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UNDERSTANDING ACCESS TO HIGHER EDUCATION AMONGST HUMANITARIAN MIGRANTS: A LONGITUDINAL ANALYSIS OF AUSTRALIAN SURVEY DATA

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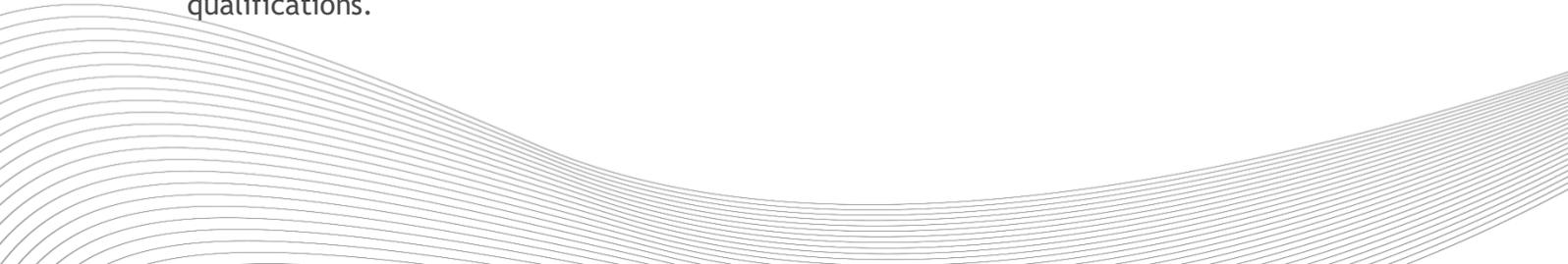
NON-TECHNICAL SUMMARY

Humanitarian migrants are amongst the most marginalised population groups in countries within the Global North, including Australia. An important channel for these migrants to successfully settle into the host society and improve their socio-economic outcomes is participation in the local education system, particularly in higher-education options. However, we know surprisingly little about the socio-demographic factors that facilitate or constrain access to (higher) education amongst humanitarian migrants, with evidence from robust quantitative studies being particularly scarce. The present study fills this important gap in knowledge by analysing Australian longitudinal survey data (*Building a New Life in Australia*; n=2,109 migrants and 8,668 person-year observations).

Key results indicated that higher English-language proficiency and pre-arrival education levels are core factors fostering greater engagement with the Australian higher-education system amongst humanitarian migrants. For example, humanitarian migrants who entered Australia with no qualifications participated in the education system in 10.1% of the observations, compared to 11.9% for those with some schooling, 14.5% for those with a trade qualification, and 19% for those with a university degree. Further, those who entered Australia with no qualifications selected a higher education course in 4.1% of observations, compared to 9.4% for those with some schooling, 13% for those with a trade qualification, and 21.3% for those with a degree.

Concerning gender differences, humanitarian-migrant women in our sample exhibited a greater adjusted likelihood of being a student than humanitarian-migrant men. Yet the timing of education access differed somewhat between humanitarian migrants of either gender: the share of humanitarian-migrant men in education decreased with time since arrival, whereas the share of humanitarian-migrant women in education increased with time since arrival. The absence of a “female penalty” in relation to education access amongst humanitarian migrants in Australia constitutes a surprising finding.

Altogether, our findings confirmed that humanitarian migrants experience barriers to accessing the Australian higher-education system, and that policy attention is required to redress this situation. However, they also stress that a “one size fits all” policy strategy may be neither sufficient nor appropriate to boost their education prospects. Instead, certain subpopulations within the broader humanitarian-migrant population require special attention from equity practitioners and policymakers—for example, those with low levels of English-language proficiency and those entering the country with low/no educational qualifications.



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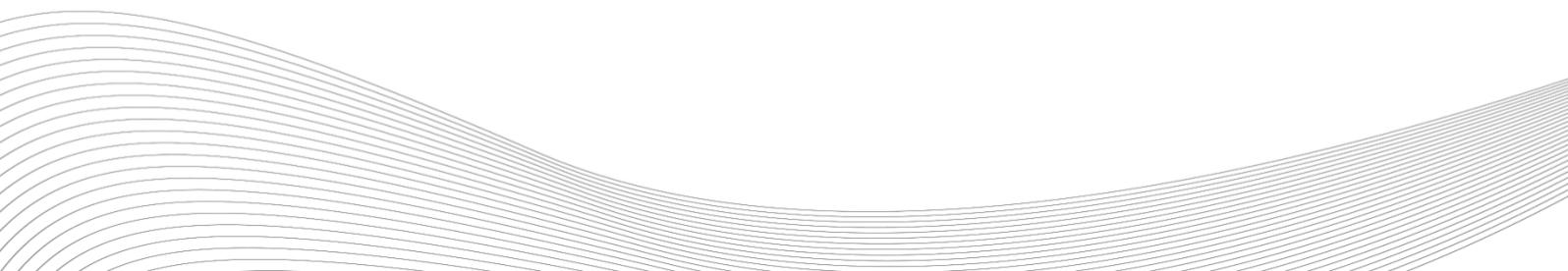
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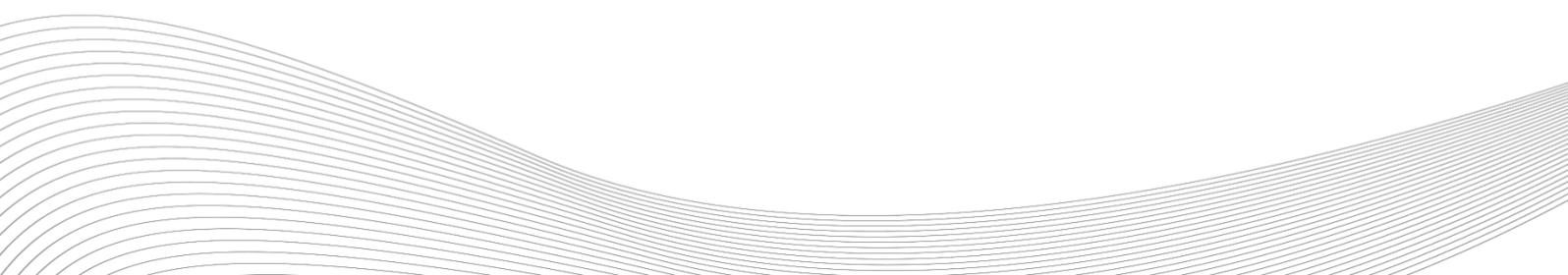
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ABSTRACT

Humanitarian migrants are amongst the most marginalised population groups in countries within the Global North, including Australia. An important channel for these migrants to successfully settle into the host society and improve their socio-economic outcomes is participation in the local education system, particularly in higher-education options. However, we know surprisingly little about the socio-demographic factors that facilitate or constrain access to (higher) education amongst humanitarian migrants, with evidence from robust quantitative studies being particularly scarce. The present study fills this important gap in knowledge by analysing Australian longitudinal survey data (*Building a New Life in Australia*; $n=2,109$ migrants and 8,668 person-year observations) by means of random-effect panel regression models. Key results indicated that higher English-language proficiency and pre-arrival education levels are core factors fostering greater engagement with the Australian higher-education system amongst humanitarian migrants. Surprisingly, humanitarian-migrant women in our sample exhibited a greater adjusted likelihood of being a student than humanitarian-migrant men. Altogether, our findings confirmed that humanitarian migrants experience barriers to accessing the Australian higher-education system, and that policy attention is required to redress this situation. However, they also stress that a “one size fits all” policy strategy may be neither sufficient nor appropriate to boost their education prospects.

Keywords: Australia; education; equity; humanitarian migrants; refugees; university

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1. Introduction

The global population of forcibly displaced individuals stands at a historical high, at approximately 70.8 million (UNHCR, 2018). Of these, ~20.4 million people are formally recognised as refugees under the UNHCR mandate.¹ In Australia, where this study is based, more than 145,000 humanitarian migrants entered the country over the 2006-2016 period (Parliament of Australia, 2017). Despite the support offered by government institutions and third-sector organizations, humanitarian migrants remain amongst the most marginalised population groups in countries across the Global North (Baum, Lööf, Stephan, & Zimmermann, 2020; OECD, 2016, 2019a, 2019b), including Australia (e.g., Hugo, 2011; Szkudlarek, 2019). For example, the employment rates of recently arrived working-age humanitarian migrants in Australia, 33.3% for men and 7.5% for women (DSS, 2017), are strikingly lower than those of the Australian-born population, 81.1% for men and 69.6% for women (Wilkins & Lass, 2018). This is consistent with global evidence showing that many refugees around the world are unemployed, under-employed or work in jobs that do not match their skills (Szkudlarek, 2019).

An important channel to enable humanitarian migrants to settle into the host society and improve their socio-economic outcomes is participation in the local education system. Attainment of home-country educational credentials—particularly higher-education (HE) credentials—not only creates employment pathways for humanitarian migrants; it also improves their cultural-competency skills, widens their social networks, and enhances their subjective wellbeing (Cerna, 2019; Streitwieser, Loo, Ohorodnik, & Jeong, 2018; UNHCR, 2019). However, humanitarian migrants face multiple and unique barriers to accessing and participating in the host-country HE system, both internationally (e.g., Bajwa et al. 2017; Brücker et al., 2016; Cerna, 2019) and in Australia (Baker, Ramsay & Lenette, 2019; Correa-Velez, Barnett & Gifford, 2015; Harris & Marlowe, 2011; Hartley et al., 2018). For these reasons, scholars and policymakers have called for further support for this group to engage

¹ According to the 1951 *United Nations Convention on the Status of Refugees* and its 1967 Protocol, a refugee is any person who owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his/her nationality and is unable, or owing to such fear, unwilling to avail themselves to the protection of that country. A person seeking asylum, or asylum seeker, is someone who has sought protection as a refugee, but whose claim for refugee protection has not yet been finalized. “Humanitarian migrants” denotes “people who have successfully applied for asylum and have been granted some sort of protection - refugee or other status” (OECD, 2016, p.7). When reviewing the available academic evidence, this study considers studies focusing on refugees, humanitarian migrants, and/or asylum seekers—noting that these definitions are not always employed consistently across studies. The empirical analyses presented here will focus on the category of humanitarian migrants—as formally defined by the protection visas offered as part of Australia’s Refugee and Humanitarian Program.

in HE (Bajwa et al. 2017; Baker et al., 2019; Brücker et al., 2016; Cerna, 2019; Delaporte & Piracha, 2018; Hartley et al., 2018; Jungblut, Vukasovic, & Steinhardt, 2020).

Policy responses aimed at lifting the educational engagement of humanitarian migrants should be based on a robust body of empirical evidence. While qualitative research has provided valuable insights into the experiences of humanitarian migrants in the host-society's education system, quantitative studies on this topic remain scarce (Ben-Moshe, Bertone, & Grossman, 2008; Cerna, 2019; Mestan, 2016; Naidoo, Wilkinson, Adoniou, & Langat, 2018; Ramsay & Baker, 2019; Sladek & King, 2016; Terry et al., 2016; Streitwieser et al., 2018). Generalizable, quantitative evidence on the associations between humanitarian migrants' circumstances and access to HE would further help guide and develop programs and interventions aimed at improving their educational engagement. Because of the greater economic and social rewards that stem from participation in HE (see e.g. ABS, 2017; Desjardins & Lee, 2016; Heckman, Humphries & Veramendi, 2016), it is particularly significant for new studies to consider barriers to accessing HE. This study fills this gap in knowledge. Specifically, it presents the results of analyses of longitudinal survey data examining the socio-demographic factors that facilitate or constrain access to education and HE amongst a recent cohort of humanitarian migrants to Australia. The analyses consider also differences between men and women, thereby recognising the potential gendering of these processes (Harris, Spark, & Ngum Chi Watts, 2015; Hatoss & Huijser, 2010; Seck, 2015).

2. Literature review

2.1 Barriers to education amongst humanitarian migrants

Despite recent efforts to increase humanitarian migrants' education access and participation in countries such as Australia, Sweden, the US, the UK and Germany (e.g., Jungblut et al., 2020; Mangan & Winter, 2017; Manhica, Berg, Almquist, Rostila, & Hjern, 2019; Morrice, 2009; Ramsay & Baker, 2019), international evidence suggests that the educational status of this population remains a matter of concern (Streitwieser et al., 2018; UNHCR, 2019). For example, globally, only ~63% of refugee children attended primary school in 2018 and just ~24% of refugee adolescents attended secondary school (UNHCR, 2019). The picture is particularly bleak for HE, with only ~3% of eligible refugee adolescents being enrolled in HE in 2018, compared to ~37% of eligible non-refugee adolescents. Recognising the crucial role of education in the successful resettlement of refugees, the UNHCR set up the ambitious

target “to achieve enrolment of 15% of college-eligible refugees in tertiary or connected higher education programmes in host and third countries” (UNHCR, 2019, p.13).

Much of the literature examining barriers to education amongst humanitarian migrants has focused on access to and success in primary and secondary education (Streitwieser et al., 2018). However, a growing body of studies has explored refugee access to and participation in HE (see Ramsay & Baker, 2019 for a review). Previous research has identified several barriers to accessing HE amongst humanitarian migrants (Bajwa et al., 2017; Hatoss & Huijser, 2010; Streitwieser et al., 2018; UNHCR, 2019). These can be categorised into: material/financial barriers, health barriers, informational barriers and gendered barriers.

Material and financial barriers refer to issues such as the lack of financial resources to pay for tuition, materials or transportation and other education-related fees (UNHCR, 2019). Financial barriers may also emerge when refugee students need to prioritise family financial needs over HE—for instance, when they have to work to support their family instead of undertaking HE studies (UNHCR, 2019). Health barriers refer to the fact that refugees often experience health *sequelae* stemming from traumatic experiences of persecution, violence or retention—including mental disorders such as post-traumatic stress disorder (see e.g., Ibrahim & Hassan, 2017). In addition, refugee adolescents may exhibit delays in their cognitive and socio-emotional developmental trajectories due to spending long portions of their childhood in refugee camps (Cerna, 2019). Informational barriers refer to difficulties with accessing professional support and navigating educational pathways (Bajwa et al., 2017; Morrice, 2009). For example, Morrice (2009) documents that individuals from refugee backgrounds find it hard to access accurate information that helps them navigate the UK educational system. Similarly, Bajwa et al. (2017) found that refugee students in Canada struggled to find useful information on how to have their credentials assessed, finance their HE studies, or utilise HE online resources.

Gendered barriers refer to the challenges that some refugee women may face in accessing HE and which stem from particular cultural gender-role practices and expectations (e.g., Harris et al., 2015; Hatoss & Huijser, 2010; Seck, 2015). For example, drawing on interviews with 14 Sudanese refugees who had recently arrived in Australia, Hatoss and Huijser (2010) documented that cultural-gender factors played a key role in restricting opportunities for women to pursue HE by locating women’s roles within the home. Similar gendered barriers have been documented elsewhere, such as Karen refugee women in Australia (Watkins, Razee & Richters, 2012).

When considering the factors that constrict refugees' access to HE, it is important to avoid deficit perspectives that treat these factors as attributes inherent to the individual. Some studies frame these barriers in terms of the support that institutions provide for refugee students in pursuing HE or as the product of structural inequalities (e.g., Naylor, Terry, Rizzo, Nguyen, & Mifsud, 2019). For example, Jungblut et al. (2020) identified three main institutional barriers to access HE faced by refugees in Germany—namely, the scarcity of preparatory German-language courses, the absence of a central education-credential recognition authority and humanitarian migrants' inability to provide official documents that prove their course eligibility (e.g., previously earned diplomas).

2.2 The Australian context and emerging evidence base

Australia is a traditional destination country for migrants from across the globe and currently maintains multiple schemes or programs that guide its immigration intake. This includes a Refugee and Humanitarian Program aimed at helping people in humanitarian need who are (i) outside Australia (“offshore”) and need to resettle to Australia, as well as (ii) people in humanitarian need who are already in Australia (“onshore”) and seek protection after arriving in Australia. Most humanitarian visas to Australia are granted through the Offshore Humanitarian Program. Over 17,000 humanitarian visas were granted under the Australian Government's humanitarian migration program during 2018-2019 (DHA, 2019). In the 2018-2019 period, the largest number of such visas was granted to people born in Iraq (41.5%), Congo (12.4%), Myanmar (11.7%), Syria (10.7%) and Afghanistan (7.7%) (DHA, 2019).

A mature body of Australian research has deployed *qualitative* methods to understand barriers to humanitarian migrants' access to and success in HE (e.g., Baker, Irwin et al., 2019; Earnest, Joyce, De Mori, & Silvagni, 2010; Harris et al., 2015; Harris & Marlowe, 2011; Hartley et al. 2018; Hatoss & Huijser, 2010; Joyce, Earnest, De Mori, & Silvagni, 2010; Kong et al., 2016; Naidoo, 2015). Consistent with the international literature, these studies also point out that humanitarian migrants face barriers to accessing and participating in the HE system, including strenuous family and/or financial responsibilities while undertaking their studies (e.g., supporting family in Australia or back home) (Joyce et al., 2010), challenges adapting to new educational contexts and community expectations (Harris & Marlowe, 2011) and inadequate HE support systems that fail to recognise refugee's unique needs (Earnest et al., 2010). However, these studies tend to focus on the experiences of humanitarian migrants that have already entered the Australia HE system, rather than on barriers to entry. As an exception, Stevenson and Baker (2018) discuss barriers to HE for humanitarian-migrant students along three stages of student life cycle: HE access, HE participation, and transitions

out of HE. Some core barriers, such as interrupted educational experiences and past and ongoing trauma, have negative impacts throughout all three stages. Yet other barriers are particularly relevant for HE access, such as low school performance, lack of English-language proficiency, lack of access to information on HE pathways, and absence of targeted support (Stevenson & Baker, 2018).

In contrast to the well-developed qualitative body of evidence, only one *quantitative* study to date has examined access to HE amongst humanitarian migrants in Australia. Specifically, Terry et al. (2016) analysed 2009-2014 administrative data from the HE Information Management System (HEIMS) to draw a picture of refugee students' HE participation. Their findings indicated that the number of students from humanitarian-migrant backgrounds enrolling in Australian HE increased from 1,687 in 2009 to 3,506 in 2014 (which corresponds to between 0.21% and 0.34% of all domestic students). While the percentage of refugee-women students also increased from 30% to about 40% of all refugee students, this share varied markedly by country of origin—ranging from 22.5% for Bhutan to 51.3% for Iraq. Their results also indicated that, in 2014, the majority of refugee students were mature aged, with only ~12% of them being less than 20 years old and approximately half (48.7%) of them being 26 years old, or older. This study, however, did not engage with *barriers* to accessing HE.

2.3 The current study: Aims and contributions

This study makes a significant contribution to the literature regarding the factors that facilitate access to education and HE amongst humanitarian migrants by redressing several of its current shortcomings. As Cerna (2019) noted, globally, research on this area remains “*rather limited, fragmented and case specific*” (p.4).

A first limitation of the available evidence base is that the vast majority of studies follows a qualitative methodological approach, both internationally and in Australia (Cerna, 2019; Ramsay & Baker, 2019). Ramsay and Baker (2019) reviewed 46 journal articles and noted “*a strong commitment to qualitative inquiry in the field*” (p.79). Specifically, all 32 *empirical* articles included in the review relied on qualitative methods. While some studies collected data via mixed methods (typically a small-scale survey in conjunction with individual interviews or focus groups), the quantitative data collected in these studies were not representative and rarely analysed using rigorous statistical techniques (Ramsay & Baker, 2019). The present study contributes to the evidence base by undertaking robust quantitative analyses of a large-scale survey, providing results that can be generalised to a

recent cohort of humanitarian migrants to Australia. Further, the richness of the survey data at hand allows us to examine the role of a variety of individual- and family-level factors, and to offer novel insights into humanitarian migrants' educational trajectories. We also take advantage of the data to pay attention to the potentially distinct ways in which humanitarian migrant men and women access education and HE.

Second, most of the available evidence concerning humanitarian migrants' interactions with the HE system has focused on humanitarian migrants who had already been admitted into universities, both internationally (e.g., Cerna, 2019) and in Australia (e.g., Baker, Irwin et al., 2019; Joyce et al., 2010; Kong et al., 2016; Naidoo, 2019; O'Rourke, 2011). Hence, their findings are most relevant to identifying barriers to success in—rather than access to—HE. The present study will fill this gap in knowledge by considering the socio-demographic factors of humanitarian migrants that are associated with increasing or decreasing odds of accessing education, and HE more specifically.

3. Data and methods

3.1 Dataset and sample

Building a New Life in Australia: The Longitudinal Study of Humanitarian Migrants (BNLA) is an internationally distinctive, longitudinal study of humanitarian migrants (Edwards, Smart, De Maio, Silbert, & Jenkinson, 2017). The study has interviewed a sample of 2,399 humanitarian migrants from 1,510 households within Australia on an annual basis between 2013/2014 (Wave 1) and 2017/2018 (Wave 5). The in-scope population for the BNLA study comprises adult humanitarian migrants settling in Australia with a permanent visa between May and October 2013, with the sample selected using complex probabilistic methods (AIFS, 2018). The study collects information from two types of humanitarian migrants: (i) “offshore migrants” who received a permanent humanitarian visa overseas and arrived in Australia between May 2013 and December 2013 and (ii) “onshore migrants” who sought asylum after arriving in Australia and were subsequently granted a permanent humanitarian visa between May 2013 and December 2013 (AIFS, 2018, p.3). All survey materials were translated into the respondents' mother-tongue or preferred languages and bilingual interviewers and interpreters were engaged as required. The study's initial response rate was ~55%, with the subsequent wave-on-wave response rates being ~80%. Our analyses of BNLA data are based on the subsample of responding individuals of working age (18 to 64 years), encompassing 8,668 observations from 2,109 individuals.

3.2 Measures

The outcome variables of interest are two binary variables capturing whether at the time of the interview the respondent was studying a course at an Australian educational institution (1=yes, 0=no). We consider both: (i) taking part in *any* type of course and (ii) taking part in a HE course. The latter involves differentiating between University degrees (1=yes) and trade or technical qualifications, paid traineeships, work experience, secondary school (grades 7-12) and short courses (0=no). The explanatory variables capture a range of factors known to affect individuals' decisions concerning their economic and education participation. These include continuous measures of respondent's age (expressed in years) and its square (to capture non-linear relationships), self-assessed spoken-English proficiency, self-assessed general health and number of children in the household; binary variables capturing whether the respondent is a woman, migrant type (onshore/offshore), area of residence (regional/non-regional), current employment status, and being ever in paid work prior to arriving in Australia; and sets of dummy variables capturing respondent's highest educational qualification prior to arriving in Australia, partnership status, length of time in Australia; and country of birth. Table 1 presents means and standard deviations for all analytic variables, pooling observations from survey participants across time points.

Table 1. Sample means and standard deviations for analytic variables

	Mean/%	SD
Currently studying in Australia (%)		
Any course	12.6	
Degree course	1.7	
Trade/technical course, or a paid traineeship	5.0	
Some other course, or work experience	5.3	
Woman (%)	45.3	
Age	37.3	11.6
Spoken English proficiency (1-4)	2.3	0.8
General health (1-6)	3.9	1.4
Level of education pre-arrival (%)		
None	15.2	
Some schooling	67.8	
Trade qualification	6.1	
Degree qualification	10.8	
Marital status (%)		
Married, partnered	62.6	
Divorced, separate or widowed	10.0	
Single, never married	27.4	
Number of children in the household	1.1	1.2
Onshore migrant (%)	14.7	
Lives in a regional area (%)	8.5	
Currently in paid employment (%)	20.6	
Ever in paid employment pre-arrival (%)	56.0	
Time in Australia (%)		
<1 year	21.0	
1 year	20.1	
2 years	18.8	
3 years	19.1	
4+ years	21.0	
Country of origin (%)		
Iraq	41.7	
Afghanistan	25.6	
Iran	11.1	
Myanmar	5.8	
Other country	1.1	
<i>n</i> (observations)		8,668
<i>n</i> (groups)		2,109

Notes: BNLA, Waves 1-5 (2013-2017). SD: Standard deviation.

3.4 Analytic approach

Because BNLA is a panel dataset, we fit random-effect logistic regression models that take into account the nesting of observations within the same individuals over time. These models estimate the coefficients on the explanatory variables using a weighted average of the between and within effects (Wooldridge, 2010). The analyses use random-effect *logistic* regression models because the outcomes capturing access to education are all dichotomous variables. Formally, the models take the following form:

$$\log\left(\frac{\text{pr}(E_{it}=1)}{1-\text{pr}(E_{it}=1)}\right) = \alpha + (\beta S_{it}) + u_i \quad (1)$$

where subscripts i and t stand for individual and time period, respectively; E is a binary measure capturing being enrolled in an education or HE course in Australia; S represents the set of socio-demographic variables introduced before; α is a model intercept; β is the vector of coefficients of interest to be estimated; and u is a person-specific random intercept (i.e., a random effect). For ease of interpretation, model coefficients are expressed as odds ratios (ORs). We subsequently examine gender differences in access to education by fitting analogous models in which all of the explanatory variables were interacted with a “woman” dummy variable.

4. Empirical evidence

4.1 Levels of and trends in educational engagement

The top of Table 1 presents sample averages for the educational variables of interest. Pooling all time periods, 12.6% of humanitarian migrants were studying towards a qualification in Australia; 1.7% were studying towards a degree, 5% a trade/technical course or a paid traineeship, and a further 5.3% another course or work-experience program.² That is, around 14.2% of all *students* were studying towards a degree. These figures pertain to the overall sample and do not yield any insights into temporal trends. The results presented in Table 2, however, are split by survey wave. The pooled figures in Panel A reveal that the percentage of humanitarian migrants who were studying any course increases between Wave 1 (10.5%) and Wave 3 (15.4%), but decreased thereafter (11.2% in Wave 5). The percentage

² The percentages for the different education categories (in this case, 5.3+5.0+1.7) do not add up to the overall percentage (in this case, 12.6) because a small number of respondents reported undertaking multiple courses falling into more than one of the categories. This also applies to other education variables.

of humanitarian migrants who studied towards a degree, however, increased linearly over time: from 0.5% in Wave 1 to 2.6% in Wave 5.

The second and third panels present the figures for men (Panel B) and women (Panel C) separately. Across survey waves, more humanitarian-migrant women (14.3%) than men (11.2%) were current students, with some evidence of gender differences in time trends. For example, the share of women who were current students raised from 10.7% in Wave 1 to 14.4% in Wave 5, while a decrease was observed for men (from 10.3% to 8.4%). The increase in the share of women accessing HE (0.8% in Wave 1 and 3.6% in Wave 5) was also much more pronounced than the equivalent increases for men (0.4% in Wave 1 and 1.7% in Wave 5).

Table 2. Sample means for outcome variables, by survey wave

	Mean/%				
	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5
Panel A: All respondents					
Any course	10.5	14.1	15.4	12.4	11.2
Degree course	0.5	1.2	2.2	2.5	2.6
<i>n</i> (observations)	2,079	1,695	1,585	1,609	1,568
Panel B: Men					
Any course	10.3	13.4	13.0	10.9	8.4
Degree course	0.4	1.2	2.1	1.9	1.7
<i>n</i> (observations)	1,146	954	865	875	844
Panel C: Women					
Any course	10.7	15.0	18.2	14.3	14.4
Degree course	0.8	1.3	2.2	3.1	3.6
<i>n</i> (observations)	933	741	720	734	724

Notes: BNLA, Waves 1-5 (2013-2017).

4.2 Predictors of engagement in education

The results of random-effect logistic regression models examining the socio-demographic factors associated with being a current student in Australia are shown in columns (1) and (2) in Table 3. The results for being a current student in any educational stream are presented in Column (1). All else being equal, the following factors significantly increased the odds of being a current student in Australia: being a woman (OR=1.54, $p<0.01$); higher levels of spoken English-language proficiency (OR=2.43, $p<0.01$); better health (OR=1.12, $p<0.01$); being single, rather than married/partnered (OR=2.43, $p<0.01$); and coming from Afghanistan (OR=1.44, $p<0.05$), Iran (OR=2.48, $p<0.01$), Myanmar (OR=5.22, $p<0.01$) or another country (OR=1.76, $p<0.01$), rather than from Iraq. Meanwhile, other factors significantly decreased the odds of being a current student, *ceteris paribus*: having already

completed an Australian qualification (OR=0.18, $p<0.01$); having no educational qualifications (OR=0.36, $p<0.01$), some schooling (OR=0.46, $p<0.01$) or a trade qualification (OR=0.63, $p<0.1$), compared to a degree, prior to arriving in Australia; being an onshore rather than an offshore migrant (OR=0.59, $p<0.01$); undertaking paid employment (OR=0.68, $p<0.01$); and having been in Australia less than 1 year (OR=0.45, $p<0.01$) or 1 year (OR=0.74, $p<0.05$), compared to 2 years.

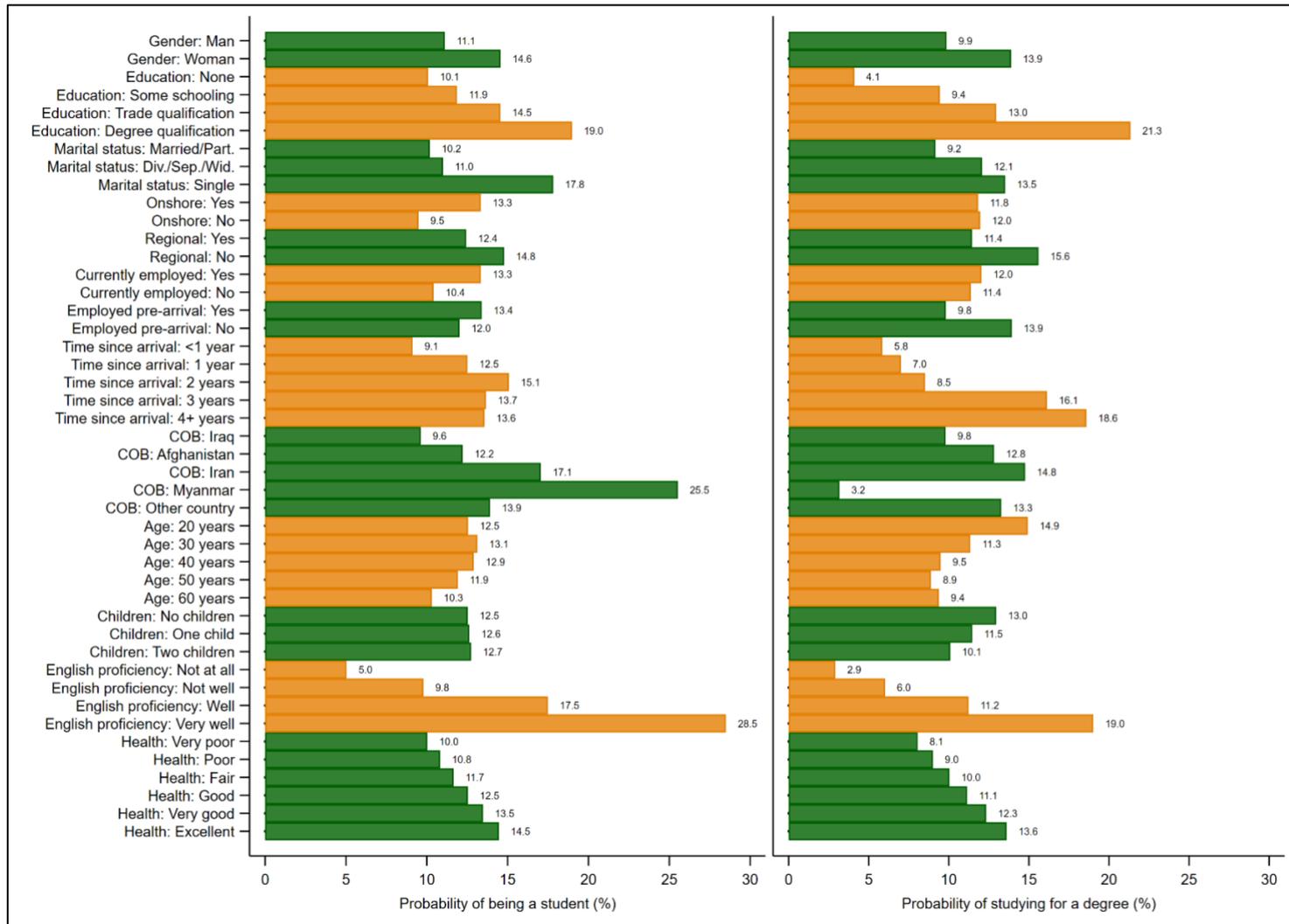
Table 3. Odds ratios from random-effect logistic regression models

	Currently studying	
	Any course (1)	Degree ^a (2)
Already completed Australian qualification	0.18***	3.26*
Respondent is a woman	1.54***	2.62*
Age	1.03	0.85
Age squared	1.00	1.00
Spoken English proficiency (1-4)	2.43***	4.46***
General health (1-6)	1.12***	1.33
Level of education pre-arrival (<i>ref. Degree qualification</i>)		
None	0.36***	0.01**
Some schooling	0.46***	0.09***
Trade qualification	0.63*	0.21
Marital status (<i>ref. Married/Partnered</i>)		
Divorced, separate or widowed	1.12	2.11
Single, never married	2.43***	2.92
Number of children in the household	1.01	0.71
Onshore migrant	0.59***	1.03
Lives in a regional area	1.32	2.50
Currently in paid employment	0.68***	0.85
Ever in paid employment pre-arrival	0.84	2.67*
Time in Australia (<i>ref. 2 years</i>)		
<1 year	0.45***	0.41
1 year	0.74**	0.63
3 years	0.85	5.58***
4+ years	0.84	8.61***
Country of origin (<i>ref. Iraq</i>)		
Afghanistan	1.44**	2.09
Iran	2.48***	3.14
Myanmar	5.22***	0.07
Other country	1.76***	2.30
<i>n</i> (observations)	8,492	1,070
<i>n</i> (groups)	2,109	668
Pseudo R ²	0.04	0.12

Notes: BNLA, Waves 1-5 (2013-2017). ^a Conditional on studying for a qualification of any kind. Statistical significance: * $p<0.1$, ** $p<0.05$, *** $p<0.01$.

The magnitude of these associations is better grasped by visual inspection of the left panel of Figure 1, in which the model results are transformed into predicted probabilities. This hints at which of the relationships of interest are substantially—as opposed to statistically—significant. As can be appreciated in the figure, the differences in humanitarian migrants’ access to the Australian education system were greatest across the categories of pre-arrival education, country of birth, English-language proficiency and—to a lesser extent—general health. Take for example the observed differences by the educational qualifications humanitarian migrants held at the point of arriving in Australia. Adjusting for the model controls, those who entered Australia with no qualifications participated in the education system in 10.1% of the observations. The analogous figures are visibly higher amongst those who entered Australia with some schooling (11.9%), a trade qualification (14.5%) and—particularly—a university degree (19%). The gradient for English-language proficiency is equally striking: respondents who reported speaking “not at all” English had a 5% probability of being a student, compared to a much higher 28.5% amongst respondents who reported speaking English “very well”.

Figure 1. Predicted probabilities from random-effect logistic regression models of studying towards an Australian qualification & studying towards a degree



Notes: BNLA, Waves 1-5 (2013-2017). Based on results from the model presented in Column (1) in Table 3 and Column (2) in Table 3. For discrete variables (e.g., marital status), we present predicted probabilities for each of the variable's categories. For continuous variables (e.g., age), we selected representative values of the variable's distribution and presented predicted probabilities for those values.

4.3 Predictors of higher-education access

Column (2) in Table 3 shows the results of a model examining which characteristics were associated with individuals studying towards a degree rather than other courses, out of those individuals who were studying towards any type of qualification. The model coefficients indicated that such odds were significantly higher amongst women than men (OR=2.45, $p<0.1$), and those who had been employed pre-arrival compared to those who had not (OR=2.67, $p<0.1$), and increased with English-language proficiency (OR=4.46, $p<0.01$) and time since arrival. The odds of studying towards a degree were, however, negatively associated with having arrived in Australia with no qualifications (OR=0.01, $p<0.05$) or only some schooling (OR=0.09, $p<0.05$), compared to having arrived with a university degree. Of note, some of the ORs in the model appear to be large but are not statistically significant. This is likely due to reduced statistical power stemming from the smaller sample size in this model, which is restricted to individuals who were studying for a course.

A visual representation of the magnitude of these results as predicted probabilities is displayed in the right panel of Figure 1. The figure shows that the most pronounced differences were for pre-arrival education, English-language proficiency, time since arrival and—to a lesser extent—age and general health. This pattern is therefore similar to the one observed for studying towards any qualification. However, some of these factors appear particularly important for studying towards a university degree, including prior educational qualifications and time since arrival. For instance, differences by educational qualifications pre-arrival indicated that those who entered Australia with no qualifications selected a HE course in 4.1% of observations, compared to 9.4% amongst those who entered with some schooling, 13% amongst those with a trade qualification, and 21.3% amongst those with a university degree. For time since arrival, a substantially larger share of humanitarian migrants opted for HE courses when they had been in Australia for 3 years (16.1%) or 4+ years (18.6%), compared to less than 1 year (5.8%), 1 year (7%) or 2 years (8.5%). Other factors that appear particularly relevant for HE access include

having a younger age (20 years or younger) and having no children.

4.4 Gender differences

In a final set of analyses we examined whether there were differences between humanitarian-migrant men and women in the predictors of being a (HE) student.³ The results of these interactive models—presented in Table A1—are quite extensive and difficult to interpret. For this reason, the discussion here focuses on a selection of key findings; specifically, the results of socio-demographic factors for which statistically significant gender differences were observed. The model results revealed statistically significant gender differences for just a handful of variables: having previously completed an Australian qualification, time spent in Australia, employment status and marital status.⁴ A review of the predicted probabilities associated with these parameters (not shown) indicated that the most substantial differences were those pertaining to time in Australia, employment status and marital status. These are discussed in turn, and displayed in Figure 2 as predicted probabilities.

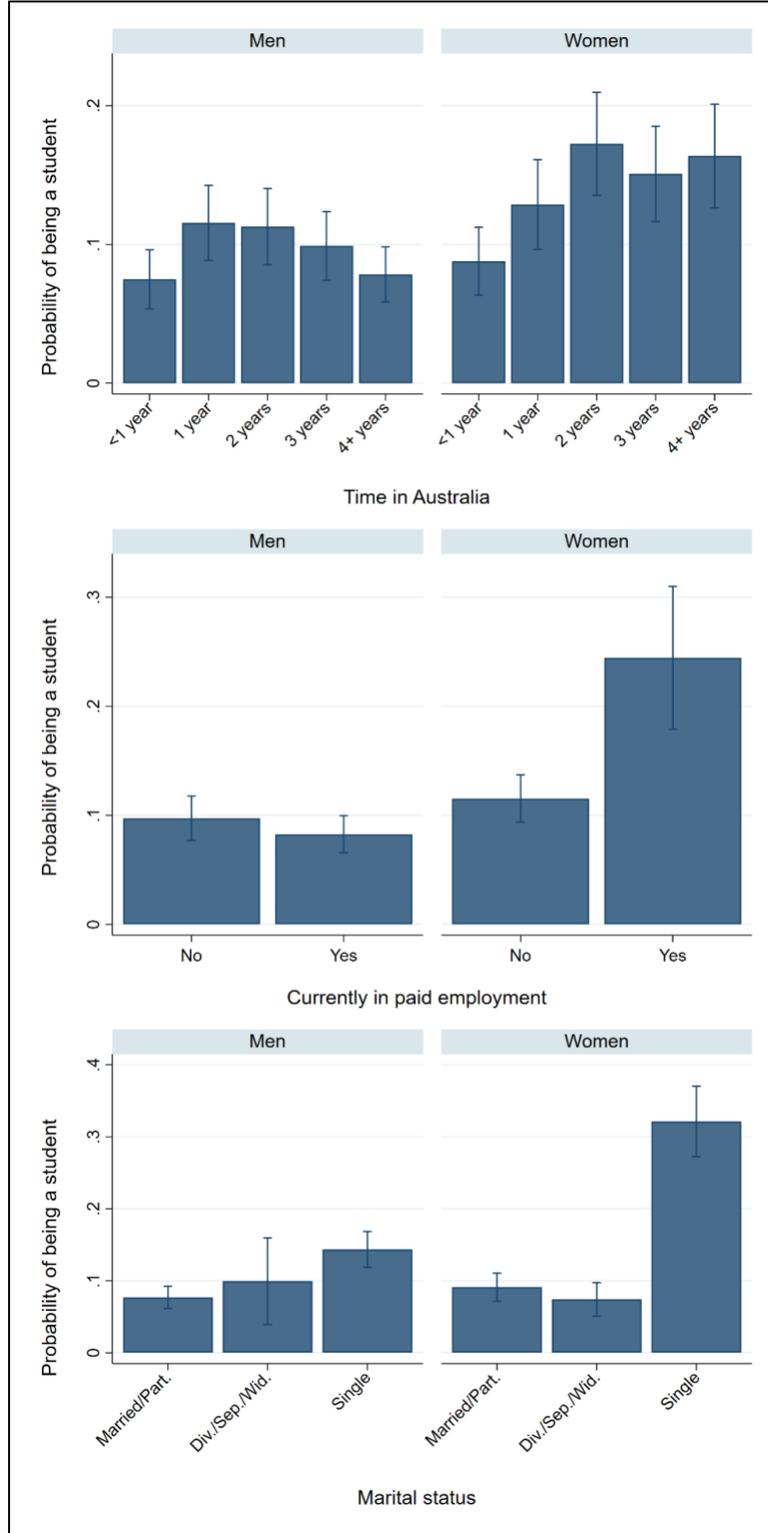
The top panel of Figure 2 demonstrates that both humanitarian-migrant men and women appear to engage with the education system at similar rates in the first two years in the country. However, while women's rates grow over time, men's rates decrease. This may reflect a propensity for humanitarian-migrant women to take the bulk of the domestic responsibilities over the early settlement period (see e.g., Hatoss & Huijser, 2010; Seck, 2015). The middle panel of Figure 2 shows how paid employment seems to be somewhat of a barrier to accessing education amongst humanitarian-migrant men, but markedly increases the probability of accessing the education system among humanitarian-migrant women. It is possible that men and women are opting for different types of qualifications, with different purposes: women may target qualifications to upskill while already in a job, while men may target qualifications that improve their chances of moving quickly into employment. Either way, this pattern of results indicates that a greater share of humanitarian-migrant women than men juggle work and study.

³ Due to small cell sizes when disaggregating the sample by gender, it was not possible to undertake analyses of whether the qualifications that humanitarian migrants studied for or had attained were university degrees or other type of courses.

⁴ A possible explanation is driven by the properties of the data. The statistical interactions effectively split the BNLA sample between respondents who are men and women, thereby halving the statistical power to detect statistically significant differences. For a few of the variables across the models, however, there were *statistically* significant gender disparities. However, these differences were seldom *substantially* significant—that is, their magnitude was rarely large.

Finally, the bottom panel of Figure 2 makes it apparent that being single is a significant incentive for humanitarian-migrant women but not men to become a student. This may reflect a reliance on a male-breadwinner model amongst humanitarian-migrant women, with those who are single being incentivised to upskill and, in doing so, augment their labour-market prospects.

Figure 2. Predicted probabilities from random-effect logistic regression models of the odds of being a student, by gender and time in Australia, employment status and marital status



Notes: BNLA, Waves 1-5 (2013-2017). Based on results from the model presented in Table A1.

5. Discussion and conclusion

This study set out to contribute unique empirical evidence on the socio-demographic factors that act as barriers or enablers to humanitarian migrants' accessing education, and HE more specifically, using a unique quantitative dataset (BNLA). The analyses yielded several key findings. First, while only a small share of humanitarian migrants started an educational course early into their settlement period, an upwards trend over the 5-year observation window was observed. By the end of the fifth year, 15.4% of humanitarian migrants were enrolled in a course (2.6% in a HE course). Although this time trend is a reason for moderate optimism, engagement with the HE system amongst humanitarian migrants in Australia is modest: of all students, only 14.2% pursued HE. This evidence supports the notion that this population group does indeed experience barriers to accessing the Australian HE system.

Second, two factors consistently predicted greater engagement with the Australian education system and with higher-order options within it: (i) English-language proficiency and (ii) education level at the time of arrival. In other words, within this cohort of humanitarian migrants, developing English-language proficiency and limited educational experiences acted as key barriers to education/HE in Australia. The importance of other factors that could be perceived as plausible barriers to education/HE amongst humanitarian migrants (e.g., age, general health, marital status, parenthood and onshore migration) was smaller. The critical role of mastery in the English language observed here is, however, not surprising. In fact, improving local-language proficiency has been identified by the OECD as a priority area for the educational integration of refugees (Cerna, 2019, p.34). Cerna (2019) discusses a number of strategies across OECD countries aimed at improving refugees' skills in the host-country language, including introductory/welcome language courses and transition-to-mainstream-language programs. In Australia, the Adult Migrant English Program (AMEP) has historically provided up to 510 hours of English-language tuition to eligible humanitarian migrants to help them learn the foundations of the English language, as well as cultural skills that enable them to participate socially and economically in Australian society (Department of Home Affairs, 2020). Our findings suggest that increasing humanitarian migrants' access to this type of programs and/or the intensity of their exposure may go a long way in enhancing their educational prospects. In this regard, in August 2020, the Australian government made positive changes to the AMEP, including removing the cap of 510 hours and the time limits for enrolment and completion—which previously meant

that humanitarian migrants had to complete the program within 5 years of settlement in Australia (Tudge, 2020).

Similarly, arriving in Australia with degree-level education qualifications was also a factor that consistently predicted engagement in the Australian education system, including HE. This finding is somewhat concerning, as it suggests that those humanitarian migrants with greater need to access the Australian education system (i.e., those with low or no educational credentials at arrival) are those who appear to be least likely to access it. And this finding does not simply reflect that highly-skilled humanitarian-migrants may be more likely to have sufficient educational credentials to be admitted into a HE course. In fact, this group was also more likely than the low-skilled group to access non-HE courses. A possible explanation is that highly educated humanitarian migrants may arrive in Australia with advanced skills and an appreciation of the importance of education for improving their socio-economic prospects, but may hold education credentials that are not officially recognised. For this group of humanitarian migrants, access to education (particularly HE) may be a pathway to validate their existing skills with a formal Australian qualification. Altogether, these results underscore the importance of reaching low-skilled humanitarian migrants for any policies or programs aimed at improving humanitarian-migrants' educational trajectories in Australia. Policies aimed at improving the educational engagement of low-skilled humanitarian migrants may focus on developing their HE aspirations, improving their financial capacity to enrol, and developing the skills required for successful participation (e.g., general literacy and numeracy).

Third, the results revealed significant differences in the probability of studying a course by humanitarian-migrants' country of origin. For example, humanitarian migrants from Iraq were generally found to display lower engagement with education than humanitarian migrants coming from other major source countries. It is possible that humanitarian migrants from Iraq experience the most elevated rates of post-traumatic stress disorder, owing to the intensity, duration and contemporaneity of conflict in their country (Slewa-Younan et al., 2015). Indeed, a wealth of psychological literature documents the long-term consequences of trauma amongst refugee populations post resettlement (Ibrahim & Hassan, 2017). This finding also echoes previous research highlighting the diversity in humanitarian-migrant experiences (e.g., Cerna, 2019; Naylor et al., 2019) and the ensuing complexity in designing intervention programs (OECD, 2016). The observed pattern of results is clearly a cause for concern, as Iraqi entrants are the largest group of recent humanitarian migrants in Australia—amounting to 41.5% of those who

arrived in the 2018/2019 period (DHA, 2019). It is nevertheless important to acknowledge that we cannot separately examine the outcomes of humanitarian migrants from small source countries, and it is possible that migrants from some of these countries experience more disadvantageous circumstances than Iraqi migrants. Regardless, this finding underscores the importance of considering specific countries of origin when providing targeted support to humanitarian migrants.

An additional set of analyses examined the potential gendering of the processes discussed thus far. Specifically, the analyses tested for gender differences in the factors enabling/constraining access to education within this population. A core finding emerging from these analyses was that—compared to humanitarian-migrant men in Australia—humanitarian-migrant women exhibited a greater adjusted likelihood of being a student. The timing of education access differed somewhat between humanitarian migrants of either gender: the share of humanitarian-migrant men in education decreased with time since arrival, whereas the share of humanitarian-migrant women in education increased with time since arrival. The absence of a “female penalty” in relation to education access amongst humanitarian migrants in Australia constitutes a surprising finding. This is because, compared to humanitarian-migrant men, humanitarian-migrant women are disadvantaged in other life domains, most notably in relation to their labour-market outcomes (ABS, 2018; Delaporte & Piracha, 2018; OECD, 2019b). Similarly, while it is theoretically plausible that humanitarian-migrant women experienced different barriers to accessing education than humanitarian-migrant men, the BNLA results portrayed a picture of similarity rather than one of difference. There were few statistically significant gender differences in the estimated effect of the socio-demographic predictors on the likelihood of studying.

Despite the importance of our findings, there are also study limitations that must be acknowledged, some of which point to potentially fruitful avenues for further research. First, the humanitarian migrants covered in our data exclude refugees on temporary protection visas and safe haven enterprise visas, who are arguably the most disadvantaged subgroups in relation to accessing the Australian (higher) education system (Hartley et al., 2018). Second, while BNLA offers important advantages in terms of the richness of the data collected and its longitudinal design, it does not enable direct comparisons between humanitarian migrants and other population groups. Third, the data pertain to a single cohort of migrants who arrived at a

specific socio-historical point in time and whose experiences and circumstances may or may not coincide with those of newer cohorts of humanitarian migrants with different characteristics and pre-settlement pathways.

Our findings also point to other areas in which future research is needed. One important avenue for further scrutiny involves gaining a more holistic understanding of humanitarian-migrant experiences after graduation. This study has focused on barriers to accessing education, with a particular focus on HE entry, whereas earlier studies have largely examined the experiences of humanitarian migrants while participating in HE (see e.g., Baker, Irwin, et al., 2019; Joyce et al., 2010; Kong et al., 2016; Naidoo, 2019; O'Rourke, 2011). There is nevertheless little evidence on whether or not humanitarian migrants face difficulties upon completing their HE studies and transitioning into the labour market. Australian evidence for other disadvantaged groups has yielded mixed findings (Tomaszewski et al., 2019). As such, studies answering questions such as “do humanitarian migrants with HE educational credentials attain greater labour-market outcomes than humanitarian-migrants with lower educational credentials?” or “are the benefits of HE comparable for humanitarian migrants and other populations?” are sorely needed (Baker, Due, & Rose, 2019).

Altogether, the findings presented here reveal that specific segments of the humanitarian-migrant population are comparatively less likely to access Australian HE. Hence, they suggest that a “one size fits all” policy strategy may be neither sufficient nor appropriate to boost the chances of humanitarian migrants reaping the benefits of HE in the host society. Instead, certain subpopulations within the broader humanitarian-migrant group require special attention from equity practitioners and policymakers—for example, those with low levels of English-language proficiency and those entering the country with low/no educational qualifications.

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Appendix

Table A1. Odds ratios from a random-effect logistic regression models with gender interactions

	Currently studying: Any course ^a
<i>Main effects</i>	
Woman	0.21
Already completed Australian qualification	0.24***
Age	0.99
Age squared	1.00
Spoken English proficiency (1-4)	2.29***
General health (1-6)	1.11**
Education: None	0.42**
Education: Some schooling	0.60**
Education: Trade qualification	0.72
Marital status: Divorced, separate or widowed	1.80
Marital status: Single, never married	1.40
Number of children in the household	1.04
Onshore migrant	0.61**
Lives in a regional area	1.62**
Currently in paid employment	0.55***
Ever in paid employment pre-arrival	0.73*
Time in Australia: <1 year	0.52***
Time in Australia: 1 year	0.93
Time in Australia: 3 years	0.88
Time in Australia: 4+ years	0.74
Country of origin: Afghanistan	1.35
Country of origin: Iran	2.84***
Country of origin: Myanmar	6.27***
Country of origin: Other	1.77**
<i>Interaction effects</i>	
Woman interacted with...	
Already completed Australian qualification	0.45***
Age	1.11
Age squared	1.00
Spoken English proficiency (1-4)	1.12
General health (1-6)	1.01
Education: None	0.95
Education: Some schooling	0.69
Education: Trade qualification	0.85
Marital status: Divorced, separate or widowed	0.71
Marital status: Single, never married	3.15***
Number of children in the household	0.91
Onshore migrant	1.44
Lives in a regional area	0.59
Currently in paid employment	2.86***
Ever in paid employment pre-arrival	1.18
Time in Australia: <1 year	0.78
Time in Australia: 1 year	0.61**
Time in Australia: 3 years	0.96
Time in Australia: 4+ years	1.38
Country of origin: Afghanistan	1.08
Country of origin: Iran	0.66
Country of origin: Myanmar	0.61
Country of origin: Other	0.95
<i>n</i> (observations)	8,492
<i>n</i> (groups)	2,109
Pseudo R ²	0.04

Notes: BNLA, Waves 1-5 (2013-2017). Statistical significance: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.