

Report No: AUS0000633

GRADUATE EMPLOYABILITY OF AFFILIATED COLLEGES NEW EVIDENCE FROM BANGLADESH

*Graduate Tracking Survey on Affiliated Colleges
of Bangladesh National University*



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ABBREVIATIONS AND ACRONYMS

BANBEIS	Bangladesh Bureau of Education Information and Statistics
CAPI	Computer-Assisted Personal Interview
CEDP	College Education Development Project
DSHE	Directorate of Secondary and Higher Education
GPA	Grade Point Average
GPI	Gender Parity Index
HEQEP	Higher Education Quality Enhancement Project
HSC	Higher Secondary Certificate
ICT	Information and Communication Technology
LFP	Labor Force Participation
NAEM	National Academy of Educational Management
NEET	Not Engaged in Employment and/or Training
NTRCA	Nongovernment Teachers Registration and Certification Authority
NU	National University
OECD	Organisation for Economic Co-operation and Development
SMEs	Small and Medium Enterprises
SSC	Secondary School Certificate



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INTRODUCTION

1.1. LABOR MARKET AND EDUCATION ATTAINMENT IN BANGLADESH

1. In Bangladesh, though tertiary education holders are still a small minority, the economy has been blessed with a large supply of young and increasingly more educated population. The economy has been growing consistently at around the rate of 6–7 percent annually over the past decade in Bangladesh. The country has an estimated size of 62.5 million persons in the labor force as of 2016, and 2 million new workers are estimated to join the labor force every year. Its relatively young population contributes significantly to the growth of the labor force and overall economic growth. Moreover, the share of labor force participation (LFP) of people of age 15 or above increased from 59 percent in 2003 to 61 percent in 2016. Particularly notable improvement was made in female LFP. The rate increased significantly from 28 percent in 2003 to 37 percent in 2016. Education attainment levels of the population have witnessed considerable improvement over the decade. Tertiary education and higher secondary education leavers increased to account for 11.3 percent of the working age population in 2016, a jump from 7.4 percent just six years earlier. Yet, people with tertiary education continue to be a small minority in the labor force, accounting for only 5 percent of working age population.

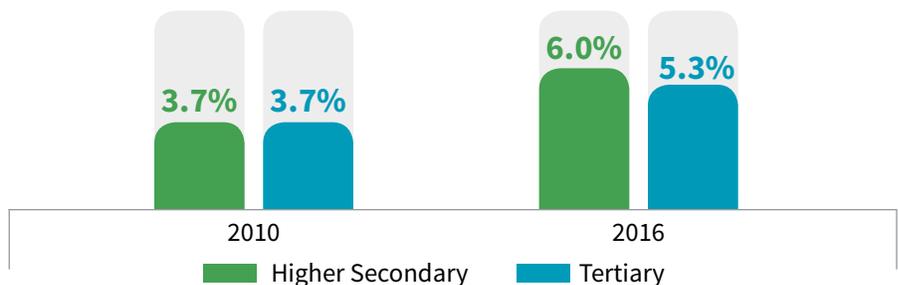


Figure 1: Share of Education Attainment among People of Age 15 or Above in Bangladesh

Source: Quarterly Labour Force Survey 2015/16.

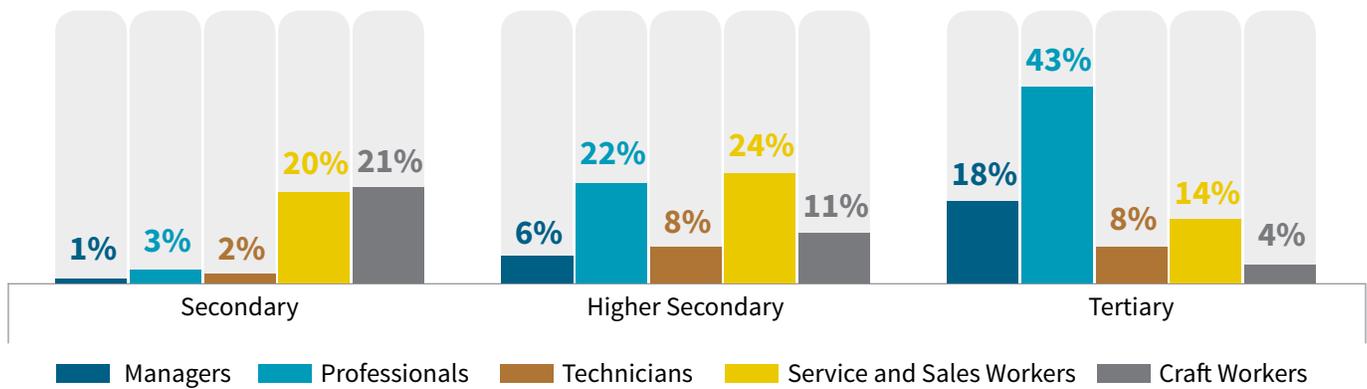


Figure 2: Share of High-Skilled Occupations among Employed Population, by Education Attainment Levels

Source: Quarterly Labour Force Survey 2015/16.

2. Workers with tertiary education degrees are filling high-skilled occupations in the job market such as professionals and managers. Tertiary education qualification holders still account for only a fraction of the labor force in Bangladesh. As of 2016, only 5.3 percent of employed people have tertiary education degrees or higher, according to the Labour Force Survey. Given the rapid technological changes in recent times, with both global and local job market constantly changing, the labor demands for more educated and highly skilled workers have been growing. Tertiary education graduates appear to be in high demand in the labor market to fill high-skilled positions such as managers, professionals, and technicians. Nearly 70 percent of employed tertiary qualification holders work in those high-qualified occupations (see Figure 2). This share is markedly higher even when compared to higher secondary qualification holders who themselves are also among the better educated in the country (they account for just 6 percent of the employed population). It is evident that holding tertiary education degrees has indeed been a first step for becoming professional knowledge workers in Bangladesh.

3. Furthermore, gaining tertiary education qualification is strongly associated with formal sector employment, especially for females. Informal employment¹ is the norm in Bangladesh. As much as 86 percent of all jobs are classified as informal employment, according to the labor force survey. In this context, there is a strong correlation between education attainment levels and the likelihood of having formal employment. Formal employment is by far more common among employed people with tertiary education attainment. Forty-seven

percent of them are formally employed. Higher secondary graduates trail behind by a large margin at 33 percent. The share goes down for secondary school graduates to only 17 percent. The benefit of having a tertiary education degree is even more pronounced for females, who are generally more prone to informal employment arrangements. Women with tertiary education are just as likely as men with the same education level to be formally employed. Meantime, female workers with higher secondary education are only half as likely as their male peers, and female workers with only secondary education are less than a fifth as likely as their male counterparts, to have formal employment.

4. It should be cautioned that manpower supply from tertiary education may not be fully aligned with the economic growth scenario of the country. The Labour Force Survey shows that most (around 80 percent) of the tertiary education holders are found to be working in the service sector, while only 15 percent are working in the industry sector. The service and industry sectors are estimated to account for around 54 percent and 27 percent of the gross domestic product in Bangladesh in 2016, respectively. Service sector encompasses government activities, communication, education, finance, commerce, and so on, while the industry sector covers key economic activities of Bangladesh such as manufacturing and construction. It should be highlighted that the industry sector has been the major driving force of economic growth in Bangladesh in recent decades. The industry sector has consistently been growing faster than the service sector (for example, the industry sector grew 11 percent while the service sector grew only 6 percent in

¹ Informal employment refers to those jobs that generally do not enjoy basic social and legal protection or employment benefits. Nearly all employment in the informal sector are informal employment. Informal employment can also be found in the formal sector.

2016). This seeming misalignment may warrant a word of caution. Tertiary education may have been failing to adequately supply skilled manpower to this growth sector of the economy and instead oversupplying it to the less vibrant service sector where job opportunities and labor productivities may be growing only modestly.

5. The returns to tertiary education have been consistently high over time in Bangladesh. The private rate of returns to each additional year of education in different levels for years 2005, 2010, and 2016 are provided in Table 1. While the rate of returns for additional years in primary and secondary levels are decreasing over time, the rate of returns to tertiary level of education has been consistently over 20 percent between 2005 and 2016.² Against the backdrop of a growing supply of workers with tertiary education qualifications, this sustained level of return to tertiary education or wage premium would probably indicate that there are equally growing demands

from the economy for highly skilled workers that tertiary-level education and training could supply. As the country's economy is increasingly modernized and globalized, it would not be surprising to see that trend continue into the foreseeable future. This clearly offers a strong rationale for more public and private investment in improving and expanding tertiary education in Bangladesh.

Table 1: Share of High-Skilled Occupations among Employed Population, by Education Attainment Levels

Level	2005	2010	2016
Primary (Grades 1–5) (%)	7.5	5.5	4.0
Secondary (Grades 6–12) (%)	6.8	5.4	4.6
Tertiary (Bachelor's degree and above) (%)	20.5	22.8	20.5

Source: Authors' calculations based on Household Income and Expenditure Survey data.

1.2. LABOR MARKET AND EDUCATION ATTAINMENT IN BANGLADESH

6. The model of affiliated colleges, adopted originally from the British system, has developed into massive networks of teaching-oriented colleges in the South Asia region to meet the surging demand for higher education. Affiliating colleges to a degree-awarding university has been practiced by different universities in the United Kingdom; however, it is unique in South Asian countries (that is, Bangladesh, India, Nepal, and Pakistan) that the model was expanded to attach hundreds, in some cases more than a thousand, of affiliated colleges to a single affiliating university. For instance, Tribhuvan University in Nepal affiliates around 1,053 colleges as of 2015. In each country, there are multiple affiliating

universities. In India, for instance, there are more than 268 affiliating universities across the country as of 2015–2016, collectively affiliating around 39,000 colleges.³ This affiliation system has allowed the countries to establish a large number of institutions that offer tertiary-level education relatively swiftly to keep pace with the growing numbers of secondary school graduates. As a result, a large share (more than 45 percent) of higher education students in the South Asian countries are studying in those affiliated colleges.⁴ Due to their sheer volume, the affiliated college systems are playing a significant part in shaping the standard of higher education, and skills and knowledge of high-skilled labor force in this region.

Table 2: Examples of Affiliating Universities in South Asia Region

	National University (NU)	Tribhuvan University	Mumbai University	University of the Punjab
Country	Bangladesh	Nepal	India	Pakistan
Number of colleges affiliated	2,300	1,053	749	614

Source: Respective university websites, as of June 2018.

² Given that there are very few observations of individuals who have taken technical education in this nationally representative sample, their returns to education are not calculated.

³ According to the All India Survey of Higher Education 2015–2016 published by the Ministry of Human Resource Development. Out of 268 affiliating universities, 17 universities have 500 or more affiliated colleges, and one has more than 1,000 colleges.

⁴ According to the overall analysis of the issue by Lee (2011). Overall, the affiliated college sectors of these countries are severely under-researched and under-documented.

7. In the systems of affiliated colleges, the control of affiliating universities typically extends across the entire spectrum of academic policies and programs of affiliated colleges. Affiliated public and private colleges operate in a formal agreement with an affiliating university with regard to the entire affairs related to academic policies and programs. The affiliating universities often conduct entrance examinations, manage registration of students, define standard curriculum for all subjects, carry out student assessments, and issue certificates for both public- and private-affiliated colleges. Upon completion of the program, the student typically receives a certificate from the affiliating university, not from the affiliated college where he/she attended the academic program. In principle, colleges are not allowed to run nonaccredited programs. As such, affiliating universities typically exert full control over academic programs of affiliated colleges. Governance and financial management structures may differ depending on the types of institutions (for example, public, private, community-based, and so on) and overall tertiary education management system of the country.

8. In Bangladesh, the NU is the main affiliating university, a major supplier of higher education in the country and one of the largest universities in the world. After completion of the Higher Secondary Certificate (HSC), students who continue higher education in Bangladesh have two educational paths to pursue higher education: universities or affiliated colleges. At present, the majority of higher education students are enrolled in the colleges affiliated to the NU. As of 2017, according to the annual statistics of the Ministry of Education (MoE), published by Bangladesh Bureau of Education Information and Statistics (BANBEIS), 1,862 colleges are affiliated to the NU. Each year the number of colleges keeps growing. Student enrollment across the NU-affiliated colleges are more than 1.8

million students and accounts for 68 percent of all the higher education enrollment. Like the affiliated college systems in other countries, the NU plays a dominant role in academic affairs of its affiliated colleges. Degrees offered by the affiliated colleges are issued under the NU's name. Meantime, the NU has little responsibility over nonacademic affairs of affiliated colleges including general governance, teacher recruitment, and financial oversight.

9. The NU-affiliated colleges offer three- or four-year bachelor programs and master's program and enroll nearly equal numbers of male and female students. The NU-affiliated colleges are categorized into three groups according to the level of programs they can offer: (a) degree pass colleges which offer only up to three-year bachelor's degree courses, (b) degree honors colleges which offer up to four-year honors bachelor's degree courses, and (c) master's colleges which offer master's degree courses.⁵ After completion of the bachelor's degree, students become eligible to enroll in master's programs for one-year course for honors degree or two-year course as degree pass graduates. PhD courses are offered only at the NU main campus, targeting college teachers. In terms of ownership, the large majority (85 percent) of these NU-affiliated colleges are privately owned nongovernment colleges, while the rest are publicly owned. In terms of size of institutions, degree pass colleges tend to be smaller and more scattered geographically across less urbanized areas, whereas honors and master's colleges are generally larger and tend to be located in urban areas and metropolitan cities. Among all students, nearly half, 47 percent, are enrolled in three-year degree pass courses, 44 percent in four-year honors courses, and 8 percent in master's courses. There is a total of around 78,000 teachers. Many of these teachers also teach higher secondary courses, which are

Table 3: Basic Statistics on Colleges, Teachers, and Enrollment in 2017

College Type	No. of Institutions	No. of Teachers	Student Enrollment by Programs			
			Pass	Honors	Master's	Total
Degree Pass	1,126	39,471	342,339	8,715	0	351,054
Honor	568	26,006	285,257	241,720	383	527,360
Master's	168	12,459	230,522	548,536	149,887	928,945
Total	1,862	77,936	858,118	798,971	150,270	1,807,359
% Female		24	48	45	44	46

Source: BANBEIS, Education Statistics 2017.

⁵ Honors colleges also offer pass degree courses, and master's colleges also offer pass/honor degree courses.

also part of many of the affiliated colleges. It is noteworthy that there is a near gender parity in overall student enrollment. Of all the college students, 46 percent are female (student enrollment in universities is more skewed toward males—only 33 percent are female students as of 2017).

10. Overall, the NU-affiliated colleges produce around half a million graduates annually. Every year, the affiliated college system of the NU makes a massive contribution in building up the human capital in the labor force of the country. Though the statistics vary and fluctuate across the years, as of 2017, as many as 546,000 students were studying in the final years of academic programs with the NU (see Table 4). Though not all of them would immediately graduate and join the workforce, they undoubtedly account for a significant part of the new workforce in the country (around 2 million workers newly enter the labor market each year in Bangladesh).

Table 4: Students in Final Years of Programs in 2017

Program Type	Total
Degree Pass	282,874
Honors	152,234
Master's	111,082
Total	546,190

Source: BANBEIS, Education Statistics 2017.

11. In the NU-affiliated college system, government and nongovernment college institutions coexist and account for roughly equal numbers of student enrollments. Government colleges are heavily subsidized by the government, while nongovernment colleges operate with government subsidies for covering part of their teacher payroll. All students, regardless of their colleges' ownership, are expected to pay various fees including tuition fees and examination fees. However, nongovernment colleges charge significantly more for their tuition fees and other student fees. In general, government colleges are larger institutions that enroll far greater numbers of students per institution and tend to be located in urbanized zones. For these reasons, it is often the case that government colleges are a more favored school choice if students can afford to commute to colleges in urban areas.

12. In addition to the NU-affiliated colleges, there are other tertiary colleges, enrolling over 320,000 students in total, which are affiliated to other general and professional universities. Those are outside the scope of this study. This study focuses on colleges affiliated to the NU as they account for the vast majority of affiliated college students. Unless otherwise specifically noted, this paper refers to these NU-affiliated colleges just as 'colleges' or 'affiliated college' for the benefit of simplicity.

Table 5: Number of Colleges and Student Enrollment by Ownership Type of Institutions

College Type	Government Colleges	Nongovernment Colleges	Student Enrollment by Programs	
			Government	Nongovernment
Degree Pass	68	1,058	37,060	309,453
Honors	108	460	158,841	368,519
Master's	107	61	798,369	130,576
Total	283	1,579	994,270	808,548

Source: BANBEIS, Education Statistics 2017.

1.3. KEY ISSUES IN AFFILIATED COLLEGE SYSTEM IN BANGLADESH

13. Across the affiliated college systems in the region, maintaining the quality standards for their massive affiliation networks while accommodating fast-growing student enrollment has been a formidable challenge. The expansion of affiliated colleges has been done largely under a loose regulatory supervision and at the expense of the quality of education. Education services at affiliated colleges are often marred with dilapidated facilities, poorly trained teachers, weak governance and accountability, lack of quality assurance mechanism, and rigid curriculum,⁶ making it the ‘weakest link’ in the higher education sector (Lee 2011). While there is no evidence to establish direct causalities that this mechanism of affiliation would inevitably lead to poor education quality, the affiliation system in South Asia does seem to have formidable limitations and capacity constraints. Affiliated colleges typically lack autonomy in their academic affairs and other administrative decisions, which limits institutions’ ability to respond to local market demands and flexibility in academic program designs. Affiliated colleges are also a considerably diverse group of institutions in terms of size of student enrollment and teaching staff, institutional capacity for teaching and learning and management, geographical and economic environment, and so forth. Designing academic contents and pedagogical methods that are uniformly suitable for all affiliated colleges, therefore, would likely be inherently challenging. In the meantime, much of the resources of affiliating universities would often have to be consumed by the gigantic administrative works to maintain the extensive network of affiliation, including, among others, holding examinations, degree awarding, student registration, teacher management, and financial affairs. Developing academic curriculum centrally may have its own merit and would help affiliated colleges, especially weaker ones, ensure the minimum standard of their program offering. Nonetheless, the capacity of affiliating universities to develop high-quality and market relevant curriculum and ensure regular revision has been less than adequate in many instances. Quality inspection by affiliating universities on education services of their affiliated colleges is also often inadequate due to capacity constraints of affiliating universities and the sheer size of their affiliation community. Weak quality assurance

casts a long shadow over the quality and relevance of the education of affiliated college systems.

14. College education in Bangladesh is under tremendous pressure for quantitative expansion of access, risking the deterioration of quality standards.

The NU is mandated to design and supervise all the academic contents and affairs of the affiliated colleges (for example, approval of affiliation of institution and programs, curriculum design and revision, student examination, student registration, degree awarding, college inspection, and teacher training). However, its capacity has been stretched thin as the number of affiliated colleges grew rapidly. The total number of higher education students increased by over 70 percent just over five years from around 1.5 million in 2010 to around 2.7 million in 2017. An increasing pool of higher secondary school graduates has led to more students pursuing tertiary education and pressing demands for expanding access to tertiary education. Responding to the social pressure, the number of higher education institutes also grew by over 40 percent to over 2,000 institutes by 2018, including 143 universities. The speed of expansion has been overwhelming in any standard and probably beyond the capacity of any education system to achieve orderly expansion with adequate quality assurance. Now, the risk of quality deterioration in higher education especially at colleges appears eminent and calls for greater investment in maintaining and improving the quality standard of college education services.

15. The management of tertiary colleges in Bangladesh is fragmented and involves multiple entities, adding many layers of complexity in governance and management of the affiliated college subsector.

Academic affairs are entirely managed by the NU, which is a fully autonomous public university, governed by the provisions of its own Acts. However, other managerial affairs of colleges are overseen by other government entities. For instance, human resource management and financial management of public colleges are managed by the Directorate of Secondary and Higher Education (DSHE) of the MoE. Government college teachers are recruited in the similar manner as public servants.

⁶ Available literature on affiliated colleges is severely limited; however, the available evidences point to the commonly held challenges such as those listed here (Awan 2016; Lee 2011; World Bank 2014b.)

Nongovernment college teachers are recruited by the institution from a pool of teachers who are registered and certified by a government agency called Nongovernment Teachers Registration and Certification Authority (NTRCA). Teacher training for college teachers are provided by the NU and by the National Academy of Educational Management (NAEM). Moreover, academic affairs for the

secondary education part of those colleges are managed by the DSHE and yet other relevant central agencies. Taken together, the governance and management system for the colleges in Bangladesh are highly fragmented and making concerted development efforts ever more challenging.

1.4. OBJECTIVES OF STUDY

16. In the last 10 years, the World Bank has been the main development partner for the Government of Bangladesh to improve higher education and generate knowledge about the sector. In 2009, the MoE embarked on a new project, Higher Education Quality Enhancement Project (HEQEP), with the financial and technical support from the World Bank and with the objectives of improving the quality of education and governance of university sector in the country. The project was the first-ever World Bank-supported project in higher education in Bangladesh and implemented for the subsequent 10 years until 2018. Eventually, the World Bank went on to extend its support to the affiliated college subsector with another project called College Education Development Project (CEDP). Previously, the subsector had never received any support from development partners despite its outsized presence and relevance for overall performance of higher education in Bangladesh. The project has three components: (1) Strengthening Strategic Planning and Management Capacity; (2) Improving Teaching and Learning Environment in Participating Colleges; and (3) Project Management, Communication, and Monitoring and Evaluation. The CEDP is expected to continue for five years until June 2022. In part due to the lack of presence of development partner involvement, the subsector has been faced with a paucity of evidence base for policy decision making and situation analysis. This graduate tracking study was conceived to fill the knowledge gap in the subsector and was undertaken as part of the World Bank's advisory and analytical support to the government.

17. This study was commissioned to address the mounting concerns about the quality of education at affiliated colleges in Bangladesh and to provide evidence about job market performance and employability of affiliated college graduates.⁷ First of all, at the time of this report, there was little evidence on job market performance of affiliated college graduates and relevance of college education in this region. No graduate tracking survey had been undertaken. It should be highlighted that this is the first systematic attempt to track the employment outcomes of college graduates in Bangladesh. The main objectives of the study are (a) to assess the employment outcomes of graduates from the affiliated colleges after about 24 months of their graduation; (b) to analyze job search practices among graduates and job placement support of affiliated colleges; and (c) to receive and reflect on feedbacks from graduates and employers about the quality and relevance of education at affiliated colleges. Based on the evidences gathered, the study sets out to offer policy recommendations and possible future interventions for the MoE, NU, and colleges. This study adds value by creating much-needed evidence about the employability of affiliated college graduates and deepening understanding about the current situation of college-to-work transition. It will provide invaluable evidence that can facilitate policy dialogues and contribute to the improvement of quality and relevance of college education in Bangladesh and provide comprehensive case study evidence on college graduates' employability to inform discourse surrounding the affiliated college systems in the South Asia region.

⁷ Employability of graduates is considered to be about graduates having a right mix of relevant skills and other attributes which enable them to perform professional roles successfully and help them become successfully employed in job market. Employment of graduates, on the other hand, is about graduates successfully finding jobs after finishing schooling.

1.5. METHODOLOGY

1.5.1. SURVEY METHOD, SAMPLING, AND INSTRUMENT

18. The study adopted a multifaceted approach to survey data collection and analysis. Three different but related groups of stakeholders were interviewed in a bid to generate more holistic understanding of and allow triangulated interpretation about graduates' employment outcomes, labor market relevance of college education, and existing skills gap. The three respondent groups are (a) graduates who graduated from degree pass, honors, or master's programs from the NU-affiliated government and nongovernment honors or master's colleges⁸ around three years earlier;⁹ (b) employers of the employed graduates; and (c) principals and vice principals of the affiliated colleges. The study set a period of three years from graduation for measurement of graduates' status. The survey collected information from (a) 2,350 graduates from the NU-affiliated colleges, (b) 235 employers of currently employed graduates, and (c) principals/vice principals of 35 government and nongovernment colleges.

19. The survey draws on a nationally representative sample of college graduates from honors and master's colleges in Bangladesh. Samples were selected in a multistage random sampling: at college, department, and graduate levels. Sampling frame of colleges (primary sampling unit) includes all government and nongovernment honors and masters colleges affiliated to the NU that had at least 150 graduates in honors course in 2013. Around 330 colleges meet the criteria. A total of 35 colleges were then randomly selected through stratified sampling. Then, six departments in honors colleges and eight departments in master's colleges were randomly selected in each college. Selection of departments were done considering the course properties such as level (degree (pass)/honors/master's) and subject type (science/non-science). At each of the sampled departments, 10 graduates were randomly selected to participate in the data collection. Selection of graduates

was done randomly from the registry books of graduates which were available at the colleges. The graduates were then tracked through the contact information available on the registry book and were first contacted by phone numbers of graduates or their guardians. For those graduates who were successfully reached, interviews were conducted face-to-face using structured questionnaire in locations convenient for the graduates. Further, a sample of employers were selected randomly from among the employers of the employed graduates and were interviewed at their workplaces.

20. Data collection instruments used include three structured questionnaires: (a) graduate questionnaire, (b) institution questionnaire, and (c) employer questionnaire. Questionnaires were developed by the World Bank team in collaboration with the survey firm and coded into a Computer-Assisted Personal Interview (CAPI) software called 'Survey Solutions'. The questionnaires and the CAPI tools were pilot tested for finalization before the full field survey. The questionnaires were translated into the local language, Bangla, to aid the understanding of question for respondents.

21. Data collection in the field took place from February 22 to April 13, 2017, after a pilot testing of the instruments in October 2016. Before the fieldwork, the survey team conducted a five-day training program for field surveyors where they discussed the feedbacks on the pilot survey and interviews, reviewed respondent selection methods, questionnaires and screener, CAPI devices, discussed corrective measures for the problems identified during the pilot interview, and responsibilities of the field investigators and their supervisors. After completion of this rigorous training, 10 investigation teams consisting of a total of 51 field surveyors were deployed to conduct the face-to-face interviews. Interview data entered through CAPI were instantly transmitted to the central server where supervisors reviewed the data quality.

⁸ Degree pass colleges were excluded from the study because their share in tertiary-level enrollment is limited and the government has a strategy to phase out pass programs in favor of Honors programs.

⁹ Three years may seem too long a waiting period in other contexts; however, based on the prior information from local experts, it was learned that it is common for college graduates in Bangladesh to struggle in job search for extended periods before landing decent jobs.

1.5.2. STRUCTURE OF THIS REPORT

22. Next chapters of this paper report on the findings from the graduate tracking survey and are organized into four main sections. Chapter 2 briefly discusses characteristics and socioeconomic background of the surveyed college graduates. Chapter 3 lays out main findings of the survey about employment outcomes of graduates, discusses quality of wage employment,

and offers information on unemployed graduates and graduates still in school. Chapter 4 summarizes feedbacks from graduates and employers about quality and relevance of college education and their demands for improvement in college education. Finally, drawing on the findings and discussions, Chapter 5 presents policy recommendations of the study for institutional- and system-level improvement.



2

WHO ARE THE AFFILIATED COLLEGE STUDENTS IN BANGLADESH?

23. **This chapter describes the characteristics of students in the affiliated colleges in Bangladesh based on the profile of surveyed graduates.** Basic understanding on their demographic, family, academic, and work-related background will help better understand their employment-related outcomes in the later chapter. In sum, it is found that college students are from diverse socioeconomic backgrounds but tend to be from relatively modest families and have had mediocre academic performance in secondary schools.

2.1. BACKGROUND OF COLLEGE STUDENTS

24. **Most college students are youths transitioned directly from higher secondary schools at around the age of 18 and are likely to graduate at the age of 21–23.** As Figure 3 illustrates, almost all college students studying in four-year honors courses graduate from college when they are between 21 and 23 years of age. Age distribution pattern of the master's course graduates looks identical except that they are one year older to account for the one additional year of study. It is clear that affiliated colleges by and large cater to serve these young generations who continued their course of study from higher secondary education, and college students with substantive work experience are only a handful even at the master's level.

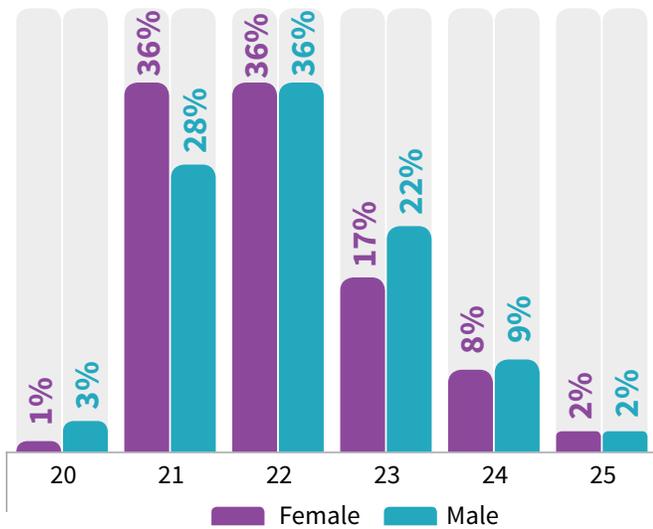


Figure 3: Age at College Graduation among Graduates from Honors Course, by Gender

Source: College Graduate Tracer Study (Graduate Survey), 2017.

25. Students generally come from humble family backgrounds; many of their parents are farmers and have only primary education certificates. Most of the parents of college students are not as well-educated as their children are, though in comparison to the general population, they are still considerably more educated.¹⁰

Among the sampled graduates, a third of fathers have had only primary education while about half of fathers are secondary school leavers. Tertiary education qualification holders are quite uncommon among parents of college students. In terms of industry of employment of parents, agriculture is the main engagement, where about 40 percent of the fathers are employed, while another 24 percent are engaged in wholesale and retail trade businesses. Very few (4 percent) consider themselves as professional-level workers in nonteaching occupations. The teaching profession is also not so common among the parents. This finding likely suggests a positive intergenerational upward social mobility that many of college students are experiencing. Colleges may well be the most realistic, though not the most desired, tertiary education option for students from families with limited financial means. This finding is also indicative of the limitation of parental guidance for a range of matters like school choice, job search, and career choice.

26. Colleges are enrolling academically average-performing students. The share of high-performing students getting admission in colleges is much lower compared to the student quality of universities and polytechnic institutions. Only about one-third of the NU graduates scored grade point average (GPA) of A or

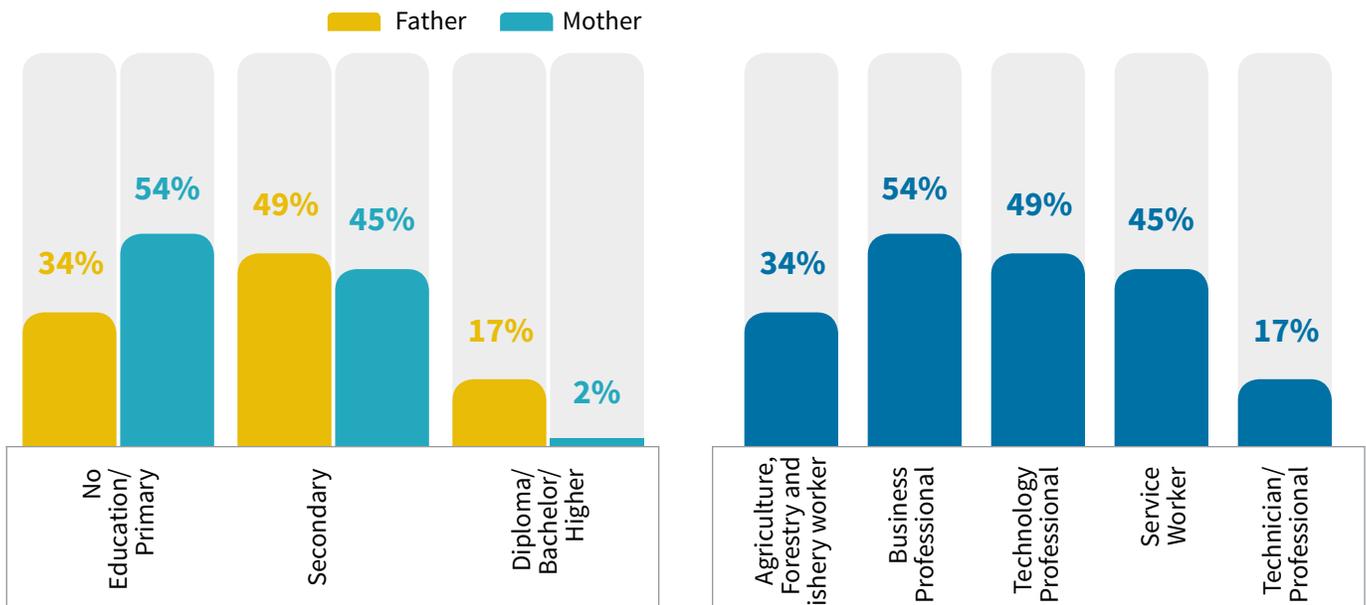


Figure 4: Education and Occupation of Parents of College Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

Note: Only 3 percent of mothers been ever employed and thus not shown in the figure.

¹⁰ Based on Labour Force Survey 2016, 31.4 percent of the population of age 5 and older have no formal education, 22.7 percent have primary education, 34.3 percent have secondary education, 7.1 percent have higher secondary education, and 4.2 percent have tertiary education.

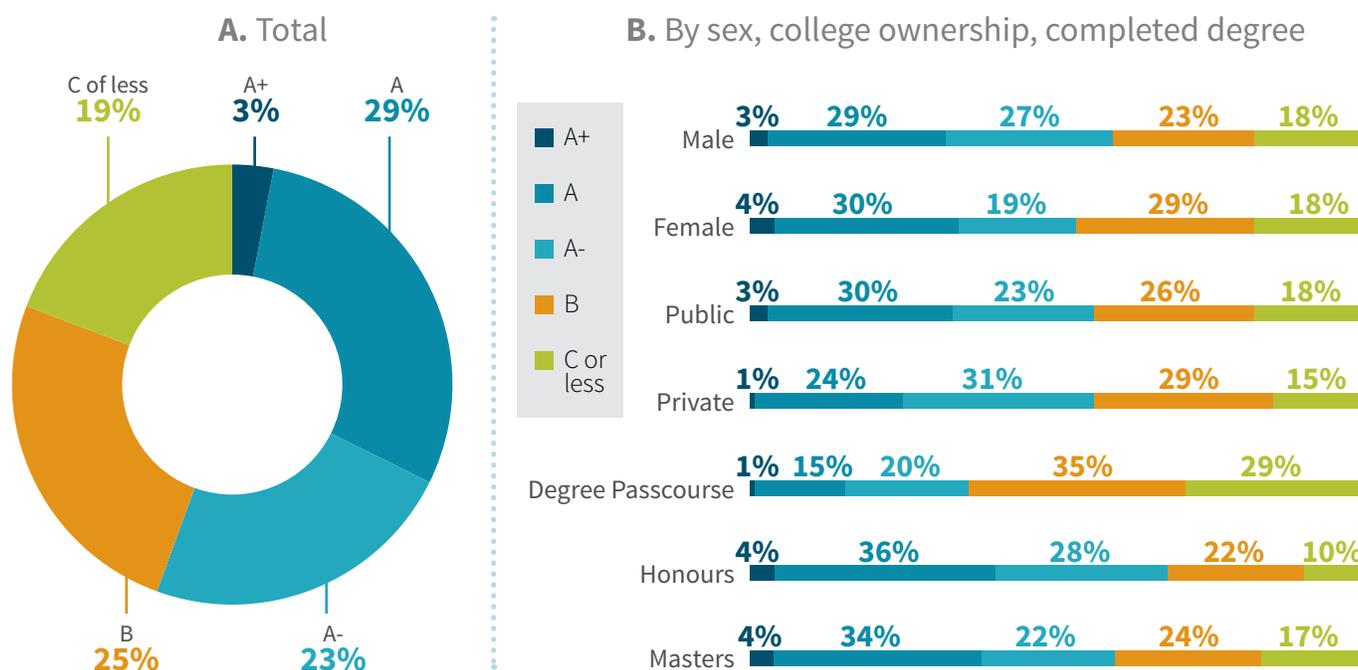


Figure 5: Proportion of NU Graduates by the SSC National Examination Result

Source: College Graduate Tracer Study (Graduate Survey), 2017.

higher in secondary school certificate (SSC) national exam, whereas the recent tracer studies on university and polytechnic graduates show more than 90 percent and 70 percent of the university and polytechnic graduates, respectively, have attained the same. Across colleges, honors and master's colleges, which tend to be larger and more urban based, tend to attract better-quality students for admission, whereas degree pass colleges seem far less attractive to good performers.

27. Students with humanities and social science specialization are dominant in colleges, and few

have prior work experience. About 80 percent of the recent NU graduates had non-science background in secondary schools and were enrolled in non-science subjects—commerce, social science, and humanities. Science students are a small minority, accounting for only 13 percent.¹¹ It should be noted that secondary school graduates from science stream can enroll in any course in colleges; however, students from humanities, social science, and commerce streams in secondary education cannot enroll in science courses in colleges. The composition of subject streams in secondary and college

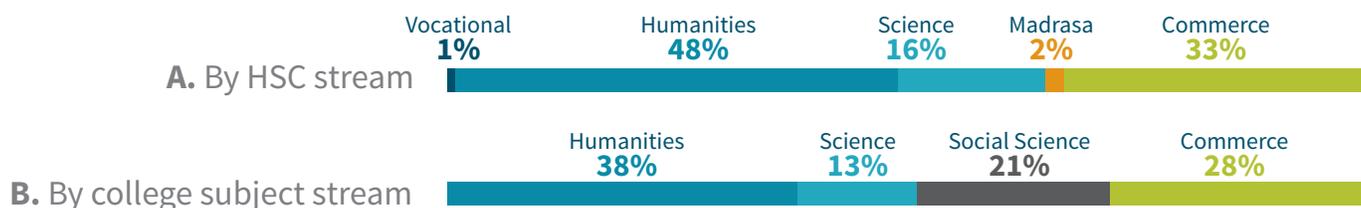


Figure 6: Composition of Subject Streams of NU Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

¹¹ The shares of subject streams among the respondents do not necessarily represent the entire population of tertiary college students in Bangladesh due to exclusion of degree pass colleges from the sampling frame. There are multiple reasons for the low share of science students in colleges. Looking back in time, Bangladesh's colleges, from the time they were first established in the early 19th century, were traditionally only humanities teaching institutions. In the colonial period, there was no jobs for science graduates because there were no industries. The colonial administration needed only clerks and accountants and jobs were mostly available in government offices. This preponderance of humanities' teaching and learning is originally a legacy of colonial education system. In the present day, absence of science teaching infrastructure (labs and teachers) in colleges has become a major barrier in expanding science enrollment.

levels largely reflects this rigid intersubject mobility. Almost all college students come to college straight from secondary schools without working gap years in between. Only 7 percent of the graduates reported to have had some work experience before they went to college.

28. Tertiary education incentivizes rural-urban migration. About 60 percent of the NU graduates are originally from rural areas, where their parents still reside. However, if we look at their current location, only about one-third of the graduates (32 percent) are currently located in rural areas indicating high rural-urban migration contributing to rapid urbanization and

urban concentration of jobs (if not in reality, at least in perception) that require college degree. Though this urban, semi-urban, and metropolitan pull is affecting both males and females, a higher rate of city- and urban-bound internal migration is visible among male graduates. For female graduates, a significant share of urban- or city-bound migration could be related to marriage. Figure 7 shows the share of male and female graduates by current and original residence in rural, urban/semi-urban, and metropolitan locations. The highest concentration of NU graduates, 43 percent, are currently located in urban or semi-urban locations.

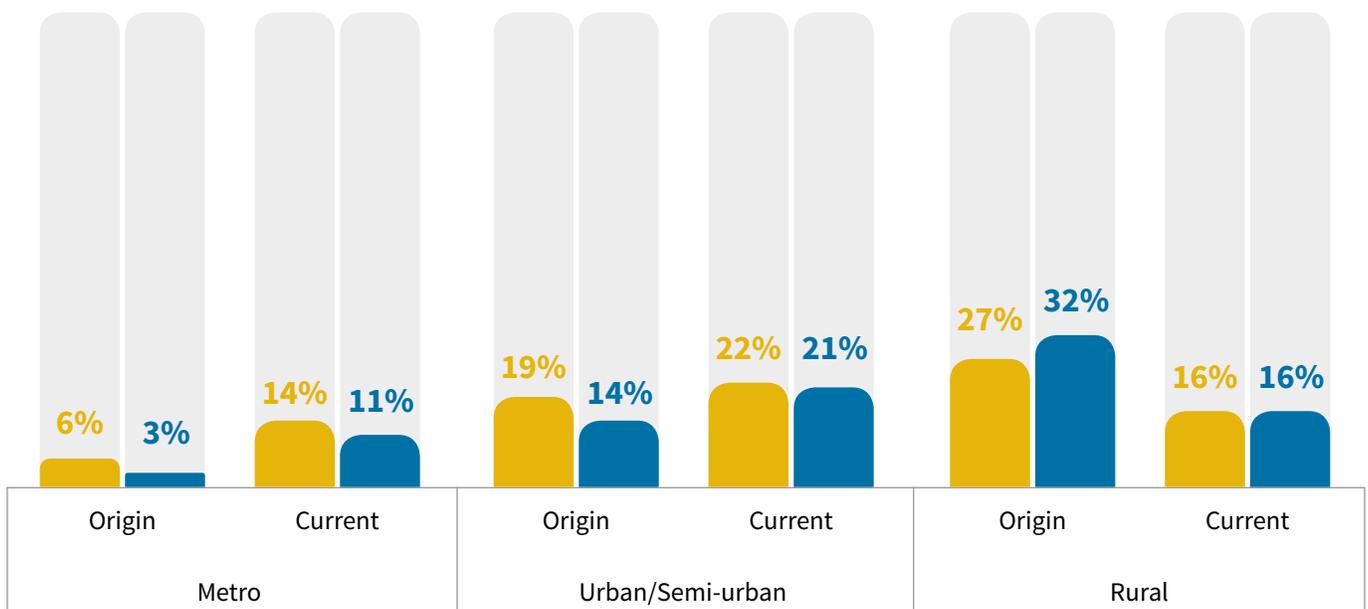


Figure 7: Original and Current Residential Locations of NU Graduates, by Gender

Source: College Graduate Tracer Study (Graduate Survey), 2017.
Note: Original location means the location of students' families.

3

HOW ARE THE COLLEGE GRADUATES PERFORMING IN THE JOB MARKET?

29. **This chapter describes the labor market outcomes and presents the labor market-related analysis of graduates after three to four years of their graduation.** All major outcomes of labor market have been discussed, including wage employment and self-employment, unemployment, graduates engaged in further education and training, and NEET (Not Engaged in Employment or Training). Earnings, motivations, and expectations of different groups are also discussed.

3.1. EMPLOYMENT OUTCOMES

30. **Majority of graduates are active in the labor force—65 percent.** This share is higher than the overall participation rate of working-age population in the country, which stands at 58.5 percent in 2015.¹² The rest, who are currently not in the labor force, are mostly engaged in further education, while only about 1 percent are neither part of the labor force nor in education. It needs to be noted that 97 percent of all graduates looked for jobs right after graduation. Those who were unable to find a desired job went back to pursue higher education. Those who completed their final tertiary education (that is, master's degree) stayed in the labor market despite being unemployed.

¹² Based on Labour Force Survey 2015–2016.

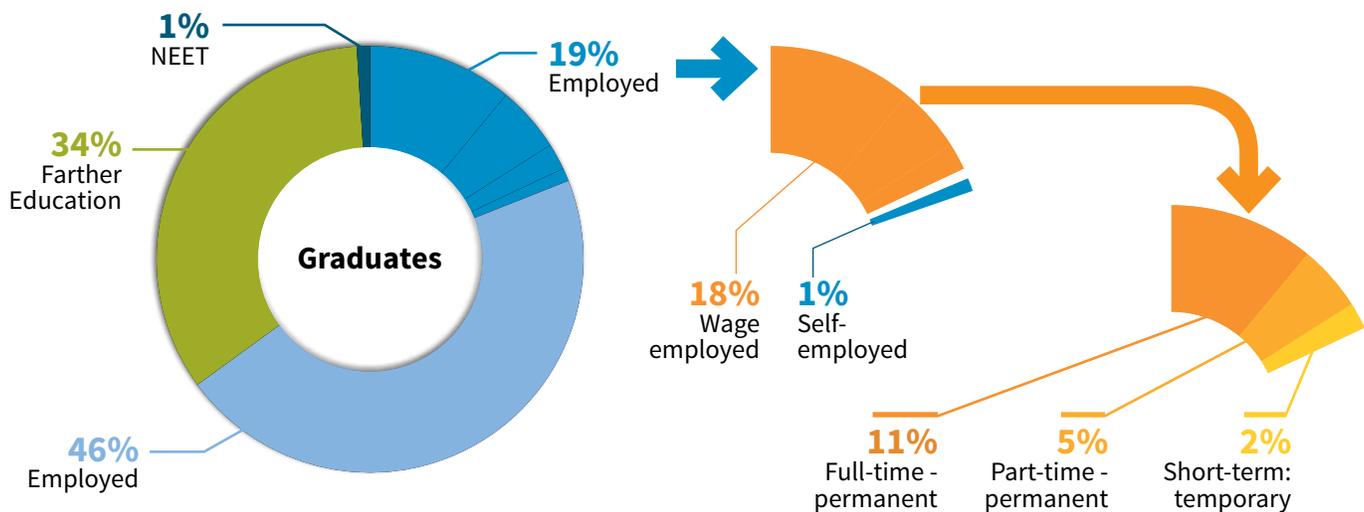


Figure 8: Overview of Employment Status of Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

Note: The numbers in parenthesis show the shares on each status against the entire college graduate population.¹³

31. Only around 20 percent of graduates are employed while nearly half, 46 percent, of graduates remain unemployed after three years of graduation.

Figure 8 summarizes the current economic status of graduates, including both bachelor’s and master’s degree graduates, roughly after three years of their graduation. Among the employed graduates, wage employment is the main form of employment. Self-employment does not seem to be the type of economic engagement that the graduates aspire to participate in—only 1 percent of graduates are currently being engaged in self-employment. What is most striking is that the highest share of graduates—46 percent—are still unemployed and looking for jobs, even after spending three to four years since first graduating from their colleges. This level of unemployment is extremely concerning and raises serious questions about job readiness and skills to manage school-to-work transition among the college graduates in Bangladesh. The share of unemployment varies by groups such as location, degree, and subjects. It should also be noted that around one-third of graduates are still studying and forgoing their job market participation. Each economic outcome will be separately discussed in detail in the subsequent sections.

alarming. A much higher share of male graduates is employed compared to their female counterparts: 25 percent for male and 14 percent for female graduates. Meanwhile, a higher share of female graduates are still pursuing further education, practically further forgoing their entrance into the labor market. The survey data do not permit in-depth analysis into the reason behind the phenomenon; nevertheless, given the country’s labor market environment, it would be reasonable to think that some of them lack the intention of joining the labor force in the first place or might have gotten discouraged by

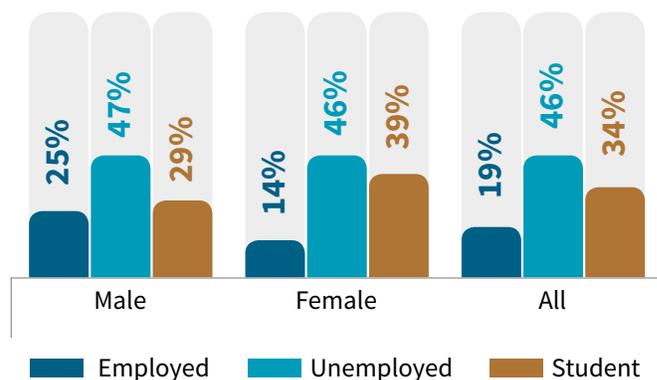


Figure 9: Employment Outcomes by Gender

Source: College Graduate Tracer Study (Graduate Survey), 2017.

¹³ Definitions of terms used in this paper. *Labor force, LF*: Population who are available for work. This includes both who are currently employed or secured a job and those unemployed who are looking for jobs. *Employment (unemployment) share*: The ratio of employed including those who may not be currently working but secured a job (unemployed) against the overall size of the cohort. *Unemployment rate*: The percentage of the labor force that is not employed. *NEET*: Graduates, not employed or engaged in further education and/or training, 'not in labor force'. *GPI*: Gender Parity Index is used to compare parity between male and female. It is calculated as the ratio of figure for female against the figure for male. GPI below 1 indicates female underperforming male, GPI above 1 indicates female outperforming male.

earlier experience of job search. Whatever the case might be, it is evident that jobs are extremely hard to come by for female graduates from the affiliated colleges.

33. Significant proportions of bachelor’s degree graduates pursue further education despite the equally unpromising job prospects for master’s course graduates. In most cases, bachelor’s degree holders spend another year or two to acquire master’s degree while waiting to get a job after completing the terminal degree, most probably with the aim of enhancing their qualification in the job market. In most cases, this strategy does not seem to be working in the way they hoped for, not the least because in the job market, chances of master’s degree graduates are just as bleak as those of bachelor’s degree holders. By moving up to the master’s program, many of them are in effect doing nothing more than postponing the inevitable confrontation with the challenging job market reality. Graduates with master’s degree are all out in the labor market with a very high share—as high as 71 percent of unemployment. Only a quarter of master’s course graduates are employed after three years of graduation.

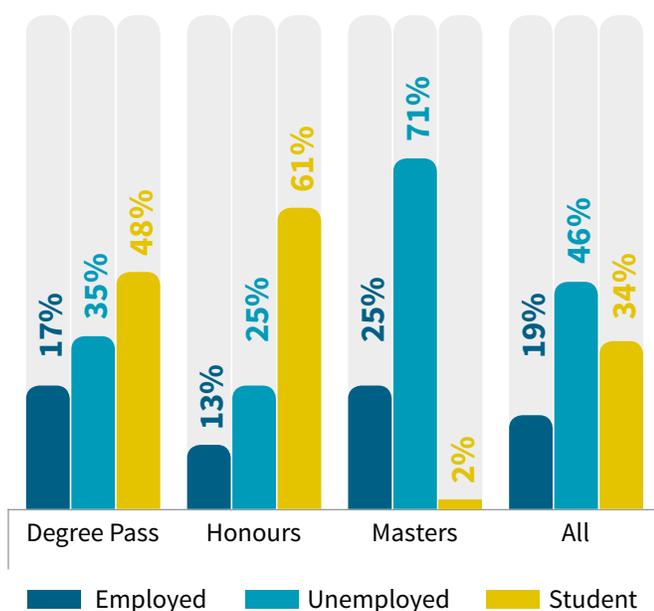


Figure 10: Employment Outcomes by Degree

Source: College Graduate Tracer Study (Graduate Survey), 2017.

3.1.1. GRADUATE CHARACTERISTICS ASSOCIATED WITH EMPLOYMENT OUTCOMES

34. As discussed earlier, being employed, unemployed, and enrolled in further education programs are found to be the main three employment outcomes for graduates of the affiliated colleges. The study attempted to analyze factors associated with the incidences of these three outcomes using the multinomial logit regression (Table 6).¹⁴ It estimates the relative probabilities of the three outcomes after three years of graduation controlling other influencing factors. Estimated effects represent the average effects of one-unit change in the observed variables on the probabilities of respective labor market outcomes. The associated standard errors are in parenthesis.

35. Graduates with science background seem to do relatively better in the job market. Being an NU college graduate of a science subject is associated with 8.5 percent higher chance of being employed than being a graduate of humanities. Other than this, educational performance or degree are not associated with being employed. This higher likelihood of being employed for a science graduate is potentially the result of mainly two factors. First, job market demand may be higher for graduates with science and technical backgrounds. Relatively higher employment rates for graduates of polytechnics¹⁵ in Bangladesh also supports this claim. The second possible factor is self-selection of academically meritorious students into science streams. In Bangladesh, students with better academic credentials and examination results generally prefer to study science subjects. Thus, science graduates on average may possess higher cognitive skills and are likely to perform better in the job market. Subject of the study does not have any significant effect on pursuing further education.

36. Graduates with prior work experience have significantly high chances of being employed. Graduates with prior experience are likely to be more aware of the reality of school-to-work transition and more prepared for the job world with higher experience-induced noncognitive skills. But it is also likely that those with prior work experience come from a difficult financial

¹⁴ Use of multinomial logit was mainly due to the multiplicity of choices and nonlinearity in decision making regarding labor market participation. While some students preclude job market participation, other students opt for further education only after some period of futile job search. The majority of respondents indicated that they have at least tried to look for jobs after graduation, suggesting that taking up further education is a coping mechanism for them in the face of difficult job market reality. Observable labor market outcomes are unemployed, employed, and further education. Graduates who are self-employed were excluded from analysis due to the small number of observations. Associations between factors and labor market outcomes here should be seen more as correlations rather than proof of direct causalities.

¹⁵ Tracer study of graduates of polytechnic in Bangladesh shows 37 percent of all graduates are employed with one to two years of graduation.

background and might possess lower reservation on wage or lower threshold for job quality. Though we are unable to identify the cause, the strong correlation indicates that mandatory internship before graduation organized by tertiary colleges can have a significant impact on students' preparedness for the real world and their future job prospects.

37. Location and geographic region matter for employment. Even after controlling for other covariates that affect the chances of getting employed, the graduate's location of residence matters. A graduate currently residing in a metropolitan area is significantly more likely to be employed compared to a graduate currently residing in rural locations. It is not an unexpected correlation because generally more jobs are available in cities; additionally those who are from cities are likely to be more connected to city-based job network. There is no statistically significant difference between graduates from rural or urban and semi-urban locations regarding employment outcome once we control for the impact of other covariates. Among the geographic regions, Khulna and Rajshahi negatively affect the incidence of being employed.

38. Gender-related social norms appear to play a large factor in labor market decisions of college graduates. For unmarried single graduates, gender does not seem to influence the chances of being employed. There is no significant statistical difference in the probability of employment between unmarried male and female graduates. However, marriage seems to change the equation. The estimated probability to be employed for married male graduates is nearly 20 percentage points higher than their unmarried peers, whereas the likelihood of being employed for married female graduates is nearly 10 percentage points lower than that for unmarried male graduates. Once married, female graduates are possibly

restricted by cultural practices and traditional values against married women working outside home, time constraints due to household maintenance and care giving limiting the urgency of finding jobs, even if they are still interested in finding jobs.

39. Higher socioeconomic background is significantly negatively correlated with employment outcome. Father's educational qualification can be used as a good proxy for socioeconomic background of graduates. It appears that the likelihood of being employed declines for students from families with better socioeconomic standing as having a father who has secondary or tertiary education is significantly negatively associated with the chance of being employed. The potential explanation of this negative correlation could be that graduates with better off socioeconomic background can afford to have higher reservation price for salary and job quality which can encourage them to prolong their job search until they find jobs that meet their expected standards. Investigating school-to-work transition of Bangladeshi youth, (Toufique 2014) also found that unemployment is higher among youths from well-off backgrounds, suggesting they take time to find suitable employment options as they can afford it.

40. Having a master's degree does not seem to improve employment outcomes and employability significantly. Having a master's degree is associated with significant increase in the likelihood of unemployment for graduates and just a marginal increase in the probability of being employed. Although many honors course graduates move up to master's programs in a hope to enhance their employability, the outcome of such decisions does not seem very positive. A master's program may not be adding much value in terms of additional job relevant skills for students.

Table 6: Factors Associated with Labor Market Outcomes of College Graduates

Labor Market Outcomes Variables:	Unemployed		Employed		Further Education	
	Effects	SE	Effects	SE	Effects	SE
Area of study (base: Humanities)						
Science	-0.005	0.043	0.085**	0.035	-0.080**	0.038
Commerce	0.053	0.038	0.014	0.030	-0.067**	0.029
Degree (base: pass-course)						
Honors	-0.160***	0.041	-0.050	0.032	0.211***	0.039
Master's	0.346***	0.050	0.077*	0.045	-0.423***	0.039

Labor Market Outcomes Variables:	Unemployed		Employed		Further Education	
	Effects	SE	Effects	SE	Effects	SE
Prior work experience	-0.087*	0.049	0.153**	0.061	-0.066	0.055
Public college	-0.087**	0.038	-0.021	0.034	0.108***	0.026
High GPA	-0.018	0.046	-0.032	0.032	0.050	0.051
Current location (base = Rural)						
Metropolitan	-0.062*	0.037	0.098***	0.035	-0.036	0.035
Urban/semi-urban	0.026	0.033	0.028	0.028	-0.055*	0.028
Geographic region (base = Dhaka)						
Rajshahi	0.078**	0.040	-0.057*	0.032	-0.021	0.032
Khulna	0.085**	0.037	-0.100***	0.031	0.015	0.031
Chittagong	-0.193***	0.045	-0.013	0.047	0.205***	0.045
Barisal	0.034	0.076	-0.075	0.064	0.041	0.067
Rangpur	0.133***	0.048	-0.030	0.039	-0.103***	0.034
Mymensingh	-0.005	0.095	0.027	0.074	-0.022	0.069
Marriage and Sex (base = Unmarried male)						
Unmarried female	-0.053*	0.031	-0.015	0.029	0.068**	0.029
Married male	-0.160***	0.056	0.195***	0.063	-0.035	0.050
Married female	0.055	0.040	-0.096***	0.029	0.042	0.036
Age in years	0.005	0.011	0.000	0.010	-0.005	0.009
Father's education (base: primary or less)						
Having secondary degree	0.051	0.033	-0.090***	0.031	0.039	0.030
Having tertiary degree	0.023	0.046	-0.097***	0.037	0.075*	0.041
Log likelihood / Pseudo R2						-239,220.52 / 0.2678
Observations						2,320

Source: College Graduate Tracer Study (Graduate Survey), 2017.

Note: ***p < 0.01, **p < 0.05, *p < 0.1; Effects are presented in Average Marginal Effects (that is, the average change in probability of outcomes when variable x increases by one unit while keeping other variables constant).

3.2. WAGE EMPLOYMENT

3.2.1. OVERVIEW OF WAGE EMPLOYMENT

41. **This section will look more closely into the status and quality of employment among waged graduates including wage levels and job satisfaction.** Gender gaps in the quality of jobs will also be examined. Special attention will be paid to identifying common job search strategies among college graduates. Some of the findings are represented by only a small percentage of the sample and need to be interpreted with caution in terms of representativeness and confidence level.

42. **The education sector—primary schools and secondary schools—is by far the largest source of employment for affiliated college graduates.** Among all the employed graduates, as much as 43 percent are working in the education sector. Most (nearly 90 percent) of those graduates working in the education sector are working for basic- or secondary-level education institutions. The remaining 10 percent are in tertiary-level institutions or vocational institutions. The other industries where decent shares of the graduates are employed are finance and insurance, wholesale and retail, health, and

information and communication technology (ICT) sectors. Results show that other than teaching, managerial, or professional occupations, service, sales, and hospitality related jobs are the most common occupations for the graduates of tertiary colleges in Bangladesh.

43. The manufacturing sector is the second largest employer of graduates. Around 17 percent of college graduates are employed in this sector. Especially among male graduates, the share of those going to manufacturing is higher, accounting for nearly a quarter of male graduates. Within manufacturing industry, readymade garments, food products and agroprocessing business, and pharmaceuticals are the main employers. These are industries that have been the driving force of recent remarkable economic growth of the country and those that have become emerging and promising industries for future growth. Given their growth potential, job opportunities in these industries are likely to continue to grow strongly in future.

44. There is a strong gender-based occupational segregation, in which the range of career choice for female graduates seems far narrower than that for male graduates. It is immediately clear that female graduates are overwhelmingly concentrated in the education sector and in teaching profession. As much as 70 percent of the employed female graduates are found to be engaged in the education sector. This is rather an extreme form of gender-segregated career pathways for tertiary education graduates. It is indicative of the reality that the only plausible, and probably most preferred, career choice for many female college graduates is to become a teacher. Teaching is generally viewed as a female-friendly job in the Bangladeshi social context. The nobility attached to teaching also makes it socially acceptable and at the same time a respectable career, and thus a common employment choice for women. This overconcentration of female college graduates in education jobs stands out sharply even in comparison with the general population (for example, only 10

Table 7: Industries where Graduates Are Employed

Industries	All (%)	Male (%)	Female (%)
1. Education	43	28	70
2. Manufacturing	17	23	7
3. Financial and insurance activities	7	9	5
4. Wholesale and retail trade	7	9	3
5. Health, nursing, and social work activities	7	8	5
6. Information and communication	5	7	2
7. Other industries	14	18	8
Total	100	100	100

Source: College Graduate Tracer Study (Graduate Survey), 2017.

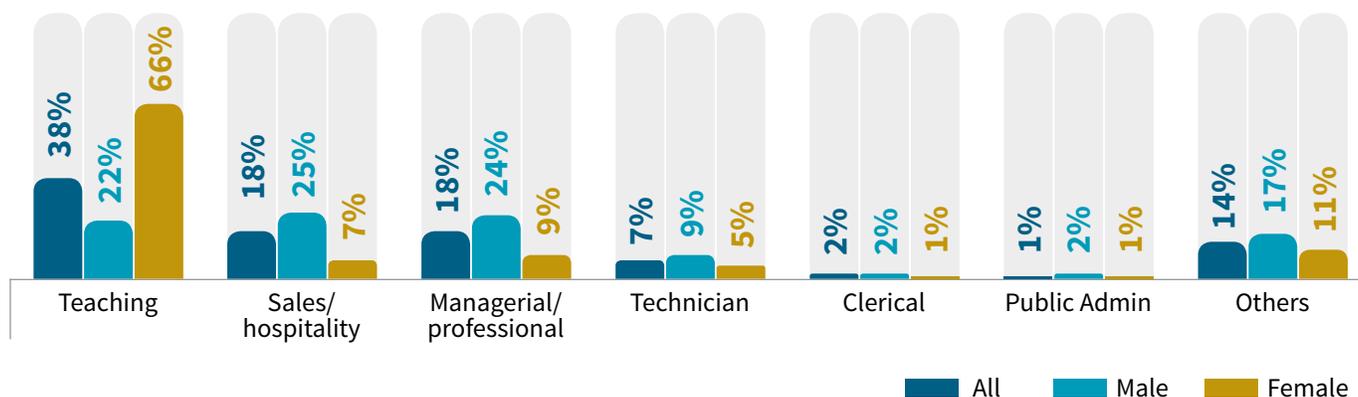


Figure 11: Occupations of Currently Employed Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

percent of all employed females in urban area worked in education in 2016, while as much as 32 percent of all employed females in urban area work in manufacturing sector). In the light of the prevalence of unemployment among graduates, this lack of viable career options for female graduates would certainly not be helpful to encourage better employment results because the total number of teaching positions is limited according to government regulations and school supply in the locality.

45. Private sector jobs, especially in small and medium size enterprises (SMEs), are the main sources of employment for the graduates. The type and size of employers of the employed graduates are presented in Figure 12. Most of the employed graduates (68 percent) are working in private sector companies or individually owned businesses. It should be noted that many of those who are working in the education sector would fall into this category as more than 95 percent of secondary schools in Bangladesh are privately owned and operated schools. The public sector jobs (government, local government, and autonomous public institutions), including public schools, account for a substantial but relatively small share of employment of the graduates (21 percent). In terms of the size of employer, about half (48 percent) are employed in SMEs comprising not more

than 50 employees.¹⁶ This is consistent with the overall job and industry situation of Bangladesh where 70 percent to 80 percent of nonagricultural workforce is employed in SMEs. It should be noted that these SMEs are likely to include nongovernment education service providers (that is, primary- and secondary-level private schools). More than 95 percent of secondary schools, for example, are privately owned entities with fewer than 50 employees.

46. Employed male graduates are more inclined to be working for larger-size employers and in private sector jobs. Decomposition of employer type and size by gender demonstrates some distinguishable gender differences in the characteristics of employers. First, male graduates appear to be more private sector oriented. A higher share, 58 percent, of male graduates are employed in private companies compared to 42 percent of female graduates. On the other hand, a higher share, 27 percent, of female graduates are employed in public sector jobs, whereas only 17 percent of male graduates are in public sector jobs. Moreover, female graduates seem to tend to work for smaller employers. The share of graduates working for large companies with more than 100 employees is much higher for male graduates at 38 percent compared to 21 percent for female graduates.

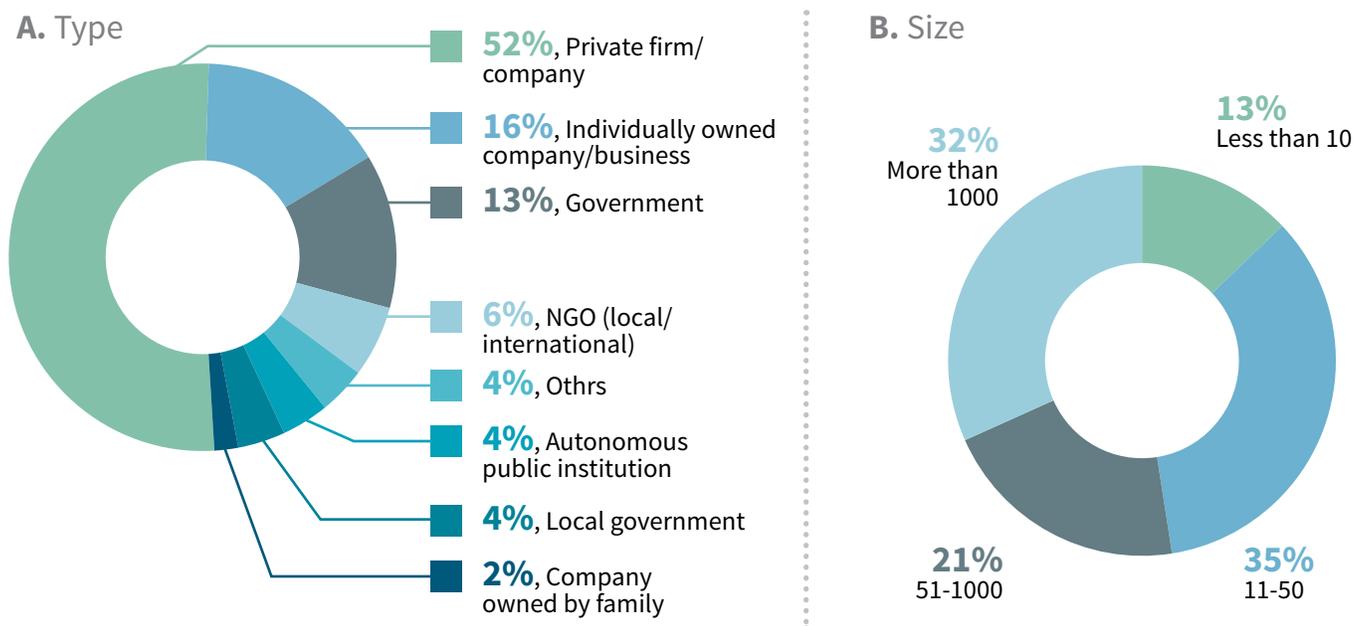


Figure 12: Type and Size of Employers of Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017. Note: NGO = Nongovernmental organization.

¹⁶ Based on Bangladesh Bank-provided definition, small enterprises are the ones that employ less than 50 staff.

3.2.2. QUALITY OF EMPLOYMENT

47. A large majority of the employed graduates are in stable employment with permanent contract.

While it is difficult for graduates to find jobs, those who did land a job tend to be employed on permanent contracts. As much as 82 percent of the employed graduates are working as permanent employees. Among these permanent employees, more than two-thirds are employed as full-time workers, and the remaining one-third are in part-time employment. Only 12 percent of the employed graduates are in temporary or short-term positions. For those who have temporary jobs, the contract is usually for more than 1 year. Almost everyone (97 percent) of those who are currently in temporary short-term positions reported that they continued their search for full-time positions. For full-time permanent jobs, the share of graduates does not vary by gender. However, female graduates are slightly more likely to work in part-time permanent positions. On the other hand, more male graduates are engaged in temporary or short-term jobs than female graduates. This may indicate that male graduates prefer being engaged in full-time jobs, be it permanent or short term, to earn enough money, while for female graduates, permanent jobs with less time commitment could also be attractive.

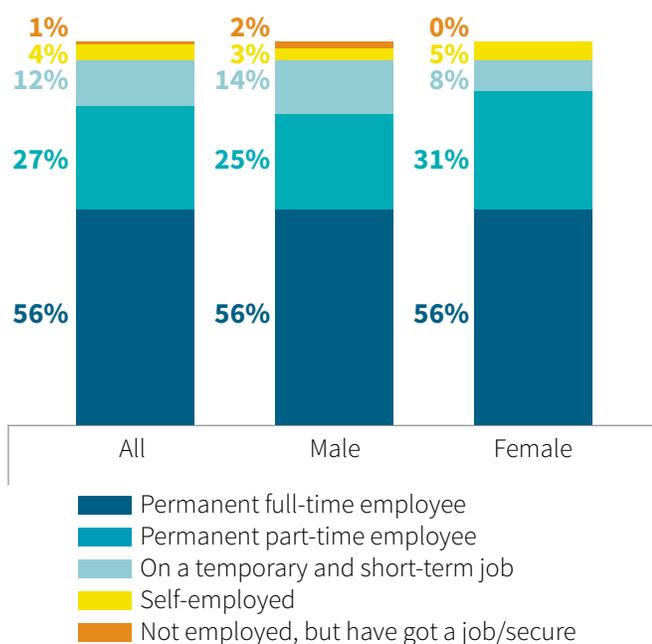


Figure 13: Employment Contract Types of the Employed Graduates by Gender

Source: College Graduate Tracer Study (Graduate Survey), 2017.

48. Employed graduates of the affiliated colleges earn decent wages. The starting salary for employed graduates were, on average, BDT 9,411 per month. Their current monthly salary stands at BDT 11,814, which is slightly lower than the national average monthly income for people of ages between 25 and 34 (BDT 12,800 in 2016, according to the Labour Force Survey) and slightly higher than that for polytechnic graduates (BDT 10,800 in 2016). Monthly salaries vary by industry as well as occupation, contract type, and location of employment.

49. Graduates in manufacturing jobs receive the highest salary, followed by those in financial and insurance sector jobs. The monthly salary of graduates in the manufacturing sector is 21 percent higher than the overall average of graduates. Salary is at the lowest in the education sector where the highest share of college graduates, especially females, are concentrated. Salary in the education sector jobs is only three quarter of the overall average salary of graduates. This relatively low teacher salary is due to government regulations. It should also be noted that teaching jobs also offer an opportunity to earn additional income through private tutoring. Income from teaching jobs is likely to be underreported because private tutoring may not be perceived as part of the salary and is also discouraged by the government. Across occupations, salary is higher for managerial or professional occupations as well as for service-, sales- or hospitality-related occupations. Table 8 presents the current average salary by occupation, contract type, and location of residence for male, female, and both. Average salary in metropolitan areas is much higher than for jobs located in urban or semi-urban or rural location.

Table 8: Average Current and Starting Salary among Wage Employed by Industry (BDT)

Industry	Starting	Current
Manufacturing	11,250	14,264
Wholesale and retail trade	10,557	12,705
Information and communication	11,015	12,775
Financial and insurance activities	12,425	13,320
Education and teaching	6,972	9,020
Health, nursing, social work activities	8,078	10,575
All	9,411	11,814

Source: College Graduate Tracer Study (Graduate Survey), 2017.

50. **There is a significant gender wage gap among the employed graduates;** however, gaps differ widely across occupations. GPI shows that against every BDT 100 a male graduate earns, a female graduate earns BDT 79. Considering a range of factors that might affect salary, the next subsection discusses and explains the existing salary difference in more detail. Teaching is the most gender-neutral occupation in terms of salary with negligible difference in average salary by gender. On the other hand, jobs in service, sales, and hospitality are associated with the highest gender gap in salary; female employees earn 72 percent of what their male counterparts earn. Salary disparity between male and female graduates are the highest for part-time jobs and jobs located in rural areas. However, for managerial and professional occupations, average salary is 13 percent higher in favor of employed female graduates. Moreover, there is little gender wage gap among teaching professionals.

51. **The majority of female graduates have wages much lower than the average while a smaller but not insignificant number of them enjoy salaries comparable to male peers.** There seems to be two groups among employed female graduates when it

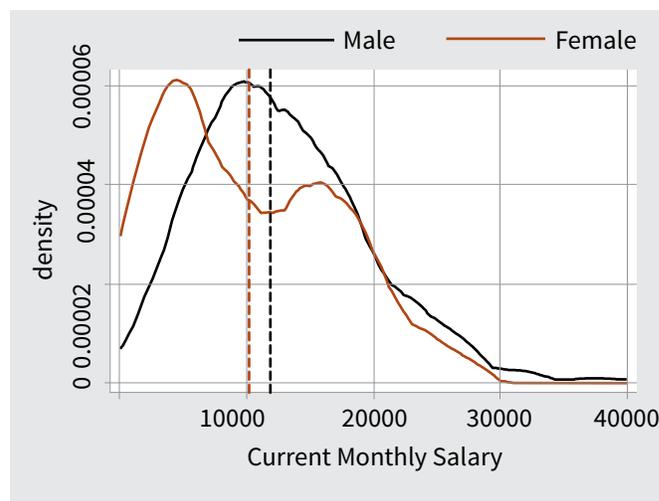


Figure 14: Distribution of Current Monthly Salaries, by Gender

Source: Calculated by author.

Note: Dashed vertical lines indicate the average salaries for male and female graduates.

comes to the quality of employment and wage level. Wage distribution for employed female graduates shows a heavily right-skewed and bimodal distribution (Figure 14). There is a high concentration of females toward the

Table 9: Average Current Gross Salary by Occupation, Contract Type, and Current Location (BDT)

Industry	Starting	Current	Female	GPI ^a
All	11,814	12,819	10,166	0.79
By occupation				
Managerial/professional	14,182	13,847	15,678	1.13
Technician/tech professional	12,414	13,019	—	—
Teaching professionals	8,742	8,827	8,694	0.98
Service, sales, hospitality staff	14,368	14,987	10,818	0.72
Others	13,114	13,290	12,684	0.95
By contract type				
Permanent full-time	14,283	14,886	13,225	0.89
Permanent part-time	6,874	8,791	4,842	0.55
Temporary/short-term	10,042	10,159	9,609	0.95
By current location				
Metropolitan	10,903	11,800	9,176	0.78
Urban/semi-urban	8,348	8,502	8,051	0.95
Rural	8,622	11,060	6,074	0.55

Source: College Graduate Tracer Study, 2017.

Note: Gender-segregated average cannot be calculated for technicians and tech professionals due to the scarcity of female graduates in that industry.

a. GPI: (Salary earned by female) / (Salary earned by male). GPI below 1 indicates female earning less than male, GPI above 1 indicates female earning more than male.

lower end of the distribution. This first group presumably includes those who entered low-wage jobs in teaching or other nonprofessional occupations often on part-time basis. At the same time, there is another cluster of females toward the higher end of the wage distribution spectrum. Female graduates in this second group enjoy good salaries comparable to their male peers and are presumably fortunate ones who managed to find solid jobs in the professional occupations on permanent full-time contract basis. Therefore, for females, the reality of wage employment appears to be somewhat bifurcated in a sense that some do make it into a promising career with well-paying jobs while a larger group of them end up in a more challenging career with low-paying unstable jobs. On the other hand, the wage distribution for employed male graduates seems normal and only marginally skewed to right.

3.2.3. GRADUATE CHARACTERISTICS ASSOCIATED WITH WAGE LEVELS

52. Regression analysis reveals that the wage levels of employed graduates are influenced by a range of individual, employer, skills, and logistics-related factors. The estimates of determinants of wages corrected for self-selection into employment has been presented in Table 11.

53. Language skills and academic performance seem to matter for wages. Though location, master's degree, science background, and prior work experience matter for finding a job, these factors do not seem to have a significant influence on wage levels. However, language skills and academic skills, as measured by having studied English and GPA scores seem to be significantly positively associated with wage levels. Those who completed their college degree in English receive wages that are on average 25 percent higher than those who did not. This is most likely due to the extra value added from their English language expertise as there is high demand from employers for English language skills (see Chapter 5 for employers' feedbacks). Academic performance is also significantly correlated with higher salary, indicating that better students manage to secure better salary and/or better paying jobs. Getting a GPA of B or higher is associated with around 18 percent higher wages. This may be partly explained by the practice of some large employers to put GPA score threshold as one of the recruitment criteria.

54. Gender disparity in wages is primarily due to more female graduates working part-time for far smaller wages. There is around 21 percent gender wage gap as shown in the descriptive analysis earlier. However, the gender wage gap shifts entirely once the interaction term between part-time contract and being female has been incorporated statistically. What it means is that the gender wage disparity is by and large stemming from the lower salary earned by female part-time workers, while there is only statistically insignificant wage difference between male and female full-time workers, after controlled for other variables. Statistically, being female part-time workers is associated with as much as 43 percent less wage compared to being male part-time workers. Moreover, female graduates are more likely to be part-time workers than their male counterpart, which exacerbates the gender wage imbalance (roughly, a third of employed female graduates and a quarter of employed male graduates are in part-time jobs, as discussed earlier).

55. Wage level is highly correlated with contract types and firm size, favoring full-time permanent workers and larger-size firms. Both being part-time and temporary workers are significantly associated with much lower wages. On average, salary for part-time jobs is about 35 percent less than that for full-time jobs. Firm size also affects salary levels. Salary is higher for those employed in larger firms. Working at SMEs—the reality for nearly half of the employed graduates—is associated with 15–20 percent lower wages than working for non-SMEs, after controlling for other variables.

56. Using personal network as a method of finding a job is strongly negatively correlated with wage levels. It appears that graduates who secured a job through a competitive procedure are rewarded with significant wage premium as jobs found through personal networks is associated with 34 percent lower salary, even after controlling for other factors. This is seemingly quite a negative impact for informal job searching to have in a country where access to social networks still plays a big role in determining one's fortune in job market. More researches are needed to understand the dynamics behind this; however, it may be possible that job markets for tertiary education graduates in Bangladesh are now segregated in such a way that access to social networks no longer guarantees access to high-quality jobs.

Table 10: Determinants of Salary for Employed Graduates, OLS Estimation

Dependent Variable: Log of Monthly Salary	Coefficient	(S.E.)
Female	-0.0373	(0.0751)
Job characteristics		
<i>Contract type (base: permanent full-time)</i>		
Part-time contract	-0.352***	(0.0779)
Temporary	-0.298***	(0.0792)
Part-time contract*female	-0.426***	(0.112)
Working hours	0.007***	(0.00183)
<i>Occupation category (base: Other)</i>		
Managerial/professional	0.071	(0.0855)
Technician/tech professional	-0.107	(0.108)
Public administration	0.055	(0.206)
Teaching	-0.288***	(0.0866)
Clerical	-0.001	(0.183)
Service, sales, hospitality staff	0.0188	(0.0873)
Firm characteristics		
<i>Firm Size (base: less than 50 employees)</i>		
51–100 staff	0.207**	(0.0966)
101–1,000 staff	0.214***	(0.0818)
More than 1,000 staff	0.158**	(0.0665)
Method finding the job		
Used Personal network (no = 0, yes = 1)	-0.343***	(0.0508)
Education, skills and work experience		
Work experience before college (no = 0, yes = 1)	-0.053	(0.0913)
English literature or medium (no = 0, yes = 1)	0.252***	(0.0950)
Academic performance		
Cumulative GPA B or higher (no = 0, yes = 1)	0.175***	(0.0612)
Socio-economic status		
Level of Father's education	0.043***	(0.0152)
Constant	9.153***	(0.214)
Observations	2,344	

Source: College Graduate Tracer Study, 2017

Note: (a) ***p < 0.01, **p < 0.05, *p < 0.1; (b) Estimates are controlled for age, industry, and region; and (c) selection bias derived from individuals' self-selection into employment is corrected using Heckman correction.

3.2.4. JOB SEARCH STRATEGY

57. Personal network is still the main source of finding a job, while college plays little role in supporting job searches. Half of the employed graduates found their employment through informal personal or family networks, consisting of family, relatives, or friends. Responding to job advertisements published in print media is the second most successfully utilized source of finding a job. Colleges and departments of graduates have almost no contribution in finding employment; only 1 percent reported that they found employment through their colleges or departments. It seems that colleges under the NU do not offer job placement services to its students and graduates or even if the service exists on paper, it is not actively implemented. There are some differences in job search practices by gender. A higher share of female graduates found their jobs through competitive selection, while male graduates relied more on personal connections. This gendered pattern of job search strategy or practice is not affected by differences in industries. A plausible reason behind such practice is likely cultural; professional socialization is not a shared

practice among women in Bangladesh and thus it is natural that there is a higher share of female graduates who got jobs through competitive ways.

58. A large share of employed NU graduates started working before graduation. Graduates who are employed, about one-third of them, were already employed while graduating, another one-third found their first job within the first three months of graduation. This suggests the prevalence of the practice of working while studying among college students. Many of those who are employed simply continued to work at the same company where they had been working before their graduation. Another 20 percent of the employed found jobs in the following three months, bringing the share among the total employed up to 85 percent within the first six months of graduation. By the end of the first year of graduation, 97 percent of all the currently employed graduates had secured their first jobs. Given this finding, college graduates should evaluate and adjust job search strategies in case they are unable to secure a job by the first six months of graduation. Then, unless the situation changes by the end of the first year of graduation,

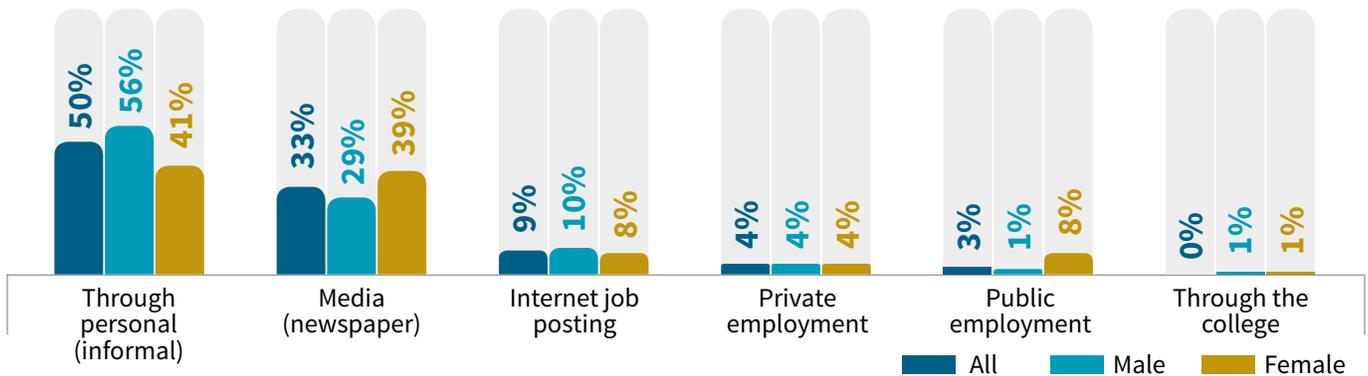


Figure 15: Method of Finding Employment by Currently Employed Graduates by Gender

Source: College Graduate Tracer Study (Graduate survey), 2017.

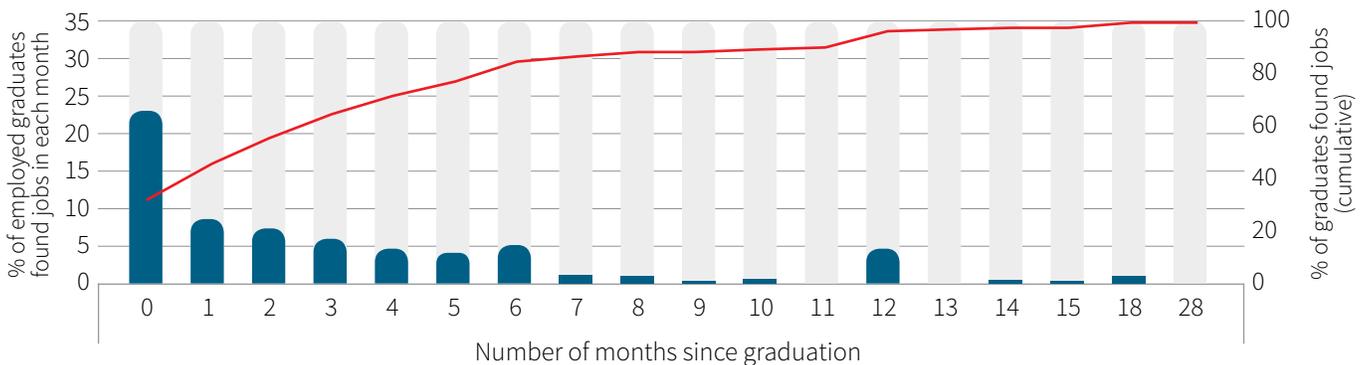


Figure 16: Number of Months it Took to Find the First Job for Currently Employed Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

a reevaluation of the context, job search strategy, and job market analysis should be done by the graduate and alternative options such as upskilling through training, expanding job search area, relaxing expectations, and the like need to be seriously considered.

3.2.5. JOB SATISFACTION

59. Overall satisfaction level with current job is less than moderate for college graduates. Only about one-quarter of the employed graduates were reported to be satisfied and 10 percent were reported to be unsatisfied at their current jobs. According to the job quality framework of the OECD, quality of jobs relies on three basic criteria—job security, earnings, and working environment.¹⁷ Salary and job security are the two dimensions on which a higher share of graduates, 16 percent and 15 percent, respectively, reported to be not satisfied at all. Despite some dissatisfaction, it seems that most graduates are satisfied with the working environment. Good relationship with colleagues, transparency of management, and appreciation for work from supervisors are the areas where employed graduates reported higher level of satisfaction. Figure 17 depicts the satisfaction level of all employed graduates and those who are employed in the education sector at overall level in addition to that satisfaction at another 10 different-but-correlated criteria.

60. Graduates employed in the education sector expressed much higher overall satisfaction compared

to all. Among them, 62 percent reported that they were overall satisfied when only 27 percent of all employed graduates reported to be satisfied. Those who are employed in the education sector not only enjoy higher level of overall job satisfaction, they are also generally more satisfied about job stability, their job description, and the way their work is appreciated in the society. For those employed in the education sector, the least level of satisfaction comes from compensation and salary, and lack of transparency of management.

61. College graduates do not have much to choose from when it comes to jobs. One of the important reasons for choosing the current job is the lack of availability of alternative options. Good working conditions and stable employment are the other reasons for accepting the current job. Location and match with area of personal interest are the other criteria that played a salient role behind choosing the current job. Figure 18 shows the important reasons behind choosing the current job. While for men, lack of available alternative is the top reason for choosing the current job, for women, working conditions, stability, and proximity played a more salient role. Other more job quality-related reasons such as good career prospect, relevance to education background, and good salaries do not make the top of the list for choosing the job among the employed graduates. Only a quarter responded that good career prospect is one of the reasons for choosing the job. Only a handful (16 percent) of them listed good salaries as a reason for choosing the job.

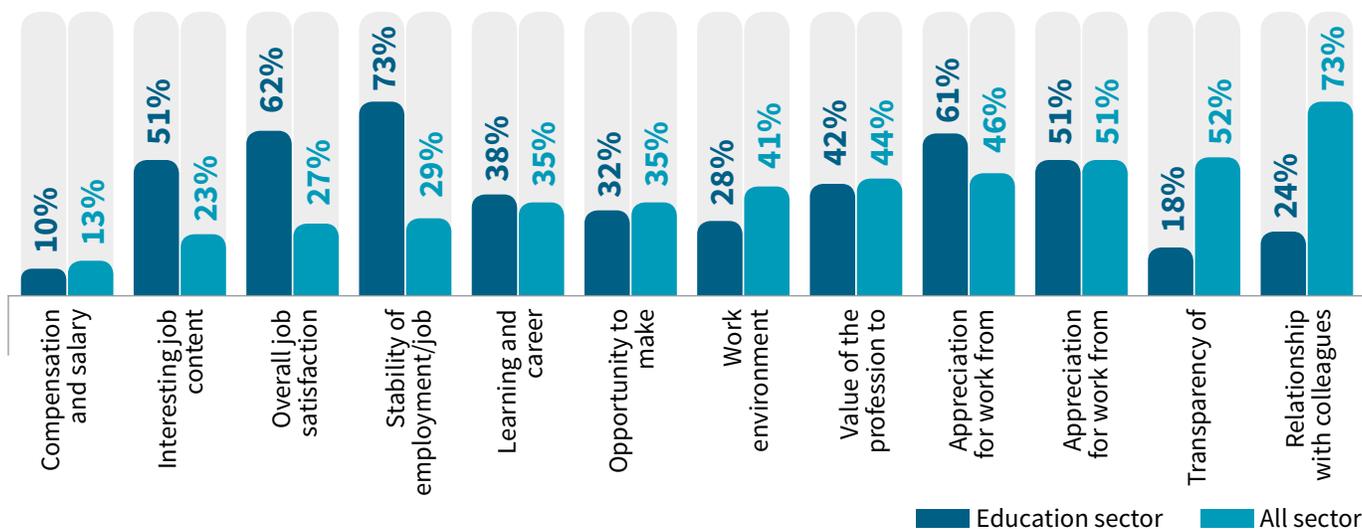


Figure 17: Share of Employed NU Graduates Satisfied with Aspects of their Current Employment

Source: College Graduate Tracer Study (Graduate Survey), 2017.

¹⁷ The OECD's job quality framework is available at <http://www.oecd.org/statistics/job-quality.htm>.

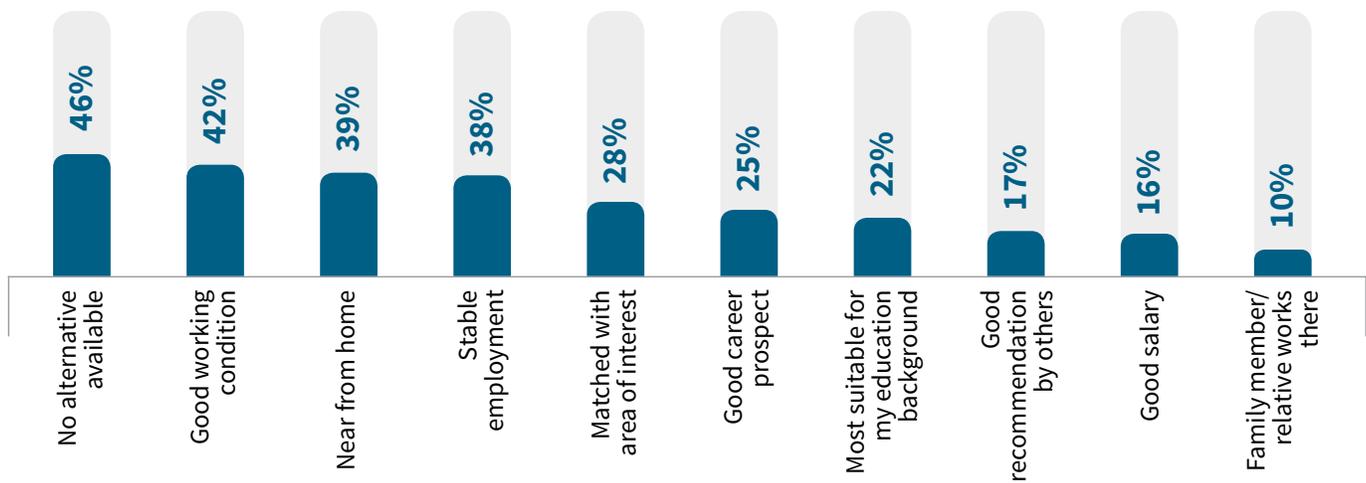


Figure 18: Important Reasons behind Choosing Current Job

Source: College Graduate Tracer Study, 2017.

Note: The scores presented here represent 'relevant' which are the summation of the share of those who responded either 8 or 9 or 10 of responses rating in 10-point scale in each statement where 10 stands for 'very relevant' and 1 means 'not relevant at all'; n = 403.

3.3. UNEMPLOYMENT

62. **A disturbingly high share—46 percent—of college graduates are found to be unemployed three years after graduation;** the unemployment rate, as calculated in a conventional way, is around 70 percent. This share is very high in any standard. Unemployment thus is a grave issue for graduates from NU-affiliated tertiary colleges and requires special attention. This subsection discusses the findings related to unemployment among college graduates.

63. **Graduates with humanities or social science background and from nonmetropolitan areas experience higher unemployment rates.** Figure 19 shows the unemployment rates by location, gender, and broad subject area of the graduates. Unemployment rate is relatively lower in metropolitan areas compared to other locations. Out of every 100 graduates residing in metropolitan areas who are currently active in the labor market, 58 graduates are out of employment, compared to the corresponding rates of around 70 for graduates from rural and urban, or semi-urban areas. Science graduates experience marginally lower incidence of unemployment which most likely reflects better demand for science graduates in the job market. A much higher share of female graduates are unemployed.

64. **College graduates tend to experience a high level of job volatility and long spell of joblessness once unemployed.** Length of unemployment spell shows that as much as 36 percent of the unemployed graduates became unemployed within the last six months, which is suggestive of frequent job turnover among college graduates. Another 36 percent have been unemployed since last 7 to 12 months. Long-term unemployment of more than one year is also not uncommon. Around 30 percent of the unemployed graduates have been jobless for more than one year. Male and female experience similar pattern of unemployment spell. Since all the college graduates in the sample graduated in the year of 2013, it seems that a good share of unemployed have been engaged in some sort or employment or further education or training after graduating from college about three years ago.

65. **Unemployed graduates seem somewhat reluctant to adjust their expectations and job search strategy.** Asked about what strategy they would take or are taking to overcome unemployment, most of the unemployed graduates reported that they would continue to keep looking for jobs that meet their expectations. Similar share of graduates reported that they would explore additional

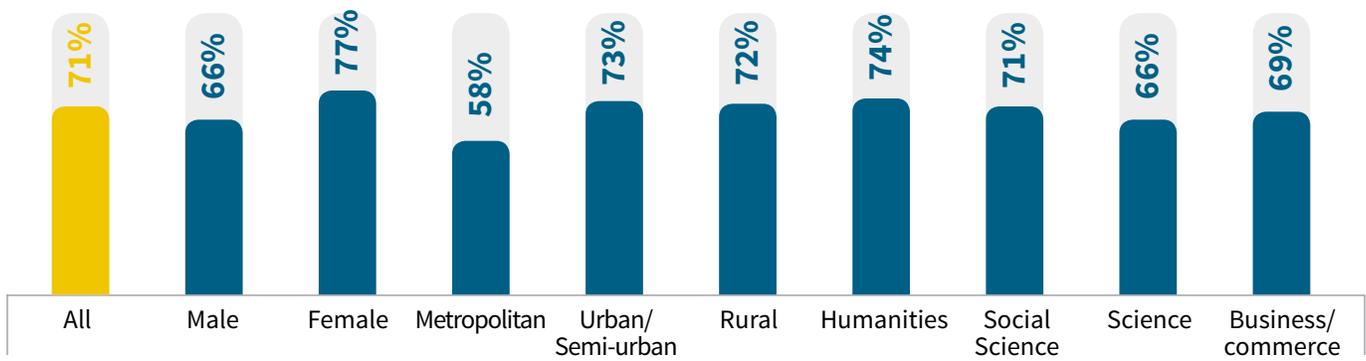


Figure 19: Unemployment Rate by Various Categories—Gender, Location, Broad Area of College Degree

Source: College Graduate Tracer Study (Graduate Survey), 2017.

education or training opportunities as a strategy to deal with unemployment. The combination of these two approaches, that is, keep looking for desired jobs and enrolling in more education/training courses if possible, appear to be the most common coping strategy. Naturally, accepting a lower pay, temporary job offers, or getting into different occupations would be far less popular an

offer during this unemployed phase which they declined. Low salary is the main reason for declining a job offer. Other reasons include bad working condition, undesirable position, unsuitable location, and so on. Unemployed graduates' lack of flexibility in job search approach and job expectation, despite having experienced prolonged joblessness, could be due to the lack of access to job market information and poor job search skills. Making relevant information available for them and training job search skills at colleges would be an important first step to enhance their job market readiness and flexibility.

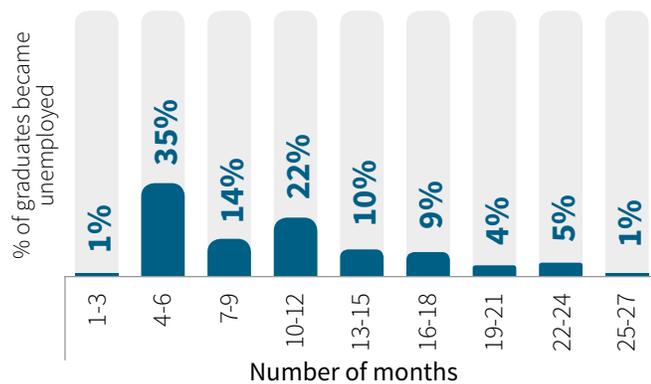


Figure 20: Length of Unemployment Period among Unemployed NU Graduates

Source: College Graduate Tracer Study (Graduate survey), 2017.

option, though may be the one most needed in reality. Self-employment, which is often touted by policy makers as a promising source of employment and job creation, is the least considered option with only 15 percent reporting it as an option, and only 1 percent of all graduates engaged in self-employment, as discussed earlier.

66. Furthermore, despite being unemployed, college graduates often decline job offers. On average, an unemployed graduate applied to 17 jobs since the start of unemployment. About three-quarters of the unemployed college graduates received at least one job

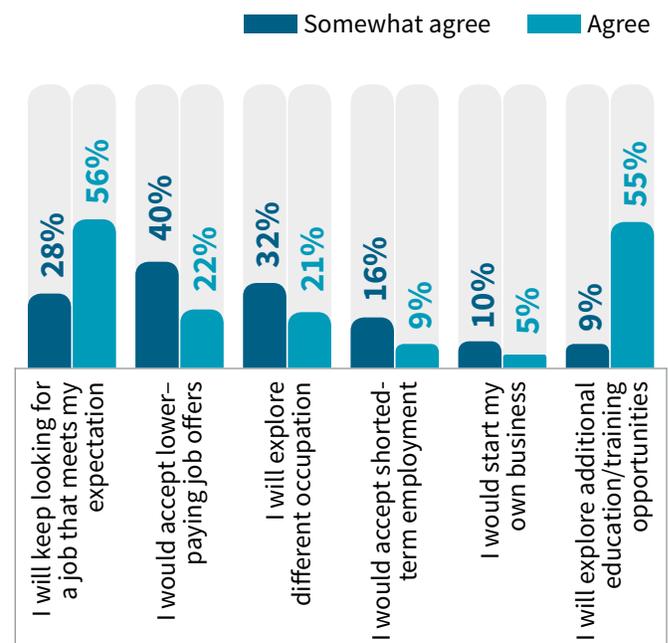


Figure 21: Job Search Strategies Followed by Unemployed NU Graduates

Source: College Graduate Tracer Study (Graduate Survey), 2017.

3.4. FURTHER EDUCATION AND TRAINING

67. **Enrolling in post-graduate degree programs seems to have become a common coping strategy for tough job market, leading to a high share of graduates pursuing master's degree.** Upon graduation, nearly every graduate looked for jobs (98 percent reported that they had looked for jobs). Yet, after three years of graduation, a good proportion of graduates (one-third of the graduates) are still pursuing further education. This could be interpreted as an indication that further education is being used as a coping mechanism in the face of bleak labor market outcome and is pursued not necessarily out of enthusiasm for pursuit of knowledge and research. Although there is no set yardstick to estimate a desirable level of master's qualification holders, one-third of graduates moving up to postgraduate courses may come across as somewhat too high, especially for a country with tertiary enrollment rate of just around 17 percent. More education does not also seem to mean more diversified learning experience. In most cases (83 percent), the graduates are getting their master's degree from the same college from which they graduated and in a subject area that is related to the area of study in the college; only 3 percent reported that their current subject is not related to the subject area of their undergraduate degree. The popularity of master's degree may also have to do with the fact that having a master's degree has become an entry requirement for some jobs, including getting qualified for college teacher positions.

68. **Securing a better job is the main motivation behind pursuing further education despite the poor labor market performance of master's program graduates.** Major reasons reported were directly related to job market performance. For example, needing a better qualification for better jobs, enhancement of job relevant technical skills and knowledge, development of soft skills are reported by a good share of graduates as their motivations for pursuing postgraduate degrees. Parental suggestion and recommendation also plays a key role in decision making. However, given the high share of unemployment among master's degree holding graduates as discussed earlier, it

appears somewhat questionable whether this additional one year of master's course (in the case of degree pass graduates, they need to go through a two years master's course) is adding significant value in terms of graduates' employability and job relevant skills, and whether they are earning enough returns to recuperate the investment costs.

69. **At the same time, going into vocational and technical training programs appears to be out of the scope of consideration for college graduates as almost no one reported having been enrolled in those courses.** Gaining technical skills would improve their chances of getting decent employment in technical jobs. However, in the Bangladeshi context, vocational and technical training is often seen as an inferior educational pathway than general education, which may limit the appetite of college graduates to take up this potentially rewarding alternative.

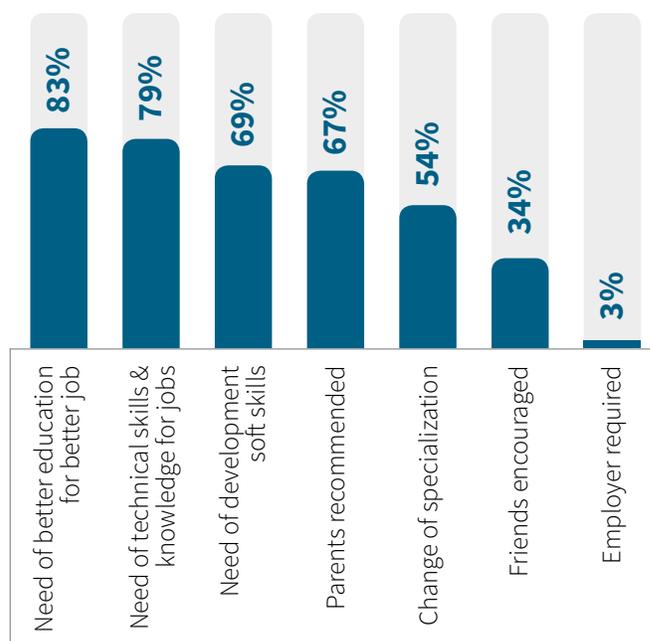


Figure 22: Motivation Behind Further Education and Training

Source: College Graduate Tracer Study (Graduate survey), 2017.

3.5. EXPECTATION AND PERCEPTIONS ABOUT JOBS AND JOB MARKET

70. For graduates to have successful job search results, it is important that they have expectations that are in line with the job market reality and good understanding about jobs that they are interested in. This section examines the expectation and perceptions that college graduates have about their future jobs and job market, drawing on the responses of the unemployed and currently studying graduates.

71. Graduates' preferences on occupation seem highly skewed toward public sector jobs and a small number of occupation categories. First, almost everyone (90 percent of unemployed or studying graduates) are interested in the public sector jobs in the government. This may not be a very healthy and productive expectation when the public sector can provide only so many jobs in the job market and thriving industries are needing more manpower. Figure 23 shows the preferred occupations of unemployed and graduates pursuing further education. Teaching is the most desired occupation. More than two-thirds of them reported teaching as their most preferred occupation. It is surprising to see this much of popularity of teaching profession among tertiary graduates considering these are not teacher training institutes. This is also a strong indication of perceived lack of other viable and high-quality job opportunities outside of public and teaching arenas. Jobs in public administration and managerial positions are

the second most preferred occupations. Naturally, supply of these types of jobs is quite limited and highly competitive. Finance and accounting jobs are also preferred occupations for college graduates as they tend to be better remunerated occupations. While these preferred jobs are concentrated in a few occupational categories, jobs that are more readily available and important for the economy seem to be perceived far less attractive to college students, including business professionals, ICT professionals, and sales and marketing staff. Some widely demanded jobs like hospitality workers and technicians did not even make the list in Figure 23. Limiting the list of desirable or acceptable jobs too narrowly would never be a good job search strategy for anyone.

72. The commonly held view among the Bangladeshi society that college graduates choose the education profession as a last resort of employment may not resonate with the reality in many cases. Education is the sector where the highest share of college graduates is employed. Among the employed graduates, 43 percent are working in the education sector and 38 percent are involved in teaching. These graduates working in education sector reported much higher level of overall job satisfaction compared to others. The majority of currently unemployed graduates or those who are engaged in further education reported teaching as their preferred occupation.

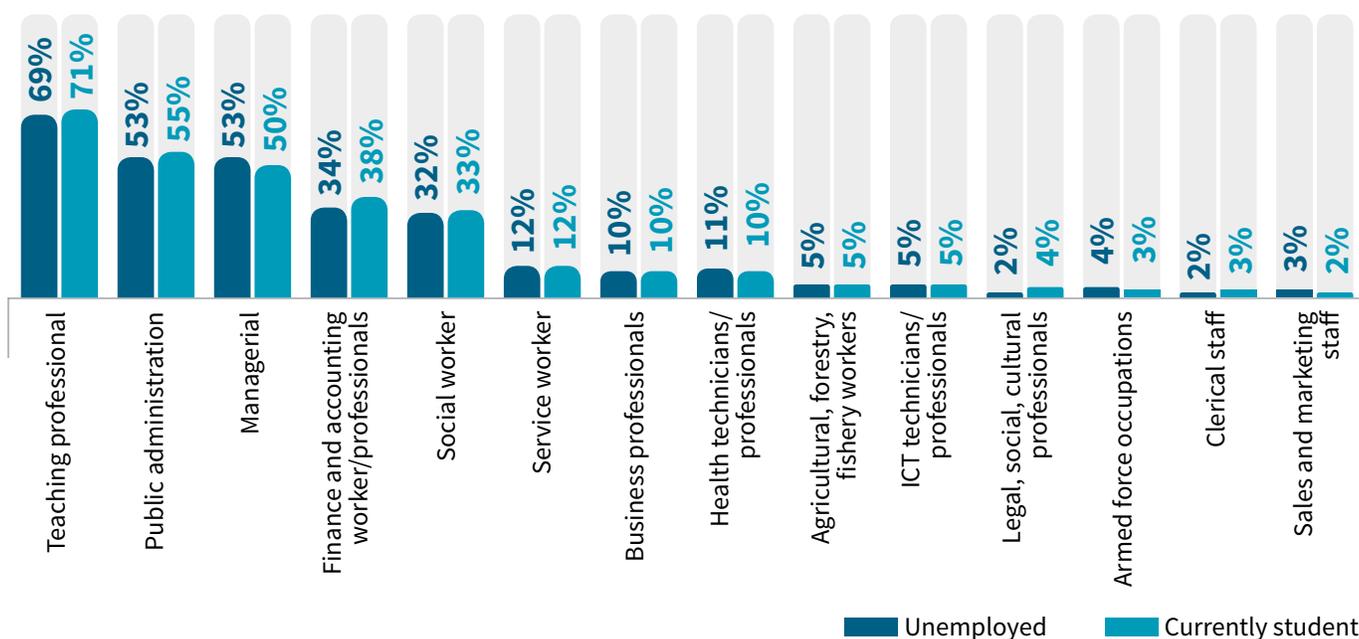


Figure 23: Preferred Occupation by Graduates Currently Unemployed or Pursuing Further Education

Source: College Graduate Tracer Study (Graduate Survey), 2017.

Note: Multiple responses were allowed.

73. **There exist substantial gaps between the salary expectations of graduates and the reality.** Graduates expect to secure a job after completion of the current degree with an average salary of around BDT 26,000. This turns out to be quite far from the reality and more than double of the current monthly salary of the employed graduates, that is, BDT 11,814.

74. **Graduates seem out of touch with the prevailing conditions of the current job market.** An unusually high proportion (9 out of 10) of graduates are interested in finding government jobs. In fact, only 13 percent of the employed college graduates are currently working in government jobs. This clearly means that most of them would fail to find jobs in the public sector in the end, and that many of the unemployed or currently studying graduates are heading to job search cul-de-sac. Graduates who are highly interested in teaching jobs also have very high salary expectations though salary in the education sector is one of the lowest. This discrepancy between reality and expectations highlights college graduates' lack of awareness with respect to what is available and what to expect in the job market. Lack of access to information and

career guidance could be responsible for that. This strongly calls for much greater emphasis on job placement services at colleges, which can provide necessary information and services to college students and graduates to prepare them for the job market.

75. **Despite the challenging job market outcomes, college graduates largely remain optimistic about their job prospects, with strong belief in the value of college degrees.** Despite the high unemployment rate, only one-third of the graduates who are active in the labor market reported the lack of job opportunities for college graduates as a major issue. The majority of them also agree that college degrees are highly valued by employers. They seem less certain about employers caring about skills and knowledge that they gained through college education. This perceptual gap may be due to their own low expectations about education services at colleges though as a qualification on one's resume, they believe college degrees are regarded highly in the society. This may lead them to pay more attention to passing the examinations than to the actual knowledge and skills gains during their time in college.

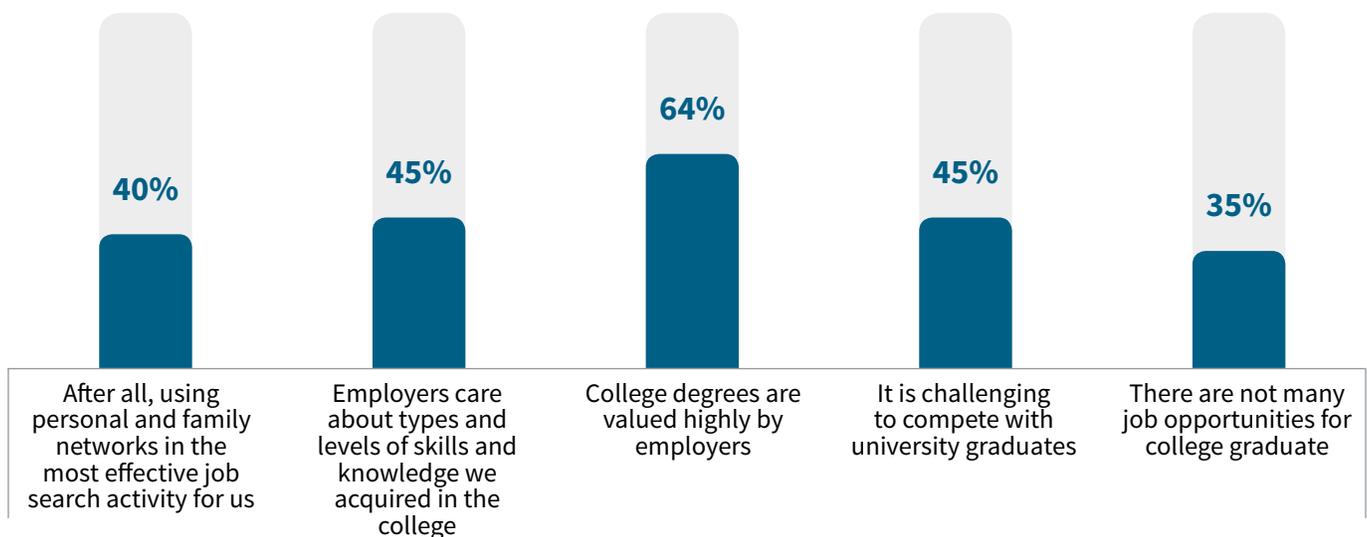


Figure 24: Perception about Labor Market of NU Graduates Who Are in the Labor Force

Source: College Graduate Tracer Study (Graduate Survey), 2017.





HOW DO GRADUATES AND EMPLOYERS SEE COLLEGE EDUCATION?

4.1. GRADUATES' FEEDBACK ON QUALITY AND RELEVANCE OF COLLEGE EDUCATION

76. **This section focuses on the assessment of quality and relevance of college education based on the graduates' feedback on a range of aspects relevant to quality and usefulness of learning and skills acquired at colleges.** Because graduates were direct beneficiaries of education services rendered at colleges, and they are now aware of the labor market realities, their opinion regarding weaknesses, strength, and relevance of college education can provide important direction for upgradation of teaching and learning environment at colleges to achieve better outcomes. Moreover, knowledge about the level of quality and relevance of college education would be an essential background information to properly contextualize the findings on employment outcomes of graduates. Overall, the feedback suggests that college students are not satisfied with the current state of the quality and relevance of college education.

77. **Overall, graduates' opinion about value addition in knowledge during student years is underwhelming.** Only a little over half of the students agree that they have learned a lot of new skills and knowledge either through classes in college or off-campus activities during college years. This is disappointing as college education is supposed to teach new skills and improve the knowledge base of the students.

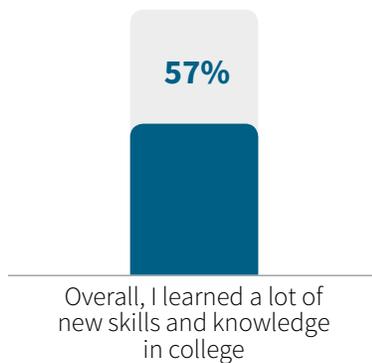


Figure 25: Graduates' Overall Assessments about Learning and Skills Acquisition in College

Source: College Graduate Tracer Study, 2017.

Note: The share among currently employed graduates who agree to the statements.

78. Graduates have strong reservations about the relevance of college education to labor market needs.

First, only a fifth of the employed graduates are engaged in jobs that are related to their fields of study at college. This indicates the low relevance of college education and the presence of serious mismatches between what colleges offer in their courses and the demands of job markets. It is highly likely that college students were not able to choose the fields of study that are demanded in the job market because colleges do not have them in their course offerings and/or graduates were not aware of or cared about job market demands upon entry to colleges. While in principle academic disciplines in general higher education do not always have direct matches with career choice of graduates, poor discipline-career matching coupled with poor employment outcomes would cast serious doubts about the overall relevance of college education in Bangladesh. Students' assessment about relevance of soft skills, though more positive than the views about other technical skills, does not also seem so encouraging as less than half of the graduates support their usefulness for their work.

79. Knowledge and skills acquired at colleges are seen to have low application at work. Only one-third of employed graduates reported that they have been able to apply the knowledge and skills learned at colleges usefully to their work. Low level of knowledge and skills application would be naturally triggered by the lack of learning of new knowledge as well as the low matching between the academic and job choices. However, it is also likely that college graduates failed to acquire practical knowledge and skills during their time of college study.

80. Colleges seem to be lagging in the teaching of ICT and soft skills. In the increasingly globalized world, the skills needed for work is changing at a fast pace. ICT skills and soft skills¹⁸ have become basic skills needed for jobs that tertiary education graduates are likely to pursue. Only 1 out of 10 currently employed college graduates reported to have learned ICT skills at college that provided good basis for computer skills for their current jobs. Graduates have relatively more positive perception about soft skills (for example, communication, team work, and problem solving) they learned at college, though it is still far from satisfactory—only 45 percent provided positive feedback about the usefulness of soft skills they learned at college.

81. Quality of teaching and learning environment is deemed unsatisfactory, and teaching methods need to be updated. Figure 27 shows the share of graduates who either moderately or strongly agreed to the statements

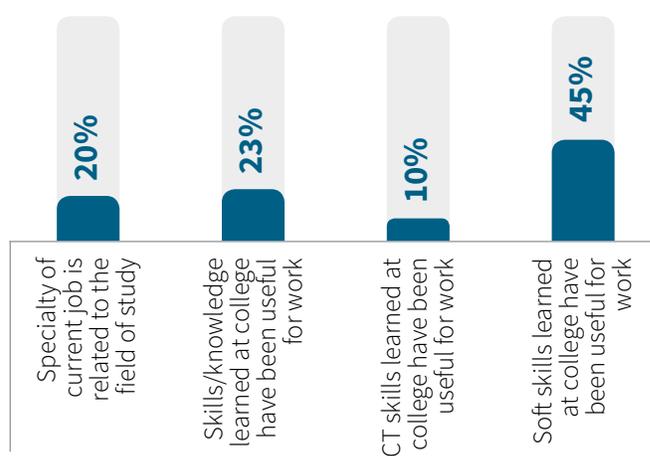


Figure 26: Graduates' Assessments about Relevance of Education at Colleges

Source: College Graduate Tracer Study (Graduate Survey), 2017.
 Note: The share among currently employed graduates who agree to the statements.

regarding teaching and learning at colleges. Teaching and learning facilities and equipment seem inadequate and outdated. Only 35 percent graduates agreed that their colleges had enough teaching and learning equipment and 24 percent agreed that those pieces of equipment were modern. Teaching and learning facility and equipment are in urgent need of upgrading.

82. Teachers' teaching capacity, especially in pedagogical skills, seems to need more improvement. Regarding teaching methods, for instance, only 12 percent of graduates said that teachers were effectively utilizing ICT in teaching at college. Views on teachers'

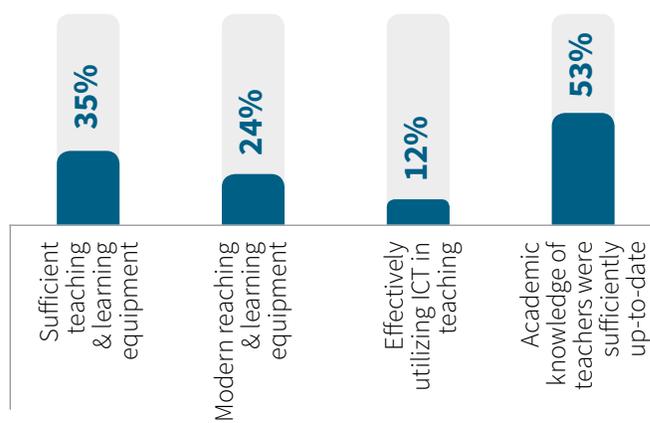


Figure 27: Graduates' Assessments about Quality of Education Services at Colleges

Source: College Graduate Tracer Study (Graduate Survey), 2017.
 Note: The share among all graduates who agree to the statements.

subject knowledge are substantially more positive though still only half of the graduates were satisfied. Teacher training, especially on pedagogical skills, including use of ICT, would have high positive impact on the quality of teaching in colleges. Colleges report that teachers do receive training opportunities from time to time (see Annex 1). Training contents may not be adequately focused on pedagogical skills especially in using ICT in teaching.

83. Learning at college is deemed too examination oriented, but opinions about the quality of assessment appear mixed. More than half of the graduates agreed that students spent too large a share of their learning time in preparing for examinations. Examination culture—overreliance on written exam—is nothing unique to the college sector in Bangladesh rather it is prevalent at all levels of education. However, tertiary education institutions should move away from such examination culture to make more room for non-rote learning to promote critical thinking and practical knowledge and skills. Interestingly, though graduates agreed that students spend too much time for exam preparation, their opinion is mixed about college education being associated with rote learning and exams not promoting creative learning as higher shares of graduates disagreed with those notions. Emphasis on rote learning rather than imparting practical skills has been reported as one of the challenging features of teaching in affiliated colleges in other countries. Perhaps, an examination framework in use in Bangladesh is less memorization oriented. At the

same time, however, around half of them do not seem to have strong opinions about them (neither agree nor disagree). Anecdotal evidence shows that many college students do not attend classes regularly, which may explain this apparent absence of opinions regarding quality of learning.

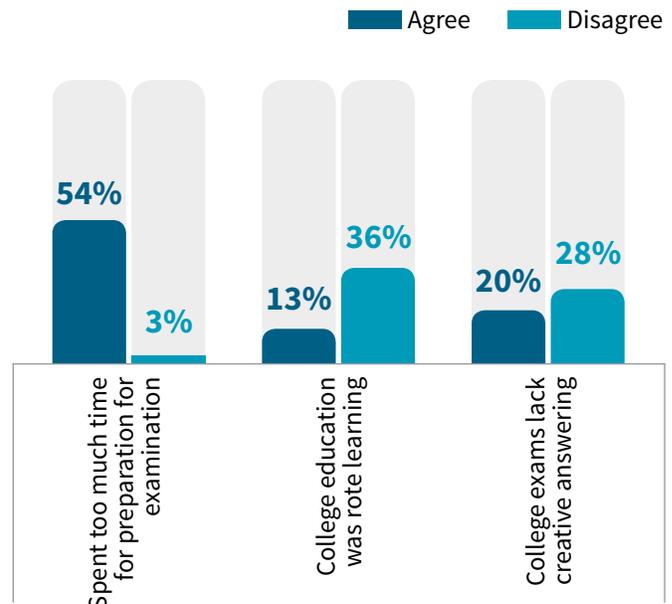


Figure 28: Graduates’ Assessments about Learning Experience in College

Source: College Graduate Tracer Study (Graduate Survey), 2017.

Note: The share among all graduates who agree/disagree to the statements.

4.2. EMPLOYERS’ FEEDBACK ON QUALITY AND RELEVANCE OF COLLEGE EDUCATION

84. To improve the employability of college graduates, it is important to understand how they are perceived and valued by those who hire them, what skills are in demand, what the employers are looking for while hiring, and based on that which skills of college students need further attention and improvement. In that context, this chapter discusses the practices and perception of employers, who have hired college graduates, regarding issues related to employment and employability of college graduates.

85. Employers who were surveyed were picked randomly from the pool of employers of the randomly selected sample of college graduates. Figure 29 gives the distribution of employers surveyed by major industries. It is not surprising that about 40 percent of employers are in the education sector. Manufacturing accounts for one-fifth of the employers surveyed. Within manufacturing industries, more than half of the employers are in ready-made garments, textiles, and

food products. The majority of the surveyed employers (97 percent) are formal sector employers which have an official registration number to the government, indicating that college graduates are usually employed in the formal sector.

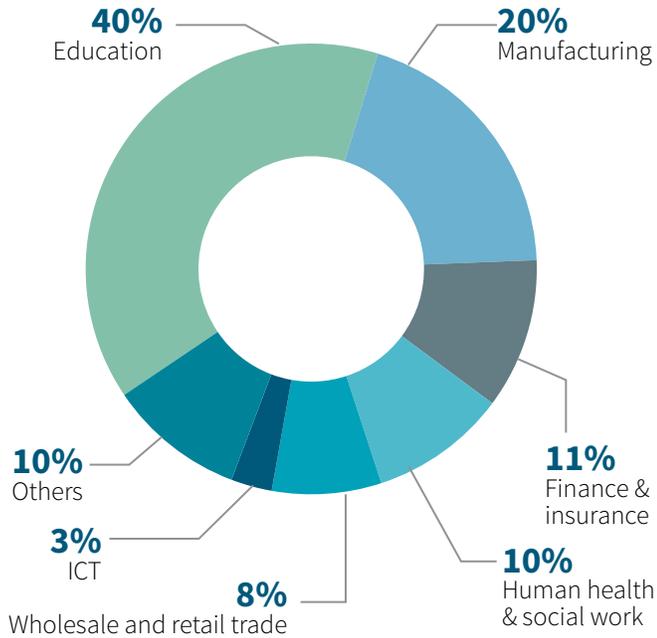


Figure 29: Employers of College Graduates Surveyed, by Sector

Source: College graduate Tracer Study, 2017; Note: n= 235.

86. **For majority of employers, the degree itself was the main motivation to hire a college graduate, and having a master’s degree does seem to make a difference in job chances.** College qualifications (bachelor’s or master’s degrees from the NU) are in themselves an important motivation for many employers when hiring college graduates. This is an indication that many of these employers, especially employers in the education sector, have explicitly or implicitly an education qualification criterion to screen job candidates, with the minimal qualification required being college degrees. Employers also seem to pay attention to academic performance during college as measured in the GPA score, having a master’s degree, and subject area of study, which corroborates the analysis earlier on factors affecting the chance of getting employment. It seems generally the case that the education sector employers tend to give greater importance to these education-related factors than most of the noneducation employers. Beyond these academic factors, soft skills were the next factor identified by the employers as important. Work experience is also seen as an important factor for recruitment decisions, more so by noneducation employers. Again, colleges have little to offer here. Recommendations from colleges have negligible importance in the recruitment process of college graduates.

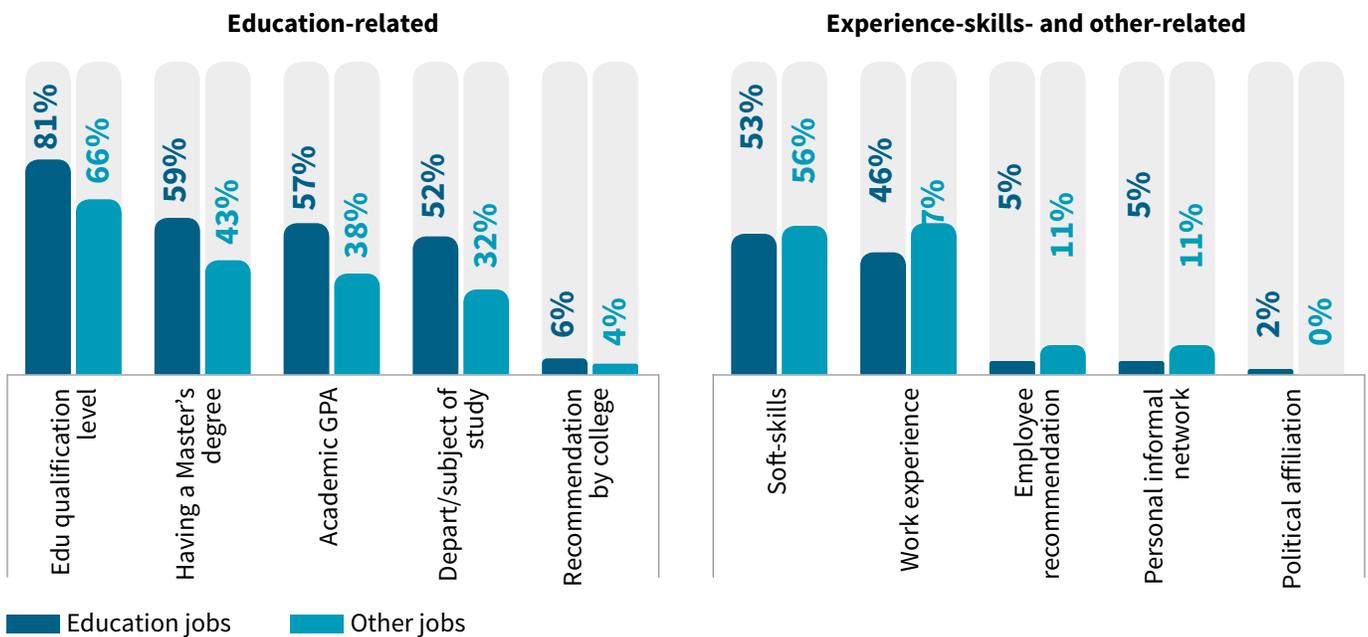


Figure 30: Importance of Various Factors behind Hiring the College Graduate

Source: College Graduate Tracer Study (Graduate Survey), 2017.

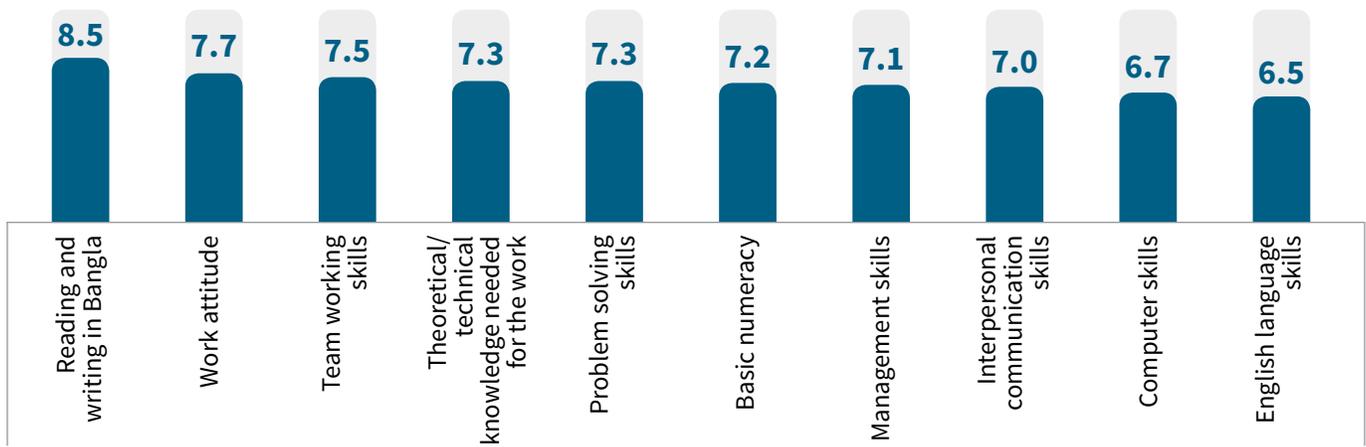


Figure 31: Employers Perception about Graduates' Level of Strength on Various Skills

Source: College Graduate Tracer Study (Employer survey), 2017.

Note: The score/s presented here is/are the averages of responses rating on a 10-point scale in each category of skills, where 10 stands for very strong and 1 means very weak.

87. Employers acknowledge college graduates are strong in communication in Bangla, possess decent work attitude, and team working skills, while English language and computer skills are their weaker points.

Employers were asked about their perception on the level of strength of college graduates regarding different skill sets. Reading and writing in Bangla has been rated most favorably by employers, as shown in Figure 31. Employers' perception about other skills seems to be satisfactory in general. However, it is not a surprise that English language and computer skills were viewed as less of strengths of college graduates. Given the changing nature of jobs in the globalized world, English language, communication, and computer skills will become more and more

important in the coming days. Thus, special attention needs to be given to enhance the level of quality related to these skill sets.

88. Employers would like colleges to strengthen training on ICT, English language skills, and key higher-order thinking skills such as communication skills, problem-solving, and teamwork skills. Given the technological advances, communication using various modes has become part of the skills set essential to perform and conduct tasks in the increasingly globalized business environment. As Bangladesh is becoming an integral part of the global value chain of production and business, the demand for all sorts of communication

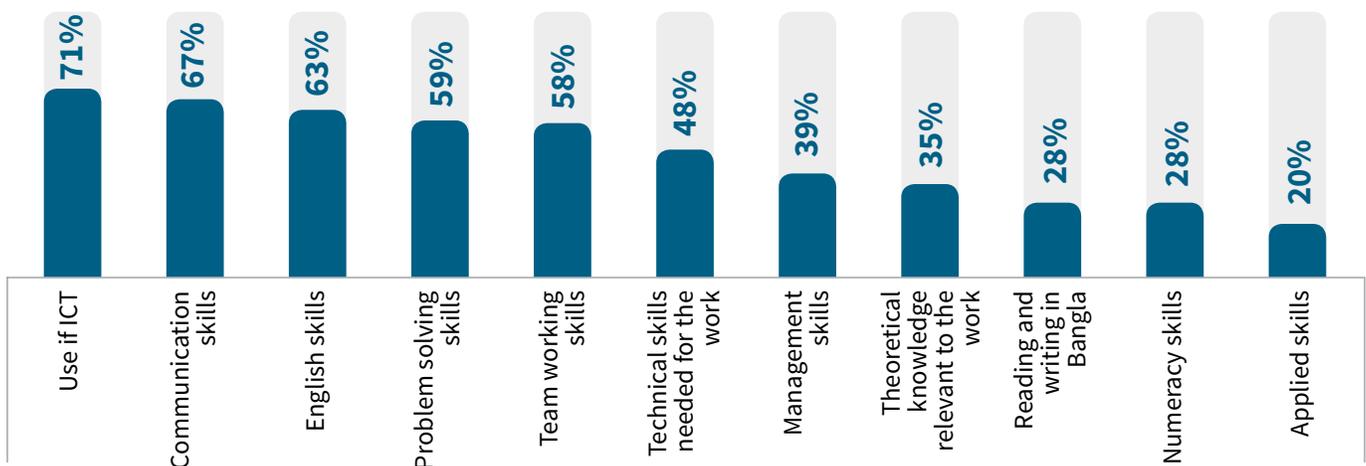


Figure 32: Employers View on Skill Areas Colleges Should Educate and Train Students More

Source: College Graduate Tracer Study (Employer survey), 2017.

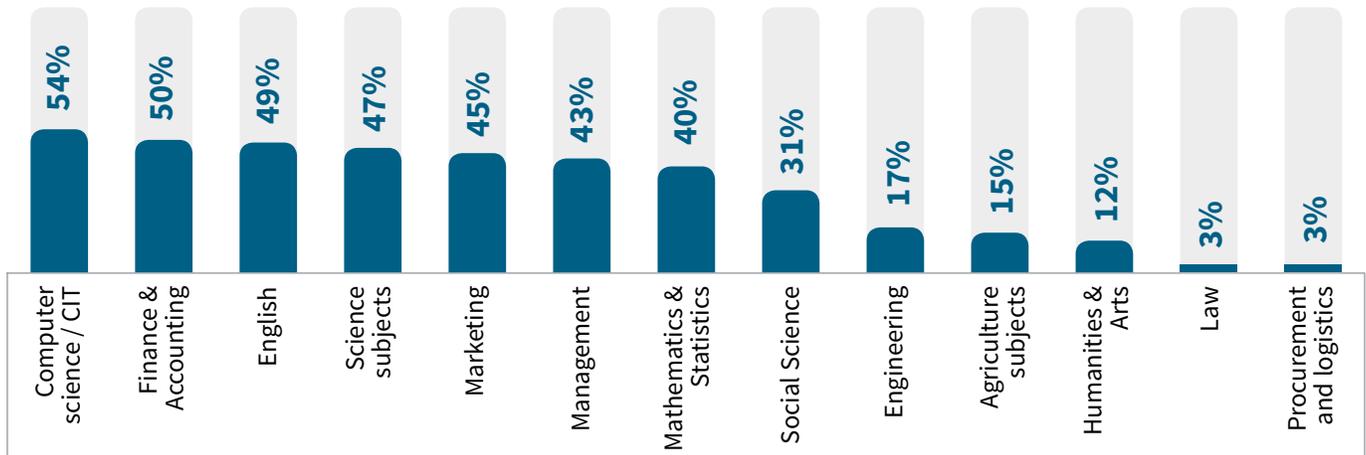


Figure 33: Subject Areas in Demand of Employers

Source: College Graduate Tracer Study (Employer survey), 2017.

skills, whether that is through ICT or English language, will only increase over time. And that inevitable trend reflects on employers' view on skill areas that colleges should focus on educating and training their students more. Communication skills are more important for college graduates as they focus less on technical subjects. More than half of the interviewed employers reported that colleges should also focus on problem-solving skills and teamworking skills to improve the overall quality of college graduates.

89. Computer science, finance and accounting, English, and science subjects are the most demanded subjects in the job market for college graduates, while social science and humanities are far less in demand. Employers believe that business and specific skills-related subjects such as computer science, finance and accounting, marketing, management, mathematics, and statistics also have good demand in the market. As discussed in the earlier chapter, however, the highest share of college graduates complete courses in humanities and arts, which

unfortunately does not seem to have much demand among employers. Social science, another popular study subject at colleges, does not also seem to be strongly in demand. Coordinating the supply of students in various subjects based on market demand could improve the employment outcomes of college graduates.

90. Colleges seldom go into partnership with employers to promote practical learning and enhance employability of students. Out of 235 employers surveyed, only 10 entities (4 percent) reported having some type of relationship with colleges. The reported nature of the relationship is in the form of providing guest lectures or personal relationships with the principal. Only three employers reported that they have partnerships for recruitment and only two reported having a partnership for apprenticeship program with colleges. This is truly a missed opportunity for both colleges and employers. Having solid partnerships with industries would play a pivotal role in increasing the employability of college students and improving their relevant skills.





SUMMARY OF KEY FINDINGS AND POLICY IMPLICATIONS

5.1. KEY FINDINGS

91. **Affiliated colleges of the NU in Bangladesh serve secondary graduates of average academic skills from decent family backgrounds to achieve tertiary education qualifications.** Academically, average students from relatively educated family backgrounds are the main beneficiaries of the NU tertiary colleges which are expected to provide valuable skills necessary for labor market transition. Secondary school graduates with best test scores tend to enroll in universities, which are far more competitive and have smaller intake capacity. Enrolling about 65 percent of all tertiary students each year, the NU colleges play a crucial role in shaping the skills and the quality of the white collar workforce of Bangladesh. Thus, modernizing the standard and skills of professional labor force requires improving the quality of college education, especially in today's increasingly technology-intensive globalized economy.

92. **Current employment outcomes of college graduates are way below satisfactory, throwing the relevance of college education into question.** After three years of graduation, close to half of the graduates are unemployed. It is not completely unlikely for college graduates to have a high share of unemployment as most of them come from relatively decent financial backgrounds and thus may have higher reservation salary. Yet, even after taking that into consideration, this share is very high compared to the labor market outcome of the general population. Unemployment rate among the

NU graduates active in the labor market is 71 percent, national unemployment rate for the age group 18 to 24 is 10.1, and for the tertiary educated, the unemployment rate is 9 percent.¹⁹ Even among those who are employed, overall level of job satisfaction is low; only 27 percent of the employed graduates reported being overall satisfied with their current job. Among the three basic criteria of job quality—job security, earnings, and working environment—the employed graduates reported low level of satisfaction in terms of salary and job security. High unemployment rate and low overall satisfaction level among the employed are beyond ‘not normal’, indicating the graduates’ need for ‘transition from education to employment’ support that can be facilitated and expedited through helpful policy interventions and their proper implementations.

93. Graduates’ level of satisfaction over the quality and relevance of the NU college education and training is generally low. Only a little over half of the graduates agreed that they have learned new skills and knowledge through classes in college. The knowledge and skills that graduates learned in colleges have low application at work, which makes the NU college education less relevant for labor market. In addition to the traditional subjects being taught, colleges should teach students some basic soft skills that would help the graduates navigating the job market better and make them more productive workers. Successful collaboration with relevant industry can not only provide practical knowledge about working in such

industry and employment prospects but also strengthen college graduates’ employability by providing them with valuable work experience that employers are looking for.

94. Despite the high unemployment rate among college graduates, there exists unmet demand among employers for an educated skilled workforce, which college education has been unable to fill. Unfortunately, college graduates are often not able to meet the demands of labor market. They often lack in relevant skills valued by employers—skills mismatch—and are not fully aware of the labor market reality and job search options to make most sensible decisions in choosing career options. Although this study is unable to assess the demand-side issues of the labor market in depth, judging from the responses of employers and current situation of graduates, the core issue seems to lie with ensuring the quality and relevant tertiary college education and skills of college graduates, that is, supply-side challenges. The NU colleges urgently need to step up to meet the skills demand and bring optimal equilibrium in the market. Employers value soft skills and prior work experience in addition to academic qualifications and would like the colleges to strengthen training on ICT, communication, and language skills. College graduates are strong in Bangla, possess suitable work attitude, and team working skills. By improving ICT skills and English language and communication skills, college graduates may position themselves in a better position in the job market and fill in a good share of the skills gap that exists in the workforce.

5.2. RECOMMENDATIONS

95. Bangladesh’s labor market faces significant skills shortages and the NU-affiliated colleges have a big role to play to narrow the existing skills gap. Based on the findings of the tracer survey that incorporated views and opinions of the graduates, representative of colleges and employers, this report provides both national- and institution-level policy recommendations.

5.2.1. INSTITUTION-LEVEL POLICY ACTIONS

96. Enhance the use of ICT in teaching, provide ICT skills training, and upgrade ICT facilities. Bangladesh Skills for Tomorrow’s Jobs (World Bank 2018) highlights the growing importance of ICT knowledge and skills for both present and future jobs even in nontechnical

¹⁹ Based on Labour Force Survey 2015–2016.

industries. ICT has been identified as the number one skills areas that employers believe colleges should educate and train students more. In that context, ICT needs to be incorporated in college education for improving the students' overall skill level and making college education relevant for today's labor market. To achieve this goal, first, colleges need to invest more in ICT equipment and upgrade technical skills of teachers on ICT use. Colleges can set up and offer ICT and computer learning camp at the beginning of the semester for both students and teachers to encourage use of ICT throughout the academic year. Inadequate teaching and learning facilities, especially facilities related to science, can hamper both quality teaching and learning. Thus, upgrading of teaching and learning facilities are needed to enable colleges to offer quality education.

97. Provide soft skills training and English communication skills training. Soft skills, also known as noncognitive skills, such as problem solving, critical thinking, and communication have increasingly become essential in today's dynamic job world and are highly valued by employers. On average, employers' perception about college graduates' problem-solving and communication skills are not very high. Colleges should introduce a special training program to upgrade soft skills of their students. English language is another area where college graduates are weak and potentially greatly rewarding if trained appropriately. Curriculum and facilities can be upgraded to improve practical English language proficiency of students.

98. Conduct periodic institution-level graduate tracking. A graduate tracking system needs to be developed and institutionalized for more evidence-based job placement support and potential networking with graduates. An institutionalized active graduate tracking system can provide valuable information and direction for effective job placement service. Analysis of employment data of past graduates would offer valuable direction for identifying the best strategy regarding industry to target, people to contact, and so on. Graduate tracking can be implemented using digital communication tools like emails and social network services or using online services such as online survey tools or web-based graduate tracking systems.

99. Initiate partnership with local enterprises to improve the quality and relevance of learning experience at colleges. Developing effective industry collaboration for learning activities will add tremendous value to graduates' employability and employment

outcome. Currently, the NU-affiliated colleges do not have such collaboration though its importance has been acknowledged by colleges as they identified lack of such collaboration as one of the main challenges they face. Under the guidance of the NU, colleges should attempt to pilot joint programs with local industries such as guest lecturers, industry visits, short-term internship, industry-led skills training, and so on. Visiting lecturers from neighboring companies would add a tremendous value to the learning experience of college students. Through such programs, students would be allowed to gain some industry experience before graduating, which would be helpful not only while searching for jobs but also to reshape their expectations about jobs and skills needed.

100. Set up job placement support services and carrier counselling. Both services are urgently needed to tackle the serious bottlenecks that college students would face in the job market. What colleges can and should do as job placement support include the following: (a) provide job market information of graduates; (b) provide job search skills training and counseling, including career development, CV preparation, interview skills, networking; (c) gather and share job opening information in the local job market; (d) organize job fairs and career seminars to connect students/graduates with potential employers; and (e) provide information about available skills training courses in the locality. Carrier counselling can influence students' attitude about job opportunities, which would be essential to reduce the expectation gap and may improve the flexibility in their job search. For efficient and effective services, colleges will need to create a post for a career counselor job placement expert and hire accordingly.

101. Initiate institutional quality assurance activities for overall quality monitoring and enhancement. Conducting quality assurance activities at colleges can ensure a certain level of quality for college education and improve the institutional accountability for education services. The first step to achieve that would be to initiate a system of institution-level self-assessment. The NU needs to design feasible institutional self-assessment processes and provide guidance and capacity development to colleges on the implementation of self-assessment exercise and institutional development planning. Periodic student feedback practice should also be initiated at colleges to give students an opportunity to reflect on their learning and provide their college with constructive feedback.

5.2.2. SYSTEM-LEVEL POLICY ACTIONS

102. Enhance the relevance of learning outcomes and curriculum of all the subjects in consultation with the employers and industries. The teaching contents of the NU-affiliated colleges are fully and centrally managed by the NU. Curriculum contents for new courses would be developed by qualified subject experts—often university professors—commissioned by the NU. The existing curriculum occasionally goes through revisions though it is done in a more ad hoc manner. However, involvement of employers and industry representatives in curriculum development and revisions has been limited, if any. The first step for ensuring the job market relevance of teaching and learning in colleges would be to deepen the involvement of employers and industry representatives in designing the definitions of learning outcomes and curriculum for all subjects. Learning outcomes of all subjects under the NU should be agreed with them to ensure all core skills needed to perform job requirements are included, such as language skills, computer skills, data analysis, and team work skills, along with job-specific technical skills where relevant to the subject.

103. Provide affiliated colleges with extensive teacher training especially in pedagogical skills for active learning and ICT utilization in teaching. The NU-affiliated colleges are blessed with high-quality teachers in terms of educational background and academic content knowledge—at least half of the graduates positively agree that academic skills and expert knowledge of teachers were sufficiently up-to-date. Yet, their pedagogical skills need to be strengthened further, especially as new learning methods such as active learning and the use of ICT in teaching have become important instruments to effectively deliver the teaching contents and train students' soft skills. Active learning methods are known to be an effective tool to give students opportunities to engage with problem-solving teamwork activities and develop critical thinking and communication skills. Those skills are central to the job competencies that employers are looking for from tertiary education graduates. The NU and NAEM are already providing training to teachers of both public and private colleges. Including use of ICT in the training curricula is needed for more effective knowledge delivery of teachers. Focus should be given more on how teachers can encourage students to participate more and play an active role in improving students' soft and language skills.

104. Establish a central-level labor market feedback system to enhance the responsiveness of teaching

contents and methods to latest skills demands. As the guardian of academic affairs of the largest share of tertiary-level graduates, the NU has a tremendous responsibility to ensure their graduates are oriented toward specialties that are in demand in the job market. The NU should have a designated unit and high-ranking staff in its organization which would deal with the issue of employability of college graduates and promote labor market feedbacks for its college education services. Annual employer feedback workshops and graduate employment outcome surveys would be a good starting point.

105. Develop a sector policy to deal with graduate unemployment issues head-on and adopt system-level employability indicators to monitor job placement outcomes and support activities. The NU-affiliated colleges currently appear to lack in any facility for, experience in, or appetite for actively supporting job placement of their graduates. One fundamental issue is that there is no clear government policy in place to instruct and guide college institutions to have provisions for such facilities and services, largely leaving the matter to their own devices. Given the dire situation of unemployment among college graduates, there is no other choice for the NU and MoE but to urgently develop a policy strategy to tackle high unemployment of college graduates and build the capacity of all the affiliated colleges to provide meaningful support for better job placement. Special provision should be allowed to public colleges to accommodate additional needs for this purpose. Sectorwide indicators to monitor graduate employability and employment outcomes for the NU-affiliated colleges, both public and private, should be developed and implemented for colleges to keep track of and be accountable for employment outcomes of graduates. Some of these indicators would include sector-level and institution-level employment rate, presence of job placement strategy and unit at institutions, implementation of graduate tracking, number of job fairs organized at institutions, employers' satisfaction about skills and knowledge of college graduates, and so on.

106. Encourage greater student enrollment in more market-demanded courses such as computer science, STEM, English, finance and accounting, and management in the NU-affiliated colleges. The results of this survey clearly demonstrate that employers' preferences of expertise of job candidates are not well aligned with the current subject-wise distribution of student enrollment in colleges. Employers tend to prefer to see more tangible skill sets, clear expertise,

and science-oriented knowledge from their job seekers, including ICT, STEM, English, and accounting skills. The least demanded include humanities and social science, where many college students are enrolled. In deciding seat capacities and approving course openings, the NU and the MoE should utilize the data and knowledge gained from employer feedback and encourage enrollment in those more market-demanded courses by providing such information publicly to future college students and their families.

107. Strengthen system-level and institutional capacity for quality assurance and accountability practices. As indicated by the feedback that employers do not expect much from what college graduates learned, college education in Bangladesh may be suffering from a quality crisis and an image crisis. Overall uplifting of the quality of college education and being accountable for student outcomes are needed to improve on a long-term basis the employability of college graduates and the reputation of college education in Bangladesh. The NU needs to take strong action to develop system-level and institutional capacity for quality assurance and accountability practices, including self-assessment, student feedback system, institutional development planning, college benchmarking, publication of graduate outcomes, public consultations, and so on.

108. Strengthen the NU's capacity and system for monitoring and supervision of the quality of education and teaching performance at the affiliated colleges. The NU's college inspection division, which is primarily responsible for undertaking quality oversight on the affiliated colleges, needs to be staffed with competent officials and resources and trained in modern monitoring methods and tools. Quality supervision of all the affiliated colleges is a gigantic undertaking—an almost impossible task given the current institutional capacity of the NU. However, it is also the critical mandate of the affiliating universities. Significantly more investment is required to implement strong quality supervision of colleges.

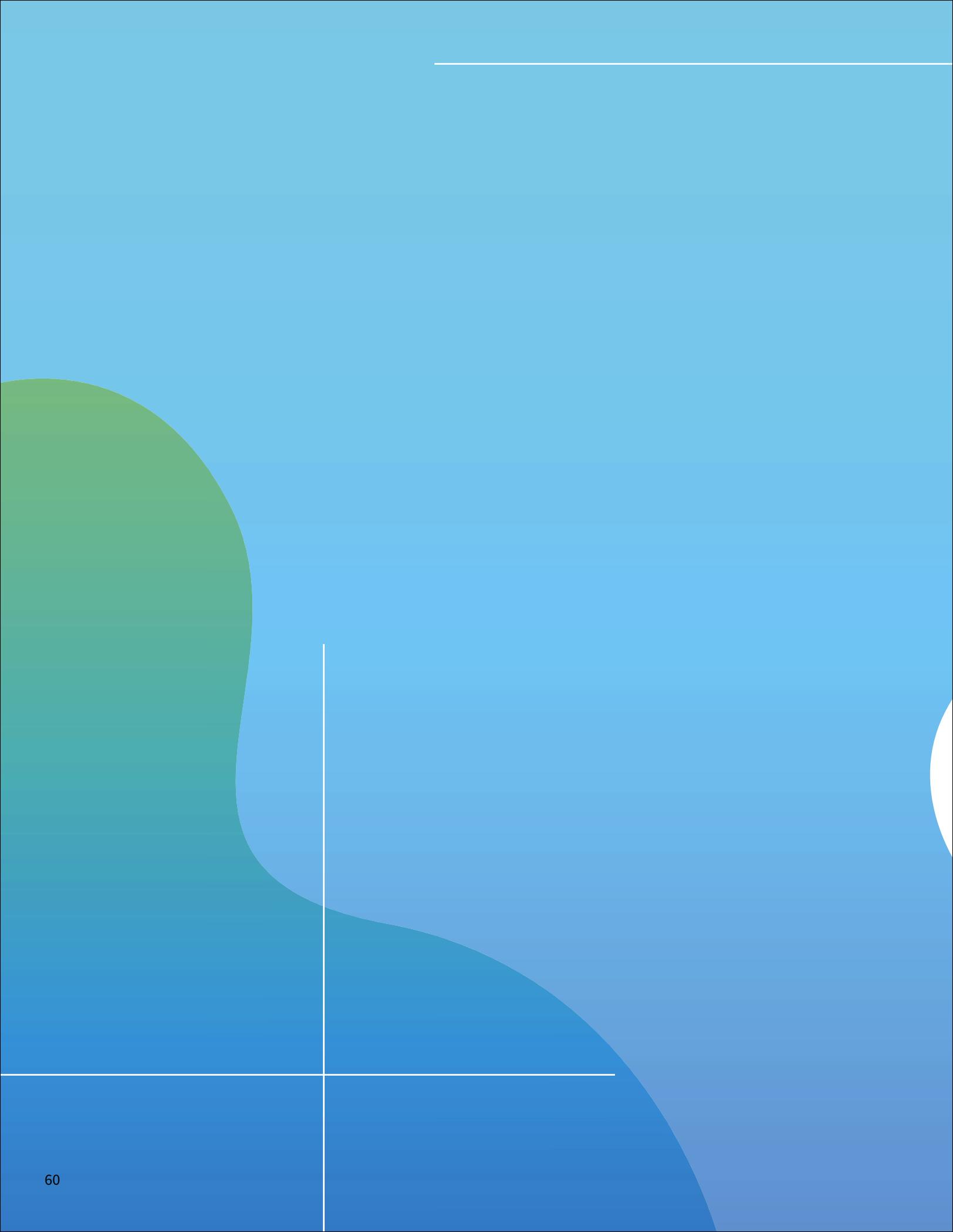
109. Introduce performance-based grant system to incentivize excellence in teaching and learning and improve teaching facilities at the affiliated colleges. In the affiliated college system, college institutions, teachers, and students receive little incentives to promote excellence in teaching and learning. The government colleges receive funding from the government through traditional incremental budgeting while teachers are civil servants on the government payroll. Promotion is primarily granted to reward seniority in service rather

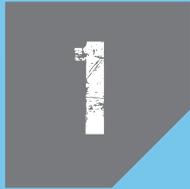
than individual performance. Nongovernment colleges may have a greater intrinsic incentive to strive for better services to attract students; however, they are often severely constrained with their resources for investment, and promotional opportunities for teachers are more limited. Neither government or nongovernment colleges have academic autonomy to introduce innovations in their teaching practices. Students' academic interests and learning efforts tend to be geared toward mastering how to pass examinations, causing them to be frequently absent from day-to-day classroom activities. To break through such a stifling environment, it is essential that the affiliated colleges are introduced to an incentive mechanism which aims to promote institutional improvement and academic excellence. Globally and in the university sector of Bangladesh, performance-based institutional grant system has proven to be an effective means to provide institutions and academics with much-needed resources for a range of improvement activities while at the same time ensuring transparency and accountability for results. Introducing a performance-based institutional grant system where colleges would compete for access to additional resources would offer a valuable opportunity to incentivize and finance institutional improvement efforts at affiliated colleges.

110. Review the system of affiliation of colleges to create a higher education system that is more job market responsive. It is undoubtedly impressive to see the affiliated colleges provide higher education to a large number of students from the lower socioeconomic strata. Yet, given poor graduate employability and low satisfaction over skills acquisition, policy makers might need to take a close look at a range of system features and question some of the basic premises. For instance, would it still make sense to affiliate the colleges with varying degree of capacity under a single affiliation rule? Would it be sustainable and reasonable in the long run to continue to affiliate over 2,000 colleges to a single university? Would it make sense to give a greater share of academic autonomy to the affiliated colleges? Fundamental questions like these would need to be explored to see how the affiliated college system can be reshaped in the mid to long term toward more flexible, market-responsive higher education system. The preparation process of the college sector development strategy currently under way through the World Bank-supported CEDP gives stakeholders and academics an excellent forum for evidence-based policy discussion on future reforms and improvement of governance and management structure of the affiliated college system.

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APPENDIX: Institutional Capacity of Colleges

1. Information gathered through the interviews with principals and vice principals shed light on the current situation surrounding job placement services, teaching force, and other challenges that colleges might face. This appendix provides the findings from the institution-level information taken from the sample of 35 colleges: 25 government and 10 nongovernment.

TEACHING AND LEARNING FACILITIES

2. Facilities and equipment for teaching and learning offered at colleges are generally poor and vary significantly by ownership.

Typically, government colleges which cater to substantially larger numbers of students have fewer facilities per student, while nongovernment colleges offer more facilities per student. The average number of students per sampled college is 10,466. The average number of students in government colleges are four times the number of students in a nongovernment one: 13,261 against 3,477. In the sampled government colleges, there is one computer for every 250 students while in nongovernment colleges, the ratio is around 1:100; in government colleges, one library is used by over 6,000 students while in nongovernment ones, a library is used by 2,000 students. The number of students per classroom is more than three times in government colleges than in nongovernment ones; on average, there are 270 students per classroom in sampled government colleges, while the number of students in the sampled nongovernment colleges is 80 per classroom.

CAPACITY OF TEACHING STAFF

PRINCIPALS' QUALIFICATIONS

3. **All the principals of the sampled colleges are experienced and at least master's degree holders, with 15 percent possessing a PhD.** An average principal of the sampled colleges is 56 years old with five years of experience as a principal and 23 years of teaching experience before becoming a principal. Among the sampled colleges, 15 percent have a female principal.

4. **There exist some public-private differences in principal's academic qualifications but not much difference in terms of their overall experience.**

The share of PhD degree holder principals is higher in government colleges (17 percent), whereas 10 percent of the nongovernment colleges have principals with PhD degree. There is no difference between a government and a nongovernment college principal once we consider total years of experience in teaching and leading the colleges as principals. However, principals in nongovernment colleges possess less experience in teaching and more in leading as principals. On average, in our sample, nongovernment college principals have been working as principals for 10 years before the survey; in government colleges, principals on average have 3 years of experience as principals, suggesting more stable leadership at nongovernment colleges.

TEACHERS' QUALIFICATIONS

5. **Teachers in the NU-affiliated tertiary colleges are academically well qualified;** almost all teachers in colleges possess master's degree. Out of 35 colleges in the sample, only 3 have teachers without a master's degree and even in those 3 colleges, the share of teachers with bachelor's degree is less than 3 percent. On the other hand, 83 percent of the sampled colleges have at least one teacher with a PhD degree and 30 percent of the colleges have five or more teachers with a PhD degree. On average, around 6 percent of the teachers of the sampled colleges have PhD degree. Thus, it seems that hiring teachers with appropriate academic qualifications is not a challenge for colleges.

6. **College teachers seem to be exposed to training occasionally.** Around 13 percent and 9 percent of all teachers of the sampled colleges received training in the past 12 months from the NAEM and the NU, respectively, and the rate of trained teachers is higher among teachers from government colleges. Considering the sheer number

of college teachers, these shares of trained teachers are indeed encouraging and suggestive of the presence of recurrent and systematic teacher training for college teachers. There is a high variation among colleges, however. In one college in the sample, all the teachers received NAEM training; on the other hand, in seven colleges no one participated in that training last year.

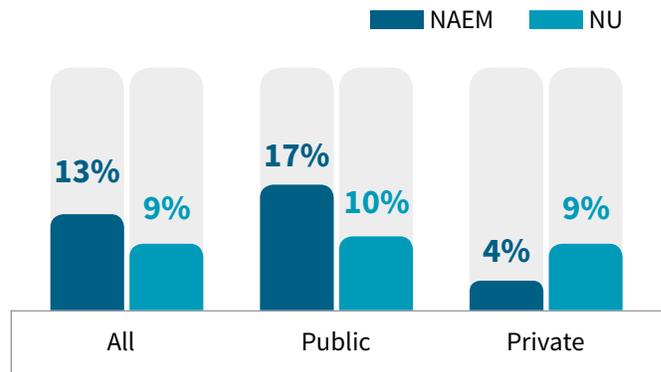


Figure 1.1: Share of Teachers Received Training by NAEM and NU during the Last 12 Months

Source: College Graduate Tracer Study (College Survey), 2017.

JOB PLACEMENT SERVICES PROVIDED BY COLLEGES AND KEEPING TRACK OF GRADUATES

7. **Colleges, in general, do not provide job placement services.** Based on the survey result, only 3 government colleges out of the sampled 35 colleges provide some limited job placement services to students. These three colleges neither have any job placement unit for graduates nor any staff assigned to provide the service. The limited services these colleges provided during the last one year before the survey was conducted was in the form of career counseling and advice, job fairs, and career seminars or workshops. International evidences show that job placement services can have significant positive impacts on graduates' employment outcome. Establishing job placement units in colleges to provide adequate and effective services to students and graduates for job search would be a step toward better employment outcomes for college graduates.

8. **Keeping track of graduates is not a customary practice among colleges, especially among the government colleges;** those who track graduates generally report poor employment performance among their graduates. Among the sampled colleges, 20 percent reported keeping track of employment status of graduates. Nongovernment colleges seem to do a better job in collecting graduates' information. Half of

the nongovernment colleges reported that they keep updated information of their graduates. In such cases, automated systems and phone calls are the main vehicles of collecting information from graduates. Low incidence of employment has been reported by the colleges that do keep track of employment outcomes of their graduates. Based on their reporting, over the past five years, around 30 percent of all graduates find jobs. Their self-reported statistic appears to be somewhat rosier compared to the finding of this survey, which is not surprising; nevertheless, their own accounts of graduate outcomes are also not satisfactory by any standard.

9. Industry collaboration almost does not exist among colleges. Only one college in the sample reported having some collaboration with an industry, and the reported nature of the partnership was very limited. The only activity that was organized under the partnership was workplace visit by students. Colleges should take more active roles to establish effective industry collaboration to improve the employability of its students.

CHALLENGES FACED BY COLLEGES

10. Identification of challenges that the institution faces is essential to improve the functioning of a system or institution. Colleges were asked to rank a range of potential challenges according to their seriousness for the institution. This subsection is based on this ranking.

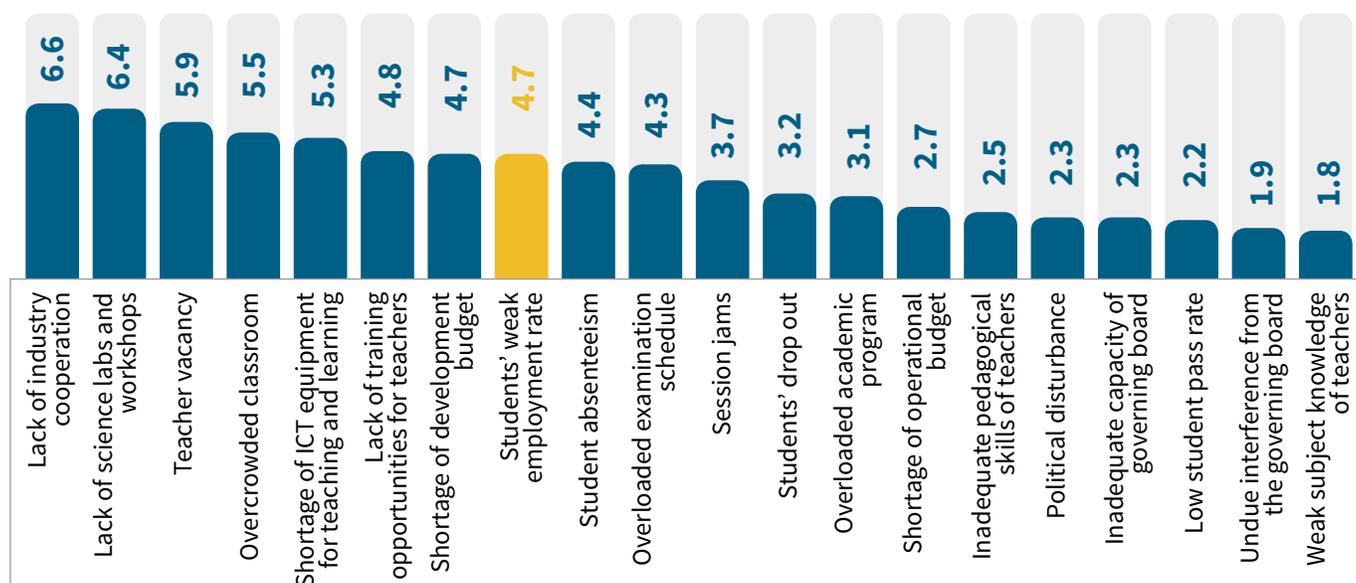


Figure 1.2: Ranking of Challenges Faced by Colleges

Source: College Graduate Tracer Study (Employer survey), 2017.

Note: The scores presented here are the averages of responses rating on a 10-point scale in each category, where 10 stands for 'very serious problem' and 1 means 'no problem'.

11. The five main challenges identified by the sampled colleges are related to gap in institutional capacity and lack of industry cooperation. Only one college has some industry collaboration going on as discussed earlier. Yet, this lack of industry cooperation has been identified as the major challenge by the colleges. They may be aware about the benefits of having industry collaboration to improve student learning and enhance knowledge about labor market needs; however, for various practical reasons, it may not be easy for colleges to establish industry collaboration. Lack of science laboratories, teacher vacancy, overcrowded classrooms, and shortage of ICT equipment for teaching and learning are the other four major challenges that colleges identified.

12. Students' poor employment outcomes seem to be recognized as one of the major challenges by the colleges but seemingly without the sense of urgency and priority that the issue deserves and needs. Weak employment outcome of graduates came eighth in the ranking of challenges. Despite the disheartening situation identified by this survey, the issue appears not to be receiving the same level of attention as other more visible issues such as shortage of facilities and teacher vacancies. It is likely because of the lack of tangible evidences and inadequate awareness among college stakeholders. On the other hand, colleges seem relatively more satisfied with subject knowledge and pedagogical skills of teachers.

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