

IREX 2002-2003

***THE BLACK AND CASPIAN SEA
COLLABORATIVE RESEARCH PROGRAM***

**The Growth and Labor Market Impact of Private Higher Education:
The Cases of Bulgaria and Romania**

Primary Collaborator: Dana Sapatoru

Collaborators: Luminita Nicolescu and Snejana Slantcheva

FINAL RESEARCH REPORT

31 July 2003

Motivation and Research Topic

In the aftermath of the 1989 changes in Central and Eastern Europe, higher education underwent significant transformations in its philosophical underpinnings, organizational structure, institutional forms, and patterns of supply and demand, with the characteristics of the new systems differing across countries. Nonetheless, all these transition countries have shown a clear move towards increasing the autonomy of higher education institutions and encouraging diversity, and one of the most dramatic developments lies in the growth of private education.

The extent to which the private provision of higher education has emerged in the transition countries varies greatly, however. In Romania, Poland, Belarus, and Mongolia, for instance, the share of enrollments at all levels of private university and non-university education is relatively high (reaching around 30 percent of total higher education enrollments), while in countries such as Bulgaria, Hungary, or Slovakia private institutions are relatively scarce. This variation across countries raises the question of what factors have led to the flourishing of private education only in some countries but not in others, despite rather similar initial economic, political, and social conditions. Moreover, an important issue for policymakers considering regulation and accreditation, for scholars studying institutional forms, and not least for parents and children making educational choices is the role played by the new private entrants in higher education. The mushrooming almost overnight of private schools in certain countries, the lack of tradition of such types of institutions, as well as the slack government or public controls regarding the operation of private universities and colleges and/or the enforcement of such controls particularly in the initial transition period raise concerns over the quality of non-state higher education and its benefits to the individual and to society. Are these new entrants effective competition for previously established public universities, motivating them to improve? Or do they serve the needs of a different population of students, meeting different labor market demands for skill acquisition and/or certification other than those fulfilled by public universities? This research addresses these questions by investigating the cases of Bulgaria and Romania, two very different examples of transformation in higher education in the Black and Caspian Sea region.

Relevance and Contribution to the Field

This study makes several contributions to the field. First, it helps us understand the transformations of the systems of higher education in the two transition countries. Although starting from similar initial economic and political conditions, the different educational developments of Bulgaria and Romania provide important insights into the broader issue of educational reform. Second, the research fills the gap in the statistics and in our understanding of the returns to public and private higher education in Bulgaria and Romania through an empirical study of university graduates. Third, the study contributes to the literature on the link between higher education and labor markets by expanding the scope of this relationship to the institutional form of the university attended. Fourth, this research suggests concrete policies for government regulation of private and public universities. Finally, the research informs potential applicants of the returns to different types of higher education in Bulgaria and Romania, thus contributing to the college-choice process. This information is especially needed in a time of globalization of education and increased student mobility across countries.

Research Methodology

Institutional theories, discussions on quality in higher education, as well as labor market theories of returns to education constitute the conceptual framework for this research. The empirical analysis consisting of examining the relationship between institutional form, on the one hand, and student selection into higher education and labor market outcomes of graduates, on the other hand, employs a cross-section dataset containing information on 1,667 recent university graduates (1,457 in Romania and 210 in Bulgaria).¹ The study tests several hypotheses, including whether or not students sort themselves into public and private higher education according to observable individual characteristics, such as parental education, family income, and academic ability, and whether or not recent graduates differ systematically in their observed labor market outcomes depending on the institutional form of higher education attended. Standard methods of labor market analysis were employed. For instance, in determining the impact of personal, family, and institutional characteristics on individual labor force state probabilities, multinomial logit models were used, while linear regression techniques were employed to estimate wage differentials. More details about the specific statistical techniques and specifications are provided in the sections below.

Summary of Research Findings

The Emergence and Growth of Private Higher Education in Bulgaria and Romania

This study documents the specific cases of the two transition countries and discusses the evolution of private and public higher education in Bulgaria and Romania in view of the political, legislative, and economic developments in the last twelve years. It provides a detailed description of the reform measures in higher education and of the most relevant legislation passed, as well as a current account of the number of universities and enrollment levels by institutional form.

In the interest of conciseness, the main similarities and differences in the evolution and current status of public and private higher education in Bulgaria and Romania are summarized in the Appendix to this report. This section focuses on the factors that may have led to the distinct evolution and current status of the higher education systems in the two countries. Among these, political developments are clearly critical, both in the early transition years as well as more recently. The fall of the socialist regimes undoubtedly brought more favorable conditions for the growth of private initiatives, and the political orientation of the governments that came to power in the early years (leftist in Romania and rightist in Bulgaria) marked the reform efforts in higher education as well. The Bulgarian government enacted early on, in 1990, the liberal Law on the Academic Autonomy of Higher Education Institutions, which provided favorable conditions for the growth of private initiative in tertiary education. By contrast, the Romanian government kept tight control of state universities, but, ironically, adopted a rather *laissez faire* approach towards private institutions, enabling them to flourish. The changes in the political structure after the next round of elections (to a leftist government in Bulgaria and a right-center government in Romania) again affected the

¹ For details about the questionnaire, the survey procedure, the sampling design, the response rates and the sample, see Sapatoru (2002).

reform paths in the two countries in different ways. Bulgarian higher education experienced the re-establishment of strong state control, while managerial and financial decentralization began in Romanian public higher education.

Without a doubt an additional factor in the different magnitudes of growth in the two countries was the variance in the size of the student population at the beginning of transition: while in Bulgaria there were around 24 students to 1,000 inhabitants in early 1990, the comparable number for Romania was 8. Complemented by the relaxed approach to the regulation of private higher education, the very high excess demand (especially in fields that had been repressed by the previous socialist regime) created significant opportunities for private entrepreneurship in higher education in the latter country. In Romania, private providers—both higher education insiders and outsiders—immediately took advantage of the lack of clarity in the laws to set up new institutions, especially since state institutions could not expand enrollments significantly under the restrictive tutelage of the Ministry of Education. In Bulgaria, however, the 1990 Law on the Academic Autonomy of Higher Education Institutions gave public universities the opportunity to enroll students who would pay for their education, in addition to those subsidized by the state. Therefore, public universities were given great incentives to grow and to absorb some of the excess demand.

The influx of foreign assistance to the private sectors of the two countries is also likely to have affected the quality of private higher education in Bulgaria and Romania. The loose legal framework in Bulgaria facilitated foreign partnership, and the first private universities that appeared in the country not only relied on foreign support but also introduced educational structures patterned after successful Western educational systems, distinct from those found in state universities. The cost of education at such institutions was higher than at state universities, creating the possibility for private education to become accessible mainly to the more affluent. However, in the past ten years foreign aid and foundations provided financial support, in some instances to all students admitted, such as in the case of the American University in Bulgaria. In Romania, by contrast, the new private entrepreneurs were mostly indigenous insiders who founded educational institutions and recruited staff from existing state universities. The private institutions quickly adopted the same organizational and teaching methods and became, under human resource and capital constraints, lower-quality replicas of existing state universities. Perhaps as a result of perceived uncertainty and insufficient returns, foreign assistance came only much later and only to a small degree in the form of joint programs.

To conclude, the initial enrollment rates in higher education, the subsequent political initiatives, the encouragement (or lack) of private entrepreneurship in higher education, the degree of autonomy of existing public institutions in setting enrollment levels and tuition, as well as the extent of foreign assistance to higher education have led to different magnitudes of growth and patterns of development in the tertiary sector in Bulgaria and Romania. The former is characterized by a relatively small private higher education sector in which there is significant variation in the quality and reputation of private universities. By contrast, in Romania private providers have contributed to a large extent to the massification of higher education and currently account for an important percentage of student enrollments; however, despite the size of the sector, there is little quality differentiation among private universities.

Student Sorting into Public and Private Higher Education in Bulgaria and Romania

The objective of this research component is to investigate whether any systematic differences exist in the observable characteristics of students (parental education, family income, academic ability) by institutional form at the time of entry into higher education. Although other individual characteristics such as entrepreneurial spirit, motivation, proclivity towards risk, etc. may also be associated with the choice of public or private higher education and may lead to a systematic sorting of students, these features are in most cases unobservable by the researchers and/or very difficult to measure. Therefore, they do not constitute the main focus of the study.

Our analysis indicates that several factors may be correlated with student sorting into public and private higher education in Romania. Here we report only on those variables for which we find statistically significant (at the 0.05 level) mean differences between students enrolled in public and in private universities. In addition, we discuss the effect of several variables on the individual probability of being enrolled in a private higher education institution (estimated using a binary logit regression with robust standard errors).

First, the proportion of students who had attended an academic high school (rather than a vocational or specialized upper-secondary school) is about ten percent lower in private compared to state higher education institutions. Academic high schools generally offer more rigorous preparation for the competitive admission examinations in public universities, and students who have graduated from such a school are, on average, about 1.2 times more likely to be enrolled in a public institution, all other things being equal.

Second, the vast majority of students in the sample are younger adults, in the 21 to 30 age group, and there is only a very small statistically significant positive difference (approximately 0.22 years) in the mean ages of students enrolled in private and public institutions.² Similarly, there is very little difference between the two groups in the mean duration between the year when an individual graduated from high school and that in which he/she gained admission to and enrolled in the higher education program. Nonetheless, when controlling for other relevant characteristics in a regression setting, a student who took longer to enroll in a higher education program is slightly more likely to attend a private institution. One explanation for this fact may be that such an individual had applied to one or more programs beforehand but failed to gain admission, and ultimately was admitted to and enrolled in a private institution where admission standards are more relaxed. Alternatively, it may be that at the time of enrollment students in private institutions are more likely to have had longer work experience in the labor market.

Third, individuals living in an urban area are one and a half to two times as likely to attend a private institution compared to those coming from a rural family.³ A supply-side argument, namely the increased

² A little more than 95 percent and 98 percent of the students enrolled in private and public universities, respectively, belong to this age group. If we further restrict this to "traditional students," i.e., those between 21 and 24 years of age, the comparable figures are 83 percent and 90 percent, respectively.

³ The percentage of students residing in Bucharest is 12 percent lower for students enrolled in private compared to public institutions. If we control for the location of the universities in Bucharest, this difference increases to 16 percent. However, the point estimate of the odds ratio derived from the coefficient on the dummy variable indicating residence in the capital of Romania is around 0.8. This may suggest that, on average, and all other things equal, individuals from Bucharest are less likely to enroll in a private institution, which may perhaps be explained by the relatively greater availability of public higher education in the capital. However, this result is not statistically significant, and we therefore cannot make any inference about the correlation between residence in Bucharest and the probability of attending a private higher education institution.

availability of private higher education in urban locations, may offer one explanation for this empirical observation. A demand-side justification also strengthens the case, in that individuals from rural areas needing to relocate to a town or large city to attend college may be faced with both a lack of housing and a high cost of accommodation, and may therefore prefer to attend a public university and take advantage of state-subsidized housing. While almost 50 percent of the students in our sample come from the capital, private institutions enroll about twelve percent more individuals from Bucharest than the state institutions.

Fourth, parental education seems to be correlated with attending a private institution: individuals from families in which at least one parent has a higher education degree (compared to families in which none of the parents holds a college degree or higher) are almost a third less likely to be enrolled in a private school. The mean proportion of students coming from families in which at least one parent holds a university degree is 7 (for mother's education) to 10 percent higher (for father's education) in public universities. Parental education may be acting as a proxy for the individual's education at home and for aspirations for future studies instilled while in the household.

Finally, although household income as a whole does not seem to be associated with the dependent variable (the relevant coefficient is almost null and statistically insignificant), the greater the number of siblings, the less likely an individual is to attend a private university. This may be a reflection of the revealed choice of less wealthy families confronted with high tuition fees at private compared to state universities.

In Bulgaria, our data yield results that are comparable for the parental education and urban variables, both in the direction and in the magnitude of their correlation with the individual probability of attending a private university. By contrast, however, attendance of an academic high school in Bulgaria is positively correlated with a slightly higher probability of subsequently attending a private higher education institution, which may be a reflection of the prestige of the private universities in the country. These results must be viewed with caution, however: most likely because of the small sample size, none of the coefficients in the various regression specifications tested are statistically significant, and we must therefore use care in making generalizations about the student population in Bulgaria.

Returns to Public and Private Higher Education:**Labor Market Outcomes of Recent University Graduates in Bulgaria and Romania**

This study focuses on exit from higher education and examines one set of the measurable benefits of education, namely the labor market outcomes of recent university graduates. It estimates the individual probability of being employed within six months after graduation, the type of contract secured (none, trial, limited-time, or indefinite), the earnings on the main job in which the individual was employed at that time, and the degree of match between education and occupation (in terms of the educational requirements of the job, the field of study, and job responsibilities). Hypotheses of systematic differences between public and private university graduates, controlling for personal characteristics, family background, and academic performance were tested.

a) The individual probability of being employed six months after graduation

In order to examine the correlation between the individual probability of being employed within six months after graduation, we employed a binary logit model in which the variable of interest was the institutional form of the program attended. We controlled for demographic characteristics, academic performance, and institutional factors (including field of study). We also added a reservation wage covariate, under the assumption that the higher the individual reservation wage, the greater the probability, on average, that the individual is unemployed, all other things equal. Finally, we controlled for work experience during the senior year in university.

The mean difference between the proportion of public and private university graduates, respectively, who were unemployed during the reference week is relatively small: around 3 percent. However, when we examine the individual probability of unemployment, our research indicates that, relative to their peers in public education, graduates of private higher education in Romania are between one-half and two-thirds less likely on average (depending on the specification), to have been unemployed. The statistical significance of the coefficients is robust to adding explanatory variables to the base specification. This may be explained perhaps by the selection into private education along some unobservable characteristic, such as pro-active spirit, entrepreneurship, or networking, which would also be correlated with success in finding employment in the labor market. An additional and perhaps complementary explanation would be that graduates of private universities are less likely to be unemployed since they may be willing to take a job that does not necessarily match their training, although our study of job-education match refutes this argument to a large extent (see section on The Degree of match between education and occupation).

In Bulgaria, by contrast, we fail to find any significant difference between the proportion of public and private university graduates, respectively, who were unemployed during the reference week. This result is also robust to controlling for type of high school, academic performance, gender, marital status, residence, parental education, household income, number of siblings, and reservation wage (all the estimated coefficients lack statistical significance).

b) Type of contract

The limited number of missing values for the type of contract secured, conditional on the individual being employed, restricts this analysis to a comparison of means. In Romania, there are no significant differences between the proportion of graduates of public and of private universities, respectively, for each type of contract (i.e., no contract, trial-period contract, unspecified-period-of-time contract, or other). The exception concerns limited-time contracts, where about 7 percent more of the graduates of public institutions (compared to the percentage of the graduates of private schools) report having signed a work contract that covers a limited, pre-specified period of time. This difference is statistically significant at the 0.05 level. Additional research is necessary to determine if there are discrepancies also in the length of the contract and to investigate the reasons behind this finding. Similarly, in Bulgaria, the divergence between the proportion of public and private higher education graduates, respectively, by type of contract are also small in magnitude and statistically insignificant.

c) Earnings on the main job

After eliminating outlier values from the data, there is essentially no difference between the average earnings on the main job of graduates of public and private higher education, respectively. This result is robust to controlling for type of high school, field of study, academic performance, gender, marital status, residence and parental education, and usual monthly hours of work on the main job in an OLS regression. Although the coefficients vary somewhat in magnitude, further controls for firm ownership, firm size, industry, whether or not the firm existed before 1990, as well as whether or not the government paid a wage subsidy for recent graduates when the respondent was hired on the main job, fail to provide evidence that institutional form is correlated with the relative size of individual earnings in Romania (the coefficients on the dummy for private higher education lack statistical significance, for all regression specifications). These results seem to indicate that, conditional on having been employed, attending a private university does not command a premium in the labor market.

In Bulgaria, on average, the recent private higher education graduates in our sample earn about 16 percent less overall than their peers from public universities, although the data do not support statistical significance. A multiple regression analysis – in which we control for all the demographic and socio-economic factors as well as for firm characteristics, as above – also fails to find any association between institutional form in higher education and earnings immediately after graduation.

d) The degree of match between education and occupation

The comparison of means of job-education match variables reveals that in Romania about 6 percent more of the students who graduated from private universities, relative to the percentage of those who had attended public institutions, report that their job involves mostly or solely manual work. However, with respect to the field of study required by the job (be it no particular field, the same field as the individual had specialized in, or a completely different field) there seem to be no differences between the two groups. Finally, the data indicate that recent graduates of private universities are slightly less likely to hold jobs that do not require a higher education degree (including bachelor, master's or doctoral program) than their cohort peers who attended public education. We find similar outcomes when we control for type of high school, field of study, academic performance, gender, marital status, residence and parental education, and usual monthly hours of work on the main job, and firm ownership, size, industry, and existence before 1990, in logit specifications of the appropriate individual probabilities (i.e., of being employed in a mostly manual job, in a job that requires one's own field of study, or in a job that calls for a higher education degree, respectively).

In Bulgaria, due to the smaller number of individuals in the sample, we are limited to comparison of means analyses. These show no statistically significant difference between the average proportion of students from private and public universities, respectively, who report being employed in a job that requires manual versus non-manual work, a different or same field of study as that of the individual's specialization, and a different or same level of education.

Suggestions for Future Research

This section contains suggestions for future research that stem directly from inquiries under this grant and involve not only improvements in the research methodology but also proposals for additional topics to be investigated.

A critical aspect that must be borne in mind in the investigation of student sorting into higher education is the fact we observe only the outcome of application and admission processes – namely the enrollment of the individual in a public or private university. In other words, we do not explore the a priori individual preferences for one type or other of education, but rather the outcome of an admission process as a result of more or less objective (or subjective) admission decisions made by the institutions, where application to a type of college (i.e., the revealed preference) is a necessary but not sufficient condition for admission. However, our data contain some information on the application choices of the individuals in the sample and their outcomes prior to enrollment in the university where we surveyed them. We know how many times and when the individual applied to this particular program and whether it was the first choice for enrollment. We will attempt to take this knowledge into account in our future work.

With respect to the analysis of labor market outcomes of recent university graduates, several issues need to be further addressed. First, large standard deviations and missing data constitute a problem for some variables, particularly those pertaining to household income and individual earnings. In future research we plan to devise appropriate methods to either impute missing values where possible or to make the most use of the information that we do have. Second, it is possible that the association (or lack of) between institutional form and labor market outcomes is driven by the correlation between the latter and the specific university or program attended. Therefore, it is necessary to account for this possibility, perhaps by including a dummy variable for each institution in the appropriate regressions (in a fixed-effects type of analysis). Third, we intend to examine the sensitivity of our findings on earnings and job-match differentials to the inclusion of a variable accounting for tenure on the job (our survey provides some information accordingly, but more data mining is necessary). Fourth, while we do have some knowledge of whether or not the individuals in our sample hold secondary jobs, this information is far from perfect. However, we know from previous studies that multiple job-holdings are not uncommon in the changing labor market of the transition countries, which may be the case particularly for recent graduates for whom job changes in the initial years in the labor market are likely to take place (see also below for other research topics). Therefore, additional work on secondary jobs and earnings would be valuable.

As discussed above, this study covers only the early labor market outcomes of public and private higher education graduates. However, this needs to be complemented by research on later developments, as the early periods are likely to be characterized by relatively high mobility among labor market states (employed, unemployed, or out of the labor force), types of contracts, firms, and jobs. As a result, the individual employment, earnings and job-match variables are likely to change over time.

One related topic pertains to an important aspect of choice in higher education, namely migration for tertiary studies. Although both public and private providers are establishing new universities or branches of existing institutions in a larger number of locations in an attempt to reach local markets, higher education is not available for all potential candidates in the town in which they reside, and some have to migrate to other locations. Several interesting research topics in this respect include the extent to which migration is a barrier to access to higher education, the effects of the cost of migration on the returns to education, and the correlation between proximity of a higher education institution to enrollment preferences and outcomes.

An additional topic, also with possible policy implications, consists of gender differences in higher education choices and outcomes. An investigation of this issue would provide insights into the sociological factors that may be correlated with female preferences for certain fields of study, for their success in gaining admission to higher education, and for their subsequent labor market outcomes.

Finally – although we do not intend to provide an exhaustive list of interesting issues here –the elasticity of demand for higher education would constitute another important research topic. The numerous government policies concerning financing higher education affect, in one way or another, the level of tuition and enrollments, but to our knowledge essentially no studies have as of yet been carried out to investigate this relationship.⁴ Such research would have significant applied value both for policymakers at the ministerial level regulating tuition fees, and for academic management at the university level.

Policy Recommendations

Our assessment of the outcome of the reforms in higher education in Bulgaria and Romania suggests that several policy measures may contribute to the development of a well-functioning tertiary education sector. First, transparent external evaluation procedures need to be implemented. This implies not only ensuring that special interest groups cannot affect the outcome of academic accreditation, but also that the criteria for accreditation are clear and take into account the idiosyncratic features of private institutions.

Second, a shortage of funding seems to be a major constraint for the growth and quality improvement of private universities (particularly in Romania). Private providers derive the major part of their revenue from tuition fees, and a substantial increase in fees, given the elasticity of demand, may negatively affect enrollment. This raises a political question of whether a mass higher education system or a more elitist, smaller sector would be more desirable. To improve quality without decreasing enrollments, additional government support and private and international donor funding would be beneficial. This entails encouraging domestic and foreign investments in education, both by enacting transparent regulations and by providing financial incentives to investors to guarantee a reasonable return. In addition, the apparent similarities in the labor market outcomes of public and private higher education graduates revealed by this study in Bulgaria and Romania are not well-known and seem counter to popular perceptions. While additional research in this area remains necessary, it is interesting to note that, as far

⁴ There is one exception, however: a study based on a survey of higher education students by Ionita (1998), "Against the Trends: Arguments for Introducing Tuition Fees in Public Higher Education," Working papers, no. 6, SAR, Bucharest.

as we can tell, private higher education is a valuable alternative to public education and should be encouraged by the government.

Third, at present it is very difficult to judge the quality of higher education, whether public or private, in the transition countries. Potential candidates to higher education and their families, as well as employers seeking to hire trained labor, are faced with a dearth of information concerning the education provided by institutions. Some knowledge exists as a result of the accreditation reports submitted to the national accreditation agencies. However, these seem not to be centralized, organized, or made available in a transparent manner. Such reports containing information that would aid in family, individual, and employer decision-making should be widely disseminated. Furthermore, the findings of research such as ours, which was a first step in attempting to evaluate the quality of public and private higher education in terms of the labor market success of university graduates, should be collected in an information clearinghouse and publicized.

Fourth, both at the government and at the university level, in order to increase employability in the labor market, it is advisable that policies rewarding job search assistance be implemented and rewarded. Similarly, it is likely that policies stimulating cooperation between universities and businesses, including job fairs and student internships, would be valuable in increasing the probability of employment after graduation and the match between skills acquired in the university and the job requirements.

Plans for Continued Collaboration

Collaboration among the three IREX project partners will continue in the near future mainly through the activities and projects of the PROPHE's (Program for Research on Private Higher Education) Central and East European Regional Center, of which Snejana Slantcheva has recently been named Head. The results of this project will be presented at the Center's upcoming conference on the Distinctive Roles of Private Higher Education in the Countries of Central and Eastern Europe to be held in 2004. The collaborators will also continue to pursue their research interests as outlined above in the section on Suggestions for Future Research.

Planned Future Publications

A first step in the dissemination of the findings of this research will be to put our draft articles and reports resulting from this study on the internet as working papers. We have already made arrangements with the PROPHE's (Program for Research on Private Higher Education) Central and East European Regional Center and have discussed this possibility with the National Center for the Study of Privatization in Education (NCSPE).

We also intend to submit articles for publication to applied research journals, including the *Economics of Education Review*, *Educational Evaluation and Policy Analysis*, *Education Economics*, the *European Journal of Higher Education*, the *Journal of Education Policy*, and the *Review of Educational Research*. In addition, Dana Saporu and Luminita Nicolescu are in the process of planning a book proposal that would include the research on Romania carried out under this grant, together with several other papers resulting from earlier and future planned work on public and private higher education in the country.

On a regional level, we intend to publish the translations of the papers resulting from this research, in full or in abridged versions, in the two countries studied. Thus, in Bulgaria we will approach the leading higher education

research journal, *Strategies for Policy on Education and Science*. In Romania we have been asked by the Ministry of Education to submit our studies on public and private higher education for publication. We also plan to write short articles based on our findings for the local media.

Comments

The IREX 2002-2003 Black and Caspian Sea Collaborative Research Program grant has made possible the identification of subjects of common interest and the fruitful cooperation of the three partners from the U.S. and two different transition countries in the region. Dana Sapatoru, the primary collaborator, brought to the collaborative effort her knowledge of labor market and institutional theories, her know-how of statistical methods and techniques, as well as her previous work on private higher education in Central and Eastern Europe; Luminita Nicolescu shared her expertise in management and organizational behavior, as well as her previous and ongoing work in higher education reform in Romania; and Snejana Slantcheva contributed her skills in higher education policy, research, and administration and her work in Bulgarian educational reform. The research summarized in this report benefited from the use and integration of different research methods and perspectives of the three collaborators.

The grant facilitated our work towards contributing to Black and Caspian Sea regional studies through a detailed comparison of the expansion of private and public higher education and the labor market outcomes of university graduates in Bulgaria and Romania. Through the funding of honoraria, it enabled the collaborators to pursue their common interests and spend time on this comparative research, which may otherwise have not been carried out or may have resulted solely in one-country individual studies. Research assistants from the region were funded under the allowances for research expenses provided by the grant, which thus contributed to the dissemination of both theoretical and applied knowledge in Bulgaria and Romania. Finally, but not least importantly, the travel funds allocated permitted a closer interaction between the primary (U.S.) collaborator and the regional collaborators and research assistants, which would have otherwise been limited to communication via email and telephone.

Appendix

The Emergence and Growth of Private Higher Education in Bulgaria and Romania: Similarities and Differences in Reforms, Evolution, and Current Status

AREA	SIMILARITIES	DIFFERENCES
SIZE AND STRUCTURE OF HIGHER EDUCATION SECTOR	<ul style="list-style-type: none"> • The structure of the higher education system changed through the reorganization of existing public universities and the establishment of new private institutions. • Unprecedented growth took place, both in the number of public and private higher education institutions and in enrollment levels. • Both public and private universities increased enrollments particularly in economics and law programs, while reducing the number of students in technical fields. 	<ul style="list-style-type: none"> • The two countries experienced very different magnitudes of growth: while total enrollments in tertiary education increased 1.7 times in Romania, these grew by only 18 percent in Bulgaria. • Relative to the population, the number of students in higher education increased from 8.3 to 23.8 students per 1,000 inhabitants during 1990-2000, while in Bulgaria this ratio went from 24.2 to 28.5 students per 1,000 inhabitants in approximately the same period. • Private higher education is more prominent in Romania: it currently accounts for 30 percent of total enrollments in higher education, compared to only 12.5 percent in Bulgaria. • In Bulgaria, private universities tend to be larger (in terms of student enrollments) than their Romanian counterparts.
LEGISLATION IN HIGHER EDUCATION	<ul style="list-style-type: none"> • Reforms were constantly challenged by the difficult political, social, and economic transition in the two countries. • The governments' aspiration to belong to the European Higher Education Area was a driving factor in the reform efforts, including the introduction of the three-tier Bachelor-Master-Doctor system of higher education. • The initial drive for decentralization and implementation of academic autonomy was followed by a gradual re-centralization of management; this trend, however, seems to be stronger in Bulgaria where enrollment levels for each specialization are set by the state (by contrast, in Romania, these are influenced by financing mechanisms and incentives). • Laws guiding higher education were amended and changed on numerous occasions. In addition, regulations of private higher education appeared long after the establishment and operation of private universities. 	<ul style="list-style-type: none"> • In Bulgaria, reform was officially initiated early on with the 1990 Law on Academic Autonomy of Higher Education Institutions, while in Romania reforms started much later (only a few inconsistent measures were adopted between 1990-1995). Furthermore, although in Bulgaria the reform started with decentralization immediately after 1990, a tendency towards re-centralization in university management took shape after 1995. • A specific Law on Higher Education was enacted in Bulgaria, while in Romania universities operated under a general law governing the education system as a whole. • In Bulgaria the degree of central control is currently very high as both the specializations offered and the level of enrollments for both state and private higher education are strictly regulated by the state. In Romania, however, enrollments are controlled through the financing system, but universities are free to decide on the specializations offered (subject only to approval, but not restricted a priori).

(Appendix: continued)

AREA	SIMILARITIES	DIFFERENCES
QUALITY ASSURANCE IN HIGHER EDUCATION	<ul style="list-style-type: none">• Accreditation agencies and councils, as external quality assurance systems, were established in both countries. Problems with the institutionalization of internal systems of quality control are present in both Bulgaria and Romania.• The criteria for accreditation of higher education institutions are similar for state and private universities.• Institutions of private higher education which did not comply with accreditation requirements were closed by the government (14 universities in Romania and 1 university in Bulgaria).	<ul style="list-style-type: none">• Bulgarian universities are legally required to develop internal mechanisms of quality assurance. In Romania, universities are required only to submit self-evaluation reports as part of the accreditation process.• Private higher education has a better reputation in Bulgaria compared to Romania.
FINANCING IN HIGHER EDUCATION	<ul style="list-style-type: none">• State funding for higher education decreased over time as a percentage of GDP relative to 1989.• State support for public higher education is based solely on enrollment levels, with no regard for performance criteria.• Tuition fees were introduced to complement state funding in higher education.	<ul style="list-style-type: none">• At least legally, in Romania accredited higher education institutions (both public and private) are eligible to compete for public funding.• In Bulgaria, every student enrolled in public education covers a portion of his/her cost of education by paying state-mandated tuition fees set by the government. In Romania, by contrast, although only a proportion of the full-time Bachelor students pay for their studies, they bear the entire cost of education.