



School to work transition: Employment and expectations of former madrasa students in Cox's Bazar, Bangladesh[☆]

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ABSTRACT

We document the dynamics of the school-to-work transition of former madrasa students in Cox's Bazar, Bangladesh – the host community of the Rohingya refugees. We conduct a phone survey using a respondent-driven sampling (RDS) technique to understand the labour market opportunities and aspirations of former madrasa students in Cox's Bazar who are 15–40 years old. We find that most of the respondents are in the labour market, with male respondents driving this trend. There is a strong willingness to participate in training and expectations that receiving training will double income. We report that there is a mismatch between the actual and desired sector of employment– most of the employed respondents want to engage in different income-generating activities than their current ones. We also find gender differences in the types of training desired and expected income.

1. Introduction

Despite curricular revisions and mandates to incorporate the students into a more mainstream educational environment, madrasa students in Bangladesh lag behind their contemporaries in terms of learning outcomes (World Bank, 2010) and gender attitudes (Asadullah et al., 2019; Asadullah and Chaudhury, 2010), indicating future challenges for their absorption into the broader labour market. Bangladeshi madrasas are perpetually undergoing reforms with the aim of regulation, modernisation, and integration into the overall economy (Asadullah and Chaudhury, 2009; Bano, 2014; Roy et al., 2020). Such reform would entail, for instance, the inclusion of subjects in the curriculum that train students for the labour market.

There is a paucity of empirical literature on the school-to-work transition of madrasa students. Specifically, little is known about the labour market status of former madrasa students, whether they receive any training, their perceptions of the scale of available opportunities, and their aspirations regarding the labour market. Prior research has largely examined the organisational structure of madrasas and the quality of madrasa education (Abdalla et al., 2004; Sattar, 2004; World

Bank, 2010), determinants of madrasa enrolment and their effects on student perceptions and behaviour (Asadullah et al., 2015, 2019; Asadullah and Chaudhury, 2010, 2016; Asadullah and Wahhaj, 2012), and the political implications of madrasa education (Ahmad and Nelson, 2009; Bano, 2014; Riaz, 2004; Roy et al., 2020).

The main objective of this paper is to mitigate the gap of evidence on the school-to-work transition of former madrasa students by descriptively illustrating the existing scenario of their labour market status, training status, and aspirations. In addition, this paper also aims to provide insights into the needs of madrasa students that could be utilised in the future to design and develop relevant training interventions.

In particular, we explore the school-to-work transition of 15- to 40-years-old former madrasa students (dropped out or graduated) in Cox's Bazar district. While Cox's Bazar has traditionally been an important tourist destination, it has seen a large influx of the Rohingya population since 2017. The presence of the forcibly displaced population (FDP), i.e., Rohingyas, influenced the labour market dynamics in Cox's Bazar in two ways. First, the inflow of assistance to support the humanitarian effort towards FDP can potentially generate new employment opportunities. Second, while a Rohingya person is not permitted to

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seek employment in Bangladesh, there is some evidence that Rohingyas engage in informal employment in Cox's Bazar (World Bank, 2019). This can pose additional challenges to traditionally disadvantaged job seekers like madrasa graduates.

We document that while most male madrasa graduates are in the labour market and employed, the share of female graduates in the labour market is significantly low. We also document that there is demand for training in former madrasa graduates. We further find that madrasa graduates aspire to engage in income-generating activities (IGAs) and improve their income. However, there are gender differences in the expected earnings and the types of IGA they are interested in. We report a mismatch between what the former madrasa students want to engage in as an IGA and the actual activity they are engaged in. This mismatch is further exposed by their desire to train to get new jobs and expectations that training can double their monthly earnings.

Labour market deregulation, labour market programs, and the introduction of apprenticeships are important factors on which the smoothness of the school-to-work transition depends (Ryan, 2001). The former two are demand-side issues that are not relevant to the scope of this research. However, the introduction of apprenticeship is a relevant supply-side issue very much related to the objectives of this study. While in the early post-war period, apprenticeship was criticised for being antiquated and the inadequacy of the training for both the educational needs of the youth and the skill requirements of the economy (Ryan, 1999), it is now considered again a crucial means to improve school-to-work transition and increased skill supplies (Ní Cheallaigh, 1995; Ryan, 2001).

In the context of school-to-work transition, a vital element is the aspiration of the students, as it directly affects their job search behaviour (Mcfadyen and Thomas, 1997). Individuals with high aspirations are more likely to engage in career planning and take steps to achieve their goals. They may also have a more positive attitude towards work and be more committed to their employers (Locke and te Lintelo, 2012). Various factors can influence aspirations, including social background, educational attainment, personal experiences, etc., and individuals from higher social backgrounds tend to have smaller aspiration-attainment gaps (Nießen et al., 2022).

Based on the framework mechanism discussed above, we shed some light on the status of the labour market outcome of 15- to 40-years-old former madrasa students – who either dropped out or graduated from a madrasa – investigating their perception towards and willingness to receive training and exploring their aspirations to engage in IGA and improve their income. Most madrasa students in Bangladesh originate from low-income and lower-middle-income families (Asadullah et al., 2015). Hence, they may have significant hurdles to transition to work (and adulthood) from low employment opportunities, low access to training and low aspirations. This is where suitable training interventions can be effective because programs that provide vocational training, effective career advice and support to young adults with learning may be effective in helping them achieve their aspirations and improve their labour market outcomes in adulthood (Armstrong and Davies, 1995).

We employ respondent-driven sampling (RDS) for this research. The absence of a database for former madrasa students required us to recruit sample respondents RDS. We gathered the information on sample recruits and conducted the actual surveys over the phone in June 2021. A total of 782 former madrasa students were successfully surveyed, comprising this study's full sample. Most of our respondents are male and went to Alia madrasas.¹

We find that most of the respondents are participating in the labour market, and most are employed. However, there is a gender disparity in labour market participation and employment status. Female madrasa

graduates participate in the labour market and are employed significantly less than their male counterparts. Former madrasa students believe that madrasa education does not inherently hinder secular work opportunities and can facilitate employment in some ways. Their perceptions of madrasa education and its effectiveness in gaining employment may be influenced by their employment status or the social milieu of the sampled area. The likelihood of more neutral or positive perceptions regarding the prospect of employment may be attributable to a lower social stigma surrounding madrasa education in the region.²

Most of our sample respondents are willing to participate in training programs, including the few who received some form of training. Their training interests were predominantly centred around ICT-related and fabric tailoring services – which were also congruent with their future business aspirations.

We observe some gender disparities in their preferred choice of skills training. Male respondents reported a broader choice of prospective training programs than female respondents. On the other hand, female respondents favoured training programs that were more gender-appropriate and would likely entail minimal activity outside the household. Furthermore, female respondents in our sample were less likely to pursue training.

Female madrasa graduates also have lower expected earnings – both with and without training – than their male counterparts. Male non-participants in the labour force reported similar wage expectations to male labour market participants. In contrast, female non-participants reported markedly lower wage expectations than female labour market participants, suggesting that females had a weaker grasp of wage rates than males due to a possible lack of exposure to labour market conditions.

While exploring the aspiration of former madrasa students to engage in IGAs, we find that doing business and working on salaried jobs are the two most preferred, respectively. There is no gender difference in this stated preference for IGA; however, there is a gender difference in the type of business they want to engage in. Male madrasa graduates are interested in working on ICT-related services, while female madrasa graduates are interested in tailoring business.

Although business and salaried jobs are the two most desired IGA, only one in four employed respondents in our sample is engaged in either, suggesting a mismatch in the labour market. That a majority of respondents want to receive training as they believe this will help them get a new job lends further credence to the finding that there is a mismatch. This is further corroborated by the fact that the respondents expect their monthly income to double if they receive training.

Through this paper, our main contribution is to the literature studying school-to-work transition in general; specifically, we contribute to the literature exploring the school-to-work transition of madrasa students in Bangladesh, their labour market experience, and potential avenues to improve their life outcomes. The transition from school to work is a dynamic process closely connected to an individual's transition into adulthood, involving social and professional integration (Martínez, 2000). This involves the experience faced by individuals throughout their academic life, which, in turn, shapes how a person experiences the transition and shapes them up for the labour market (Zittoun, 2008). During the school-to-work transition, individuals often have to navigate through various challenges, such as finding suitable job opportunities, building professional networks, and adapting to the demands of the workplace (Dockett and Perry, 2015). Madrasa students naturally lack exposure to mainstream education, and their knowledge about career options is limited in general (World Bank, 2010). Thus, the challenges are likely to be more severe for Madrasa students.

² While there is no conclusive evidence of workplace discrimination against madrasa graduates in Bangladesh, anecdotal data indicates that madrasa students are more susceptible to bullying throughout their applications to and studying years at mainstream institutions (Bay, 2017; Rahman, 2015)

¹ Please see Section 2 for a more detailed discussion on madrasa education in Bangladesh and the types of madrasas.

The remaining sections are organised as follows. Section 2 provides a brief overview of the madrasa education system, presents a summary of the labour market situation in Bangladesh, and discusses the context of Cox's Bazar. Section 3 describes the survey design, sampling methods, data, and our analysis strategy. Section 4 presents the key findings, classified according to three main aspects. Section 4.1 details the characteristics of the sample. Section 4.2 examines their labour market engagements, while Section 4.3 explores their perceptions and aspirations. Section 4.4 presents a discussion of the findings, and Section 5 concludes the paper.

2. Background and context

In this section, we first present a primer on Bangladesh's madrasa education. Then we briefly discuss the labour market situation in Bangladesh. We then provide the context of Cox's Bazar, where this paper focuses on.

2.1. Madrasa education in Bangladesh

Bangladesh's education sector is divided into a secular mainstream and a parallel Islamic system (Rahman, 2023). Madrasas are Islamic educational institutions that were established in the Indian subcontinent in the twelfth century (Sikand, 2006) with the primary goal of promoting Islamic jurisprudence, law, ethics and values, Quranic knowledge, and hadith among their learners (Riaz, 2004). The objective was to develop a cadre of clerics, scholars, and religious leaders capable of addressing rulers' and society's cultural, spiritual, and administrative demands (Nizami, 1983).

Education reforms were implemented in madrasas during the mid-1980s (financial incentives in the form of subsidised teacher payments) and the mid-1990s (grant provision contingent on female enrolment). The formalisation procedure stipulated that these madrasas implement curricular reforms,³ a transition from single gender (males) to a co-educational system, and operate under the supervision of the state's madrasa education board (Asadullah and Chaudhury, 2016). Madrasas that instated these measures were granted state recognition (Alia madrasas), whereas those that did not (Qawmi madrasas) remained unrecognised (Asadullah and Chaudhury, 2009). Qawmi madrasas are private, community-run madrasas that operate outside the ambit of state recognition or oversight and rely on community and religious donations for funding. As a result of the autonomy that Qawmi madrasas hold, they are permitted to design/construct their curricula, resulting in a variation of content and teachings across different Qawmi institutes (Asadullah and Chaudhury, 2016; World Bank, 2010).

Students enrolled in Alia madrasas are required to complete 12 years of schooling and pass equivalent grade levels. Like mainstream schools, there are primary levels (grades 1–5) (provided by Ebtedayee institutions), secondary levels (grades 6–10) (provided by Dakhil institutions) and higher secondary levels (grades 11–12) (provided by Alim institutions). Students sit for a state-level board exam after their Dakhil (equivalent to Secondary School Certificate or SSC or grade 10 completion exams) and Alim education (similar to Higher Secondary Certificate or HSC or grade 12 completion exams) (Asadullah and Chaudhury, 2010, 2016). Bachelor's and master's equivalent degree levels at Alia madrasas are referred to as Fazil (2-year program) and Kamil (2-year program) levels. Although the duration of the master's level equivalent program (Kamil) is comparable to that of secular master's programs, the duration of Fazil levels is relatively shorter than those of conventional bachelor's degrees (usually a 3–4-year program).

While Alia madrasas have incorporated more mainstream courses

³ Incorporating common secular courses such as English, Bengali, Science, and Mathematics into religious disciplines and adhering to state-mandated course plans and textbooks

into their core religious subjects and operate parallel to the secular education system, Qawmi madrasas lack a uniform grade-level organisation/structure.⁴ Qawmi madrasas often place greater emphasis on Quran recitation and focus on preparing students to become clerics (Maulvis and imams) (Asadullah and Chaudhury, 2016; Bano, 2014; Bhattacharya, 2006). Recent efforts to modernise Qawmi madrasas have resulted in the nationwide accreditation of *Dawra-e-Hadith* graduates (the highest level of the Qawmi curriculum) as holding a master's degree in Islamic studies and Arabic (*The Daily Star*, 2018). Both religious streams of education instil strong unfavourable gender norms in their students (of both genders), with the effect being more prominent among male and Qawmi students (Ahmad and Nelson, 2009; Asadullah et al., 2019). Thus, the variations in curriculum content, teacher attitudes, and education quality will likely affect madrasa students' labour market engagements and their associated returns.

Madrasas have been crucial in expanding education (Asadullah and Chaudhury, 2009). As of 2021, approximately 5% and 15% of the enrolled primary and secondary students in Bangladesh are studying at madrasas, respectively (BANBEIS, 2022).

2.2. Labour market in Bangladesh

Bangladesh continues to be plagued with an unemployment crisis across all educational streams (secular and religious), with unemployment spells being more pronounced among higher-educated individuals. Findings from the 2016 Bangladesh Labour Force Survey (BBS, 2018) reveal that a greater share of high school (14.9%) and university (11.2%) graduates remain unemployed than their less educated peers (Illiterate: 1.5%; primary: 2.7%; secondary 4.6%), indicating an upward trend in unemployment as levels of education increase. Given that similar trends have been observed in earlier survey rounds (BBS, 2010), the results suggest the existence of a potential supply-demand mismatch in the labour market (Dewan and Sarkar, 2017) that has been prevalent for quite a while.

Madrasa students encounter at least two structural barriers that can adversely affect their labour market prospects (Rahman, 2023). First, the madrasa curriculum restricts students' prospects of advancing into university education. This is evident for students in either stream, as before 2013, Alia madrasa curricula did not satisfy entry requirements for many mainstream universities (Farhin, 2017), and Qawmi madrasa students are not permitted to participate in entrance exams in accredited universities. Second, low or no familiarity with technical or mainstream subjects (such as Bangla, Mathematics, and Science) and the dearth of skilled teachers for these courses may contribute to poorer learning outcomes than their secular peers (World Bank, 2010). The ensuing lack of readiness for mainstream university education sets them at a competitive disadvantage during admissions and inhibits their prospects to pursue more lucrative fields, thereby limiting their potential in the labour market (Rahman, 2023). This is also reflected in the jobs held by religious graduates, as many madrasa graduates opt for low-paying positions as imams or maulvis at mosques and madrasas (Ahmad and Nelson, 2009; Asadullah, 2006; Bano, 2014).

While individuals from relatively affluent socioeconomic backgrounds can afford to remain unemployed, people experiencing poverty often cannot. This difference in the ability to afford unemployment resonates particularly with madrasa students, as many originate from low-income and lower-middle-income families (Asadullah et al., 2015). Madrasas are less expensive than secular institutions, with Qawmi madrasas being the least costly. Nevertheless, only a portion of the motivation to enrol children in madrasas is attributable to financial constraints and religiosity. Madrasa enrolment/attendance is correlated with factors both within a household, such as financial constraints

⁴ See Asadullah and Chaudhury (2010), (2016) for additional details on the hierarchy and structure within different types of Madrasas.

(negatively), piety (positively), electricity access (negatively), and access to satellite television/connection (negatively), and within a community, such as access to secular schools (negatively) and the presence of NGOs (negatively) (Asadullah et al., 2015; Asadullah and Chaudhury, 2016). Moreover, households with a migrant in a Muslim-majority nation have a greater likelihood of enrolling their children in madrasas, with the effect being more pronounced for boys, which intensifies over time (Rahman, 2023).

2.3. The context of Cox's Bazar

Cox's Bazar, the geographic region of focus in this study, is a south-eastern district of Bangladesh in the division of Chattogram⁵ and the home of the longest natural sea beach in the world. According to the census of 2011, the total population of this district is around 2,289,990 (BBS, 2013). In addition to that, this district has been hosting 950,972 Rohingya populations since 2017 (UNHCR, 2022). This district is one of the important tourist destinations and with a diverse economy. The economy of this district predominantly relies on agriculture (44%), followed by the tourism industry and a small number of manufacturing industries (BBS, 2013). The literacy rate of this district is 39%. Roughly 20% of the educational institutions are madrasas (BBS, 2013).

We present key demographic characteristics of Cox's Bazar based on the 2016 Household Income and Expenditure Survey (HIES 2016) in Table 1, comparing that with the division of Chattogram (excluding Cox's Bazar) and the rest of the country (excluding Chattogram division). On average, children in Cox's Bazar spend fewer years in school than in other parts of the country. Cox's Bazar has lower average years of education for different age groups than the rest of the country.

A higher proportion of the population of Cox's Bazar attends madrasas than the rest of the country. Among madrasa-going students, a larger share of students in Cox's Bazar attends Alia madrasas than the rest of the country.

Given the influx of the Rohingya population in 2017, several studies have been conducted on the labour market and livelihoods of Cox's Bazar district. Agriculture is the largest employer of women, while a majority of their male counterpart works in different sectors, including construction, trade, and transport (World Bank, 2019). The rate of labour force participation among Rohingya is around 33%, and among them, 64% are involved in informal-wage employment, including construction, small shops, and transportation. The Rohingya influx is correlated with reduced labour market opportunities and wage rates in the host communities (Save the Children et al., 2018).

3. Data and methods

3.1. Sample and survey details

This paper uses primary data collected from a phone-based survey in Cox's Bazar, Bangladesh.⁶ We employed respondent-driven sampling (RDS) to effectively recruit and survey 782 former madrasa students for this study. The absence of a database for madrasa students made it challenging to select a target sample through standard probability sampling measures; hence, we resorted to the RDS technique. Existing non-probability sampling methods (such as snowball and other chain-referral samples, the key-informant approach, and targeted sampling) employed to study hard-to-reach populations can often bias estimates (Heckathorn, 1997, 2002) and prevent drawing reliable inferences about the sample characteristics. Respondent-driven sampling is regarded as a potentially superior alternative to other convenience sampling methods and can decrease the biases commonly associated with

Table 1

Summary statistics (selected variables, Household and Income Expenditure Survey (HIES), 2016).

	Cox's Bazaar	Chattogram division (excl. Cox's Bazaar)	Bangladesh (excl. Chattogram division)
Average years of schooling			
For ages 5 years and above	3.81	4.40	4.55
For ages 5–18	3.50	4.02	4.17
For ages 15–40	5.15	6.06	6.30
Highest completed grade levels (for individuals 5 years and above) (%)			
No formal education/has not passed Grade 1	36.43	32.65	32.06
Primary (Grade 1–5)	34.70	30.41	31.31
Secondary (Grade 6–9)	19.02	24.00	22.21
SSC/equivalent/Dakhlil	4.68	6.96	6.61
HSC/equivalent/Alim	2.92	3.80	4.56
Diploma in Nursing/Vocational/Technical Education	0.11	0.19	0.39
Bachelors/MBBS/Engineering/Fazil/equivalent	1.90	1.56	1.93
Masters/Kamil/Equivalent	0.25	0.43	0.93
Percentage of individuals who enrolled in a Madrasa			
For ages 5 years and above	15.92	7.55	4.82
For ages 5–18	16.32	11.72	7.51
For ages 15–40	17.12	5.69	3.94
Madrasa Enrolment (disaggregated by type) (Only includes madrasa students)			
Alia (%)	81.29	69.84	72.76
Qawmi (%)	18.71	30.16	27.24
Employment rate			
For ages 15 years and above (Overall)	97.80	94.47	95.30
For ages 15–64	97.76	94.33	95.16
For ages 15–40	97.28	92.70	93.57

Note: The samples for average years of schooling differ per age group due to missing responses. For those aged 5 years and above: N for Cox Bazaar: 2,844; N for Chittagong division (excluding Cox bazaar district): 27,304; N for Bangladesh (excluding Chittagong division): 135,228. For those aged between 5 and 18 years: N for Cox Bazaar: 1,162; N for Chittagong division (excluding Cox bazaar district): 9,853; N for Bangladesh (excluding Chittagong division): 43,444. For those aged between 15 and 40 years: N for Cox Bazaar: 1,063; N for Chittagong division (excluding Cox bazaar district): 10,502; N for Bangladesh (excluding Chittagong division): 52,342. The samples for madrasa enrolment vary by age category due to missing responses. For those aged 5 years and above: N for Cox Bazaar: 2,048; N for Chittagong division (excluding Cox bazaar district): 19,897; N for Bangladesh (excluding Chittagong division): 98,797. For those aged between 5 and 18 years: N for Cox Bazaar: 1,115; N for Chittagong division (excluding Cox bazaar district): 9,121; N for Bangladesh (excluding Chittagong division): 41,026. For those aged between 15 and 40 years: N for Cox Bazaar: 1063; N for Chittagong division (excluding Cox bazaar district): 10,502; N for Bangladesh (excluding Chittagong division): 52,342. The employment samples vary by age category due to missing responses. For those aged 15 and above: N for Cox Bazaar: 864; N for Chittagong division (excluding Cox bazaar district): 9,504; N for Bangladesh (excluding Chittagong division): 47,071. For those aged between 15 and 64 years: N for Cox Bazaar: 850; N for Chittagong division (excluding Cox bazaar district): 9,149; N for Bangladesh (excluding Chittagong division): 44,810. For those aged between 15 and 40 years: N for Cox Bazaar: 662; N for Chittagong division (excluding Cox bazaar district): 6,163; N for Bangladesh (excluding Chittagong division): 28,527.

chain-referral techniques (Heckathorn et al., 2002; McCreesh et al., 2012). Similar to other chain-referral sampling techniques, RDS begins with a small number of respondents (referred to as "seeds"), and the sample is then expanded through subsequent phases or 'waves' of peer

⁵ Bangladesh has eight divisions.

⁶ This study was part of a joint work with BRAC Skill Development Program (SDP).

recruitment (Abdul-Quader et al., 2006)– where the initial set of respondents become recruiters. Peer recruitment was typically found to be, on average, randomly selected from participants' social networks (Wang et al., 2005), which reduces the entailed bias in selection. To be eligible for the study, respondents were required to be i) 15–40 years old; ii) a resident of Cox's Bazar; iii) was ever enrolled in a madrasa from Cox's Bazar, and iv) either a madrasa drop-out or a graduate.

We used phone surveys to gather information on both the recruited population and the sample. For the first wave, we obtained a 'seed' sample of 261 former madrasa students from the local BRAC office. We only interviewed individuals who consented to participate in our survey. Ultimately, we requested them to refer between three and five peer contacts from their social network. Respondents were financially compensated (BDT 10 was transferred for each referral) for their recruitment efforts. Many of them could not provide phone numbers during the interview, so we asked them to provide the numbers at their convenience. The population list was compiled from June 3 to June 20, 2021, and phone surveys were conducted between July 14 and July 19, 2021. Throughout 15 'waves' of recruitment, 1,900 individuals were enlisted, of whom 1,038 were eligible, and 782 were successfully surveyed.

We obtained the 'seed' sample from our partner BRAC SDP as they already have connection with target-age population (15–40 years old) in the area because of their program. We use the "seed" sample to recruit additional respondents who meet the eligibility criteria of our study through 15 waves of survey. That is, in each wave, we obtained from each respondent the information about potential future respondents within their social network. Using a 'seed' sample to obtain new respondents is common in RDS and the final sample is found to be randomly selected, on average (Wang et al., 2005).

3.2. Sample characteristics

Table 2 outlines some of the key demographic characteristics of our sample. We had oversampled males, which accounts for 84% of our respondents. The average age of the male and female respondents was between 18 and 19, indicating that they were young adults. On average, male respondents attended school slightly longer (9 years) than female respondents (8 years).

We then examine the distribution of their highest level of educational attainment, where we restrict our analysis to respondents who attended government-accredited Alia madrasas (as it is more comparable to

Table 2
Demographic Characteristics.

	Full Sample	Male	Female
Male (%)	83.6	100	0.0
Age (average years)	19.5	19.7	18.2
Average years of schooling	8.8	8.9	8.4
Highest completed grade levels*			
Primary (Grades 1–5)	8.0	8.4	6.0
Secondary (Grades 6–9)	52.7	53.5	48.3
SSC/Dakhil (Grade 10 completion exams)	25.4	24.6	29.3
Alim/ HSC (Grade 12 completion exams)	11.6	10.7	16.4
Fazil/Kamil	2.3	2.8	-
Type of Madrasa			
Alia (%)	89.1	88.8	90.6
Qawmi (%)	5.0	5.8	0.8
Other (%)	5.9	5.4	8.6
Residence in Rural Area (%)	96.9	97.3	95.3
Respondents that reported dropping out (self-reported) (%)	95.4	94.5	100
N	782	654	128

Note: This does not include respondents from non-formal religious education systems without grade levels. The number of respondents from Alia madrasas: 697. Number of respondents from Qawmi/other madrasas that were not included: 85.

mainstream education systems). Table 2 also highlights the gender-specific educational attainment of Alia madrasa respondents. Their last completed grade levels were categorised into four levels for ease: Grade 1–5 (Primary levels), Grade 6–9 (Secondary levels), Secondary School Certificate (SSC)/Dakhil (its madrasa equivalent), Higher Secondary Certificate (HSC)/Alim and above (madrasa equivalent), where Alim, Fazil, and Kamil graduates were aggregated. Most respondents in our sample (53%) dropped out before taking their grade 10 completion exams, with the proportion of males (53.5%) being higher than that of females (48%). A similar pattern is evident at higher education levels, where a greater proportion of females than males have passed their SSC/Dakhil examinations (29%) and their higher secondary (HSC/Alim) exams (16.4%). While the proportion of respondents with a Fazil (bachelor's equivalent) or a Kamil (master's equivalent) degree is minimal (2.3%), there are no female graduates in our sample. Our survey data indicates that graduates of Alia or state-run madrasas held the highest share, accounting for 89% of the whole sample. The other 11% attended Qawmi and other madrasas.⁷ Most respondents in our sample are from rural areas (97%), and nearly all (95%) reported dropping out of madrasas before graduating.

3.3. Analysis strategy

We primarily use descriptive statistics. We explore the frequency of different measures on the three key dimensions of interests – employment, training, and aspiration.

We first look at labour market participation and employment rates in our sample. We also look at the sector of employment of former madrasa graduates in Cox's Bazar. We additionally report how helpful former madrasa students find their education in obtaining jobs in the secular sector.

We then analyse at the status of receiving training by former madrasa students. First, we explore the rate of former madrasa students receiving training and their willingness to receive training. We then investigate why they want to receive training. We additionally examine the types of training that they want to receive. We then analyse their self-reported expected wages with and without training to understand their perceived values of training.

Lastly, we explore their aspiration by looking at what employment sector the former madrasa students from Cox's Bazar want to engage in. For those interested in doing business, we also examine the types of businesses they are interested in opening.

We primarily focus on the full sample and then dive into differences by gender. The strength of our analysis is restricted by the relatively smaller share of females in our sample (one in six). We also analyse results by labour market participation status. Since only one in ten of our respondents are from non-Alia madrasas, we do not present our analysis by the type of madrasa as primary findings but rather discuss them, presenting the results in the appendix. We also analyse whether the outcomes are different by gender, type of madrasa attended, and labour force participation status by comparing the mean differences and present the t-stats and *p*-values of that analysis in Appendix B (Tables B1–B3).

4. Main findings

We will first present our findings regarding labour market outcomes, facts related to training, and the aspirations of the former madrasa students. Then, we will discuss these findings in this section.

⁷ In our sample, graduates from other madrasas attended *Ebtedayee*, Qawmi/*Daura/Khariji*, *Hafizia*, and *Nurani* madrasas.

4.1. Labour market outcomes

Fig. 1 depicts our sample respondents' overall labour force participation status and disaggregated results by gender and educational levels. Around 71.2% of former madrasa students in our sample participate in the labour market, among whom 57.5% are employed.⁸

The labour market participation of former female madrasa students is dismal compared to males, as only 24% are engaged in the labour market, and 39% are employed.⁹ The mean difference in labour force participation and employment by gender is statistically significant (Table B1).

Those who have completed primary school (68.7%) and those who have earned Alim (HSC equivalent) or higher levels (71%) have participation rates that are relatively higher than those who have completed secondary education and SSC/Dakhil (52%). However, the employment rates of our sample respondents show a corresponding increase with additional years of schooling, with the highest employment rate recorded among those who have completed at least their HSC equivalent exams (Alim) and above.

We explore labour market outcomes by the type of madrasa attended (Figure A1). While there is no statistically significant difference between the participation rates of respondents from Alia (71.3%) and Qawmi/other (70.6%) madrasas in the labour market, employment rates were significantly higher among respondents who were former students of Qawmi and other madrasas (t-test and p-value of the mean difference are reported in Table B2). However, given our sample's relatively small number of non-Alia madrasa students, this finding should be taken with a grain of salt.

Fig. 2 illustrates the sectors in which our sample respondents reported employment. The respondents in our sample engage in various income-generating activities, with a slightly larger proportion employed in religious (26.6%) and agricultural occupations (23.4%). Given the religious nature of madrasa education, it is unsurprising that many graduates work in religious services. A significant share of madrasa graduates works in agriculture. Almost an equal share of respondents does business, work as day labourers, or are engaged in skilled labour.

Most non-Alia madrasa (Qawmi and others) graduates earned from religious activities or teaching (Figure A2). This is considerably higher than the proportion of former Alia madrasa students (Table B2). In our sample, more Alia madrasa drop-outs and graduates were engaged in agricultural activities, skilled labour work and salaried jobs than respondents from other madrasas. One likely interpretation is that Qawmi madrasa students are better connected with their local religious community and, thereby, have a greater chance of obtaining religious positions in mosques, madrasas, and as home tutors (Bano, 2014).

Lower levels of education are likely associated with restricted employment opportunities to lower-paying positions, as our sample respondents who have completed only primary levels are primarily involved in day labour, agricultural work, and skilled labour. Table 3 highlights the sectoral employment of our respondents by their educational attainment.

Engagement in clerical activities, including religious teaching, is higher among those who have completed secondary education (SSC/Dakhil) (35.21%) and higher secondary education (HSC/Alim) and above (61.19%), suggesting that a minimum threshold of education or certification may be necessary to qualify for religious services (teaching or otherwise). Participation in menial employment also declines with increasing educational attainment: 32.61% of primary madrasa graduates work as day labourers, while only 1.49% of graduates who have

achieved levels Alim and above work as day labourers. Only 8.44% of the employed respondents are in a salaried job, primarily driven by those who dropped out before completing Alim.

The trend in the labour market outcomes is unlikely to be driven by respondents' perception of ease or difficulty in getting employment with a madrasa education. Most of our sample respondents, regardless of gender, believed that madrasa education does not inherently hinder secular work opportunities and can somewhat even facilitate finding employment (Figure A3). Nevertheless, there are modest gender differences in the opinion concerning how helpful madrasa education can be; females find it somewhat helpful at a much higher proportion than males, and this difference is statistically significant (Table B1). Perceived benefits of madrasa education are comparable among sample respondents from separate madrasas (Table B2).

4.2. Access to training

Now we discuss the pattern in accessing training by the madrasa graduates. We first document the frequency of receiving training and willingness to receive training.

4.2.1. Perceptions regarding skill-related training programs

Even though most of our sample respondents have not previously undergone training or apprenticeship, their willingness to undertake training is widespread. Fig. 3 demonstrates that while a small portion of respondents have prior training experience (16.9%), most are eager to participate in a training program (96%).¹⁰ A slightly greater proportion of men (17%) than women (13%) in our sample have engaged in some form of training. The differences in taking training and having the willingness to receive training between male and female respondents are not statistically significant (Table B1).

We also observe that a greater proportion of those who are in the labour force has previously engaged in a training program (19.6%) than those who are not (10.2%), which is a statistically significant difference (Table B3). Nearly all the respondents in our sample reported willingness to receive training irrespective of their participation status, indicating that they do not consider the skill set they acquire through madrasa education sufficient for the labour market. Moreover, the fact that the share of respondents who have received some training in the past is nearly double that of labour market participants further strengthens this conjecture. A similar proportion of employed and unemployed individuals have past training experience; however, a relatively lower share of employed individuals in our sample are willing to participate in any training program.

We asked respondents to identify one of the main perceived benefits of training programs. How respondents view the benefits of a training program may indicate their future engagement and implementation of what they learn. As shown in Fig. 4, most respondents in our sample believe that training would facilitate their ability to gain employment (69%), with a significantly greater proportion of men than women holding this perspective. Gaining an additional skill or knowledge set was also considered an advantage of training. At the same time, a minority would choose to participate in training to boost their work productivity and performance. Nearly a quarter of our female respondents did not identify any potential benefits of training and were only willing to participate on account of having spare time.

These perceptions are further characterised by their labour force participation status. While respondents outside the labour force understand the significance of training as a means of getting employment, approximately 16% would undertake training based solely because they have spare time. In contrast, expectedly, the share is much lower for labour force participants due to the lack of spare time. On the other

⁸ The labour force participation rate represents the proportion of all working age individuals (15 years and older) in our sample who are employed or actively seeking employment.

⁹ Females in our sample not active in the labour force were predominantly engaged in domestic work (47%).

¹⁰ Specifically, we asked the following questions: i) Have you ever participated in any training/apprenticeship? and ii) Do you want to receive any training?

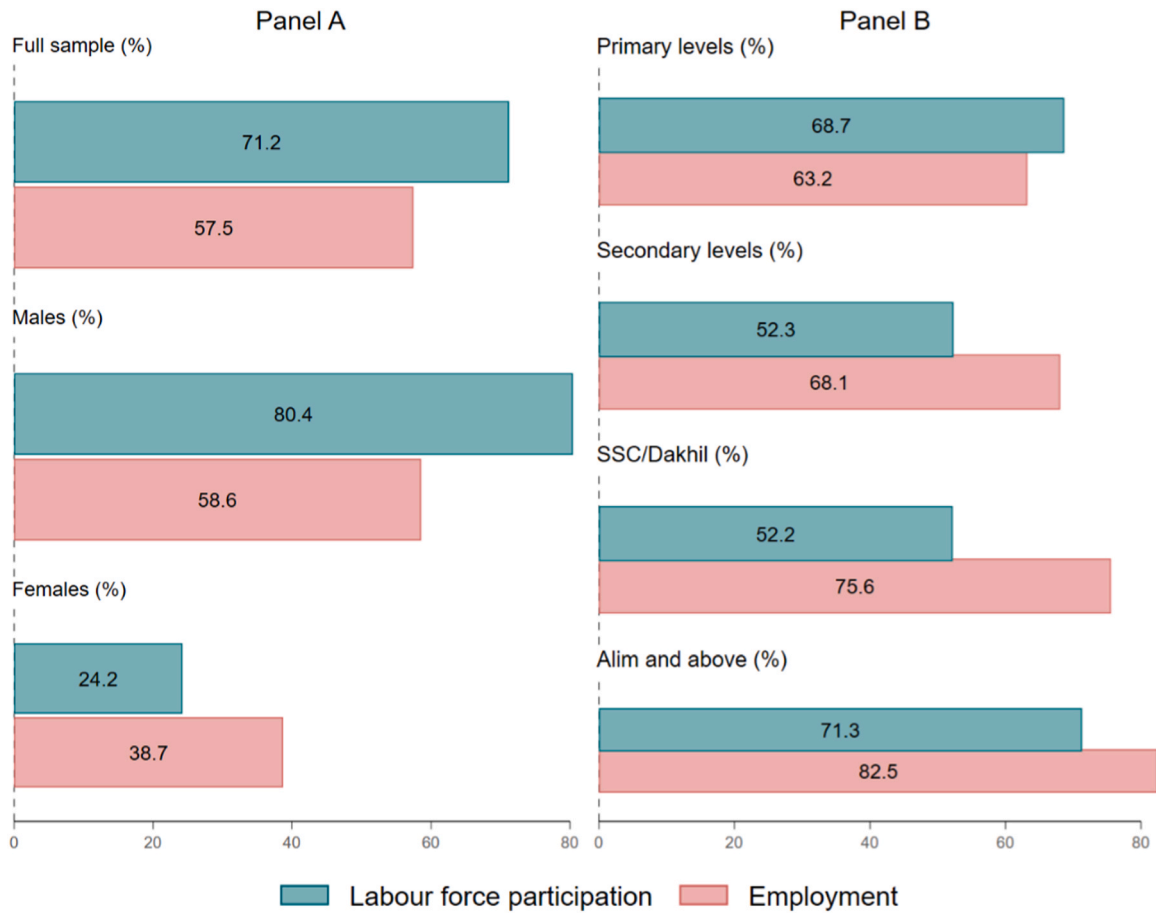


Fig. 1. Labour market outcomes. Note: Panel A shows the overall sample and disaggregated by gender, while Panel B shows by educational attainment). Overall Number: 782; Panel A: Number of male respondents: 654; Number of female respondents: 128; Panel B: Number of madrasa respondents who have completed primary levels (Grades 1–5):106; secondary levels (Grades 6–9):382; SSC/Dakhil (Grade 10):180; Alim/HSC (Grade 12) and above (Fazil/Kamil/equivalent to bachelor's and master's):114. Those who were not actively seeking a job and were engaged in household chores only were categorised as being absent from the labour market.

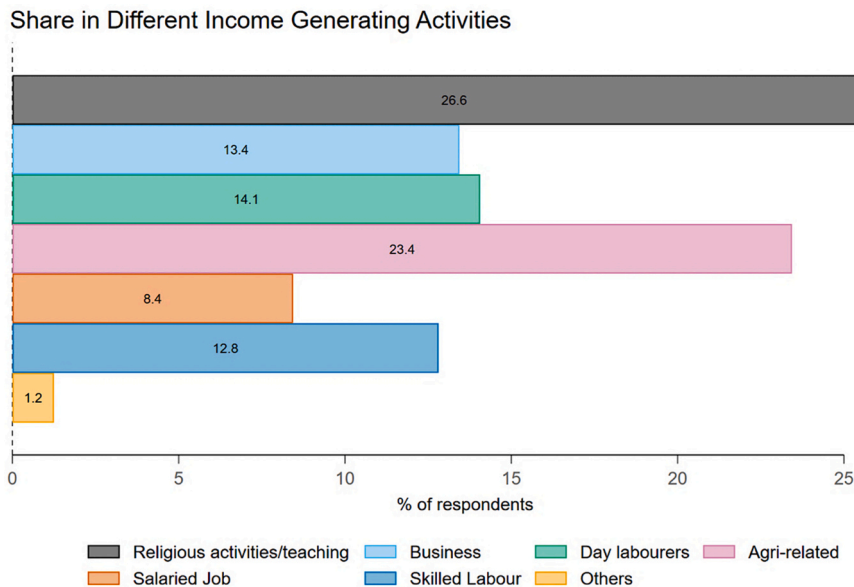


Fig. 2. Sectoral employment. Note: Number of madrasa respondents who are employed: 320. Government employees, NGO employees, and security guards are considered salaried jobs.

Table 3
Sectoral employment based on educational attainment.

Occupation (%)	Full sample	Primary	Secondary	SSC/Dakhil	Alim and above
Religious activities/teaching	26.56	8.70	11.03	35.21	61.19
Business	13.44	17.39	16.18	8.45	10.45
Day labourers	14.06	32.61	14.71	12.68	1.49
Agriculture related work	23.44	21.74	27.21	22.54	17.91
Salaried job	8.44	2.17	11.03	11.27	4.48
Skilled labour	12.81	17.39	17.65	9.86	2.99
Others	1.25		2.21		1.49
N	320	46	136	71	67

Note: This module was only asked of employed respondents (N=320).

occupation than females, revealing their perceived job prospects. Female demand for training is primarily centred on ICT services (52%), tailoring, fashion design, and beauty parlours (45%) – services that do not necessarily involve mobility or working outside the home. These differences are statistically significant. This suggests their adherence to traditional gender norms pertaining to female employment, which may also contribute to their poor labour market participation.

When disaggregated by their labour force status, we detect slight variations in the sectors where individuals desire training. Irrespective of their labour force status, ICT-related training is still in high demand. Additionally, a certain portion of labour market participants in our sample would prefer technician training (16%) and driving lessons (10%). These proportions are somewhat lower among respondents outside the labour force.

4.2.2. Perceptions: the value of training on potential earnings

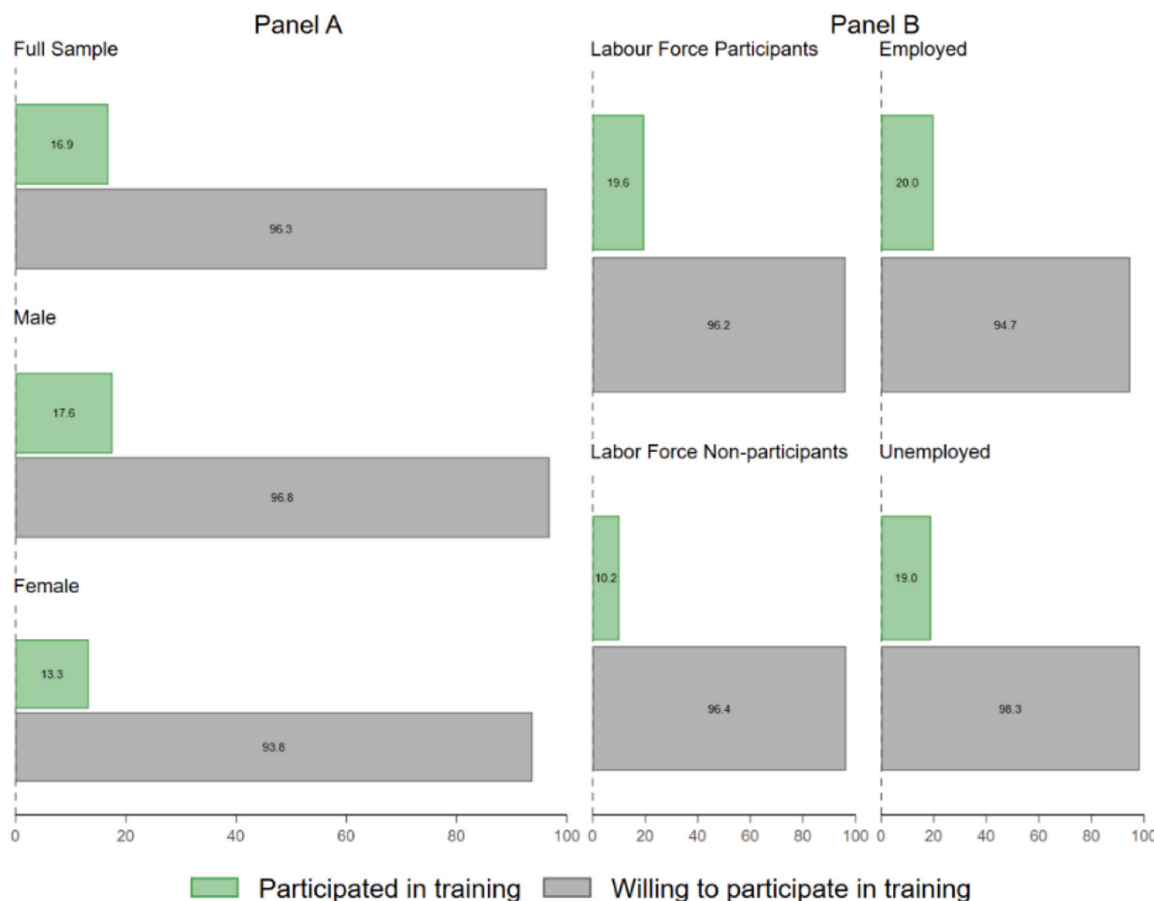


Fig. 3. Previous engagement in any training program and willingness to participate in training –responses disaggregated by gender, labour force participation, and employment status. Note: Overall Number reported: 782; Panel A: Number of male respondents:654; Number of female respondents:128; Panel B: Number of labour force participants:557; Number of non-participants in the labour force: 225. Number of employed respondents:320; Number of un-employed respondents:227.

hand, a much higher share of labour force participants (7%) recognises the implication of training on the increase in productivity. These hint at the asymmetric information between participants and non-participants on the usefulness of training.

We also asked about the occupations where they would like to receive training (Figure A4). The considerable demand for ICT-related training (including graphic design, provision of ICT support, etc.) implies two things: firstly, these professions may be what they perceive to be in demand, and secondly, a higher level of technological proficiency may qualify them for more lucrative positions. Furthermore, male respondents in our sample have more diverse training demands by sector/

We recorded the monetary expectations of respondents who were willing to receive training. We asked respondents their income expectations after a year with and without training.¹¹ Hence, this section will highlight the findings in two ways: first, we will solely analyse expectations for all individuals who reported willingness to receive training (by their gender and education). Then we examine the perspectives of labour force participants and non-participants regarding their earnings expectations a year later with and without training. Regardless of

¹¹ Note that this is measuring expected income, not actual income.



Fig. 4. Perceptions on how training programs may or may not be beneficial- responses disaggregated by gender and labour market participation. *Note:* Overall Number reported for panel A: 781; Number of male respondents for this module:654; Number of female respondents for this module: 127. Overall Number reported for panel B: 781; Number of those in the labour market: 557; Number of those not in the labour market: 224. This module was asked of all respondents (N=782); however, depicted responses vary due to missing observations. The 'Others' category includes remarks in which respondents indicated that training was irrelevant, they lacked time to engage owing to work or domestic chores, or family members prohibited them from going outside or engaging in training programs. Given the relatively small number of reported responses in each category, they were aggregated.

whether they acquire training or not, on average, male respondents anticipated higher future wages than females (Fig. 5).

Male respondents place a higher premium on the effect of training on their earning potential than female respondents. However, respondents of both gender expect their earnings to be approximately doubled with training.

On average, those with an Alim (HSC equivalent) or higher education level anticipate the highest wages with or without training compared to those with lower levels of education (Panel B of Fig. 5). Respondents who have completed Alim or above, on average, expect to earn BDT 10,996 without training and BDT 21,684 with training, while those below an Alim degree anticipate earning an average between BDT 8,000 and 9,000 without training and between BDT 16,000 and 17,000 with training.

Panel C of Fig. 5 illustrates the disaggregation of these numbers according to their labour force participation rates and gender. Those participating in the labour market have higher income expectations (for both with and without training) compared to those who are not. This may indicate that participants' wage expectations are likely influenced by their knowledge of the job market, whether in terms of comparable earnings or work opportunities. Similarly, female labour force participants in our sample also anticipate a higher income than non-participants. Participants in the labour force, regardless of gender, anticipate average monthly earnings that are generally equivalent. Non-participant women hold the lowest income expectations in our sample. Male respondents not in the labour force had better wage expectations

than females outside.

4.3. Aspirations: types of income-generating activities and businesses

A plurality of our sample respondents (46%) aspired to be self-employed and start their businesses, while one-third desired salary employment in the private or public sectors (Fig. 6). Compared to females, a higher portion of male respondents expressed their interest in working as electricians in the future and advancing in their existing careers. Females desired salaried jobs more than males. While 5% of the respondents could not form perceptions regarding their future work, this proportion was slightly greater for females (11%) than males (3%). Regardless of their labour force engagement, business and salaried employment remain a top priority for most respondents. These future goals amid the employed could indicate the likelihood of a job switch. At the same time, these ambitions among non-participants of the labour force reflect their prospective re-entry into the labour market.

Fig. 7 also details the type of business most of our respondents wished to build, given that many hoped to become entrepreneurs. There is a notable gap between the types of businesses males and females in our sample reported wanting to establish. Most female respondents want to start their own tailoring business (79%), while 15% want to own shops. In contrast, male respondents are more interested in starting businesses that provide ICT-related services, vehicle/appliance repair services, and small shops. This is indicative of the gender norms and expectations prevalent among the sample.

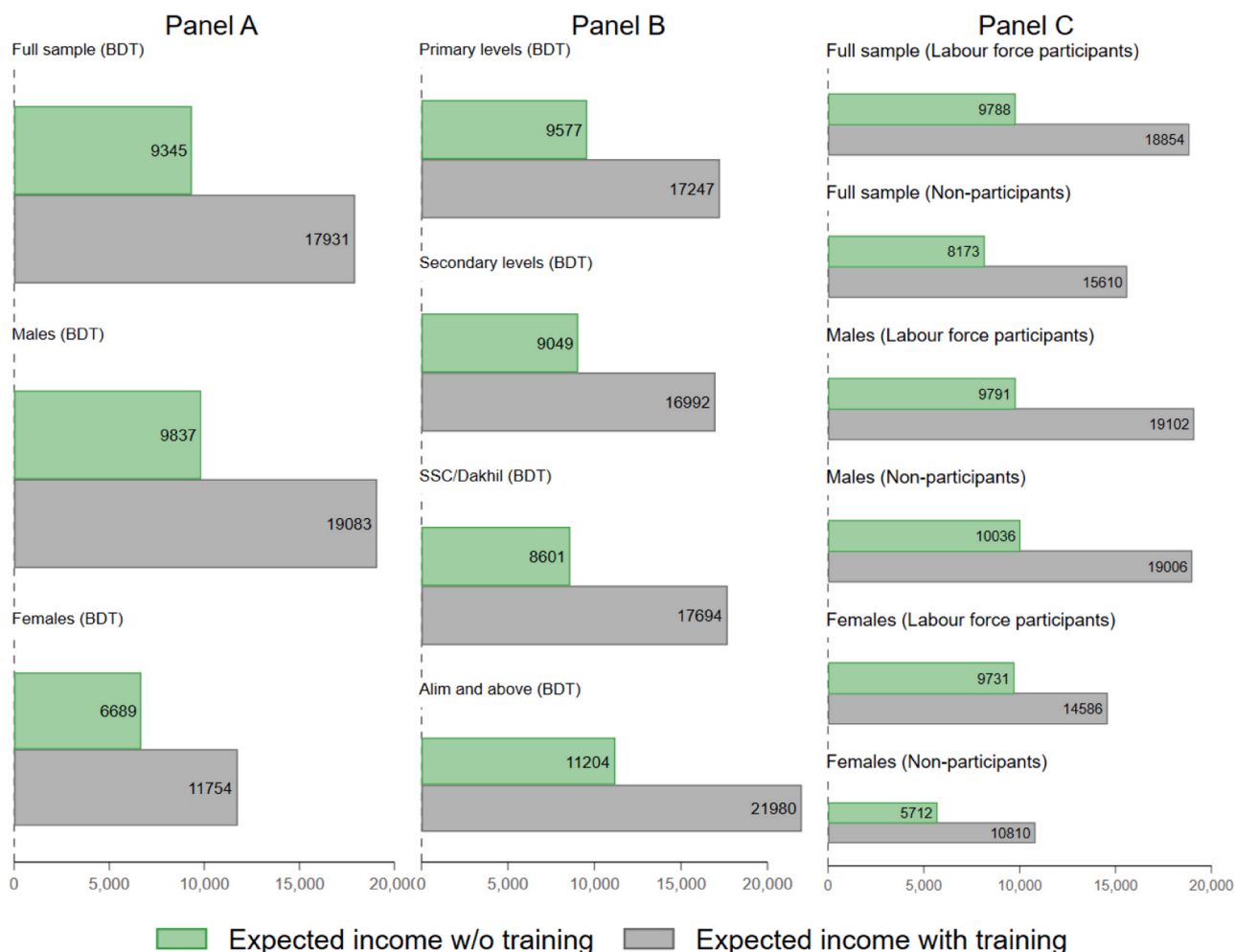


Fig. 5. Expected average monthly income with and without training after one year – disaggregated by gender, education, and labour force participation. *Note: Panel A: Overall Number for those reporting income without training:685- Categorical Number of male respondents: 578, female respondents: 107; Overall Number for those reporting income with training:738; Categorical Number of male respondents: 622, female respondents:116. Panel B: N of those reporting income without training (by education levels)-Categorical Number of those completing primary levels: 92, Those completing secondary education:333, those completing SSC/Dakhil:156, Those completing Alim and above: 104. N of those reporting income with training (by education levels)-Categorical Number of those completing primary levels: 98. Those completing secondary education:360, those completing SSC/Dakhil:170. Those completing Alim and above: 110. This module was administered to all respondents willing to participate in any training, irrespective of their labour force participation (N=753). However, depicted responses vary on account of missing observations. Panel C: Overall Number for those reporting income without training:685- Categorical Number of participating in the labour force:497, Not in the labour force: 188; Overall number of males who reported for this module:578; Categorical Number of participating males in the labour force reported for this module:471, Males not in the labour force reported for this module: 107; Overall Number of females reported for this module:107; Categorical Number of participating females in the labour force reported for this module:26, Females not in the labour force reported for this module: 81; Overall Number for those reporting income with training:738- Categorical Number of participating in the labour force:528, Not in the labour force: 210; Overall Number of males who reported for this module:622; Categorical Number of participating males in the labour force reported for this module:499, Males not in the labour force reported for this module: 123; Overall Number of females reported for this module:116; Categorical Number of participating females in the labour force reported for this module:29, Females not in the labour force reported for this module: 87. This module was asked of all respondents who indicated a willingness to participate in any sort of training (N=753), however, depicted responses vary on account of missing observations by category.*

4.4. Discussion

While most former madrasa students of Cox’s Bazar participate in the labour market and the majority of those in the labour market are employed, there is a mismatch between their current employment and their desired income-generating activity, alluding to the possibility that the respondent may not be satisfied with their current employment. While 13.4% of the employed respondents are doing business and another 8.4% are working on a salaried job, we find that about 46.5% are interested in doing business. Another 33.5% are interested in salaried jobs. Doing business or having a salaried job can potentially improve the amount of income. Salaried job can also improve the security of income flow. Given the low- and middle-income setting, the interest of a large share of respondents to switch their sector of

employment suggests a sizeable aspiration-reality mismatch in labour market outcomes for the former madrasa graduates.

Former madrasa students do not blame their madrasa education for this apparent lack of labour market mismatch. Most respondents find madrasa education helpful in finding a secular job.

The respondents, however, remain aspirational and are keen on obtaining training to improve their labour market outcomes. Most respondents are interested in receiving training as they believe it will help in getting jobs, further corroborating the finding that there is a mismatch between what they aspire to do and what they are doing in terms of employment. Respondents also believe that receiving training can improve their income, as the reported expected income with training is about twice the reported expected income without training.

The mismatch between the aspiration and reality suggests that there

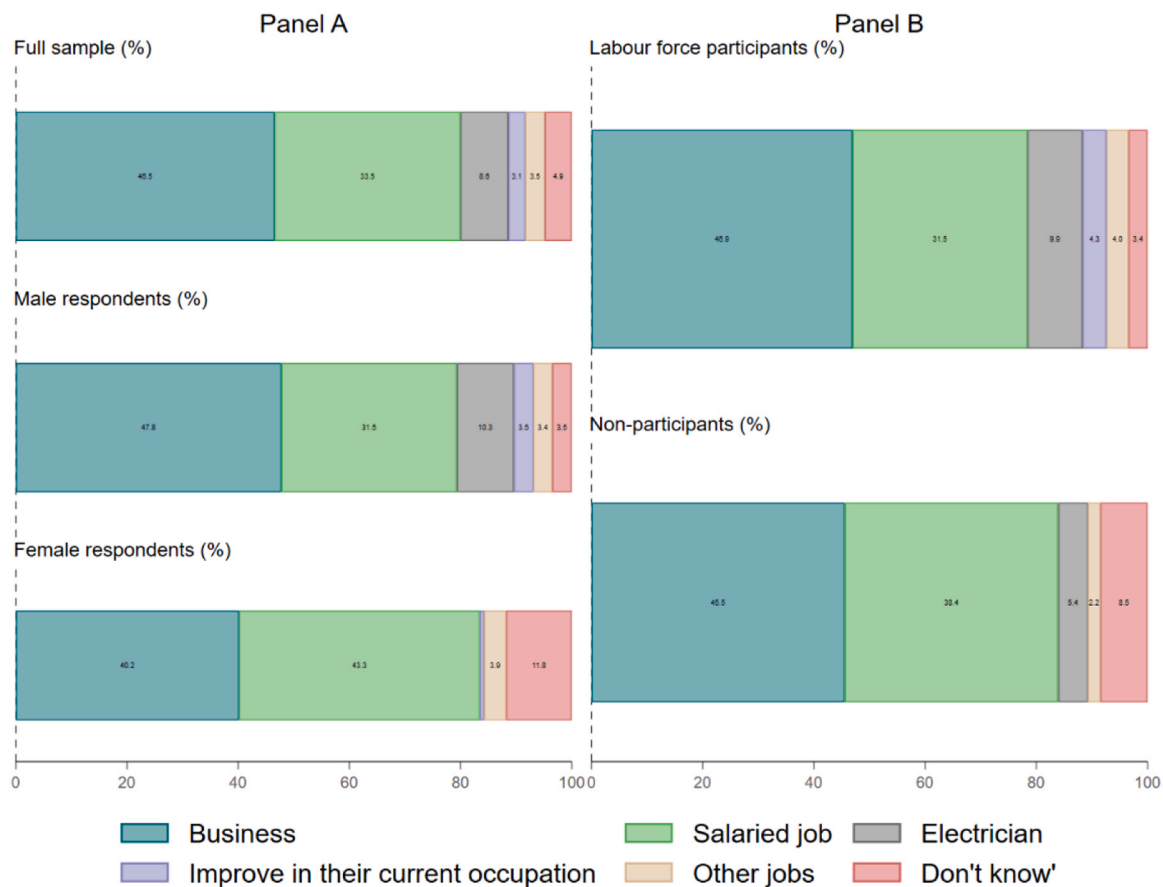


Fig. 6. Aspirations of respondents regarding income-generating activities, disaggregated by gender and labour force participation. *Note:* Panel A: Overall Number reported in this graph: 780; Number of male respondents for this module: 653; Number of female respondents for this module: 127. Panel B: Overall Number reported in this graph: 780; Categorical Number of labour force participants who responded to this module: 556. The number of non-participants in the labour force who responded to this module: 224. This module was asked of all respondents ($N=782$); however, depicted responses vary due to missing observations. Salaried job includes both private and public sector jobs. The 'Other jobs' category includes remarks in which respondents indicated a future desire to migrate abroad for work, learn driving/become a driver, and undertake housekeeping jobs. Given the relatively small number of reported responses in each category, they have been consolidated into a single category.

could either be a real skill shortage, or an expectation mismanagement. While this mismatch can also be true for non-madrasa students, madrasa students may require special policy attention in making education employment focused so that students have a smooth transition to work. Note that Alia madrasas could not apply for many mainstream university programs until recently (Rahman, 2023) and Qawmi madrasa curriculum focus on general subjects less than Alia madrasa or non-madrasa schools.

Labour market outcomes, aspirations, and expectations are gendered among the former madrasa students. Most female respondents do not participate in the labour market. While they are interested in receiving training, about one-fourth of the female respondents want to do so as they have spare time – suggesting that there is untapped productivity that ought to be leveraged. There is also a stark gender difference in expected wages.

These gendered perceptions, aspirations, and expectations may be the result of gender norms inculcated during madrasa schooling (Asadullah et al., 2019; Asadullah and Chaudhury, 2010; Asadullah and Wahhaj, 2012), in addition to potential community norms such as the practice of purdah (i.e., female seclusion), which reduces the likelihood of female participation in the labour market (Ahmed and Sen, 2018; Asadullah and Wahhaj, 2016). There could also be selection of female students into madrasas due to religious reasons. We refrain from making any causal assertion in this paper as we do not address any potential endogeneity concerns. However, we note that the labour market participation and employment rate of female respondents in our sample are substantially less than the respective national statistics. Nationally,

the female labour force participation rate in Bangladesh is 36%, as opposed to 24% of our sample (BBS, 2023). Females are employed at a higher rate as well (94%) compared to our sample (39%). This suggests that the former female madrasa students in Cox's Bazar are participating in the labour market at a lower rate.

These gendered facts suggest that in designing programs aiming to increase women's economic activities, special focus may be needed for former madrasa students, Specially, in certain situations, creating work opportunities that can be done from home could be instrumental (Jalota and Ho, 2024).

We also report a difference in engaging in religious services as an IGA with respect to the type of madrasa attended. Respondents who attended non-state-recognised madrasas (Qawmi and other institutes) derive most of their income from religious services; a significantly higher share of them work in religious services than former Alia madrasa students in our sample. This lends some credence to earlier research which indicates that Qawmi graduates are more likely to work as religious clerics (Ahmad and Nelson, 2009; Bano, 2014; Bhattacharya, 2006).

In our study, we cannot explore whether the Alia madrasa students at Cox's Bazar need to obtain some certified religious expertise (certification of Dakhil/Alim or higher) before they are considered eligible for these services. Such certification is similar to Pakistani madrasa graduates, for whom securing employment in religious positions (teaching at a madrasa or as a home tutor, in addition to other mosque-related activities) requires certification, verification and references from their senior madrasa faculty members (Ahmad et al., 2021).

This study has several limitations. First, it is based on a small sample



Fig. 7. Respondents' future business aspirations (type of business services) disaggregated by gender. *Note: Overall Number reported in this graph: 347; Number of male respondents: 300; Number of female respondents: 47. This module was asked of all respondents who indicated a willingness to launch a business in the future (N=363), however, depicted responses vary on account of missing observations.*

of individuals from a specific district, so it cannot be considered a representative sample. Males and Alia madrasa students are over-sampled in our study as well. A more representative sample would allow us to provide a more robust set of findings. Second, the sample was recently exposed to two exogenous shocks, namely, the Rohingya influx and COVID-19, which might have influenced the outcomes of the survey indicators. We cannot ascertain how much of their perception devoid of any economy wide shock in the recent years. For example, given the economic shock during COVID-19, respondents current and desired employment may have been influenced, in addition to the perception of their need and desire for training (given the advent of remote work). Third, as we conducted a phone survey, our respondent recruitment was restricted by the availability of phone numbers and respondents agreeing to participate in the interview. The phone survey also limited the survey length, forcing us not to ask more detailed questions. We could not collect information on what skills the respondents have, the challenges they faced in transitioning into the job market, if they experienced any salary differences, etc. These need to be considered before generalising the results.

5. Conclusion

The dearth of evidence on the school-to-work transition of former madrasa students of Cox's Bazar impedes any effective policy change regarding their integration into mainstream job markets, especially in the backdrop of Cox's Bazar's economy being influenced by the influx of Rohingya refugees. We have little knowledge of the labour market engagement and the nature of the employment of former madrasa students. To provide some insights and to identify new areas of research, this article documents and investigates the employment status, perceptions of training prospects, and work-related aspirations of former madrasa students in the district of Cox's Bazar.

We interviewed former madrasa students using an RDS method. Most respondents are engaged in the labour market, but there is a mismatch between their aspirations and reality. There is a demand for receiving training, and former madrasa students expect that they will be able to improve their earnings through training.

We find that former madrasa students' labour market participation, employment status, and wage expectations vary by gender. We do not find any gender variation in perception about madrasa education, aspiration for receiving training, and expectation of whether wages will improve if said training is obtained. However, there is a gender gap in the expected wages.

Despite its limitations, this explorative study offers important and novel insights into factors related to school-to-work transition, i.e., labour market outcomes, training opportunities, and aspiration. These findings can have important implications for designing skills training-based interventions. Furthermore, the study expands the field for future research in two dimensions. First, the findings from this study can be complemented with research on non-madrasa students to get a comparative picture. Second, research can be undertaken to identify the root of the gendered responses, that is, whether the responses are equally influenced by the gender norms present in society or if they are shaped by the gender norms prevalent in madrasas.

CRediT authorship contribution statement

Md. Shakil Ahmed: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Software, Supervision, Writing – original draft, Writing – review & editing, Resources, Visualization, Funding acquisition. **Khandker Wahedur Rahman:** Conceptualization, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Visualization, Writing – original draft, Writing –

review & editing. **Nuzaba Tahreen Rahman:** Data curation, Formal analysis. **Mohammad Raied Arman:** Data curation, Formal analysis, Writing – original draft, Writing – review & editing. **Marjan Hossain:**

Data curation, Formal analysis, Writing – original draft, Writing – review & editing.

Appendix Figures

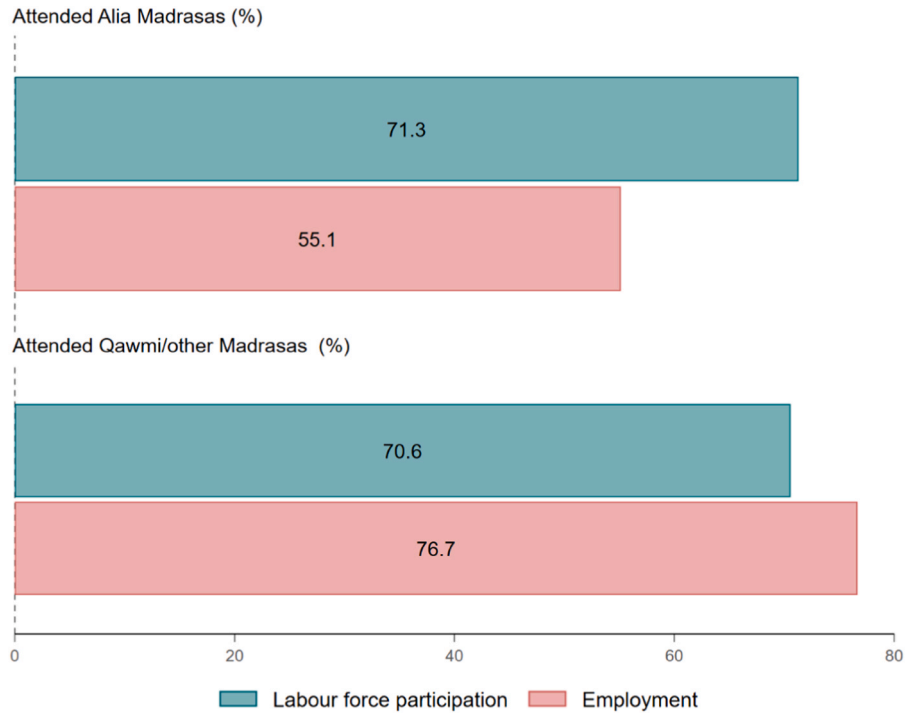


Fig. A1. : State of labour force participation and employment disaggregated by type of madrasa. Note: Overall Number: 782; Number of Alia madrasa respondents: 697; Number of Qawmi and other madrasa respondents: 85. In our sample, graduates from other madrasas attended Ebtedayee, /Daura/Khariji, Hafizia, and Nurani madrasas.

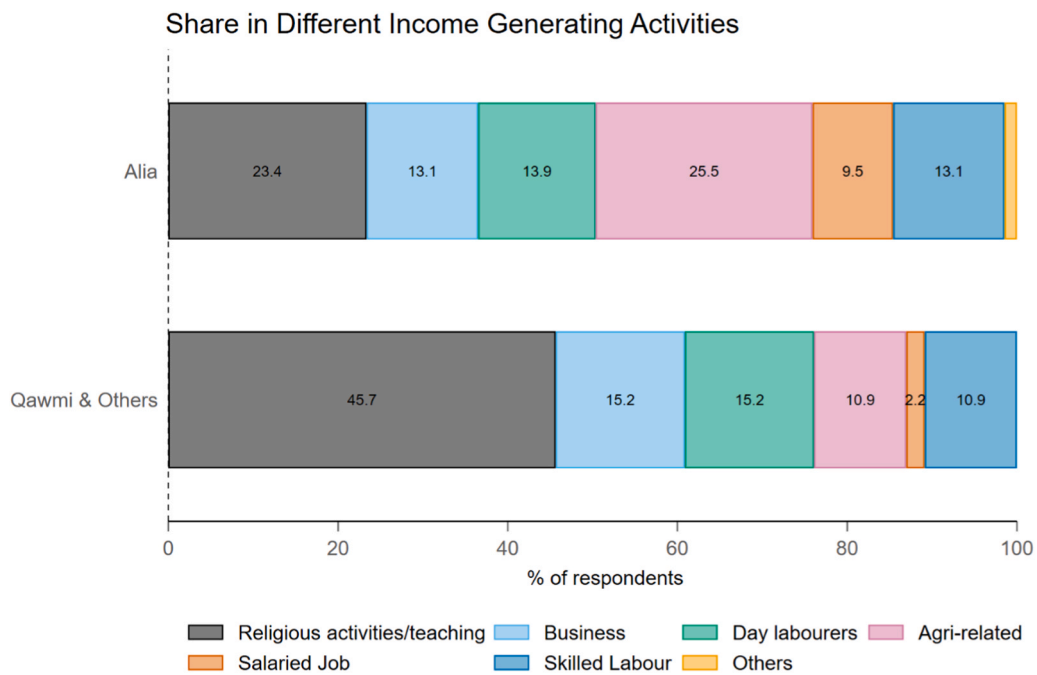


Fig. A2. : Sectoral Employment based on the type of madrasa attended. Note: Number of Alia madrasa respondents: 274; Number of Qawmi and other madrasa respondents: 46. Government employees, NGO employees, and security guards are categorised as salaried jobs. This module was asked of all employed respondents only (N=320). In our sample, graduates from other madrasas attended Ebtedayee, Qawmi/Daura/Khariji, Hafizia, and Nurani madrasas.

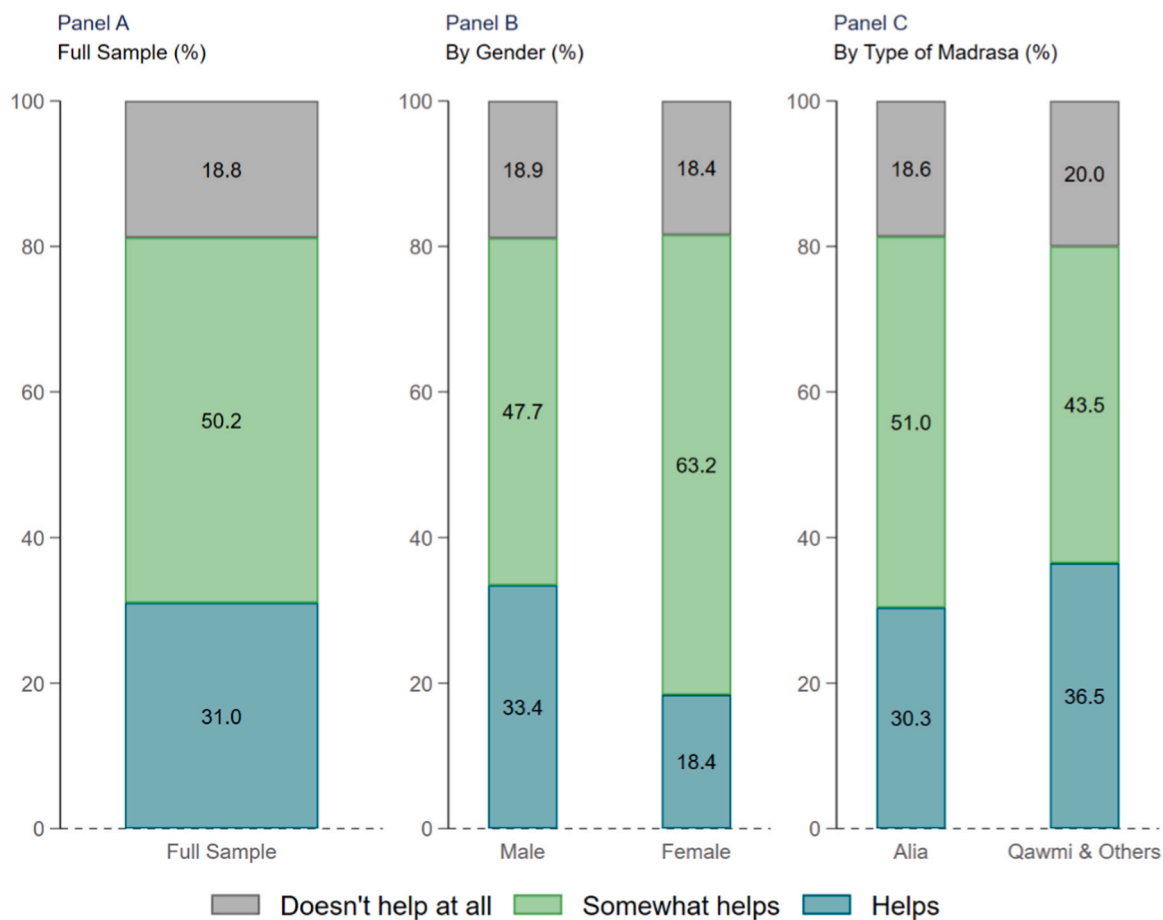


Fig. A3. : Perceptions on how helpful madrasa education is for obtaining employment in secular and diverse sectors. Note: Panel A: Overall sample: 777; Panel B: Number of male respondents for this module: 652; Number of female respondents for this module: 125. Panel C: Number of Alia madrasa respondents: 692; Number of Qawmi madrasa respondents: 85; This module was asked of all respondents (N=782); however, depicted responses vary due to missing observations.

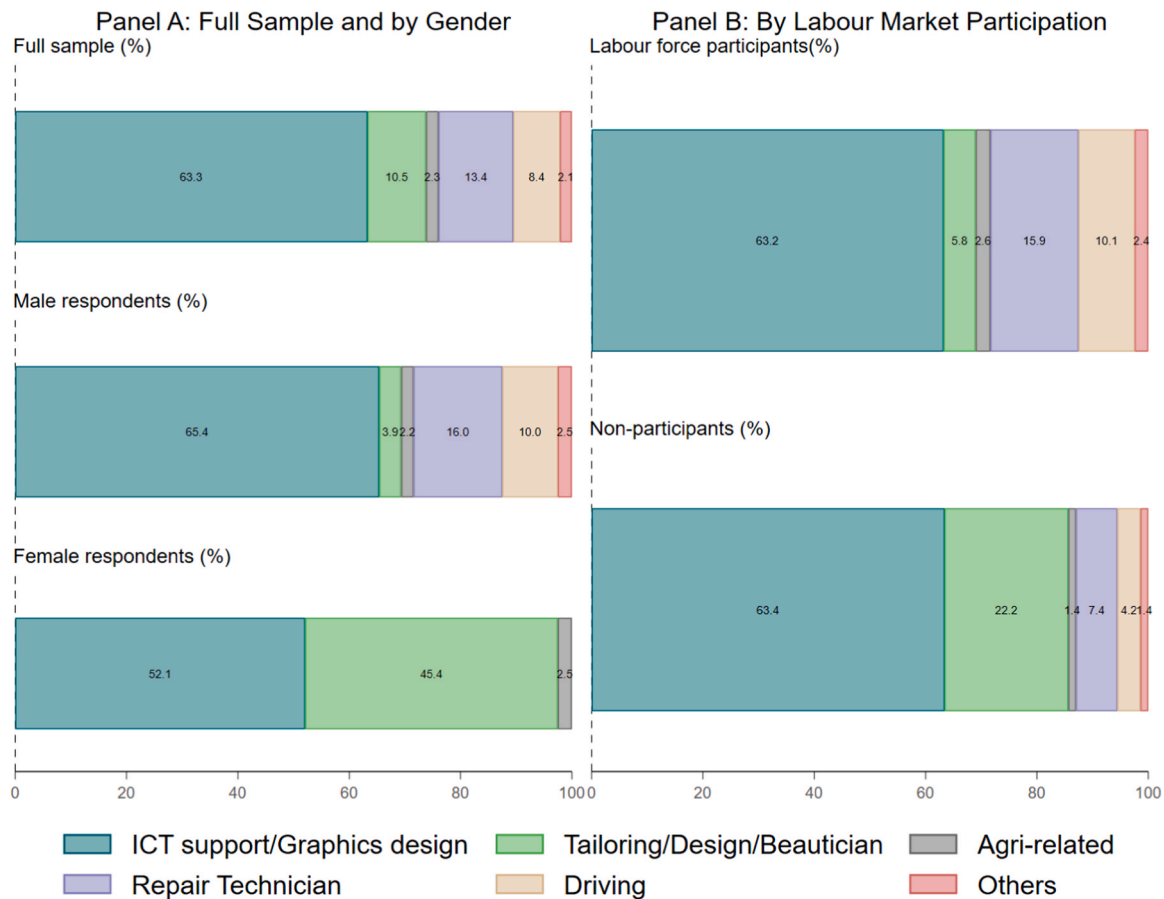


Fig. A4. : Training programs in sectors according to participants' preference– responses disaggregated by gender and labour force participation status. Note: Overall Number reported in Panel A: 752; Number of male respondents for this module:633; Number of female respondents for this module:119. Overall Number reported in Panel B: 752; Number of those in the labour market:536; those not in the labour market: 216. This module was asked of all respondents who indicated a willingness to participate in any training (N=753); however, depicted responses vary due to missing observations.

Appendix Tables

Table B1
Difference by Gender – t-stat and p-values

Outcome	t-stat of mean difference (Male-Female)	p-value
Labour Force Participation (=1)	13.72***	0.00
Employed (=1)	2.20**	0.03
Perceived Usefulness of Madrasa Education Helps (=1)	3.82***	0.00
Somewhat Helps (=1)	-3.27***	0.00
Does Not Help (=1)	0.12	0.90
Received Training (=1)	1.28	0.20
Willing to Receive Training (=1)	1.35	0.18
Reason for Willingness to Receive Training Will Help in Getting Jobs (=1)	5.83***	0.00
Gain New Knowledge (=1)	-1.17	0.24
Had Spare Time (=1)	-5.70***	0.00
Increases Work Productivity (=1)	0.96	0.34
Sector in Which Willing to Receive Training ICT support/Graphics Design (=1)	2.68***	0.01
Tailoring/Design/Beautician (=1)	-8.94***	0.00
Expected Income With Training (BDT/month)	8.02***	0.00
Without Training (BDT/month)	4.50***	0.00
Aspired Income Generating Activity Business (=1)	1.60	0.11
Salaried Job (=1)	-2.47**	0.01
Electrician (=1)	8.63***	0.00
Improve Current Occupation (=1)	2.56**	0.01
Aspired Business Type		

(continued on next page)

Table B1 (continued)

Outcome	t-stat of mean difference (Male-Female)	p-value
ICT-related Services (=1)	10.44***	0.00
Tailoring Services (=1)	-11.84***	0.00
Vehicle/Appliance Repair Services (=1)	6.07***	0.00
Small Shops (=1)	2.25**	0.02

Note: The table shows t-stats and p-values of the mean difference of outcomes by gender.

Table B2

Difference by Type of Madrasa Attended – t-stat and p-values

Outcome	t-stat of mean difference (Alia-Qawmi)	p-value
Labour Force Participation (=1)	0.14	0.89
Employed (=1)	-3.64***	0.00
<i>Sector of Employment</i>		
Religious Activities/Teaching (=1)	-2.86***	0.00
Business (=1)	-0.37	0.72
Day Labourers (=1)	-0.24	0.81
Agri-Related (=1)	2.77***	0.01
Salaried Job (=1)	2.62***	0.01
Skilled Labour (=1)	0.45	0.65
<i>Perceived Usefulness of Madrasa Education</i>		
Helps (=1)	-1.11	0.27
Somewhat Helps (=1)	1.31	0.19
Does Not Help (=1)	-0.30	0.77
Received Training (=1)	0.43	0.67
Willing to Receive Training (=1)	0.92	0.36
<i>Reason for Willingness to Receive Training</i>		
Will Help in Getting Jobs (=1)	2.24**	0.03
Gain New Knowledge (=1)	0.31	0.75
Had Spare Time (=1)	-0.98	0.33
Increases Work Productivity (=1)	-2.24**	0.03
<i>Sector in Which Willing to Receive Training</i>		
ICT support/Graphics Design (=1)	1.58	0.11
Tailoring/Design/Beautician (=1)	-0.22	0.82
<i>Expected Income</i>		
With Training (BDT/month)	-0.46	0.64
Without Training (BDT/month)	-1.32	0.19
<i>Aspired Income Generating Activity</i>		
Business (=1)	0.36	0.72
Salaried Job (=1)	1.67*	0.09
Electrician (=1)	1.09	0.27
Improve Current Occupation (=1)	-2.21**	0.03
<i>Aspired Business Type</i>		
ICT-related Services (=1)	0.63	0.53
Tailoring Services (=1)	-0.21	0.83
Vehicle/Appliance Repair Services (=1)	-0.86	0.39
Small Shops (=1)	0.07	0.94

Note: The table shows t-stats and p-values of the mean difference of outcomes by the type of madrasa attended.

Table B3

Difference by Labour Force Participation Status – t-stat and p-values

Outcome	t-stat of mean difference (In Labour Force-Not in Labour Force)	p-value
<i>Perceived Usefulness of Madrasa Education</i>		
Helps (=1)	1.25	0.21
Somewhat Helps (=1)	-0.80	0.42
Does Not Help (=1)	-0.42	0.67
Received Training (=1)	3.55***	0.00
Willing to Receive Training (=1)	-0.15	0.88
<i>Reason for Willingness to Receive Training</i>		
Will Help in Getting Jobs (=1)	1.72*	0.09
Gain New Knowledge (=1)	0.48	0.63
Had Spare Time (=1)	-5.24***	0.00
Increases Work Productivity (=1)	3.73***	0.00
<i>Sector in Which Willing to Receive Training</i>		
ICT support/Graphics Design (=1)	-0.05	0.96
Tailoring/Design/Beautician (=1)	-5.47***	0.00
<i>Expected Income</i>		
With Training (BDT/month)	3.79***	0.00
Without Training (BDT/month)	2.92***	0.00
<i>Aspired Income Generating Activity</i>		
Business (=1)	0.36	0.72
Salaried Job (=1)	-1.82*	0.07
Electrician (=1)	2.30**	0.02
Improve Current Occupation (=1)	5.00***	0.00
<i>Aspired Business Type</i>		

(continued on next page)

Table B3 (continued)

Outcome	t-stat of mean difference (In Labour Force-Not in Labour Force)	p-value
ICT-related Services (=1)	0.45	0.65
Tailoring Services (=1)	-5.11***	0.00
Vehicle/Appliance Repair Services (=1)	2.65***	0.01
Small Shops (=1)	3.25***	0.00

Note: The table shows t-stats and p-values of the mean difference of outcomes by labour force participation status.

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