

The Transition from School in Bhutan

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Abstract

In Bhutan half of the population is under the age of 25 (United Nations 2017) and strengthening the pathways of all young people, regardless of their background, is one of the priorities in the Bhutan Education Blueprint 2014-2024. This study examines the transitions from school of a sample of 895 young school completers from Western Bhutan in 2013. It considers the impact of gender, socio-economic status (SES), school type and subject stream on their destinations. The study revealed that males, public school students and higher SES students were more likely to enter university and government vocational training institutes, while girls, private school completers and lower SES students were more likely to enter private vocational training institutions, repeat Year 12, work or enter the labour market. The study provides invaluable findings about the post-school choices of young Bhutanese and their post-school pathways, as well as providing suggestions for policy reform and further research designed to improve the transitions of young people in Bhutan.

Keywords: post-school pathway; Bhutan; gender; socio-economic status

Introduction

The moment of transition from school to work or further study is arguably one of the most important transitions young people experience (Helme & Polesel, 2004). Effective transitions into post-school education and training and the labour market may help reduce youth unemployment and youth disaffection (Teese et al., 2001) and promote economic prosperity through more effective and efficient processes of skill formation. Concerns have been raised regarding whether all young people – particularly those from disadvantaged backgrounds – have the capacity,

skills, knowledge and support to navigate their way through a rapidly changing and more precarious labour market (Castel, 1995; Standing, 2011). Low SES students (Lareau et al., 2011) and girls (Bloom & Weston, 2003) have been identified as especially vulnerable groups, and recent Millennium Development Goal Progress Reports have highlighted youth unemployment as an emerging issue requiring government attention.

Keeping in mind that about 42 percent of the population in Bhutan is 18 years or younger and the age group from 10 to 24 years constitutes about a third of the total population (UNICEF, 2014), these issues have particular resonance in that country. The size of the youth population creates a positive force for this developing country, but only if educational opportunity is available to all, and strengthening the pathways to quality and equity in education is one of the priorities in the Bhutan Education Blueprint 2014-2024 (Ministry of Education, 2014).

This study focuses on the transitions of young Bhutanese who completed upper secondary schooling in 2013 in three districts of Bhutan. It focuses on their post-school destinations, broken out by school type and subject stream. It also analyses the impact of socio-economic status and gender on their destinations. It investigates how access to basic facilities, such as computers and the internet, impacts on destinations. The paper begins by outlining the education system and schooling context in Bhutan. It is followed by a section which explains the methodology used in the study. The findings are then reported, followed by a discussion of their implications.

The Education System of Bhutan

Bhutan is a small country in the Himalayas, located between China and India. The total land area is 38,394 square kilometres which is subdivided into 20 administrative units called *Dzongkhags*. It has a population of 797,765 (World Bank, 2018a). *Thimphu* is the capital city of Bhutan, situated in western Bhutan and it is the most populated city in the country. People from other districts of Bhutan flock to this city looking for jobs and better living conditions. Bhutan is principally an agrarian country, with more than 60 percent of its population engaged in subsistence farming (Gross National Happiness Commission [GNHC], 2011). In 2017, the population poverty rate was 8.2 percent (National Statistics Bureau [NSB], 2018) and the youth unemployment rate was 9.7 percent in 2016 (World Bank, 2018b).

Education is one of the most important objectives in Bhutan's strategy document *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*, which contends that education is 'no longer the privilege but a

basic right for all' (Royal Government of Bhutan, 1999, p. 15). In 2017, the general literacy rate was 66.0 percent, the youth literacy rate was 93.1 percent and the secondary school completion rate was 88.4 percent (National Statistics Bureau, 2018a).

In terms of gender, the secondary school participation net enrolment ratio for females (57.2 percent) is slightly higher than for males (50.4 percent) (UNICEF, 2018) and national statistics indicate that more girls than boys are enrolled in schools (85,580 and 83,980 respectively). However, girls in the older age bracket (14-16) are proportionally less likely to be enrolled in school than are boys in the same group (Choden & Sarkar, 2013), indicating that this group is less likely to progress with their education into upper secondary schooling. Also, the number of boys enrolled in tertiary, vocational and technical training institutes is higher than for girls – 7,236 and 5,634 respectively (National Statistics Bureau, 2018b). Historically Bhutan has been a patriarchal society, where boys had more opportunities to go to schools and girls were kept at home to do home duties. Although this trend is no longer continued by modern Bhutanese families, it is still visible in the education system and in all the spheres of public service. For example, in its first democratic elections held in 2008, there were only 10 female candidates contesting for election and only four were elected in the national assembly with 43 male representatives.

Upper Secondary Education in Bhutan

It is known that post-compulsory education or upper secondary education in Organisation for Economic Co-operation and Development (OECD) countries is crucial for young people's future employment, training and higher education (OECD, 2001). Over the last fifty years, post-compulsory education and training systems have grown in functional complexity and range to meet rapidly rising student demand and the need to cater for the broader and more complex needs of users (Raffe et al., 1998). This has involved the expansion of curriculum options to include pre-vocational and foundation programs beyond the traditional academic curriculum (Lenton, 2005; Taylor & Henry, 2007). This expansion of curriculum options has been associated with positive outcomes, including social inclusion and increased retention (Polesel et al., 2004). The role of post-compulsory education as a link to employment, further training, entry into higher education and for the intellectual development of individuals has lately become the focus of attention in both developed and developing countries.

In Bhutan, comprehensive and free basic education is provided to all from pre-primary to Year 10. However, a search of the relevant literature suggests there is limited information regarding the provision and outcomes of upper secondary education in Bhutan. Dorji & Kinga (2005)

investigated non-enrolment and dropout rates among disadvantaged Bhutanese confirming that socio-economic status and the need for children to work at home (especially on farms) were the two main factors driving the trend. They found that there was a mismatch between job seekers' skills and employers' expectations in the labour market.

The role that gender plays in the transitions of young people from school to tertiary education is also complex and nuanced. In developed countries like the UK, US and Australia, the debates on gender initially focussed on female students as underachieving and having poorer opportunities in education. The research primarily focused on the impact of socio-economic status (Konstantopoulos & Borman, 2011; Teese & Polesel, 2003), and the impact of school type and curriculum (Marks, 2009; Dronkers & Avram, 2010). More recently, studies have reported higher rates of female enrolment in university, but this has differed widely by field of study and outcomes from some vocational programs have been weaker for girls (Polesel & Volkoff, 2009), while female participation in STEM remains low (Dahlan et al., 2010).

It may be noted that gender differences in educational participation in developing countries have been researched extensively, as the issue of eliminating gender gaps in education has been on the agenda of many international institutions including the United Nations. In terms of transitions from school to further education, small developing nations tend to face a set of complex and unique social, political and historical factors that contribute to inequality of post-secondary participation (e.g. for Nepal, see Witenstein & Palmer, 2013; for Bangladesh, see Mahmud & Amin, 2006).

In Bhutan, the gender issue in education is discussed in several government documents such as the Annual Education Statistics of Bhutan, but it is largely focussed on the participation of boys and girls in various levels of schooling. The Bhutan Education Blueprint 2012-2024 confirms that there is still a substantial gap at the tertiary level in enrolments for girls which impacts on their equal participation in democratic society. Schuelka and Maxwell (2016) who investigated education in Bhutan, suggest that the disparities in gender participation in schooling are driven by historical, cultural and financial factors. The complex history of Bhutan, including its isolation for centuries until the twentieth century with no established education system for the larger population, apart from the monastic education for those who aspired to be monks or nuns, may be still influencing the educational participation of girls.

This complexity is still played out in upper secondary schooling which provides a traditional academic curriculum in three subject streams (Science, Commerce and Arts). Students have no option of choosing subjects across streams and have very limited subject options within streams. In 2013, the Ministry of Education started pilot testing some vocational components in Year 9 with the plan to extend these to Year 10. However, the last three years of upper secondary school do not presently have a vocational component.

Entry into upper secondary school after completion of Year 10 is restricted and selective. Only high achievers have the opportunity to study in public upper secondary schools, while those who can afford it may seek admission to private upper secondary schools by paying high tuition fees. Thus, entry into upper secondary education segregates students based on their academic achievement. There are also those whose achievement is too low to give them access to high school and who drop out entirely from the education system. Moreover, the curriculum remains narrow in both private and public schools and is focused on entry to higher education.

In this context, it is crucial to investigate how the destinations of school completers differ based on their socio-economic status, gender, school type and stream. This article aims to answer the following questions:

- What are the destinations of secondary school completers in western Bhutan, broken out by gender, type of school, socio-economic status (SES) and subject stream?
- To what extent do socio-economic status (SES) background, gender, type of school and the availability of basic study facilities affect the destinations of secondary school completers in western Bhutan?

Socio-Economic Status and Student Achievement

A positive correlation between socio-economic status (SES) and school achievement has been confirmed by many studies (e.g. Teese & Polesel, 2003). Coleman (1990) defined SES as resources possessed by people in three forms namely, 'material and monetary goods [material capital], skills and capacities [human capital] and the strengths of social relationships [social capital]' and further contended that possessing these resources 'uniquely locate the status of individuals in the social structure' (Oakes & Rossi, 2003, p. 776). Social researchers use a range of indicators to measure SES with parental education, parental income and parental occupation as the most used indicators of SES (Sirin, 2005). There is also a general consensus that these three indicators together represent SES better than any of these alone (White, 1982). Five

decades ago, Coleman and his colleagues (1966) found that family background is the main determinant of student achievement in school irrespective of the school's inputs such as its policies, budget, and the training and experience of its teachers (Konstantopoulos & Borman, 2011, p. 98). This is supported by Lim et al., (2011, p. 571) who argued that 'young people are in some way affected directly or indirectly by parental influences'.

There are numerous studies on SES and student achievement which explicitly articulate the problems faced by low SES students. Teese & Polesel (2003) utilised data from large, national surveys of Australian secondary school students to affirm that SES affected the lives of students in schools and beyond. They found that low SES students achieve lower academic results and experience greater difficulties in finding meaning and purpose in the academic curriculum. This leads to problems such as low self-esteem and early leaving.

Drawing on the most common factors used to measure the impact of SES on young people, this study investigates the destinations of school completers based on parents' educational qualifications and occupational background. It also investigates students' access to basic facilities such as a computer and internet during their final year of schooling. We start from the assumption that socio-economic status, gender, school type, curriculum stream and the availability of basic study facilities would impact on the destinations of secondary school completers in the Bhutanese schools selected for this study.

This study provides a glimpse of the lives of young Bhutanese, their post-compulsory education and destinations. As it is the first study of its kind in Bhutan, it provides invaluable data to all stakeholders and suggests avenues for future educational research in Bhutan.

Methodology

Data were collected in western Bhutan in 2012-2013. The targeted population was the 2012 cohort of Year 12 students in fifteen upper secondary schools in three districts (Paro, Chukha and Thimphu) of western Bhutan. Of the fifteen upper secondary schools, seven were government and eight were private schools. In the first stage of the study, a comprehensive survey was conducted in September/October 2012 at schools in the three districts ($N=3239$). This survey sought basic background information on the students (e.g. gender, parents' occupation and education, views of school, access to facilities, etc.). It also sought the students' permission to recontact them for more information on their post-school outcomes.

The first contact with students in 2012 during the field survey allowed collection of contact details (email addresses and phone numbers) and asked permission from the participants to be contacted in July-September of 2013 to carry out the follow up survey on destinations after they completed grade twelve. Out of the 3,239 student participants, 1,645 gave email details but during the second stage of the study only 47 participants responded to the follow up online survey as students in Bhutan seem to use the internet quite rarely. Therefore, the researchers chose to make telephone contact which resulted in a total of 895 responses including the 47 email responses.

The 895 survey participants comprised 490 females and 405 males from the three districts (Chukha, Paro and Thimphu) in western Bhutan. The participants graduated from eight private schools and seven public upper secondary schools. Of the 895 school completers, 44.1 percent ($n=395$) were studying in Thimphu school district, 38.6 percent ($n=345$) were studying in Paro school district and 17.3 percent ($n=155$) were studying in Chukha. Each school district comprises of both private and government upper secondary schools. Thimphu has four private and two government upper secondary schools, Paro has three private and two government upper secondary schools and Chukha has one private and three government upper secondary schools.

The majority of participants were past students from private schools ($n=537$, 60 percent), with over half of them having studied commerce ($n=320$, 35.8 percent), followed by arts ($n=192$, 21.5 percent) and science ($n=25$, 2.8 percent). Participants from public schools mostly studied commerce ($n=171$, 19.1 percent) and science ($n=169$, 18.9 percent), and a smaller number of participants were from arts stream ($n=18$, 2.0 percent).

The number of participants from public schools were almost equally divided between males and females ($n=178$, 19.9 percent and $n=180$, 20.1 percent), while the number of males from private schools was lower than females ($n=227$, 25.4 percent and $n=310$, 34.6 percent).

The study does not claim to be representative of student outcomes across the three districts, much less across Bhutan. However, robust numbers of respondents for each gender group and across school types and study streams provides unique data that is indicative of the issues facing young people graduating from Bhutanese schools in recent times, especially as we will see with respect to the impact of gender, school type, stream and socio-economic status (SES). The data set was analysed using the Statistical Package for the Social Sciences (SPSS)

program. Cross tabulations and chi-square were employed to carry out the quantitative data analysis.

Findings

Destinations of school completers

Figure 1 shows that the two most popular destinations for school completers were university studies (33.4 percent) and repeating Year 12 (24.4 percent). The very high rate of repeating Year 12 is not common in most western education systems, but class repeating is allowed and even encouraged in Bhutan as a form of school retention policy and as a means to improve students' chances of getting into university the following year (Ministry of Education, 2010). Smaller proportions of students went into Vocational Training Institutes (VTIs) (private 9.6 percent and government 8.9 percent). Nearly one quarter of the cohort made a direct entry into the labour market without further education or training, but only a minority of these were working, with 8.3 percent employed, 8.7 percent unemployed and 6.7 percent not in the labour force, education or training (NILFET).

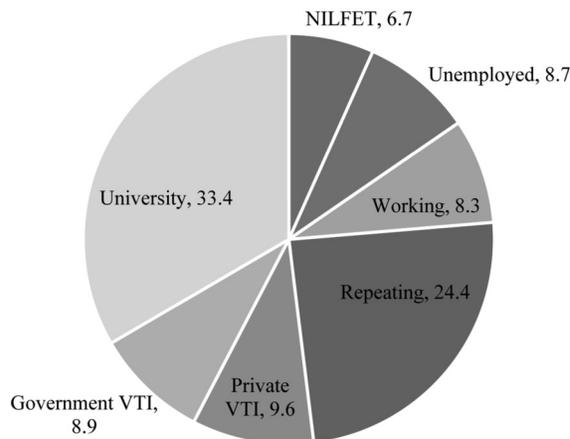


Figure 1. Destinations of school completers, Bhutan, 2013 (%)

Gender, subject stream and destinations

Table 1 shows the post-school destinations of students broken out by gender. While the labour market destinations of the male and female students were not dissimilar, the study destinations show a strong pattern. Male students were more likely than their female peers to enter university and government VTIs, while female students were more likely to enter private VTIs. A chi-square test of independence was performed to examine the relation between gender and destinations. The relation between these variables was significant, X^2 (5,

$N=895$) = 17.79, $p < .01$. This finding indicates that male participants were more likely to continue to university and enter government VTIs than female participants.

Table 1. Participants by destination and gender ($N=895$)

Gender	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed / NILFET	Total
Female	153 (31.2%)	38 (7.8%)	64 (13.1%)	114 (23.3%)	41 (8.34%)	80 (16.3%)	490 (100%)
Male	146 (36.1%)	42 (10.4%)	22 (5.4%)	104 (25.7%)	33 (8.2%)	58 (14.3%)	405 (100%)
Total	299 (33.4%)	80 (8.9%)	86 (9.6%)	218 (24.4%)	74 (8.3%)	138 (15.4%)	895 (100%)

Note: NILFET: Neither in labour force nor in education or training

We note that vocational training at government VTIs is provided free of tuition fees and students receive a monthly stipend, but only limited places are available and competition is fierce. This reflects some disadvantage on the part of female students, whose transition to the public, free and more prestigious tertiary destinations occurs at a lower level than for their male counterparts.

We would also note that this pattern seems to be connected with curriculum choices. In Bhutan, the upper secondary curriculum is offered in three subject streams without any vocational component. Students are selected into the three streams of Science, Commerce and Arts based on their academic achievement in Year 10. It should also be noted that there are significant gender differences in the streams entered by boys and girls. Female students are more likely to be in the Arts stream (25.1 percent, compared with 21.5 percent of male students) and the Commerce stream (58.2 percent, compared with 50.9 percent of male students), while male students are more likely to be in the Science stream (27.7 percent, compared with 16.7 percent of female students). This is significant when we consider destinations broken out by subject stream.

Table 2 shows the destinations of school completers divided by the subject streams the students were allotted to after completing Year 10. As we can see, nearly half of the science stream graduates (46.9 percent) entered university, with a further 24.2 percent entering government VTIs, and relatively very low proportions in the remaining destinations – private VTIs, repeating, working, unemployed or NILFET. We note that this is the stream with the lowest proportion of female students.

Table 2. Participants by destination and subject stream ($N=895$)

Subject Stream	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed / NILFET	Total
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Science	91 (46.9%)	47 (24.2%)	3 (1.6%)	35 (18.0%)	9 (4.6%)	9 (4.6%)	194 (100%)
Commerce	153 (31.2%)	28 (5.7%)	58 (11.8%)	131 (26.7%)	37 (7.5%)	84 (17.1%)	491 (100%)
Arts	55 (26.2%)	5 (2.4%)	25 (11.9%)	52 (24.8%)	28 (13.3%)	45 (21.4%)	210 (100%)

Note: NILFET: Neither in labour force nor in education or training

Another chi-square analysis confirmed that the relationship between destination and subject stream was significant $X^2(10, N=895) = 132.59$, $p < .001$. Table 4 shows that participants from science background were more likely to get accepted into university and government VTI, and they were the least in working and unemployed categories. Participants from commerce and arts tended to enter private VTI and repeat Year 12.

According to the Ministry of Labour and Human Resources of Bhutan in 2013, there were 2,372 in-country and overseas university scholarships offered to Year 12 completers. Of the total places, 988 were made available to school completers from the Science stream, 438 were available to school completers from the Commerce stream, and 139 were offered to school completers from Arts. Another 73 were made available to school completers of both Commerce and Arts streams while a further 734 scholarships were made available to school completers from all three streams. In summary, this means that 1,722 of the 2,372 scholarships available were offered to school completers from a Science background (72.6 percent of the total scholarships). This might be because Bhutan is currently experiencing a shortage of skilled professional workers in the field of medicine, engineering, teaching and in hospitality sectors. The country also continues to focus on agriculture and forestry, as 79 percent of Bhutanese are farmers and there is a need for sustainability and self-sufficiency.

The relationship between type of school and destinations was also significant, $X^2(N=895) = 159.16$, $p < .001$. Table 3 shows that our respondents from public schools were more likely to enter university and government VTIs, while students from private schools were more likely to enter private VTIs or go directly into the labour market. The proportion of school completers from public schools entering university was more than double (50.6 percent) that of the private schools (22.0 percent). The proportion entering government VTIs was also higher (14.3 percent compared with 5.4 percent of private school students). Proportionally more school completers from private schools entered private VTIs (14.3 percent compared with 2.5 percent of public school students) or entered directly into the workforce (10.4 percent, compared with 5.0 percent of the public school students). Private school students were also

much more likely to be unemployed or NILFET than those from public schools (22.9 percent and 4.2 percent respectively).

Table 3. Participants by type of school and destinations (N=895)

Type of School	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed and NILFET	Total
Public	181 (50.6%)	51 (14.3%)	9 (2.5%)	84 (23.5%)	18 (5.0%)	15 (4.2%)	358 (100%)
Private	118 (22.0%)	29 (5.4%)	77 (14.3%)	134 (25.0%)	56 (10.4%)	123 (22.9%)	537 (100%)
Total	299 (33.4%)	80 (8.9%)	86 (9.6%)	218 (24.4%)	74 (8.3%)	138 (15.4%)	895 (100%)

We also point to the fact that the prestigious Science stream is much more likely to be offered in the public schools (see Table 4), where it makes up nearly half the enrolments in our sample of students, thus entrenching this complex pattern of disadvantage linking gender, curriculum and school type.

Table 4. Participants by type of school and subject stream (N=895)

Type of school	Subject stream			Total
	Arts	Commerce	Science	
Public	18 (5.0%)	171 (47.8%)	169 (47.2%)	358 (100%)
Private	192 (35.8%)	320 (59.6%)	25 (4.7%)	537 (100%)
Total	210 (23.5%)	491 (54.9%)	194 (21.7%)	895 (100%)

The role of science is underlined by the government's focus on the human resource needs of the nation. Of the ten constituent colleges of the University of Bhutan, seven provide education in the areas defined as having shortages. There are two health and medical institutes, two engineering colleges, two teacher training colleges, one college for agriculture, forestry and livestock, and of the other three colleges, one is a business college, one is a language and cultural college and the other provides undergraduate programs in arts, humanities, social science, physical and biological sciences.

All of this suggests that school completers in the science stream (mainly from public schools and with higher proportions of males than females) enjoy significant advantages. Firstly, they receive free upper secondary education while most of their peers in Commerce and Arts are studying in private schools where they incur high tuition fees. Secondly, they are more likely to enter university study degree programs on scholarships, with which they will have advantages in securing the more prestigious jobs required by the labour market and economy of Bhutan.

Socio-economic status and destinations

In this study, socio-economic status was measured using parents' occupation and parents' educational background. Table 5 reports destinations by parents' occupational status. It shows the relationship between destination and parents' occupation was significant $X^2(15, N = 888) = 34.38, p < .01$. Participants with parents working in the professional, para-professional, sales, services and administration categories were more likely to enter university than participants with parents from other occupations. The school completers from professional and para-professional backgrounds were shown to be the most likely to enter university to study a bachelor's degree program (51.0 percent), compared with those who were from lower occupational backgrounds (sales, services and administration 39.4 percent, skilled workers 29.0 percent and manual workers 29.0 percent). This suggests that the likelihood of entering a university degree declines as occupational status declines. A similar trend was observed for entry into vocational courses. The Year 12 completers from the most disadvantaged backgrounds (manual workers) were the most likely to enter both government and private VTIs, compared with their counterparts in the higher occupational background categories. In total, 22.1 percent of school completers from a manual workers' background entered VTIs compared with 16.5 percent of school completers from a skilled workers' background, 16.0 percent from sales, services and administration background and the lowest from professional and para-professional backgrounds (9.6 percent).

Table 5. Participants by destination and parent occupations

Parent Occupation	Destination						Total
	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed / NILFET	
Professional / Para-professional	48 (51.1%)	5 (5.3%)	4 (4.3%)	24 (25.5%)	4 (4.3%)	9 (9.6%)	94 (100%)
Sales, services & admin	74 (39.4%)	15 (8.0%)	15 (8.0%)	47 (25.0%)	15 (8.0%)	22 (11.7%)	188 (100%)
Skilled workers	37 (29.1%)	12 (9.5%)	9 (7.1%)	38 (29.9%)	10 (7.9%)	21 (16.5%)	127 (100%)
Manual workers / home duties	139 (29.0%)	48 (10.0%)	58 (12.1%)	105 (21.9%)	44 (9.2%)	85 (17.8%)	479 (100%)
Total	298 (33.6%)	80 (9.0%)	86 (9.7%)	214 (24.1%)	73 (8.2%)	137 (15.4%)	888 (100%)

Note. n missing = 7. Only 17 students were in the home duties category, therefore they were combined with manual worker category.

The second most popular destination by parents' occupational background was repeating Year 12 for all the socio-economic background categories. It was lowest amongst students from manual workers and home duties backgrounds (21.9 percent), compared with professional

and para-professionals (25.5 percent), sales, services and administration (25.0 percent) and skilled workers (29.9 percent). We note that repeating Year 12 normally happens in private schools, where it incurs payment of tuition fees. It is possible that parents in the higher occupational categories could better afford this option than manual workers. Table 5 also shows that unlike school completers from professional and para-professional backgrounds, those from lower occupational backgrounds were most likely to enter the labour market looking. The likelihood of being neither in the labour force nor in education or training (NILFET) was also higher for school completers from a manual workers' background, compared with those from the other categories.

Table 6 examines the destinations of the school completers broken out by the level of their parents' education. Of the 876 respondents, 46.4 percent ($n=406$) had parents with no formal education, 21.9 percent had primary educated parents ($n=192$), 24.3 percent had secondary educated parents ($n=213$), and only 7.4 percent had tertiary educated parents ($n=65$). A chi-square analysis confirmed that the differences in destinations by parents' educational background were also significant $X^2(15, N=876) = 39.85, p < .001$, as for the measure using occupational status. Table 6 indicates that the most common destination for school completers from all four categories of parents' education background was a university degree program but this declined as parental qualifications declined. School completers having tertiary educated parents were shown as the group most likely to enter university (56.9 percent). The second most likely group to enter university was school completers with secondary educated parents (38.5 percent) followed by those with primary educated parents (30.7 percent). The least likely to enter university were the school completers whose parents had no education (28.6 percent).

These findings show a strong association between socio-economic background and the destinations of school completers, using either measure. Entry into university was the preferred destination for school completers from a high SES background (educational and occupational). School completers from a lower SES background were more likely to be unemployed or NILFET. The findings here clearly confirm the role of socio-economic status in influencing the destinations of school completers in this study in western Bhutan.

Table 6. Participants by destination and parent educational background

Parent Educational Background	Destination						Total
	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed /NILFET	
Tertiary	37 (56.9%)	1 (1.5%)	3 (4.6%)	14 (21.5%)	2 (3.1%)	8 (12.31%)	65 (100%)
Secondary	82 (38.5%)	20 (9.4%)	12 (5.6%)	48 (22.5%)	18 (8.5%)	33 (15.5%)	213 (100%)
Primary	59 (30.3%)	20 (10.4%)	19 (9.9%)	40 (20.8%)	25 (13.0%)	29 (15.1%)	192 (100%)
No education	116 (28.6%)	38 (9.4%)	50 (12.3%)	110 (27.1%)	28 (6.9%)	64 (15.7%)	406 (100%)
Total	294 (33.6%)	79 (9.0%)	84 (9.6%)	212 (24.2%)	73 (8.3%)	134 (15.3%)	876 (100%)

Note *n* missing = 19.

For destinations other than entry to university degree programs, the opposite trend was observed with participation generally increasing for school completers from lower SES backgrounds. There was an increase in entry into private VTIs as parents' education levels declined. The school completers whose parents had no education were the most likely to enter private VTIs (12.3 percent). The second most likely to enter private VTIs were school completers with primary educated parents (9.9 percent) followed by those with secondary educated parents (5.6 percent) and finally the least likely to enter private VTIs were school completers with tertiary educated parents (4.6 percent). This trend of entering private VTIs by school completers from a lower SES background is a social concern because courses offered at private VTIs charge high tuition fees. A similar trend was observed for entry into government VTIs. The percentages of school completers with uneducated, primary educated, and secondary educated parents entering government VTIs were 9.4 percent, 10.4 percent and 9.4 percent respectively whereas only 1.5 percent of school completers from tertiary educated parents entered government VTIs. This shows that in general, school completers from the lower parents' education background were more likely to enter vocational training in both private and government VTIs.

School completers whose parents had no education were also the most likely to be unemployed/NILFET (15.8 percent) compared to the other three categories of parents' educational background. The percentage of this group working was also low (6.9 percent) compared with those from primary and secondary educated parents (13.0 percent and 8.5 percent respectively). Repeating Year 12 was also the commonest destination for students from an uneducated background (27.1 percent). Again, we note that repeating Year 12 is costly for these young

people from low SES backgrounds because repeating generally happens in private upper secondary schools with high tuition fees.

Basic Facilities to Support Learning

This section considers factors that support students' learning, including access to computers at home or at school and access to the internet at home or at school. It considers the impact of such access on post-school destinations and its relationship to the students' socio-economic status (SES).

Access to computer

Over half of the participants had access to computers either at home or at school ($n=430$, 51.1 percent) while another half did not ($n=411$, 48.9 percent). Participants in public schools were more likely to have access to a computer ($n=226$, 52.6 percent) than their peers in private schools ($n=204$, 47.4 percent).

Table 7. Access to computer and destinations of school completers

Access to computer	University	Destination				Unemployed / NILFET	Total
		Govt VTI	Private VTI	Repeating	Working		
Yes	179 (41.6%)	35 (8.1%)	27 (6.3%)	106 (24.7%)	37 (8.6%)	46 (10.7%)	430 (100%)
No	106 (25.8%)	44 (10.7%)	50 (12.2%)	98 (23.8%)	32 (7.8%)	81 (19.7%)	411 (100%)

Note. n missing = 54, excluded in the analysis

A chi-square test of independence was performed to examine the relationship between access to computers and destinations. The relationship was significant, $X^2(5, N = 841) = 36.51, p < .001$. Table 7 shows that 41.6 percent who had access to a computer went to university, compared with 25.8 percent of those who did not have access. On the other hand, school completers who did not have access to a computer were more likely to be in VTIs (22.9 percent) than those with access to computer (14.4 percent). School completers who did not have access to a computer were also shown to be more inclined to unemployment (19.7 percent) compared with those who did (10.7 percent).

Table 8. Access to computer and parents' occupation

Access to computer	Professional and para-professional	Parents' occupation			Total
		Sales, services and administration	Skilled workers	Manual workers and home duties	
Yes	65 (15.3%)	109 (25.6%)	60 (14.1%)	192 (45.1%)	426 (100%)
No	27 (6.6%)	67 (16.4%)	58 (14.2%)	257 (62.8%)	409 (100%)

Note. n missing = 60, excluded in the analysis

Table 9. Access to computer and parents' education

Access to computer	Parents' education				Total
	Tertiary	Secondary	Primary	No education	
Yes	53 (12.6%)	128 (30.4%)	88 (20.9%)	152 (36.1%)	421 (100%)
No	12 (3.0%)	76 (18.9%)	90 (22.4%)	224 (55.7%)	402 (100%)

Note. n missing = 72, excluded in the analysis

There is a significant relationship between access to computer and parents' occupation, $X^2(3, N=835) = 34.83, p < .001$. Participants with parents working in professional and para-professional, sales, services and administration occupations were more likely to have access to computers than other participants (see table 8). The association between access to computers and parents' education was also significant $X^2(3, N=823) = 52.52, p < .001$. Participants with parents who had graduated from university or from secondary school were more likely to have access to computers than participants with parents who had no education or parents who had only primary schooling (see table 9).

Access to the internet

The findings indicated that nearly two thirds of participants in this study did not have access to the internet either at home or at school ($n=526, 63.7$ percent,). Participants from public schools were more likely to have internet access ($n= 189, 63.0$ percent) than their peers from private schools ($n=111, 37.0$ percent). A chi-square test of independence was performed to examine the relation between access to the internet and destinations. The relationship between these variables was significant, $X^2(5, N=826) = 52.44, p < .001$ (see table 10).

Table 10. Internet access and destinations of school completers

Internet access	Destination						Total
	University	Gov. VTI	Private VTI	Repeating	Working	Unemployed / NILFET	
Yes	144 (48.0%)	33 (11.0%)	12 (4.0%)	61 (20.3%)	17 (5.7%)	33 (11.0%)	300 (100%)
No	138 (26.2%)	46 (8.8%)	63 (12.0%)	136 (25.9%)	51 (9.7%)	92 (17.5%)	526 (100%)

Note. n missing = 69, excluded in the analysis

The results showed that school completers with internet access facilities were more likely to enter university than those without access to the internet. Those who had access to the internet were also shown to be more advantaged by entering government VTIs where courses were free (11.0 percent as compared to 8.8 percent). More students without internet access repeated Year 12 than those who had access to internet (25.9 percent and 20.3 percent). They also entered the labour market more than their peers (9.7 percent compared to 5.7 percent) and showed higher rates of unemployment than those with access to internet (17.5 percent to 11.0 percent).

Table 11. Internet access and parents' occupation

Internet access	Parents' occupation				Total
	Professional and para-professional	Sales, services and administration	Skilled workers	Manual workers and home duties	
Yes	51 (17.1%)	77 (25.8%)	35 (11.7%)	136 (45.5%)	299 (100%)
No	36 (6.9%)	96 (18.4%)	82 (15.7%)	308 (59.0%)	522 (100%)

Note. n missing = 74, excluded in the analysis

The relation between access to the internet and parents' occupation was significant $X^2(3, N=821) = 31.97, p < .001$. Participants with parents working in the professional, para-professional, sales, services and administration categories were more likely to have internet access than participants with parents from other occupations (see table 11).

Table 12. Internet access and parents' education

Internet access	Parents' education				Total
	Tertiary	Secondary	Primary	No education	
Yes	36 (12.1%)	86 (29.0%)	64 (21.6%)	111 (37.4%)	297 (100%)
No	27 (5.3%)	111 (21.6%)	116 (22.6%)	259 (50.5%)	513 (100%)

Note. n missing = 85, excluded in the analysis

The relationship between access to computers and parents' education was also significant $X^2(3, N=810) = 22.69, p < .001$. Participants with parents who had university or secondary school qualifications were more likely to have internet access than participants whose parents had no schooling or only primary schooling (see table 12).

Conclusion and final thoughts

This study of the post-school destinations of a sample of school completers from western Bhutan provides an insight into the challenges that young Bhutanese are now facing in the transition from school to further education and work. While a significant proportion (just over half) make a transition into university or vocational training institutes, the remainder find themselves in more challenging circumstances. Of the remaining group, half is in the labour market, where unemployment and NILFET are the most common conditions. The other half (or one quarter of the whole cohort) has gone back to school, where many are required to pay or continue to pay fees.

The impact of gender is also evident, with girls less likely to go to university or into the subsidised government VTIs, a finding which we have shown to be related to their lower participation in the science stream in upper secondary schooling.

The findings on destinations by school type show that private school completers were disadvantaged in all the destination outcomes com-

pared to public school completers. Public school completers dominated entry to university and government vocational training institutes while the majority of those from private schools ended up in the labour market. Once again, the impact of subject stream comes into play, with the prestigious and strategic science stream largely confined to the public schools. After completion of upper secondary education, science stream completers have the best chance of entering university degree programs with scholarships or of entering free vocational courses in government vocational training institutes which provide a monthly stipend.

By way of comparison, the students from private schools are more likely to enter fee-paying private VTIs or seek employment in the labour market, where they are at higher risk of unemployment or of being neither in the labour force nor in education and training (NILFET).

We also note that, in Bhutan, upper secondary education does not include a vocational component, giving few opportunities for those young people entering the labour market directly upon leaving school to develop job readiness and skills. By way of contrast, the science stream completers gain access to subsidised and fee-free government VTIs or can study university programs on scholarships, deferring their entry to secure jobs into the future, knowing they will be equipped with the required skills for the jobs available in the Bhutanese labour market.

These findings suggest that differentiating students into streams after Year 10 based on academic achievement is discriminatory to lower SES students and is contributing to social segregation in Bhutan, with the children from low SES backgrounds more likely to be deprived of free upper secondary education and access to the science stream and its ensuing benefits of providing future entry to university scholarships and subsidised training in government VTIs.

Based on the findings of this study, the following policy considerations are proposed. First, there is an urgent need to attune the curriculum to the labour market and social needs of the country. If Commerce and Arts streams have limited future scope for jobs in the job market, then the numbers in these streams should be reconsidered in the broader context of what other social or intellectual needs they might be addressing, especially in private upper secondary schools. Private upper secondary schools should provide improved science stream options for students or introduce vocational subjects to help school completers find jobs upon completion of upper secondary education.

Second, the findings have indicated that social exclusion and equity issues relating to gender and SES exist in the provision of upper secondary education. Bhutan has made significant progress in the provision of comprehensive education from pre-primary school to Year 10, and it is laudable. But many of the children of the poor and some girls are excluded from studying upper secondary education, particularly in the prestigious science streams, in Bhutan due to limited provision and selective entry processes. Since upper secondary education is a stepping stone to higher education and a highly qualified population is an asset for a country's economy, Bhutan should provide high quality upper secondary education to all young people.

The findings on socio-economic background segregating lower SES students into private schools with high tuition fees, while higher SES students are more likely to receive free education in public schools, are also a serious concern. The lack of basic facilities such as access to computers and internet is another aspect of the same problem. We suggest that the government prioritise the assistance of children from low SES backgrounds through measures combining means-based fee relief in private schools, curriculum reform across the system and improved access to computers and internet in the most disadvantaged settings. This is because the education system cannot rely on a narrow curriculum offering anchored in an elite system of selective schools, when the majority of the Bhutanese population has neither the educational nor the financial capital to access public schools nor to afford private schools.

We suggest that further research is needed to confirm these findings at the national level. We believe that it would be useful to track school completers nationally, to investigate whether the findings of this study have universality and whether there are some locations or sub-groups nationally with weaker outcomes and particular needs. In particular, we would hope that such a study would focus on the needs of some of Bhutan's more vulnerable groups – the girls and the students from low socio-economic status backgrounds.

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