EMPLOYMENT AND UNEMPLOYMENT AMONGST EDUCATED YOUTH IN BANGLADESH

Findings from an Online Survey

K. A. S. MURSHID, TANVEER MAHMOOD AND **NAHIAN AZAD SHASHI**

INTRODUCTION

- The problem of educated unemployment among youth is particularly vexing for developing countries like Bangladesh, especially in the context of high GDP growth rates.
- If large numbers of young people are bypassed by the development process, this has the potential to generate social unrest.
- This study is an attempt to explore this issue using ‘big data’ obtained through a survey using the online platform.
- There are several questions that this paper tries to respond to, relating to both process and substance.

Relating to the **process of the survey** the study tries to answer the following questions:

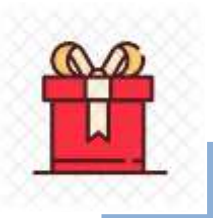
1. Is it possible to use online platforms to generate large quantities of data from specific target audiences?
2. How do potential respondents view such initiatives, especially where sensitive data may be involved?
3. Is the data generated useful or reliable?

- Despite initial difficulties, process is very promising
- Cheaper, faster..caveat: question farming critical.

To make the method operational we…

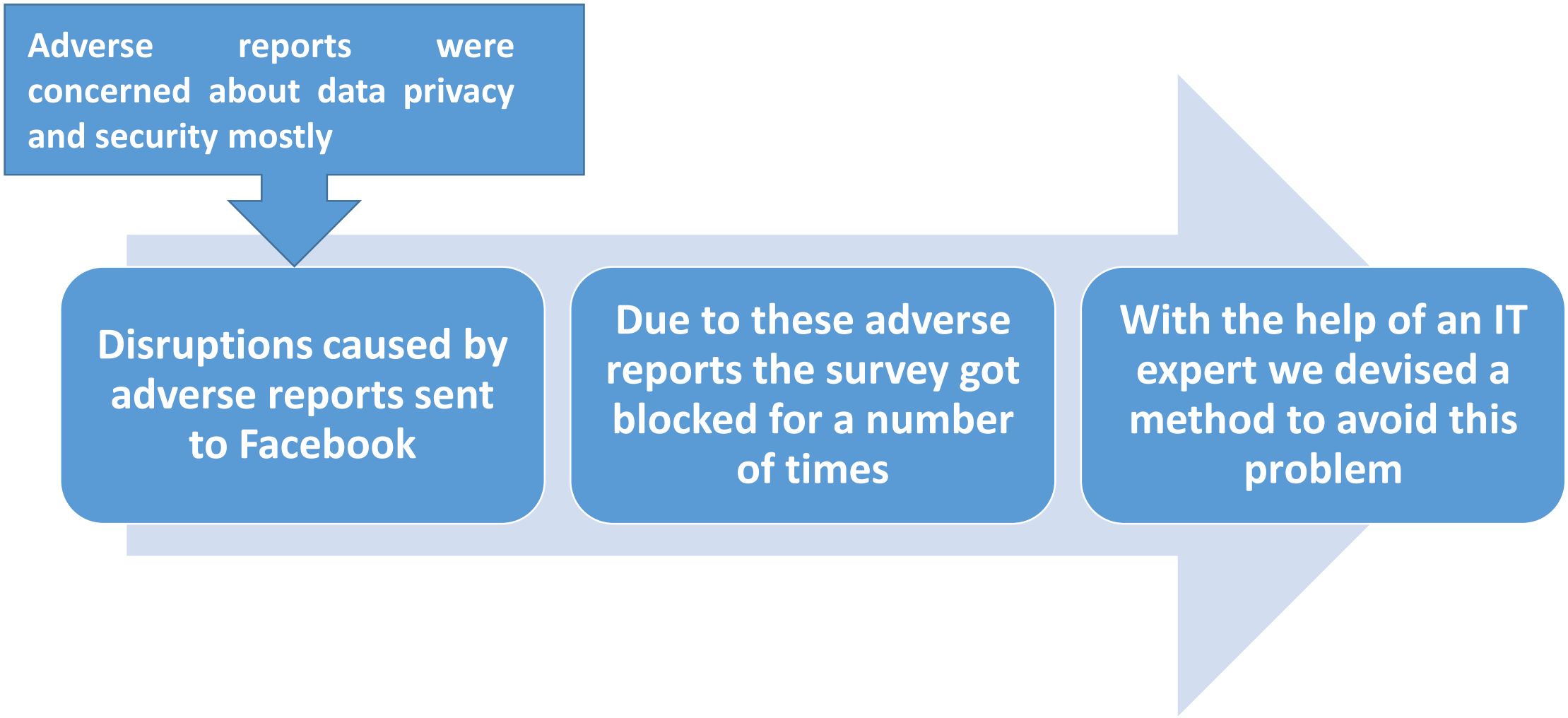
- Advertised and sensitized the target audience about the survey

- Explained its nature and objective



- Announced a token prize for three randomly selected respondents

It started well but soon…



The generated date proved to be useful in multiple ways…

- We obtained a large amount of data within a short time at low cost

- The data quality seems excellent

- It allows us to validate and improve upon the current information available on educated youth unemployment

The **substantive** aspects of the study included addressing the following issues:

1.Magnitude of employment-unemployment amongst educated youth in Bangladesh?

2. How is this distributed spatially (e.g. rural-urban), by gender, level of education, type of educational institutions, examination results and family characteristics like parents' education and family income.

3. There are a few policy variables that we are specifically interested in, e.g. education level, grades, type of institution – what role do they play?

DATA AND SAMPLING

Definition

- '**Youth**' defined by following the definition of the Ministry of Youth and Sports (National Youth Policy 2017), namely citizens of Bangladesh in the age group of 18 to 35 years.

Target Group

- **'Educated youths'** with at least a SSC degree who were engaged in part-time, full-time or piece rate work, or alternatively, searching for work.

Population

- Around 2.7 million Facebook users of the country who belong to our target age group (18 to 35 years old)

SURVEY

1ST PILOT SURVEY

- 25,000 individuals targeted through Facebook and Email
- 550 individuals responded i.e. filled up the survey
- The responses were reviewed and modified

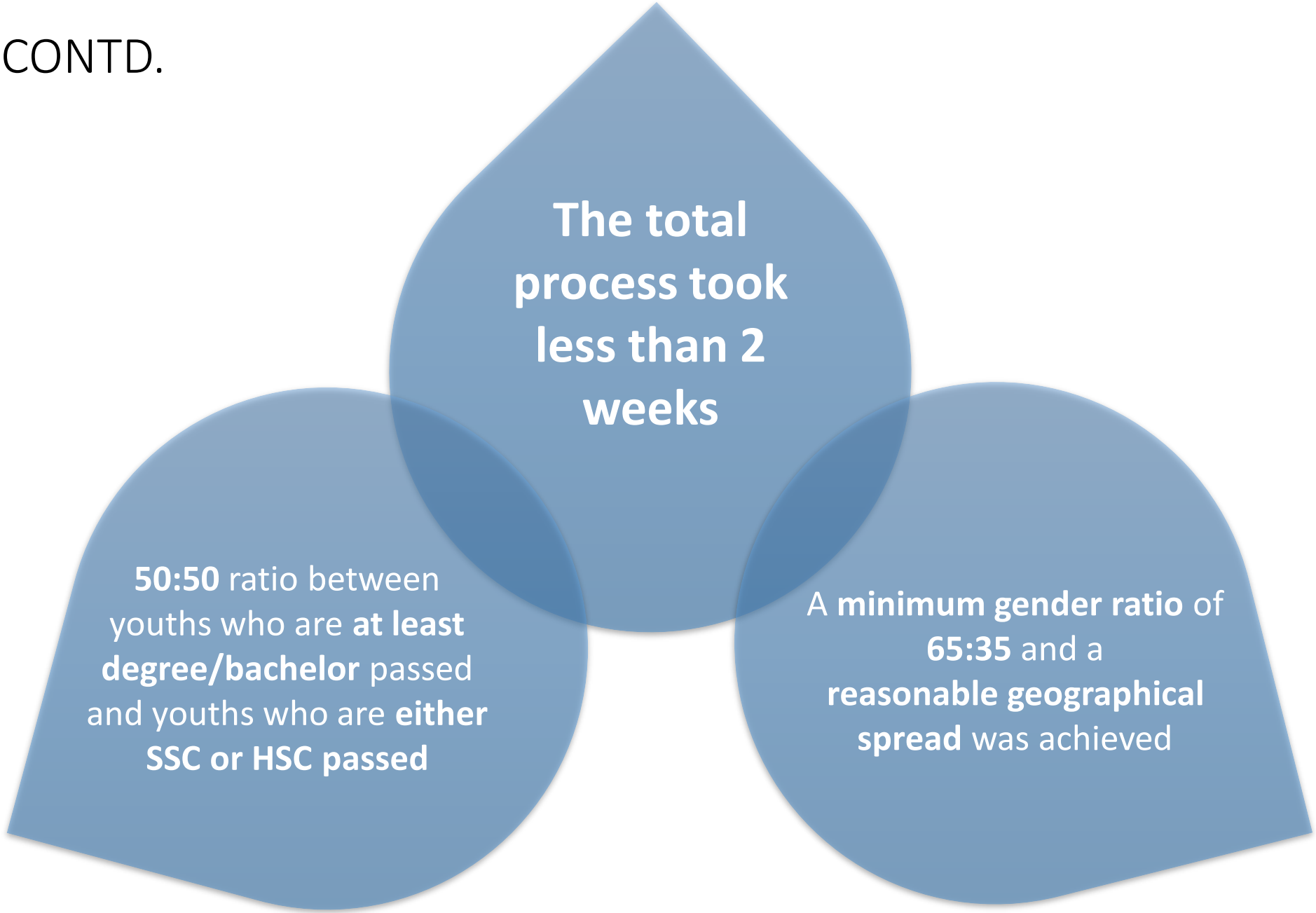
2ND PILOT SURVEY

- 5000 individuals targeted
- 190 individuals responded
- The survey came out successful

FINAL SURVEY

- 618,262 individuals targeted through focused online advertisements
- 15,073 persons filled up the survey form
- 48 erroneous responses were found, leaving us with a total of 15,025 responses

SURVEY CONTD.



LITERATURE REVIEW

- A study done by Khatun F. et al. explored the dynamics of youth employment in Bangladesh.
- Focus was mainly on NEET (those who are not in Education, Employment, or Training) for both the qualitative and quantitative analysis. The qualitative analysis was based on focus group discussions (FGD) while the quantitative analysis was done on LFS data.
- The econometric analysis was done using the LFS (2016) data which shows that years of schooling and experience increase the probability of NEET status, while land ownership negatively influences female NEET status and children reduce probability of male NEET status.
- In terms of educated unemployment, it is unable to throw light on specific educational categories like High School graduates, graduates and post-graduates.

- Mahmud M. et al. have done a tracer study on the graduates of the Bangladeshi universities which received Academic Innovation Fund (AIF) from the Higher Education Quality Enhancement Project (HEQEP) of the government.
- For the current student survey, 1615 students studying in semesters 6 to 8 (the third and fourth year) of 82 departments were surveyed. For the graduate survey, the author randomly selected 975 graduates who graduated during the 2015-16 academic year.
- From the analysis of employment the study found that **38 percent** of the surveyed graduates were unemployed and average duration of their unemployment is **10** months.
- It could not provide a more generic, representative view of the educated unemployment problem of the country, including that of high school graduates and Bachelor/Master degree holders

- Another study by Nakata S. et al. addressed the concerns regarding the quality of education and job market performance of the ‘affiliated college’ graduates.
- The survey was conducted on three groups: a) 2350 graduates who passed Degree, Honours, or Master's program from the National University (NU) affiliated colleges around three years earlier, b) 235 employers of the employed graduates, and c) Principals and Vice Principals of 35 government and non-government colleges.
- They found that **46 percent are still unemployed and looking for jobs even after three to four years** after graduation and also found **college graduates pursue further education despite the equally inauspicious job prospects** for masters’ course graduates
- The study is a useful addition to the literature although it only focuses on a particular segment of the graduate work force.

ANALYSIS

- The initial exploratory analysis was performed using cross-tabulations, and associations were tested using the chi^2 test.
- In addition, multinomial logistic regressions and ordered logistic regressions were used with employment/unemployment, duration of unemployment and salary levels, as dependent variables, to see how these respond to variables like education, parents' education, land and family income, school performance and type of school, location, etc.
- The generic form of the multinomial logistic model/ ordered logistic model is given below:

  $\text{Log } N = \beta_{10}+\beta_{11}X_1+\beta_{12}X_2+...+\beta_{13}Z_1$

  Where, N= category variable/ordered category variable,
  X_1= category explanatory variable e.g. educational status
  X_2..= Other category explanatory variables
  Z_1..= continuous variables

Age

SL	Description	Age
1	Currently in study or training	21.1
2	Currently in training and looking for a job	24.4
3	Currently studying and looking for a job	21.8
4	Full-time salary work	27.7
5	Full-time self employed	26.4
6	Part-time salary work	23.7
7	Part-time self employed	24.1
8	Unemployed (NEET)	25.6

Employment

- Fulltime employment: 48.7%
- Part-time employment: 18.1%
- Salary-based work (full or part time) 55.4%
- Self-employed (full or part time) 11.4%
- Unemployed (NEET) 33.2%

- 8771 respondents who can be deemed as being in the labour force
- a study based on LFS 2016 also finds youth unemployment at one-third.

Gender

Employment Status	Female	Male	Total
Full-time	1175 (43.7)	3099 (51.0)	4274 (48.7)
Part-time	492 (18.3)	1094 (18.0)	1586 (18.1)
Total	1667 (62.0)	4193 (69.0)	5860 (66.8)
Unemployed	1022 (38.1)	1889 (31.1)	2911 (33.2)
Sample labour force	2689 (100)	6082 (100)	8771 (100)

Current Location

- **Tabulation of Employment Status and Location**

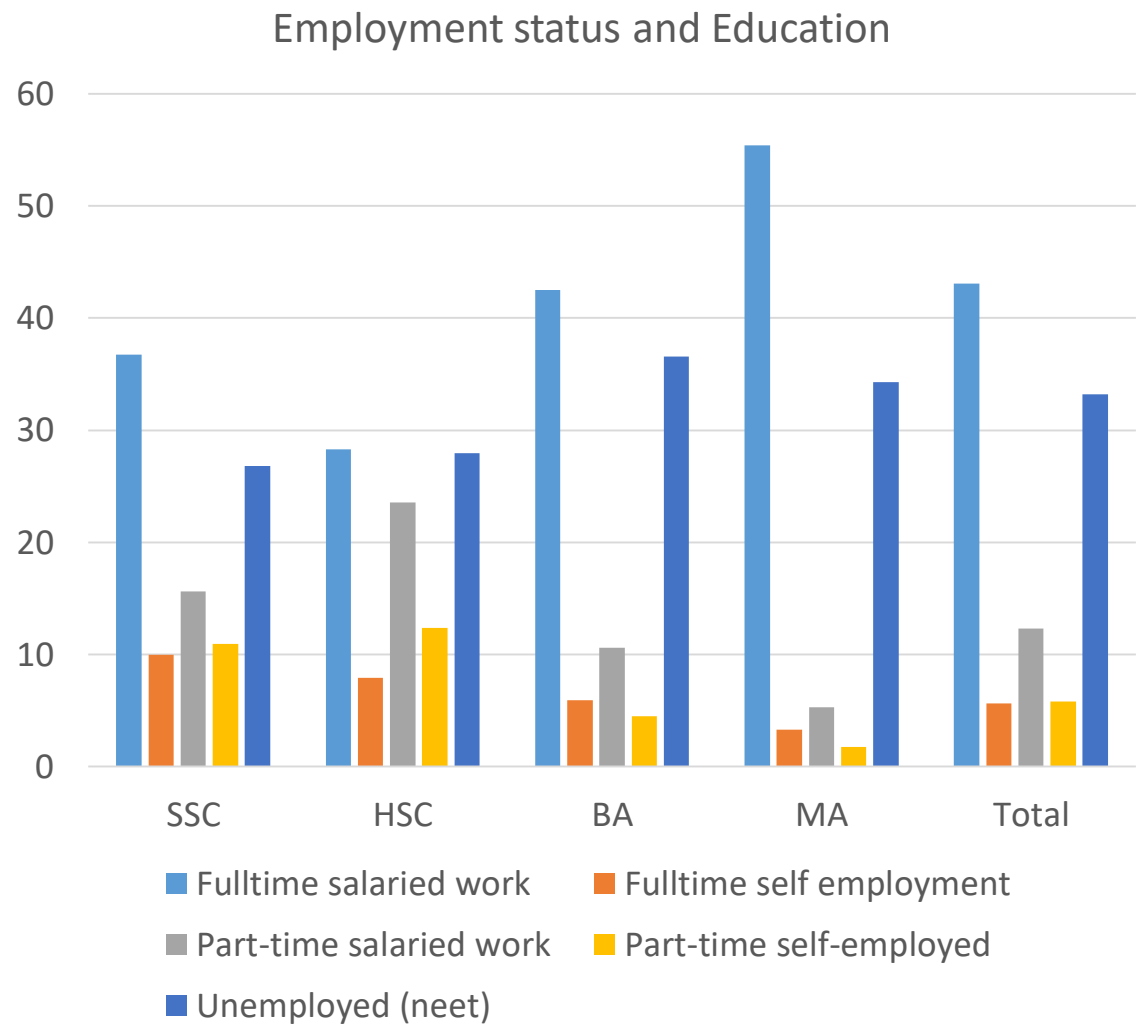
Employment status	City	Metropolitan	Town	Village	Total
Fulltime salaried work	41.74	45.67	44.3	30.82	43.1
Full time self-employed	4.13	5.29	7.31	8.36	5.63
Part-time salaried work	14.07	12.13	13.33	9.16	12.29
Part time self-employed	5.33	6.22	4.62	5.44	5.79
Unemployed (NEET)	34.73	30.69	30.43	46.22	33.19
Total	100	100	100	100	100

Current Location

- Villages have high unemployment but full-time salaried employment of 30 percent is a surprising finding (rather than part-time employment or self-employment)
- Metropolitan areas are best for salaried work while towns have the lowest unemployment rate (although not significantly different from unemployment in Metropolitan areas).

Education

Employment Status	Highest level of education				
	SSC	HSC	Bachelor	Master's	Total
Fulltime salaried work	36.76	28.3	**42.49**	**55.45**	43.1
Fulltime self employment	9.97	7.87	5.89	3.24	5.63
Part-time salaried work	15.58	23.53	10.58	5.27	12.29
Part-time self-employed	10.9	12.34	4.44	1.73	5.79
Unemployed (NEET)	26.79	27.95	**36.6**	**34.3**	33.19
Total	100	100	100	100	100

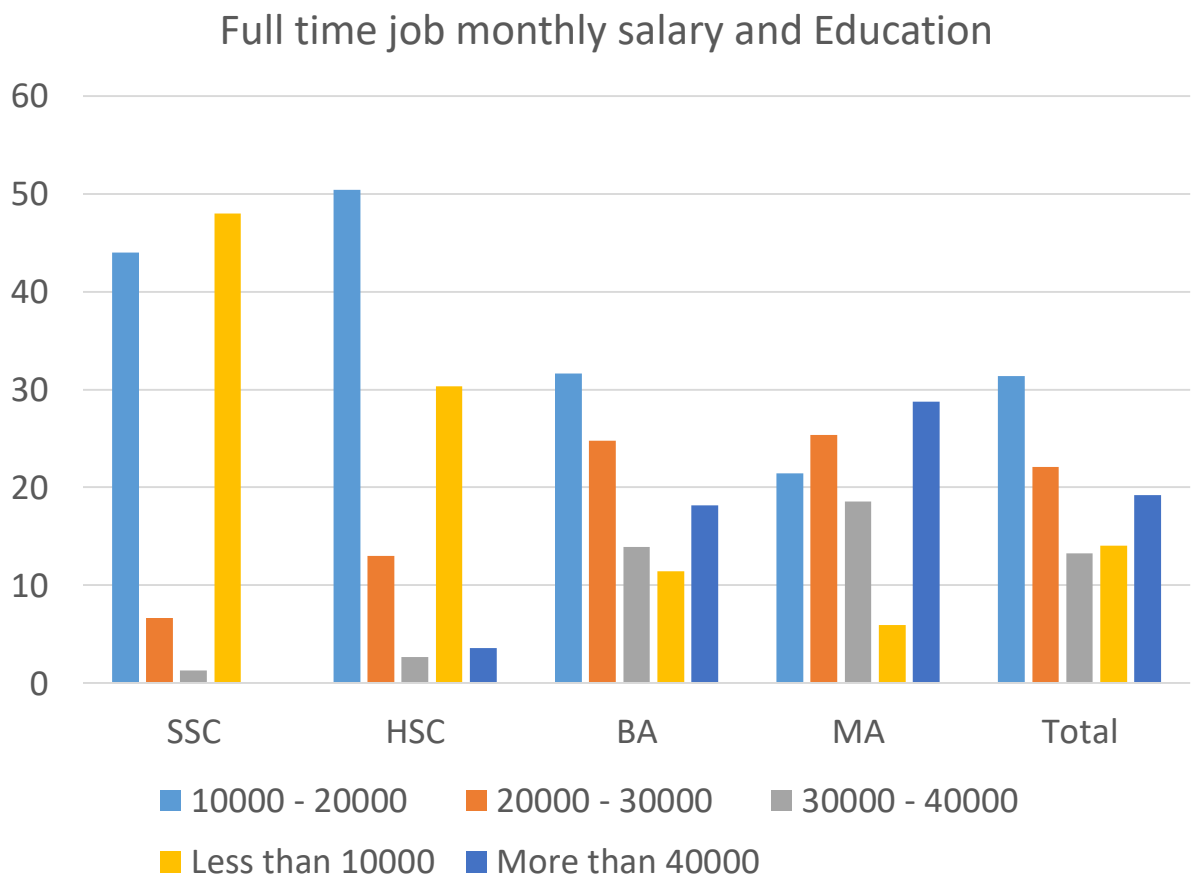


Education

- Full-time salaried work is highest for post-graduates, followed by bachelor degree holders, and lowest for HSC graduates – even lower than SSC graduates.
- The reverse is true for full-time self-employment: highest for SSC, followed by HSC, BA and MA graduates;
- Part-time employment is the highest for HSC, followed by SSC, BA and MA.
- Interestingly, overall unemployment is the lowest for SSC and HSC (27-28%), the highest for BA (36.6%) closely followed by MA (34.3%).

Salary

Full time job (monthly salary)	Highest level of education				
	SSC	HSC	Bachelor	Master's	Total
10000 - 20000	44	50.37	31.66	21.44	31.37
20000 - 30000	6.67	13.02	24.76	25.35	22.11
30000 - 40000	1.33	2.7	**13.94**	**18.54**	13.28
Less than 10000	48	30.34	11.43	5.92	14.03
More than 40000	0	3.56	**18.2**	**28.75**	19.21
Total	100	100	100	100	100



Salary

- Stark difference in salary levels by education
- The reason why students tend to continue on to a post-graduate education is this dimension of the job market – the chance of more highly paid regular work even if the probability is not high.
- Education matters!

Parents' Education and Family Income

Father's Education	Full-time salaried work of respondent (%)	Unemployment of respondent (%)
SSC	14.4	15.3
HSC	19.6	17.7
Bachelor	24.4	22.6
Master's	14.7	12.7

Employment Status	30000-50000	50000-100000	Greater than 100000	Overall average
Full-time salary	52.4	57.1	61.5	43.0
Full-time self	5.9	6.4	8.3	5.6
Part-time salary	8.8	14.0	7.3	12.4
Part-time self employed	6.6	4.1	6.3	5.7
Unemployed	26.3	18.4	16.6	33.2

Parents' Education and Family Income

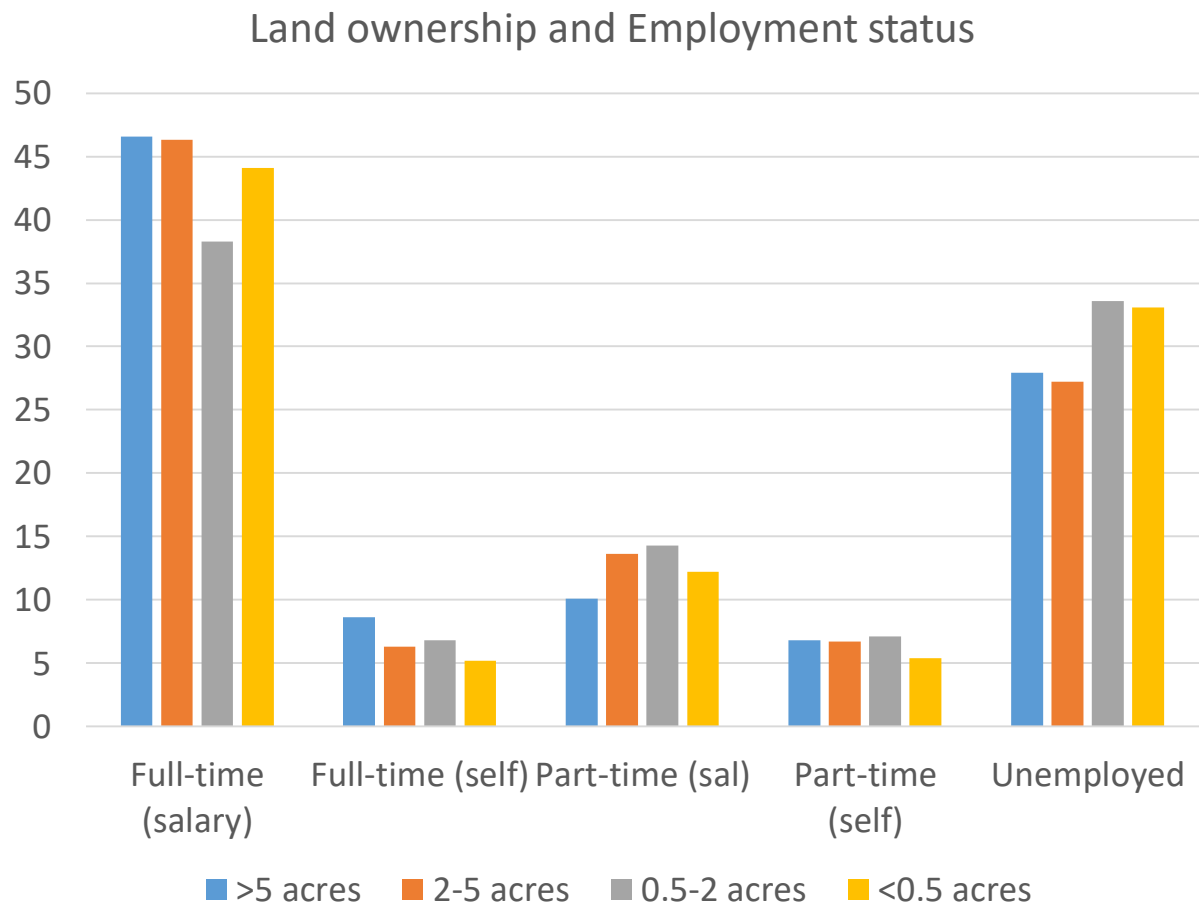
- Full-time jobs increase up to BA level education of father and then drops;
- For unemployment rates, we see a rising trend with father's education and then quite a dramatic drop for post-graduate dads.
- Our expectation: better educated parents result in better employment outcomes for children – this is broadly correct.
- A strong association is seen between employment status of respondents and their reported family income (range) per month. At higher family income levels the incidence of employment is much higher (than the average) and unemployment is much lower. **In fact, family income seems to be a better predictor than parents' education level.**

Family Location and Land-Ownership

Employment Status	Urban	Rural (including rural towns)
Full-time work	1472 (49.4)	2773 (48.0)
Part-time work	513 (17.2)	1069 (18.5)
Unemployment	993 (33.4)	1902 (32.3)
Total	**2978** **(100)**	**5774** **(100)**

Family Location and Land-Ownership

	>5 acres	2-5 acres	0.5-2 acres	<0.5 acres
Full-time (salary)	46.6	46.3	**38.3**	44.1
Full-time (self)	8.6	6.3	6.8	5.2
Part-time (sal)	10.1	13.6	14.3	12.2
Part-time (self)	6.8	6.7	7.1	5.4
Unemployed	27.9	27.2	**33.6**	33.1
Total	**100**	**100**	**100**	**100**



Grades, Subjects and Public/Private Status of School

Exam/Result	Unemployment Rate	Full-time Salaried Work Rate
SSC Results		
First division	19.4	63.2
GPA 5	33.0	39.1
GPA<3	36.9	41.8
Average (SSC)	*33.2*	*43.0*
HSC Results		
First Division	27.9	53.4
GPA 5	31.2	42.5
GPA<3	36.2	42.6
Average (HSC)	*33.5*	*43.4*
Bachelor Results		
First Division	27.9	54.0
GPA 3.5-4.0	31.2	57.2
GPA<3.0	36.2	41.0
Average (Bachelor)	*33.5*	*49.1*
Master's Results		
First Division	34.4	59.7
GPA 3.5-4.0	29.6	62.4
GPA<3.0	48.2	40.2
Average (Master's)	*34.3*	*55.5*

Grades

- For Bachelor and Master's grades matter a lot – better grades show lower unemployment and higher fulltime salaried employment.
- For HSC, better grades are associated with lower unemployment but the influence of fulltime salaried employment is not evident.
- For SSC, better grades reduce unemployment; however, GPA 5 does not seem to indicate more fulltime salaried work compared to GPA of less than 3, although those getting a first division reveal far better outcomes – perhaps due more to age and experience rather than the grade obtained.

Impact of Subject/Stream

Examination/Subject	Unemployment Rate	Full-time Salaried Work Rate
SSC		
Science	32.2	43.7
Arts	**43.1**	**36.3**
Commerce	32.8	43.2
Dakhil	31.9	42.9
Vocational	**30.3**	**55.2**
Other (e.g. O-level)	18.6	66.0
Average	33.2	43.0
HSC		
Science	32.6	44.8
Arts	37.9	37.2
Commerce	33.0	43.4
Alim	**35.9**	**36.8**
Vocational	31.2	49.4
Average	33.5	43.4

Impact of Subject/Stream

- Arts perform poorly while vocational training performs well;
- Dakhil does not seem to suffer any particular disadvantage while Alim students are worse off
- Science students do not do particularly well
- O-level students do very well (but observations are few)

Association of Employment with Institution Type (Public/Private)

Exam	Unemployment Rate	Salaried Employment Rate
SSC		
Public/Government	32.7	43.4
Private	30.3	44.5
Other	34.8	42.3
HSC		
Public/Government	34.6	42.7
Private	30.5	45.1
Other	25.6	42.2
Bachelor		
Public/Government	36.5	49.1
Private	33.2	48.3
Other	37.0	49.0
Master's		
Public	36.2	54.4
Private	25.7	60.1
Other	37.7	55.8

Association of Employment with Institution Type (Public/Private)

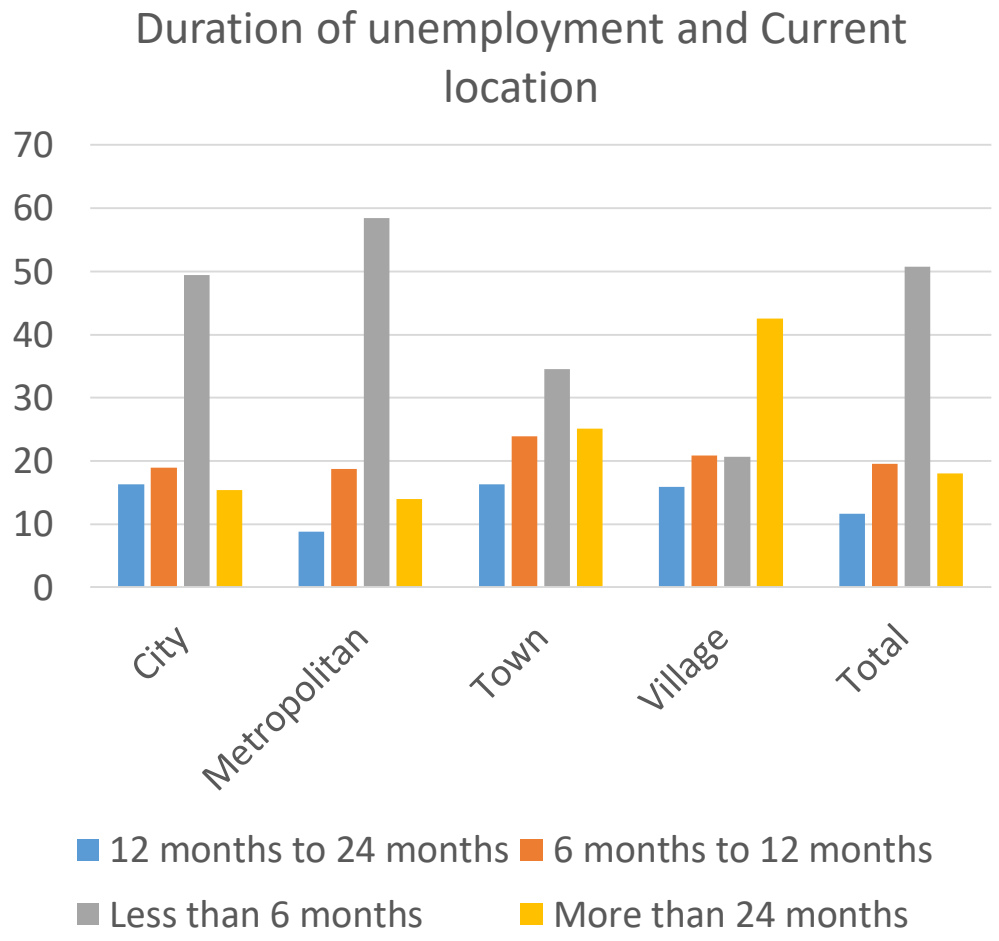
- We see that at each and every level of education, the employment outcome is better for those who studied in private institutions versus those who were in public/government institutions;
- This is the most pronounced for post-graduates (MA) where the unemployment rate is 25.7% for private and 36.2% for public. For fulltime work, the figures are 60 % and 54%.
- But salary levels? Better for public graduates!

Unemployment Duration After Completion of Education :Gender

How long have you been unemployed after completing your education	Gender		
	Female	Male	Total
12 months to 24 months	12.68	11.29	11.67
6 months to 12 months	19.5	19.55	19.54
Less than 6 months	49.18	51.33	50.74
More than 24 months	18.64	17.83	18.05
Total	100	100	100

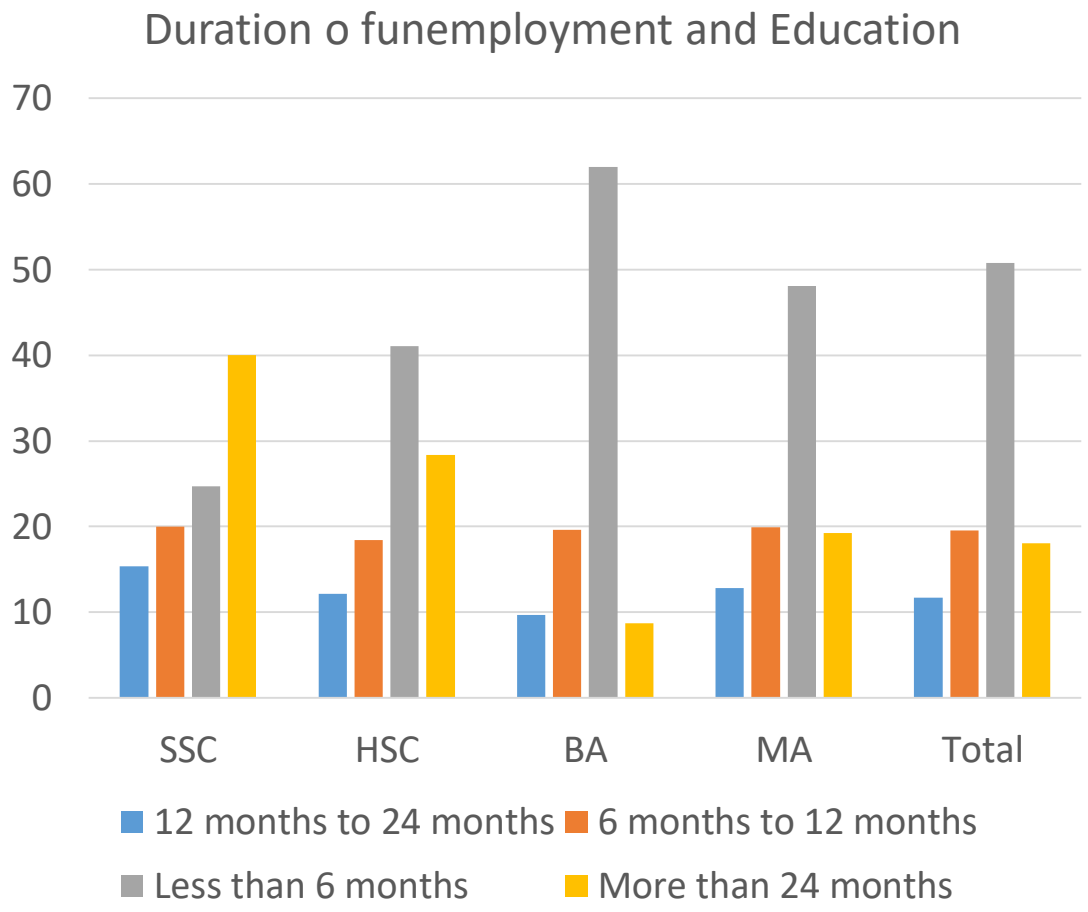
Location

How long have you been unemployed after completing your education	Your current location				
	City	Metropolitan	Town	Village	Total
12 months to 24 months	16.27	8.85	16.35	15.93	11.67
6 months to 12 months	18.9	18.73	23.9	20.89	19.54
Less than 6 months	49.48	58.48	34.59	20.63	50.74
More than 24 months	15.35	13.94	25.16	42.56	18.05
Total	100	100	100	100	100



Duration of Unemployment and Education Level

How long have you been unemployed after completing your education	Your highest level of education				
	SSC	HSC	Bachelor	Master's	Total
12 months to 24 months	15.33	12.16	9.68	12.79	11.67
6 months to 12 months	20	18.43	19.62	19.93	19.54
Less than 6 months	24.67	41.03	61.98	48.07	50.74
More than 24 months	40	28.38	8.73	19.21	18.05
Total	100	100	100	100	100



Duration of Unemployment and Education Level

- We clearly see that the general pattern is that higher the education level, more is the incidence of low unemployment duration (‘less than six months’) while the opposite is true for higher duration periods (e.g. ‘more than 24 months).
- For MA degree holders, we see a deviation: The incidence of low duration is lower and the incidence of higher duration is higher for MAs compared to BAs – showing that while MAs earn more salary, their job prospects are worse than BAs.

Unemployment Duration by Institution, Bachelor Level

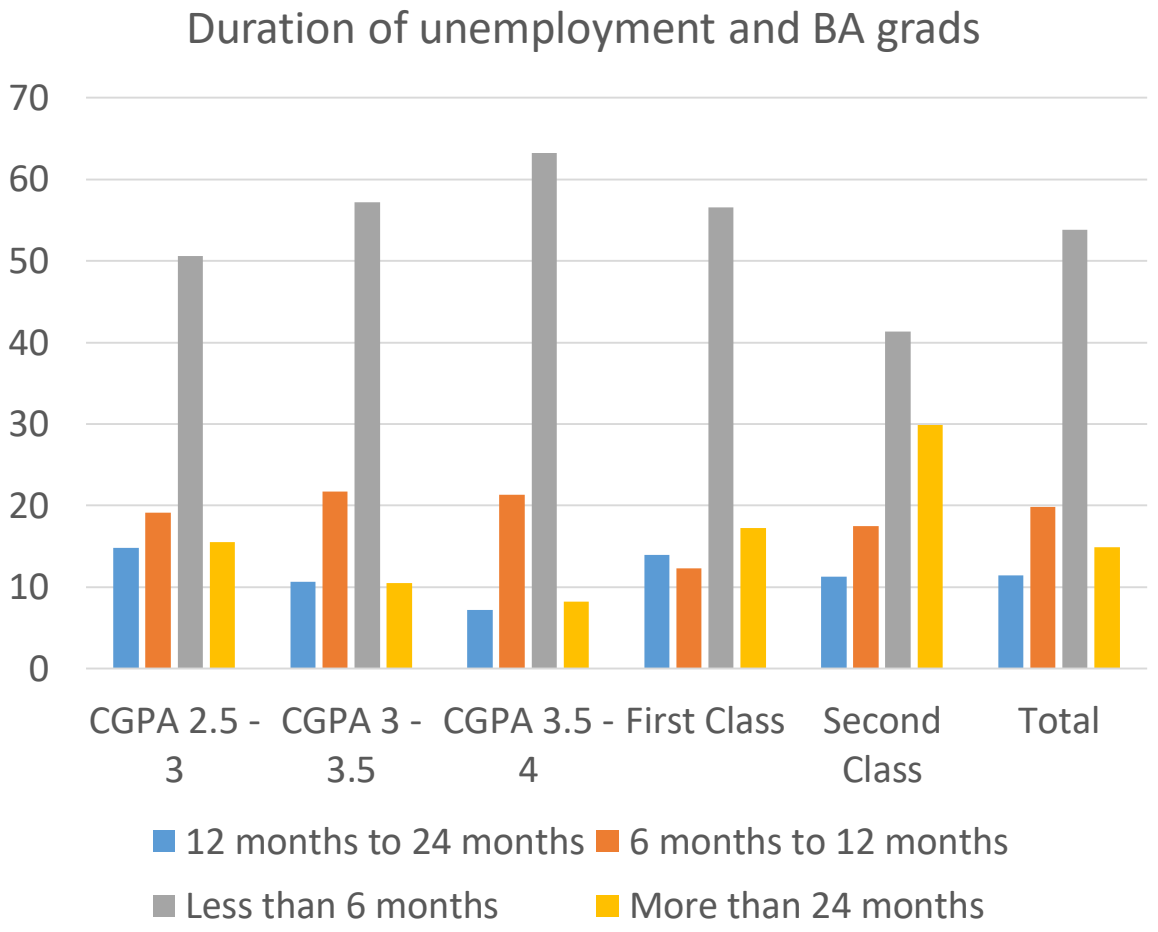
How long have you been unemployed after completing your education	Type of institution of the Bachelor or equivalent degree			
	Others	Private	Public	Total
12 months to 24 months	12.88	8.61	13.67	11.54
6 months to 12 months	14.39	21.6	18.62	19.69
Less than 6 months	44.7	59.06	50.18	53.65
More than 24 months	28.03	10.73	17.53	15.11
Total	100	100	100	100

Unemployment Duration of Full-time Work by Institution, Master's level

How long have you been unemployed after completing your education	Type of the institution of Masters or equivalent degree			
	Others	Private	Public	Total
12 months to 24 months	13.33	8.33	13.97	12.79
6 months to 12 months	15.56	19.09	20.31	19.93
Less than 6 months	37.78	53.49	46.94	48.07
More than 24 months	33.33	19.09	18.78	19.21

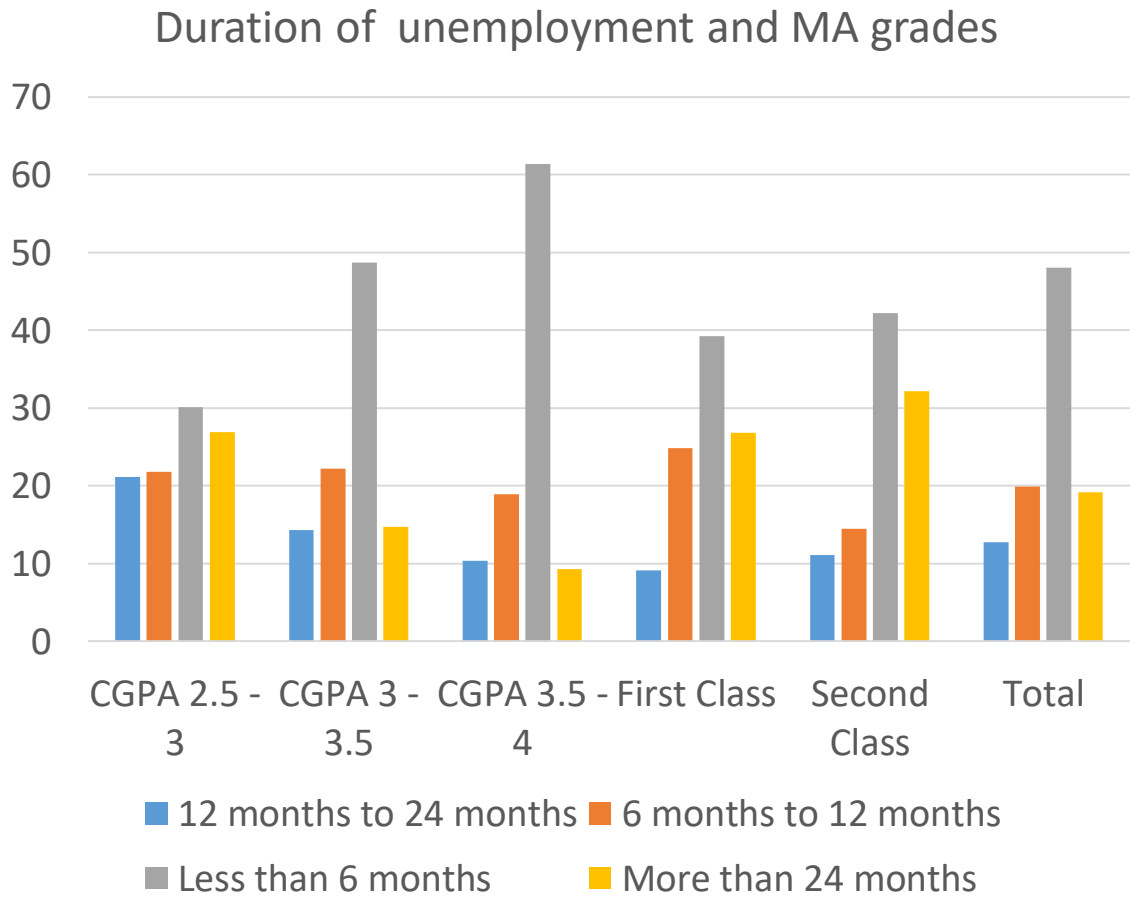
Unemployment Duration and Bachelor grades

Unemployment duration	CGPA 2.5 - 3	CGPA 3 - 3.5	CGPA 3.5 - 4	First Class	Second Class	Total
12 months to 24 months	14.78	10.62	7.22	13.93	11.3	11.47
6 months to 12 months	19.13	21.69	21.31	12.3	17.44	19.85
Less than 6 months	**50.58**	**57.21**	**63.23**	**56.56**	41.36	53.81
More than 24 months	15.51	10.48	8.25	17.21	29.9	14.88
Total	100	100	100	100	100	100



Unemployment Duration and Master's Grades

Unemployment duration	CGPA 2.5 - 3	CGPA 3 - 3.5	CGPA 3.5 - 4	First Class	Second Class	Total
12 months to 24 months	21.15	14.31	10.38	9.15	11.08	12.79
6 months to 12 months	21.79	22.22	18.96	24.84	14.51	19.93
Less than 6 months	**30.13**	**48.71**	**61.4**	39.22	42.22	48.07
More than 24 months	26.92	14.76	9.26	26.8	32.19	19.21
Total	100	100	100	100	100	100



Duration of Unemployment and Education

- Once again students of private institutions fare better in terms of duration or waiting time for employment. This is true for both Bachelor and Master's but especially pronounced for Bachelor degree.
- Grades matter for both Bachelor and Master's degree holders. It matters even more for Master's.

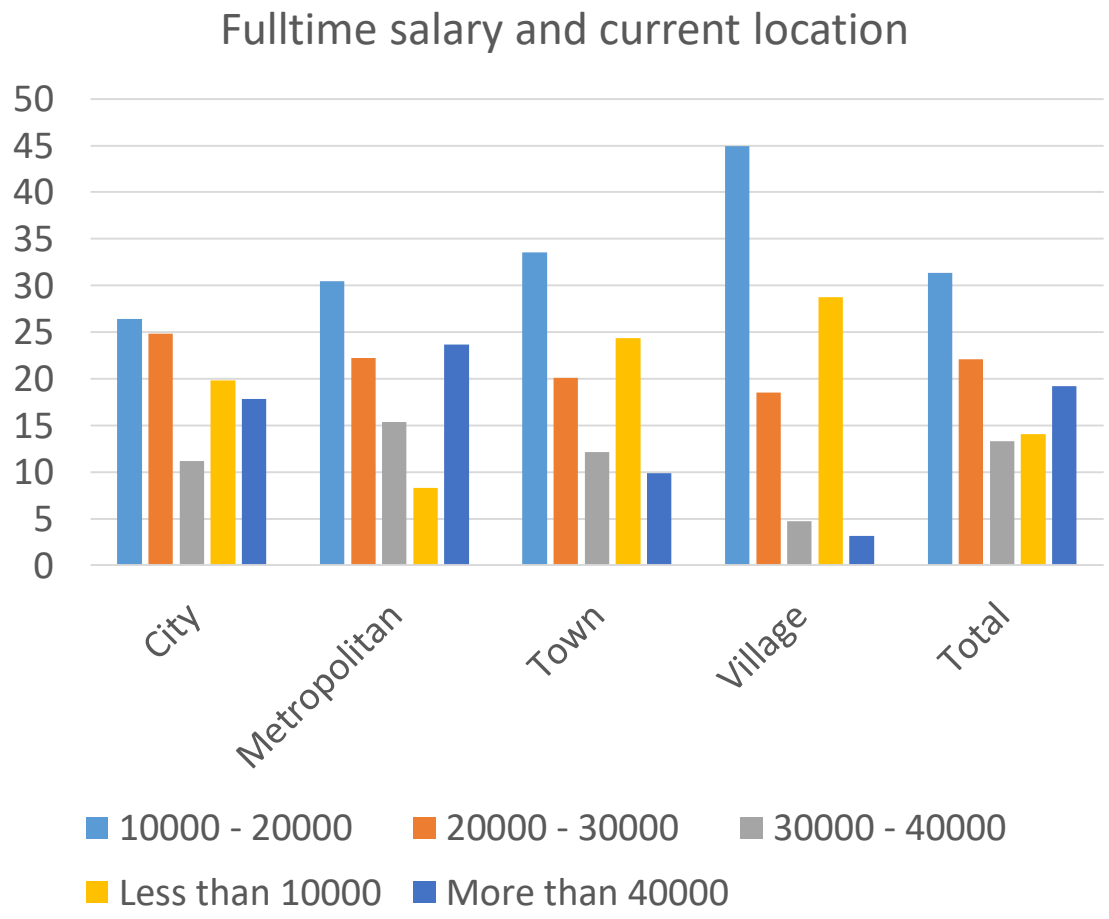
Salary and Gender

From the Full time job how much is your monthly income	Gender		
	Female	Male	Total
10000 - 20000	30.97	31.52	31.37
20000 - 30000	23.9	21.44	22.11
30000 - 40000	11.65	13.89	13.28
Less than 10000	15.53	13.47	14.03
More than 40000	**17.95**	**19.68**	19.21
Total	100	100	100

- There is a small gender difference between male and female in favor of male. Females are over-represented in low-pay work and under-represented in high-pay work.
- The cut-off point seems to be around BDT 30,000 – lower than this level, there are more women and higher than this level, we have more men.
- Similarly, higher salary levels are much better associated with Metropolis and City compared to Town and Village – and the differences are large.
- Thus, for the ‘more than 40K’ salary range, 24% and 18% of the respective labor force is in Metropolis and City respectively. The figures for Town and Village are 10% and 3%!

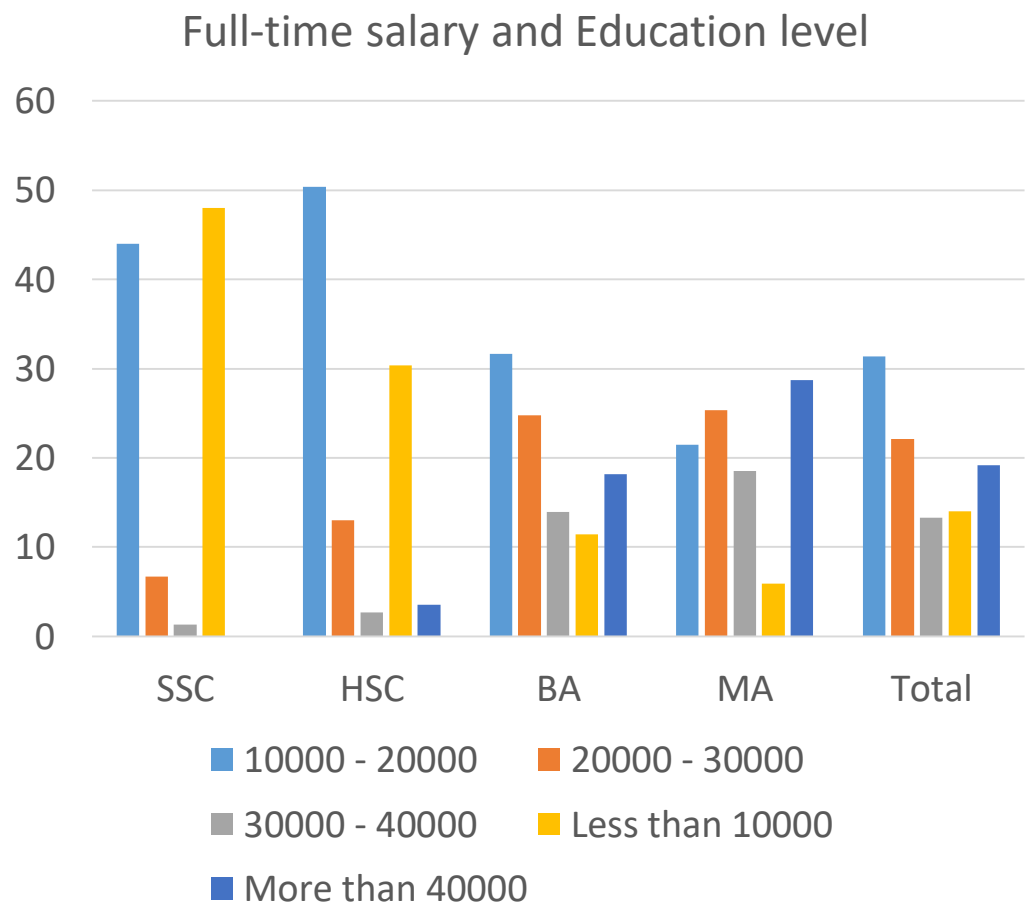
Current Location and Salary

From the Full time job how much is your monthly income	Your current location				
	City	Metropolitan	Town	Village	Total
10000 - 20000	26.38	30.45	33.54	44.91	31.37
20000 - 30000	24.8	22.21	20.13	18.54	22.11
30000 - 40000	11.15	15.36	12.16	4.7	13.28
Less than 10000	19.82	8.31	24.32	28.72	14.03
More than 40000	17.85	23.67	9.85	3.13	19.21
Total	100	100	100	100	100



Full-time salary and Education level

From the Full time job how much is your monthly income	Your highest level of education				
	SSC	HSC	Bachelor	Master's	Total
10000 - 20000	44	50.37	31.66	21.44	31.37
20000 - 30000	6.67	13.02	24.76	25.35	22.11
30000 - 40000	1.33	2.7	**13.94**	**18.54**	13.28
Less than 10000	48	30.34	11.43	5.92	14.03
More than 40000	0	3.56	**18.2**	**28.75**	19.21
Total	100	100	100	100	100



Education and Salary

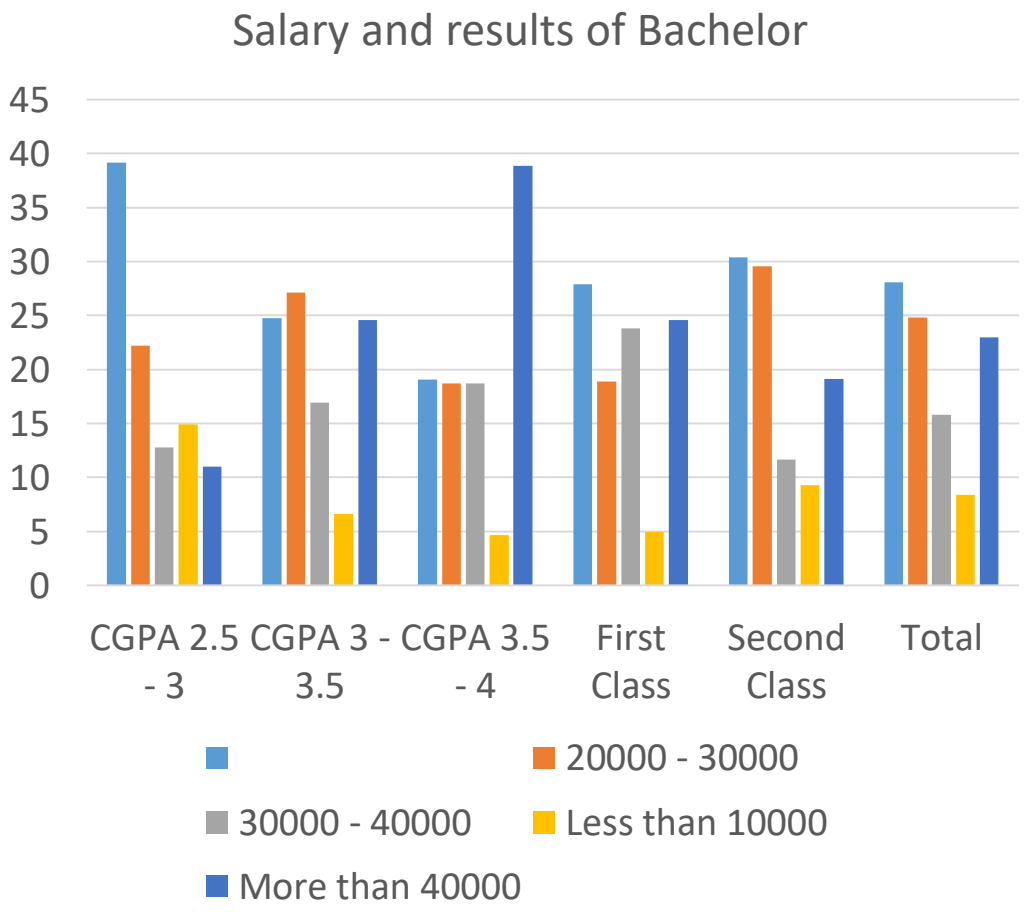
- The figures above are stark – without a higher degree one cannot hope to get a job paying much over BDT 20000.
- While the difference between Bachelor and HSC/SSC is enormous, the difference between Bachelor and Master's is also wide.
- For the 'more than 40000' salary category, the difference between Bachelor and Master's is particularly noteworthy (18% vs. 29%).
- This pattern is very similar Master's degree holders as well.

Salary and Institutional Type (Bachelor)

From the Full time job how much is your monthly income	Type of institution of the Bachelor or equivalent degree			
	Others	Private	Public	Total
10000 - 20000	31.82	32.19	25.27	28.38
20000 - 30000	21.97	26.11	23.52	24.53
30000 - 40000	10.61	**14.49**	**16.66**	15.53
Less than 10000	19.7	7.66	9.33	9.03
More than 40000	15.91	**19.55**	**25.22**	22.52
Total	100	100	100	100

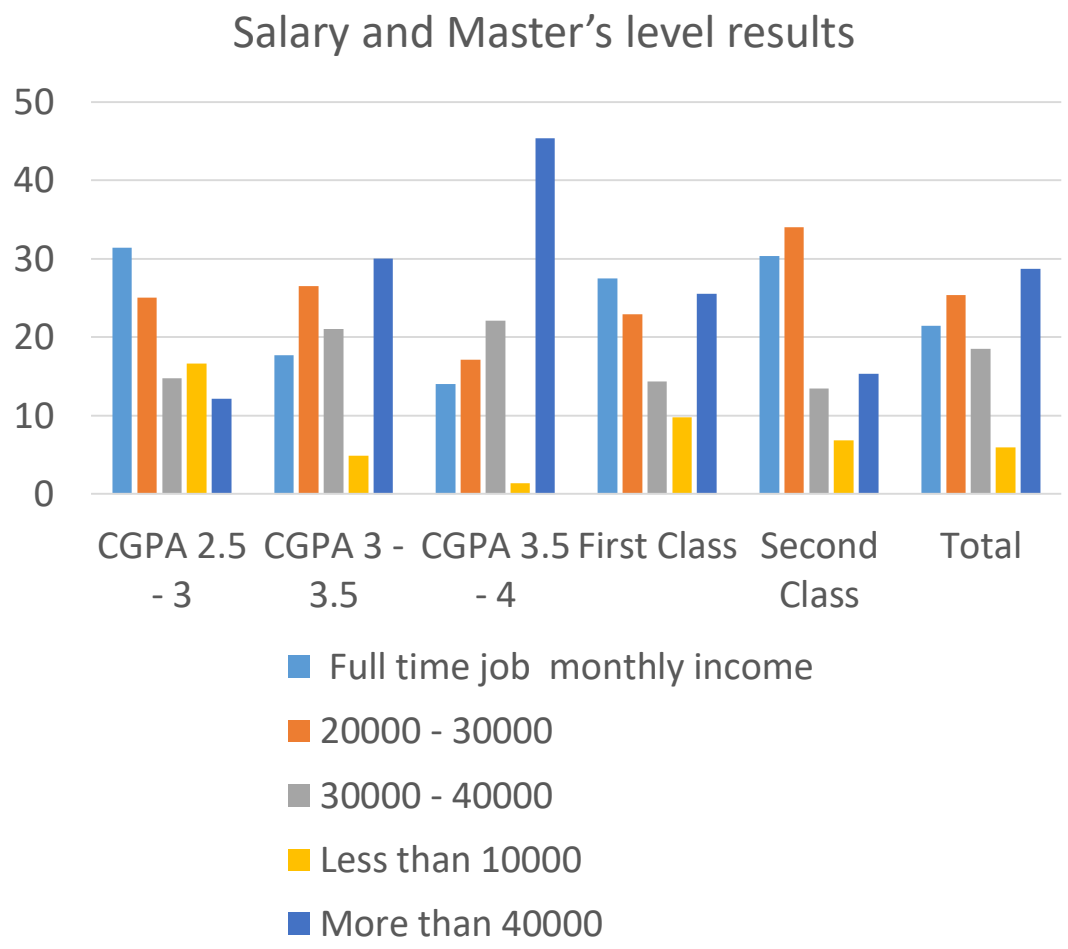
Salary and Grades – Results of Bachelor

Full time job monthly income	CGPA 2.5 - 3	CGPA 3 - 3.5	CGPA 3.5 - 4	First Class	Second Class	Total
10000 - 20000	39.13	24.74	19.07	27.87	30.4	28.05
20000 - 30000	22.17	27.12	18.73	18.85	29.57	24.79
30000 - 40000	12.75	16.94	**18.73**	**23.77**	11.63	15.79
Less than 10000	14.93	6.61	4.64	4.92	9.3	8.38
More than 40000	11.01	24.59	**38.83**	**24.59**	19.1	22.99
Total	100	100	100	100	100	100



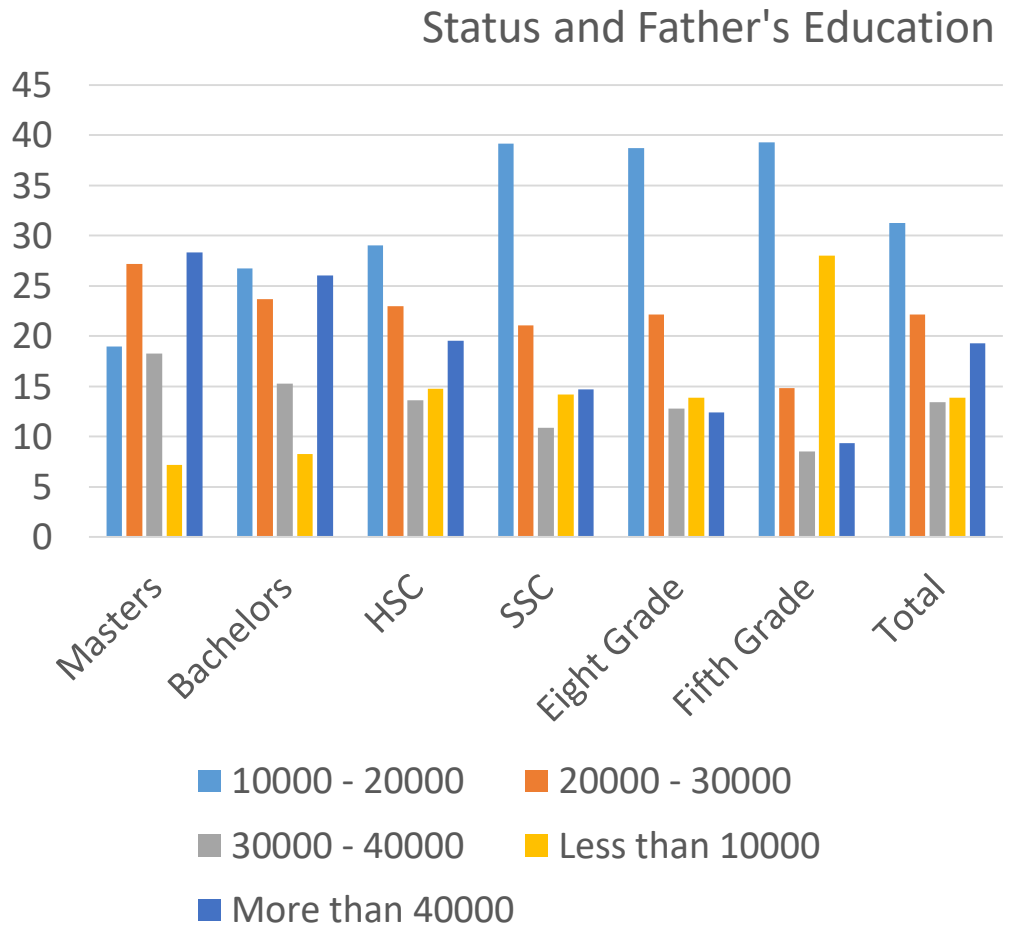
Salary and Grades, Master's Level Result

Full time job monthly income	CGPA 2.5 - 3	CGPA 3 - 3.5	CGPA 3.5 - 4	First Class	Second Class	Total
10000 - 20000	31.41	17.66	14	27.45	30.34	21.44
20000 - 30000	25	26.48	17.16	22.88	34.04	25.35
30000 - 40000	14.74	21	**22.12**	**14.38**	13.46	18.54
Less than 10000	16.67	4.87	1.35	9.8	6.86	5.92
More than 40000	12.18	29.98	**45.37**	**25.49**	15.3	28.75
Total	100	100	100	100	100	100



Salary and Father's Education Status

From the Full time job how much is your monthly income	Masters	Bachelors	HSC	SSC	Eight Grade	Fifth Grade	Total
10000 - 20000	18.96	26.73	29.03	39.13	38.72	39.29	31.24
20000 - 30000	27.18	23.67	23	21.07	22.18	14.81	22.16
30000 - 40000	**18.29**	**15.29**	**13.65**	**10.87**	12.78	8.53	13.44
Less than 10000	7.21	8.28	14.76	14.21	13.91	28.02	13.9
More than 40000	**28.36**	**26.04**	**19.56**	**14.72**	12.41	9.34	19.26



Multinomial Regressions:

Dependent Variable is Employment Status (Fulltime Employment) – Marginal Analysis(Predicted Probabilities)Education

Delta-method

	Margin	Std.Err.	z	P>z	[95% Conf.	Interval]
Highest Level of Education						
Degree equivalent	0.390	0.103	3.780	0.000	0.188	0.592
Diploma	0.498	0.298	1.680	0.094	-0.085	1.082
HSC or equivalent	0.308	0.169	1.820	0.069	-0.024	0.640
Honors equivalent	0.448	0.159	2.810	0.005	0.136	0.760
Post-graduation equivalent	0.483	0.072	6.680	0.000	0.341	0.625

Education

Unemployed (NEET)

	Delta-method					
	Margin	Std.Err.	z	P>z	[95% CONF.	Interval
Highest Level of Education						
Degree equivalent	0.338	0.090	3.750	0.000	0.161	0.514
Diploma	0.288	0.173	1.670	0.096	-0.051	0.626
HSC or equivalent	0.243	0.134	1.820	0.069	-0.019	0.506
Honors equivalent	0.366	0.130	2.810	0.005	0.111	0.621
Post-graduation equivalent	0.407	0.061	6.650	0.000	0.287	0.527

Current Location and Gender

Full-time work — Delta-method

	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
Current location						
City	0.495	0.014	35.860	0.000	0.468	0.522
Metropolitan	0.506	0.008	63.490	0.000	0.490	0.521
Town	0.582	0.018	32.990	0.000	0.548	0.617
Village	0.461	0.018	24.940	0.000	0.424	0.497

Unemployed — Delta-method

	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
gender						
Female	0.377	0.010	36.760	0.000	0.357	0.397
Male	0.320	0.007	47.760	0.000	0.307	0.333

Grades and Education <6 months

Delta-method

Grades	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
Bachelor's result						
CGPA 2.5- 3	0.486	0.034	14.170	0.000	0.419	0.553
CGPA 3 - 3.5	0.502	0.025	20.470	0.000	0.454	0.550
CGPA 3.5 - 4	0.486	0.034	14.450	0.000	0.420	0.552
CGPA Less than 2.5	0.104	0.073	1.430	0.153	-0.039	0.247
First Class	0.515	0.015	35.120	0.000	0.486	0.544
Second Class	0.516	0.013	38.470	0.000	0.489	0.542
Third Class	0.500	0.057	8.790	0.000	0.389	0.611

Delta-method

Education level	Margin	Std. Err.	z	P>z	[95%Conf.	Interval]
n_highest_ed1						
SSC	0.522	0.012	43.580	0.000	0.498	0.545
HSC	0.529	0.008	65.790	0.000	0.513	0.544
BA	0.508	0.008	60.330	0.000	0.491	0.524
MA	0.510	0.008	60.910	0.000	0.494	0.527

Margins from Ordered Regressions: Salary Levels of Employed Youth (dependent variable)

- Grades
- Salary20k-30k: Impact of grades is significant – 0.2 for most sub-groups.
- However, higher grades do not increase the impact much.

Delta-method

	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
BA result						
CGPA 2.5- 3	0.202	0.012	16.510	0.000	0.178	0.226
CGPA 3 - 3.5	0.217	0.011	20.270	0.000	0.196	0.238
CGPA 3.5 - 4	0.211	0.011	18.450	0.000	0.188	0.233
CGPA Less than 2.5	0.207	0.029	7.200	0.000	0.150	0.263
First Class	0.183	0.021	8.790	0.000	0.142	0.223
Second Class	0.191	0.014	14.150	0.000	0.165	0.218
Third Class	0.152	0.046	3.340	0.001	0.063	0.241

- salary >40k: Impact of grades is significant
- Better grades tend to result in better salary outcomes

Delta-method

	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
BA result						
CGPA 2.5- 3	0.057	0.007	8.440	0.000	0.044	0.070
CGPA 3 - 3.5	0.071	0.007	10.140	0.000	0.057	0.085
CGPA 3.5 - 4	0.076	0.007	10.360	0.000	0.062	0.091
CGPA Less than 2.5	0.060	0.018	3.280	0.001	0.024	0.095
First Class	0.048	0.009	5.310	0.000	0.030	0.065
Second Class	0.051	0.007	7.720	0.000	0.038	0.064
Third Class	0.036	0.015	2.440	0.015	0.007	0.066

Education level

- Salary >40k: Impacts are positive and significant across all educational levels
- Master's has the strongest impact followed by SSC/ HSC has the weakest effect.

Delta-method

	Margin	Std.Err.	z	P>z	[95%Conf.	Interval]
n_highest_ed1						
SSC	0.140	0.012	11.710	0.000	0.116	0.163
HSC	0.111	0.006	17.260	0.000	0.098	0.123
Bachelor	0.136	0.006	23.110	0.000	0.125	0.148
Master's	0.157	0.006	24.830	0.000	0.145	0.169

CONCLUDING REMARKS

- The data collection process is promising (fast and low cost)
- Data quality seems good
- It was possible to provide quite a lot of estimates on employment, unemployment, unemployment duration and salary levels, and relate these to policy variables like education level, grades, gender, location, type of institutions, and variables relating to family socio-economic status
- Apart from providing a good appreciation of educated youth employment/unemployment, the paper was also able to estimate the predicted effects on the outcome variable originating in specific factors, e.g. male or female, or BA/MA degree holder, grades etc.
- Findings are generally in the direction of our expectations but explanations often require nuanced discussion – e.g. SSC/HSC holders contribute relatively less to unemployment but report much less salaried work. BA, and MA holders are concentrated in the top paying jobs. Education matters.
- Similarly, while the probability of a post-graduate student in getting a job is lower, say than a Bachelor, his chances of being paid a much higher salary is far better.
- A group that has not been taken up for study in this paper (but for which we do we have data) is ‘those in study and training and looking for a job’. This group is numerically large and will soon enter the labor force. We need to understand this group well in terms of their background, aspirations and possibly, periodic engagement in the labor market.

REFERENCES

- Khatun, F., & Saadat, S. Y. (2018). The Ignored Generation: Exploring the Dynamics of Youth Employment in Bangladesh.
- Mahmud, M., Iqbal, Z., Shahana, S., Islam, S., & Ibon, W. F. (2018). Tracer Study of Graduates of Universities in Bangladesh.
- Nakata, S., Chowdhury, A. R., Nagashima, Y., Rahman, M. M., Rahman, T., Rahman, M. A., & Asia, S. Graduate Employability of Affiliated Colleges New Evidence from Bangladesh.
- Ministry of Youth and Sports. (2017). National Youth Policy 2017. Dhaka: Ministry of
  Youth and Sports, Government of Bangladesh (GoB)