odds ratios for easier interpretation of findings in this study. Throughout the findings section, the interpretation of the binary regression logistic results is focused on interpreting the odds ratios, where for categorical variables, for instance, the odds ratio represents the difference in odds of the event happening between the category in question and the reference category for that particular variable. To exemplify, if there is a variable with categories coded as 1, 2, 3, 4, and 5, the category coded as 5 would be the reference category to which all others are individually compared.

<sup>6</sup> Testing this linearity assumption is necessary only when the independent variables are continuous or ordinal but not with categorical, interval, or dummy variables. As needed, the study employs the Box-Tidwell Transformation Test, an accepted approach to testing the linearity assumption. Box Tidwell Test requires that for each of the continuous or the ordinal variable predictors ( $X_1, X_2, \dots$  etc.) in a regression model, a new variable is created, such that  $X$  is multiplied by the natural log of  $X$  (i.e.,  $X \ln(x)$ ). This transformed variable, created for each relevant predictor  $X$  is then included in the logistic regression model. If the coefficient(s) for the transformed variable(s) turn out to be significant, the assumption of linearity is violated. As part of the analytical work in this paper, *Years of Studying* is a continuous variable and as such was tested to determine whether the linearity assumption between the *Faculty Promotion's* logit and *Years of Studying* was violated. The same procedure was followed with *Exams Student Completed*. In neither case, linearity assumption was violated.

$$\ln(\text{ODDS}) = \ln[\hat{Y} / (1 - \hat{Y})] = a + bX$$

Fig. 1. Binary logistic regression source: Wuensch, 2009, p. 2.

$$\ln(\text{ODDS}) = \beta_1 * (\text{ECTS}) + \beta_2 * (\text{YrsStudying}) + \beta_3 * (\text{Sex}) + \beta_4 * (\text{SSTeaching}) + \beta_5 * (\text{SSProcedures}) + \beta_6 * (\text{GraduateFirst}) + \beta_7 * (\text{Exams Completed})$$

Fig. 2. Simple binary logistic regression for faculty promotion.

While the binary logistic regression does not make any assumptions about the predictors' distributions, it does presume that there is a linear relationship between the *logit* of the dependent variable and the predictor variable.<sup>6</sup> Even if the logistic regression model contains variables with linearity assumption being violated between the predictors and the *logit* of the dependent, the predictor can be reformulated by creating categories for a continuous variable. The newly recoded variable can then be used within the logistic regression model. The broader study applies this standard approach to non-linearity issues.

As to the categorical variables used in the analysis, research has supported treating "Likert scales" – with categories such as "very satisfied", "somewhat satisfied", "neither satisfied nor dissatisfied", "somewhat dissatisfied", and "very dissatisfied" – as the interval variables (Jaccard & Wan, 1996). Intervals between different values are equivalent; for instance, differences between "very satisfied" and "satisfied" versus "very dissatisfied", and "dissatisfied" are assumed to be equal to each other. For all categorical variables, the study also uses Indicator contrasts, where the reference category is always the last category.

In addition, this study tests for multicollinearity by calculating Variance Inflation Factors (VIF) for the relevant binary logistic regression model, where VIF determines whether the multicollinearity inflated the variance of relevant coefficients. The reciprocal of VIF is tolerance, and "a tolerance of less than 0.20 is cause for concern; a tolerance of less than 0.10 almost certainly indicates a serious collinearity problem" (Menard, 2001, p. 76). Conversely, VIF of 10 or greater indicates presence of multicollinearity, an issue that this analysis did not encounter.<sup>7</sup> No multicollinearity issues were found in the course of this analysis.

## 5. Analysis

The study principally finds that a new model of social mobility is emerging in the post-war Bosnia by tilting higher education towards, what Turner (1960) would have called, the sponsorship model, where the elite chooses to sponsor select few rather than allowing merit-based competition to principally determine who should move upward, whether on the student or faculty side. Even though merit still plays a role in social mobility processes, the

<sup>7</sup> SPSS does not provide, within logistic regression calculations, VIF and tolerance values for each predictor, but these values were calculated separately as part of the linear regression models within the SPSS. Though linear regression is not used here, appropriate linear regression models were ran in order to obtain VIF and tolerance levels as they can be produced as part of the linear regression output in SPSS. VIF and tolerance levels are not affected by the relationship between the dependent variable and independent variables as they measure multicollinearity among independent variables only. This approach of measuring multicollinearity in the logistic regression models is widely adopted as the standard approach in testing multicollinearity. To ensure that there are not any multicollinearity issues among the independent variables incorporated into the logistic regression model in this study, the VIF tests were performed, confirming that multicollinearity is not an issue, as VIF values were much lower than the cutoff value of 10. For further details on VIF and logistic regression please see Scott Menard's 2001 *Applied Logistic Regression Analysis: Second Edition* in Series on Quantitative Applications in Social Sciences.



study demonstrates the lessening of its relevance in Bosnia's higher education. The forthcoming section examines three factors that most significantly impact students' views on the presence of merit in their institutions of higher education: quality of teaching, EU-driven reforms, and students' competence.

### 5.1. Teaching quality matters

Using binary logistic regression, I test the Hypothesis 1 (Table 1) on whether those students who are less satisfied with teaching quality are in fact more likely to perceive their educational institutions as espousing non-merited faculty promotions. For this binary logistic regression model, the dependent variable, *Faculty Promotion*, captures students' perceptions in binary terms: students either see faculty promotions as merit or non-merit based. By examining the predictors of the students' views on faculty promotions, the study finds some novel relationships. To specify, a number of independent variables play a statistically significant role in predicting students' views on whether they see promotions among their professors as merited or not (Table 5), but the study first zooms in on the relevance of teaching quality.

I find that teaching quality clearly impacts students' views of the faculty members' upward mobility in higher education. In this study, the binary logistic regression model's dependent binary variable, *Faculty Promotion*, has binary outcomes of either faculty members being promoted based on merit (coded as 1) or not being promoted based on merit (coded as 0). If the elites are presumably sponsoring the faculty members rather than relying on merit to hire competent faculty members, the predictor that captures students' satisfaction with teaching (*Student Satisfaction with Teaching*) in higher education institutions is of relevance here. In fact, I find that *Student Satisfaction with Teaching* plays significantly in predicting students' views on whether promotions are merited or not. As the level of student satisfaction with teaching practices increases, the odds of students perceiving upward mobility amongst their faculty members as merit- rather than sponsorship-based increase significantly as well. The trend becomes increasingly pronounced as the level of students' satisfaction with teaching lessens. In fact, the odds of students perceiving promotions as merited are 3.602 times higher for respondents who are 'neither satisfied nor dissatisfied' with the teaching practices relative to those of the students who are 'very dissatisfied'.

As views diverge between students who are "very satisfied" and "very dissatisfied" with the quality of teaching, the difference in perceptions between satisfied and dissatisfied students becomes vast. These findings of growing differential in perceptions between displeased students and those satisfied with the quality of teaching pose an important question for the higher education institutions that have a tendency to undervalue the importance of teaching. Even in the most functional higher education systems, teaching is undervalued as compared to research (Ramsden and Martin, 2006), but this study underscores that the value of teaching goes well beyond the immediate educational impact such interaction has on students. The quality of teaching provided in the classroom does not impact learning only from a curriculum standpoint, but it also shapes perceptions about social norms and acceptable behaviors within higher education institutions. Consequently, the teaching quality impacts students' classification of the upward mobility model within the higher education system as either merit-based or not.

Youth typically hopes that merit-based competition would ultimately give them the social, economic, and political prestige and success they aspire to achieve, but the sponsorship-based mobility fueled by the existing elites, this research shows, can impair those opportunities. It is teaching that helps shape

**Table 5**

Binary Logistics regression model.

Variable	Odds ratios
<i>Student satisfaction with teaching 1 (ST1)</i>	24.407**
Very satisfied = 1	
All else = 0	
<i>Student satisfaction with teaching 2 (ST2)</i>	5.410**
Somewhat satisfied = 1	
All else = 0	
<i>Student satisfaction with teaching 3 (ST3)</i>	3.602**
Neither satisfied nor dissatisfied = 1	
All else = 0	
<i>Student satisfaction with teaching 4 (ST4)</i>	1.990
Somewhat dissatisfied = 1	
All else = 0	
<i>Student satisfaction with procedures 1 (PS1)</i>	1.828
Very satisfied = 1	
All else = 0	
<i>Student satisfaction with procedures 2 (PS2)</i>	1.632
Somewhat satisfied = 1	
All else = 0	
<i>Student satisfaction with procedures 3 (PS3)</i>	1.527
Neither satisfied nor dissatisfied = 1	
All else = 0	
<i>Student satisfaction with procedures 4 (PS4)</i>	
Somewhat dissatisfied = 1	
All else = 0	0.652
<i>Competent graduate first 1 (CG1)</i>	43.831**
Always = 1	
All else = 0	
<i>Competent graduate first 2 (CG2)</i>	6.228
Almost always = 1	
All else = 0	
<i>Competent graduate first 3 (CG3)</i>	6.867
Often = 1	
All else = 0	
<i>Competent graduate first 4 (CG4)</i>	2.087
Rarely = 1	
All else = 0	
<i>ECTS membership (ECTS)</i>	0.697**
Member = 1	
All else = 0	
<i>Exams student completed 1 (EC1)</i>	2.573
1st year = 1	
All else = 0	
<i>Exams student completed 2 (EC2)</i>	1.256
2nd year = 1	
All else = 0	
<i>Exams student completed 3 (EC3)</i>	1.841
3rd year = 1	
All else = 0	
<i>Sex (Sex)</i>	1.151
Male = 1	
Female = 0	
<i>Years of studying (YS)</i>	0.820
Constant	0.276
Chi-square, df	195.426**, 18
% of cases correctly predicted	80.6%

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

students' view on whether their higher education system promotes merited mobility or not. For the policy makers, more broadly, this linkage between the quality of teaching and students' views on upward mobility opportunities has a multitude of implications for the ways to address a range of issues across the higher education systems globally.

### 5.2. Reforms matter

Many in the academic circles have, rightfully so, discussed shortcomings of the Bologna Process (Kwiek, 2004; Ravinet, 2008; Sabic-El-Rayess, 2013). However, when evaluating whether belonging or not to the European Credit Transfer System has any impact on predicting students' views of faculty promotions

within their faculties, I find, albeit small, a significant impact of this variable on students' classification of the faculty promotions as merited or not. Specifically, the odds of students seeing the faculty promotions as merit-based versus not are increased by a factor of 0.697 when respondents believe that the system is ECTS-based versus not (Table 5). This finding suggests that, while the impact is small, simply knowing that one's institution belongs to the ECTS system influences the way students view meritocracy within their higher education system. While Bologna Process has had implementation challenges in Bosnia (Sabic-El-Rayess, 2013), moving in the direction of modernizing and EU-nionizing Bosnian higher education appears to give students additional comfort as to the presence of meritocracy within the country's higher education system.

This predictor simply measures whether students know that their higher education institution is a member of the European Credit Transfer System (ECTS Member). The key assumption here is that, if students know their system is a part of the harmonization and unification effort across a number of European countries that are signatories of the Bologna Process<sup>8</sup>, such knowledge is going to positively impact students' views on whether their faculty members are promoted based on merit or not. Expectedly, being a part of the European Union's efforts to ensure quality of higher education across many European countries signals to the study participants that there is an effort towards achieving a more transparent and merit-based upward mobility model in Bosnia's higher education.

### 5.3. Student competence remains relevant

Another predictor arises from the group of independent variables (Table 5) as significant and similarly relates to the notion of meritocracy. Students' beliefs of whether their peers who get to graduate first are the ones that are also most competent (Competent Graduate First) are captured in another significant predictor of Faculty Promotion. The odds of believing in merit-based faculty promotions versus not are a surprising 43.831 times higher for those students who believe that the competent students are 'always' first to graduate as compared to those who think competent 'never' graduate first. This finding underscores that merit – or at least students' strong perception of it – matters to students. Consequent to finding this novel and significant relationship, students' views on the upward mobility amongst their faculty members are shaped by whether students believe that their peers move up and prosper within their higher education system based on merit or not. The value of this finding is its suggestion that perceived lack of merit, when it comes to students' completion of their degrees, shapes students' overall perceptions of the lacking merit in the faculty promotion processes as well.

### 5.4. Lacking impact

While a few of the above noted predictors play prominently in predicting the faculty promotion, there are also several factors that have proved insignificant. Namely, a predictor measuring the number of years a student has been enrolled in the higher education institution (Years of Studying) presumes that one's longevity within the higher education institution is helpful in predicting whether faculty promotions are perceived as merit-

based or not. However, the analysis ultimately shows that this particular factor bears no significance, underscoring that the length of studies does not impact students' views of their faculty members. Similarly, Student Satisfaction with Procedures was modeled into the binary regression and proven insignificant, likely because faculty promotion is reasonably determined based on the students' impressions of the faculty teaching rather than the overall condition of the institutions. Similarly, students' Sex and the number of exams they had completed, Exams Completed, do not affect how students view their faculty members. This is possibly the case as neither of these is reflective of the students' direct observation of teaching and their interaction with faculty members. As earlier discussed, if the faculty is selected based on merit, teaching quality is likelier to be high and noted by the students, underlining the importance of the merit-based mobility and teaching competence amongst the faculty members in higher education institutions.

### 5.5. Merit endangered?

The study finds upward mobility mechanisms as dysfunctional within higher education on the faculty side, but also as affecting the composition of the graduating classes of surveyed students. While merit still matters, the best students are not always the first to graduate. Based on the surveyed population, only 8.4% of the surveyed participants believe that the most competent students are "always" the first to graduate (see Fig. 3). If the system did not suffer from the non-pecuniary corruption that primarily translates into faculty members' promotions and students' passing of the exams based on the socio-political connections, vast majority of students would likely believe that the most competent students are first to graduate. In fact, 77% of the total sample believes that the most competent students graduate first at least often, which suggests that belief in merit-based system still exists amongst the surveyed students. However, the sentiment is not expressed with utter conviction, given that less than 1 out of 10 surveyed students is of the view that the most competent students are "always" first to graduate. About a third of the surveyed students believes that the most competent students "almost always" graduate first and another third of the surveyed sample believes that the most competent "often" graduate first (Fig. 3). Though more optimistic, this finding is in dichotomy with the regression analysis, but this vacillation of views amongst surveyed students is characteristic of the system in transition. A shift from sponsored versus merit-based mobility model transpires gradually.

Additionally, the vast majority of students are aware that only a small sub-segment of the population has the privilege of belonging to the elites. So, it is quite possible that the participants, of whom the vast majority would likely be the non-elites, were clearly aware that their own graduation timeline would be dependent on their own competence rather than sponsorship opportunities reserved for the elites. This is possibly the key

Frequencies for Competent Graduate First

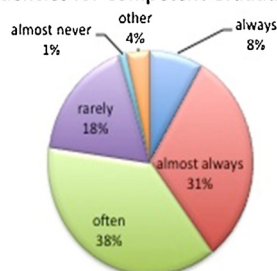


Fig. 3. Frequency table for Competent Graduate First.

<sup>8</sup> The Bologna Accords were executed in 1999 as a part of the effort to harmonize quality of higher education across European countries. To date, there are 47 participating countries, including Bosnia and Herzegovina since 2003. European Credit Transfer System allows higher education institutions to compare achievements of their students through the number of completed credits. Within ECTS system, one academic year is equivalent to 60 credits.

reason why the most participants see timing linked to competence; they are aware that, with the exception of the elite members who are a minor segment of the overall population, others are likely to graduate only if merited. They also may be largely hopeful that their graduation, given students' hard work and effort, will ideally occur within four years. In other words, the country's educational system is likely exposed to two modes of social mobility that, unfortunately, apply to two different sub-populations of students: non-elites and elites.

At least in part, the system has shifted away from the merit-based upward mobility and toward the sponsored-mobility model. Though the merit-based model amongst the students and faculty has not been eradicated and it is still possible to occasionally move up the social ladder based on hard work, this merit-based model is certainly being challenged by the sponsorship model and the elites that aspire to maintain their control over the institutions awarding academic credentials. The upward mobility change in Bosnia is ongoing and the system is not solely sponsorship based, pointing to the relevance of the early policy intervention to contain or lessen the increasing presence of the sponsored mobility.

## 6. Conclusion

This study finds that student perceptions of teaching quality, student merit, and higher education policy impact students' perceptions of faculty promotion. The lesser the student satisfaction with teaching and the lesser their belief in the merit-based student mobility, the likelier they are to believe that their higher education institutions overall are not built on the principles of meritocracy and transparency. This research is limited in that the data was collected only within 6 higher education institutions in Bosnia. However, the study may appeal to various policy communities given that many nations are faced with similarly pervasive societal corruption and favoritism amongst their elites.

As Turner recognizes, sponsored mobility maintains differentiation amongst classes via education, but this study finds that whenever that differentiation is not seeded in merit, students will observe such changes and then begin to characterize their broader context as unjust and favoring the select few. The study determines that reality on the ground in fact closely mirrors Turner's mobility framework except that the two models are not mutually exclusive as Turner sees them. In Bosnia, some room still exists for merited upward mobility alongside the dominant sponsorship model. Empirically, this suggests that the shifts from meritorious to non-meritorious system can happen over time, but it also points to the dichotomy of rules that apply to different sub-groups within society. While meritocracy remains applicable for the vast majority of the students whom are aware that their progress in education is principally dependent on their diligence and hard work, sponsorship continues to be a preferred pathway for the elites to obtain their diplomas expeditiously.

This research on distortions of social mobility mechanisms comes at the time when Bosnians have reached a saturation point with the pervasive societal corruption, triggering considerable

protests against fragmented political structures, lack of economic opportunities for the average citizen, and the disproportionate economic and social benefits garnered by the country's *de novo* elites. Ensuing political instability and protests that occurred in 2014 raise many new questions as to the broader question of why higher education systems in post-crisis settings often fail to serve their main purpose of promoting success and prosperity based on merit. While this study does not resolve corruption-related issues in Bosnia's higher education, it provides several insights of value to the education policy communities:

- (1) It is the quality of teaching that helps shape students' view on whether their higher education system promotes merited mobility or not. The less satisfied the surveyed students are with the quality of teaching, the likelier they are to deem their professors as corrupt and sponsored by the elites. Such a finding is consistent with Turner's expectation that, in the absence of merit, sponsorship by the existing elites is what determines one's success.
- (2) This study interestingly uncovers that even the mediocre reforms signaling the higher education's move towards meritocracy have a significant impact on the students' characterization of faculty and student mobility in their institutions. When students believe that their universities are moving towards a more modern and transparent system, that perception in itself – irrespective of the reforms' effectiveness – significantly influences students' views of their broader context. In short, the more the students believe that their schools are ECTS-based, the likelier these students are to believe that the faculty promotion in their institutions is merit-based.
- (3) When merit fails as the vehicle for social mobility and the most competent students do not progress as expected, youth sees its higher education system as corrupt and preferential to the elites. Consequently, social mobility distortions not only deepen divisions between the elites and non-elites, but also result in dissatisfactions with the system that can ultimately build up and, in fragile post-war contexts, resurrect violence.

In short, the study points to several important factors that influence young generations in forming their social perceptions about corrupt behaviors and upward mobility opportunities that exist within their higher education system. Youth typically hopes that merit-based competition will ultimately give them the social, economic, and political prestige and success they aspire to achieve, but the sponsorship-based mobility fueled by the existing elites, this research shows, can impair those opportunities. The study has a substantively innovative and diagnostic value because it can help policy communities detect the onset of mobility changes and other social behaviors even when they are a consequence of seemingly intractable processes such as elite's favor reciprocations. In sum, this work demonstrates how students' perceptions can flag significant shifts in socially destructive behaviors that ultimately bring about inequality and dominance of the select few in societies in which such behaviors occur.

**Appendix A. Appendix 1: Questions from Student Survey****A. DEMOGRAPHIC INFORMATION**

1. When were you born? \_\_\_\_\_ Year
2. What is your sex: \_\_\_ Male \_\_\_ Female
3. What is your ethnicity:
- \_\_\_ Bosniak \_\_\_ Croat \_\_\_ Serb \_\_\_ Other
- If other, please specify: \_\_\_\_\_

**B. STUDENT EDUCATION**

4. What kind of student you were in high-school:
- \_\_\_ Exceptional (all As)
- \_\_\_ Excellent (mostly As)
- \_\_\_ Very good (mostly Bs)
- \_\_\_ Good (mostly Cs)
- \_\_\_ Poor (mostly Ds)
- \_\_\_ Very poor (mostly Fs)
5. How many years have you completed:
- \_\_\_ Some exams from first year
- \_\_\_ All exams from 1st year
- \_\_\_ All exams from 2nd year
- \_\_\_ All exams from 3rd year
- \_\_\_ Some exams from 4th year
6. How many years have you been studying in total:
- \_\_\_ 1 year
- \_\_\_ 2 years
- \_\_\_ 3 years
- \_\_\_ 4 years
- \_\_\_ 5+ years
7. If you repeated one or more years, please check **ALL** statements that apply (otherwise, please proceed):
- \_\_\_ Not studying hard enough
- \_\_\_ Limited time to study
- \_\_\_ No longer interested in the subject, but it is difficult to transfer to another faculty
- \_\_\_ One or more professors keep failing me for no apparent reason
- \_\_\_ Do not have connections or money to pay for a passing grade in some cases
- \_\_\_ Outdated knowledge is no longer relevant for finding jobs
- \_\_\_ Studying does not matter as much as having influential parents
- \_\_\_ Other. Please explain below:



8. Is your program ECTS based (Bologna based):

- ☐ Yes
- ☐ No
- ☐ I don't know

9. Is ECTS program more transparent than the old program:

- ☐ Definitely
- ☐ Probably
- ☐ Maybe
- ☐ Not sure
- ☐ No

### C. MOBILITY

10. Do most competent students graduate first from your faculty?

- ☐ Always
- ☐ Almost always
- ☐ Often
- ☐ Rarely
- ☐ Almost never
- ☐ Never

11. Are professors generally promoted based on their qualifications?

- ☐ Always
- ☐ Almost always
- ☐ Often
- ☐ Rarely
- ☐ Almost never
- ☐ Never

12. How satisfied are you with the teaching cadre?

- ☐ Very satisfied
- ☐ Somewhat satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Somewhat dissatisfied
- ☐ Very dissatisfied

13. If you are dissatisfied with the teaching cadre in your faculty, please check **ALL** that applies (otherwise proceed to the next question)?

- ☐ I think about dropping out
- ☐ I have been discriminated against because of my ethnicity
- ☐ I fail my exams though I show sufficient knowledge
- ☐ Some professors do not explain their material
- ☐ Some professors do not know their subject well enough
- ☐ Some professors do not show up for their lectures
- ☐ Some professors do not seem qualified for their positions
- ☐ Some professors treat faculty setting as their personal property
- ☐ Some professors get promoted because of their connections and not qualifications
- ☐ Some professors pass students because of bribes or because of their connections
- ☐ Some professors push for book-buying
- ☐ Some professors enter inappropriate relationships with students
- ☐ Other, please specify here: \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

14. Are you generally satisfied with the structures/procedures at you faculty (i.e. paperwork involved, opportunities to take exams, applications for exams, having access to faculty, getting your grades after the exam, having opportunity to repeat a failed exam, standardized grading, having resources within the faculty to ensure you succeed)?

- ☐ Very satisfied
- ☐ Somewhat satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Somewhat dissatisfied
- ☐ Very dissatisfied

15. If you are dissatisfied with the structures/procedures in your faculty, please check **ALL** statements that apply to you (otherwise, please proceed)?

- ☐ I wanted to transfer to another faculty but could not
- ☐ I could not have credits transferred from elsewhere
- ☐ I wish I could take classes at another faculty but I cannot do it
- ☐ I wish I could change my major, but it is impossible
- ☐ I wish exams were broken into smaller sections
- ☐ I wish there were more opportunities to take exams
- ☐ I wish grading was more standardized
- ☐ I wish there was more access to faculty members
- ☐ I wish I could get my graded exams back
- ☐ I wish there were better student support services within faculty
- ☐ Other: Please explain \_\_\_\_\_
- \_\_\_\_\_

16. How widespread is corruption?

- ☐ Completely absent
- ☐ Somewhat absent
- ☐ Neither widespread nor absent
- ☐ Widespread
- ☐ Highly widespread

17. Which forms does corruption take (please check all that applies):

- ☐ None
- ☐ Buying passing grades
- ☐ Buying diplomas
- ☐ Publishing plagiarized books
- ☐ Inappropriate relationships between students and members of faculty
- ☐ Passing exams because of social connections
- ☐ Obtaining diplomas in excessively short period of time
- ☐ Passing exams because of influential parents    Other, please specify:  
\_\_\_\_\_  
\_\_\_\_\_

18. How difficult is it to cope with corruption in your faculty?

- ☐ Very easy
- ☐ Easy
- ☐ Somewhat easy
- ☐ Neither difficult nor easy
- ☐ Very difficult
- ☐ Difficult

19. How do students cope with corruption? Please check **ALL** that apply:

- ☐ Keeping up with required work
- ☐ Addressing it through the faculty administration
- ☐ Talking with family and friends
- ☐ Planning to leave/leaving the faculty
- ☐ Bribing to pass
- ☐ Complained about it
- ☐ Other. Please explain: \_\_\_\_\_  
\_\_\_\_\_

20. Are there any committees where students' concerns about corruption can be addressed?

- ☐ Yes
- ☐ No

21. If you know someone who has complained about corruption, were they satisfied with how the complaint was handled? (otherwise, please proceed):

- ☐ Very satisfied
- ☐ Somewhat satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Somewhat dissatisfied
- ☐ Very dissatisfied
- ☐ Other. Please explain \_\_\_\_\_

22. If you think there is corruption and you did not complain about it, why not? (otherwise, please proceed):

- ☐ No particular reason
- ☐ Scared
- ☐ Other. Please specify: \_\_\_\_\_

23. Would you complain about corruption if the system would allow you to do it anonymously?

- ☐ Definitely
- ☐ Probably
- ☐ Maybe
- ☐ Not sure
- ☐ No

24. If you/your friends complained about corruption, would it lead to an effective change in your faculty?

- ☐ Definitely
- ☐ Probably
- ☐ Maybe
- ☐ Not sure
- ☐ No

25. Do students at your faculty face a corrupt professor during their studies?

- ☐ Definitely
- ☐ Probably
- ☐ Maybe
- ☐ Not sure
- ☐ No

26. How many professors in your faculty exhibit corrupt behavior?

- ☐ 0-20%
- ☐ 20-40%
- ☐ 40-60%
- ☐ 60-80%
- ☐ 80-100%



27. How difficult is to transfer to another faculty in B&H?

- ☐ Very easy
- ☐ Easy
- ☐ Neither difficult nor easy
- ☐ Difficult
- ☐ Very difficult

28. Do you think of leaving your faculty or transferring to another faculty in B&H?

- ☐ Always
- ☐ Almost always
- ☐ Often
- ☐ Rarely
- ☐ Almost never
- ☐ Never

29. Do you think about leaving your faculty or transferring because of corruption?

- ☐ Not at all
- ☐ Partly because of corruption
- ☐ Mostly because of corruption
- ☐ Only because of corruption

30. If you are thinking or have thought of transferring, why have not you done so? (otherwise please proceed).

- ☐ Too complicated
- ☐ Too expensive
- ☐ Other universities/faculties are also non-transparent
- ☐ Not familiar with paperwork required
- ☐ Impossible
- ☐ Other. Please explain: \_\_\_\_\_

31. If you had an opportunity to study abroad, would you go?

- ☐ Definitely
- ☐ Probably
- ☐ Maybe
- ☐ Not sure
- ☐ No

32. Has your thinking on corruption, leaving your faculty, or complaining about corruption been in any way affected by the changes introduced because of the ECTS (Bologna-based system)?

- ☐ Yes
- ☐ No

33. Does ethnic fragmentation makes it more difficult to resolve issue of corruption in higher education?

- ☐ Definitely  
☐ Probably  
☐ Maybe  
☐ Not sure  
☐ No

#### **SOCIOECONOMIC BACKGROUND**

34. Please indicate the average monthly household income?

- ☐ Below 500 KM/month  
☐ 500-1,500 KM/month  
☐ 1,500-2,500 KM/month  
☐ 2,500-3, 500 KM/month  
☐ Above 3,500 KM/month

35. What is the highest degree obtained by your father?

- ☐ Primary School  
☐ Secondary School  
☐ Two-Year Academy  
☐ College  
☐ Masters  
☐ PhD

36. Is your father working?

- ☐ Yes  
☐ No  
☐ Unemployed  
☐ Retired  
☐ Other. Please explain \_\_\_\_\_

37. Which is/was your father's highest position?

- ☐ Worker  
☐ Intellectual but not executive  
☐ Executive  
☐ Head of company/Owner of company

38. How involved are you or other members of your closest family (i.e. your spouse, father, mother, siblings) in socio-political activities in your community?

- ☐ Highly involved  
☐ Somewhat involved  
☐ Neither involved nor uninvolved  
☐ Somewhat uninvolved  
☐ Uninvolved

**39. Please feel free to add any additional comments below, and I greatly thank you for your participation.**

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