

THE VALUE OF SELF-EMPLOYMENT TO ETHNIC MINORITIES

Dr Malcolm Brynin
Institute for Social & Economic Research, University of Essex
brins@essex.ac.uk

Dr Mohammed Shamsul Karim
Essex Business School, University of Essex
mskarim@essex.ac.uk

Dr Wouter Zwysen
Department of Sociology, University of Essex

Abstract

It is sometimes argued that ethnic minorities have a cultural predisposition towards self-employment. However, this is generally not the preferred option for minority groups. We argue that ethnic minorities face a double risk in deciding between employment and self-employment. While their chances in employment leave them exposed to greater risk than the majority group, self-employment, which is inherently risky for all workers, adds to their general risk environment. We demonstrate a negative underpinning to their self-employed activity, showing that minority groups in the UK earn less in self-employment relative to the white British majority, work longer hours, and have lower job satisfaction. They also leave self-employment sooner to take up a job as an employee and use resources such as higher education to stand a better chance in employment.

Key Words: Ethnicity, Income, Education, Self-employment, UK

Corresponding Author:

Dr Malcolm Brynin
Reader, Institute for Social & Economic Research,
Room No: 2N2.6.07
University of Essex,
Wivenhoe Park, Colchester, Essex,
CO4 3SQ,
UK
e-mail: brins@essex.ac.uk

Introduction

Self-employment broadens work opportunities (Parker, 2004) but also entails increased risk (Bradley and Roberts 2004; Levesque *et al* 2002), which in the UK at least has grown in recent years. After 2007, with the recession, earnings fell for the employed but the self-employed experienced a larger income drop (Levy 2013). While the self-employed generally have higher job satisfaction than the employed (Binder and Coad, 2013), this advantage has also diminished (Meager 2015; Warr and Inceoglu 2018), and part-time self-employment has grown faster than full-time self-employment (Baumberg and Meager 2015; Meager 2015). The risks of self-employment might be greater for ethnic minorities for whom decisions can be complicated not only by assessment of the chances of a good job relative to succeeding in self-employment but their chances of either relative to the majority group¹.

Self-employment of ethnic minorities has been the subject of research for some time (eg Borooah and Hart 1999; 2000; Fairlie and Meyer 1996; Ram *et al* 2008; Rodríguez-Pose and Hardy, 2015; Sanders and Nee 1996; Sepúlveda *et al* 2011). The extent of the literature, including the analysis of trends (Clark and Drinkwater 2010; Jones *et al* 2012; Anderson and Hammarstedt 2010), immigration (Cai and Winters 2017; Munkejord 2017; Abada *et al* 2014; Kanas *et al.*, 2011); and exits from self-employment (Ahn 2011), suggests there is something distinctive in ethnic self-employment. One possibility is that minorities either have a cultural predisposition towards this form of work or, alternatively, when faced are pushed into it as a result of constrained employment opportunities (Heath and Cheung 2006; Longhi and Brynin, 2017; Metcalf *et al* 1996; Clark and Drinkwater, 2000), a need which might be stronger for immigrants in particular (Dustmann and Fabbri 2005; Elliott and Lindley 2008).

In fact, self-employment varies little by ethnicity (Levie 2007). However, the returns to both employment and self-employment might vary by ethnicity and this would suggest that ethnic groups face different opportunity structures relative to the majority group. One way this might happen, we argue, is through higher education, which ethnic minorities use to tip the balance of opportunity in favour of employment over self-employment.

Ethnic minority motivations for self-employment

There is no single motive for self-employment distinct to ethnic minorities (Basu 2004), so it is reasonable to suppose that a higher prevalence could in some cases derive from a cultural predisposition towards entrepreneurship (Abada *et al* 2014; Vershinina *et al* 2011), which might be especially strong in their countries of origin (Kanas *et al.* 2009). For instance, an estimated 25% of men of working age are entrepreneurially active in Bangladesh (Karim and Hart, 2012). Some proprietors of businesses might seek family succession in the venture (Bachkaniwala *et al* 2001; Deakins *et al* 2003); the desire for autonomy might vary by ethnicity (Storey 1994); or ethnic background might be associated with distinctive entrepreneurial goals (Metcalf *et al* 1996; Clark and Drinkwater 2010; Gbadamosi 2015).

These arguments are partially undermined by the relatively flat distribution of self-employment across ethnicity in the UK (confirmed by our research below). It is also unclear that the cultural thesis stands up to scrutiny in its own terms: An apparent preference is not necessarily separable from material factors which might influence predispositions. Examples are access to labour through family (Basu 2004; Vershinina *et al* 2011), to finance through social networks (Barrett 1999; Smallbone *et al* 2003; Ibrahim and Galt 2011; Vershinina *et al* 2011; Scott and Irwin 2009), or to markets through residency (Andersson and Hammarstedt 2015). For instance, in the UK, some groups tend to have close family and peer networks that

create social capital in respect of local customers, financial sources, and labour supply (Song 1997; Bagwell 2008; Ibrahim and Galt 2011). Many people in ethnic minorities live in deprived areas, but this clustering forms ethnic enclaves and therefore business opportunities – for instance in terms of speciality foods or clothing (Andersson and Hammarstedt 2015; Clark 2015).² The desire for autonomy (Jurik 1998; Mattis 2004; Modood *et al* 1996; Rafiq 1992) might itself be a reaction to relatively poor employment prospects. Clark and Drinkwater (2000) argue that while factors such as religion and neighbourhood might pull ethnic minorities into self-employment wage discrimination provides the push.

This material underpinning to cultural predispositions is likely to be influenced by differential risk. While setting up a business might be inherently attractive, for most people self-employment is a risky enterprise (Borjas 1986; Vereshchagina and Hopenhayn 2009) with well-known problems of sustainability (Barrett *et al* 2002; Blackburn and Smallbone 2007). Further, self-employed incomes are more polarized than employment incomes (Baumberg and Meager 2015) while in recent years poorer forms of self-employment have grown relatively fast (Levy 2013; Meager 2015) – reflected in increasing part-time self-employment (Baumberg and Meager 2015) and through the ‘gig’ economy.

Ethnic minorities face a different order of risk, firstly in employment in the face of potential discrimination (Wood *et al.* 2009; Andriessen *et al* 2012; Harris and Ogbonna 2016; Khattab 2012; Kirton 2009). Research also finds a substantial wage gap in employment relative to the majority group even taking background factors into account (Brynin and Güveli 2012; Longhi and Brynin, 2017; Heath and Cheung 2006). This risk is compounded in self-employment because minorities might face greater uncertainty than the majority group through discrimination in the market (Bogan and Darity, 2008; Phillips, 2006; Feagin and

Imani, 1994), in access to finance (Shinnar and Young, 2008), or through being locked into ethnic minority enclaves (Phillips, 2006). The latter might provide a ready-made customer base but also a restricted market. Using Beck's term (Beck 1996) the 'risk environment' is greater probably for most ethnic minorities.

Such risks might be yet greater for recent migrants (Levie 2007), who often face additional hurdles in respect of legal status, recognition of qualifications, or lack of social networks (Zwysen, W. and Demireva, N., 2018a.; Zwysen, W. and Demireva, N., 2018b.). However, it is even harder here to disentangle the effects of cultural influences from economic pressures, as recent migrants also have stronger cultural links with their home countries, and self-employment might be one aspect of this culture. Ojo *et al* (2013) propose that the growth of ethnic businesses is the result of the interplay of several factors such as migrant status and rejections by employers, forcing migrants to become 'survival entrepreneurs' in a 'twilight zone' of the economy. The relationship of migrants to self-employment might be an extreme form of that experienced by ethnic minorities in general.

We argue below that minorities seek to reduce labour-market risks. The use of higher education is an important part of this strategy as it predisposes them to employment rather than self-employment. This is the case even though education is generally high amongst the self-employed³, necessary, for instance, for free-lance IT or legal work (Martin et al., 2013; Yuengert, 1995; Carr, 1996; Robinson and Sexton 1994: 151-153). However, for the above reasons we expect ethnic minorities to use higher education predominantly for employment purposes. Self-employment then becomes almost a residual category. Even in a marginal business this might remain the only realistic alternative, which appears to be the case in the UK especially for Pakistanis (Clark and Drinkwater 2010).

Methods and Data

If self-employment is a residual category for ethnic minorities – used as a fallback, or perhaps a transitional or temporary step – we would expect minorities to obtain lower material or other advantages in self-employment relative to employment. The odds of success in self-employment are stacked against them sufficiently for the employment option to be the most rational path, which also pushes minority groups to success in education. This is weighed up not only in its own terms but also relative to the same odds for the white British majority. Of course such odds can only be guessed by individuals themselves, perhaps through everyday experience, but we would expect them to be apparent in our data. In our analysis we first test whether the relationship of education is stronger with self-employment than with employment for ethnic minorities *relative to the majority group*, and then whether outcomes in terms of wages, hours worked and job satisfaction are better or worse for minorities not only relative to the same groups in employment but again to the white British majority. The analysis of job satisfaction, but also of transitions over time, makes a novel contribution to research on both self-employment and ethnic inequalities.

The analysis is based on the UK which has relatively little regulation of the sector that in turn influences entrepreneurial behaviour (Sepulveda *et al* 2011; van Liempt 2011). Between 2000 and 2014 self-employment grew from 11.8% to 14.8% of all work (Meager 2015). From 1991 to 2011 the foreign-born population in the UK nearly doubled to 13% of the population, while the ethnic-minority proportion (in England and Wales) is roughly 20% (Jivraj *et al* 2015: 19). Immigration to the UK is also increasingly diverse in regard to countries of origin and ethnicities (Vershina *et al* 2011; Vertovec 2007).

Using the UK Labour Force Survey (LFS) we examine trends in ethnic self-employment, the association between education and self-employment by ethnicity, how self-employment varies between migrant and British ethnic minorities, and the impact of recession on ethnic self-employment. We then use the UK Household Longitudinal Survey (UKHLS) to examine ethnic differences in the transitions between self-employment, employment, and unemployment or exit from the labour force and to test how self-employment of ethnic minorities differs from the majority group in terms of wages, hours worked and job satisfaction. As women make up a small proportion of the self-employed labour force (Saridakis *et al* 2014; Sena *et al* 2012) we mostly analyse men and women together⁴. Only a few studies have ethnicity and gender simultaneously in respect of self-employment (*eg* Levent *et al* 2003; Kwong *et al* 2009).

The LFS

Our LFS sample covers the period 1993-2014. We use the census ethnic categories (but excluding heterogeneous groups), resulting in: White British, Black Caribbean, Black African, Indian, Pakistani, Bangladeshi, and Chinese, also adding whether respondents are born in and length of residence in the UK. The selected age range is 17-65. We use 80 occupational categories (two-digit prior to 2000 and three-digit afterwards). Hourly pay is derived from stated pay and time worked, excluding extreme values. We exclude those working less than 10 hours a week.

The UKHLS

We use the first seven waves of the UKHLS (2009-2017), taking only the English sample, and weighted for non-response. We restrict the data on the same criteria as in the LFS. The UKHLS includes local identifiers to account for economic opportunities in the locality.

Previous work has shown the importance of local characteristics on self-employment (Clark and Drinkwater 2000) and general ethnic labour-market outcomes (Feng, Flowerdew and Feng 2015). For instance, locality affects minorities' social networks (Zwysen, W. and Demireva, N., 2018b.), which in turn influence employment opportunities (Lancee 2012; Patacchini and Zenou 2012). However, we have no direct information on socio-economic networks.

We use four activities to study transitions: inactivity (respondents are not looking for work); unemployed and looking for work; working as an employee; or self-employed. We further include job satisfaction, monthly earnings/income adjusted for inflation, and hours worked. Employees report their monthly gross earnings, the self-employed report their usual monthly earnings. Where this latter information is not available we use their last annual share of profit/losses. (Reported income and monthly profits correlate 0.66).

Self-employment captures many different types of work. In our sample 41% of the self-employed work for themselves, 35% run a business or are a professional (by themselves or in partnership), 9% are freelance and 7% are sub-contractors, with another 7% having some other work arrangement. This varies by ethnicity, with for instance 54% of the Chinese and 29% of the Indian self-employed having a business or being professional. Pakistanis, Bangladeshis and black Caribbeans are most likely to work for themselves, while black Africans are very likely to work as freelancers or subcontractors. We also distinguish between the self-employed with employees (17.5% of all self-employed) and those without.

RESULTS⁵

Trends in and value of self-employment

Table 1 shows economic activity, based on the LFS. 'Other' includes sick, retired, in education and unspecified. In nearly all cases the employment rate is highest and unemployment lowest for white British men and women. The male unemployment rate for black Caribbeans, black Africans, Pakistanis and Bangladeshis is over twice that for the white British majority. There is relatively little ethnic variation between women in the case of 'other' activity but a very substantial difference for men. (The main factor is education and training which, pooling years, applies to 3.1% of white British, 10% of Pakistani, 10.2% of Bangladeshi, and 23.4% of Chinese men.)

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Tables 1a and b here

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There is no clear tendency for men in the minority groups to be self-employed. Three groups have a significantly lower proportion in self-employment than do the white British, with only Pakistanis having substantially more (19.6% against 13.5%). There is also no clear indication that self-employment is an alternative to low employment. In the three cases where employment is lowest (the last three columns), the most common outcome is 'other' (not being in the labour force), while the self-employment rate for Bangladeshis is anyway below average.

We do not show trends as the picture changes little over time. However, taking self-employment as a percentage of all work, and combining men and women, the reliance of the white British on self-employment is always substantial at somewhat less than 15%. The Bangladeshi rate mirrors this closely, while black Africans and Caribbeans have lower rates throughout. These decline slightly for Indians and the Chinese. Only the Pakistani rate is always higher, indeed over 25% for half of the period. Again we do not see that self-employment is used primarily in the face of inadequate job prospects.

We undertook a simple test of whether self-employment operates as a constraint more for ethnic minorities than for the majority group through looking at the relationship between self-employment and economic recession. We discern no clear pattern. For the white British there is an increase of one percentage point when comparing the three years prior to the 2008-9 recession to the three subsequent years. Roughly the same applies to black Africans and Bangladeshis, but for three other groups the change is in the other direction, while for Pakistanis there is no significant change.

Ethnic-minority self-employment does not at this stage seem to be a forced choice. However, where members of minorities have high levels of education they not only seek employment rather than self-employment but do so more than the white British majority. To demonstrate this we first compare the proportion of ethnic groups in occupations with low qualifications to the proportion in the same occupations with a degree (where occupations have at least 4% ethnic minority workers). If self-employment is not the preferred option, we would expect ethnic minorities to have relatively high self-employment in occupations where low skills predominate. Our results partially support this. For black Caribbeans and Africans, and also

Indians, the relative proportion of graduates is higher when self-employed but the reverse applies to the other minority groups, who as self-employed are likely to be working in occupations with low skill supply⁶ (in particular for Pakistanis and Bangladeshis, the poorest groups).

In Table 2 we move to a direct test of our main hypothesis, that ethnic minority self-employment is inversely related to educational achievement more strongly than for the white British majority (at the individual rather than occupational level).

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Table 2 about here

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The percentage graduate is precisely the same in the white British group for both the employed and the self-employed. This applies also to black Caribbeans and Indians while black Africans have a higher proportion of graduates amongst the self-employed. However, in the other three groups the self-employed are far less likely to be graduate than the employed, while the employed are far more likely to be graduate than the white British employed. This descriptive account suggests a strong pull of education on employment rather than self-employment and is confirmed in logistic regression analysis controlling for a wide range of variables. Having a degree increases the odds of being self-employed for black Africans but for all other groups except black Caribbeans, it *reduces* the odds. Having less than a GCSE raises the odds of self-employment for three minorities, further suggesting that the relatively poorly educated seek self-employment in these groups. (We do not show these results because they are confirmed using Understanding Society in Table 5.) The results

suggest that the predisposition for the more highly educated to select into employment rather than into self-employment is higher for at least some ethnic minorities.

As argued above, it is possible that the ethnic-minority relationship with self-employment might be different for migrants. However, migrants arrive in varying economic conditions, at different ages, and for different reasons – selected with sought-after skills through the visa system, out of extreme economic necessity, to join settled families, or as political refugees. Many also later return to their home countries. Nevertheless, as Table 3 shows, non-British ethnic minorities are more likely to be self-employed than the British-born minority population.

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Table 3 about here

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There is also of course a difference between being non-British and being a recent migrant. Here we utilise number of years resident in the UK for the non-British. This is substantial for minorities born abroad, being lowest for black Africans (roughly 12 years) and highest for black Caribbeans (29 years). Further, though these results are subject to problems of missing data, it turns out that the average residence is always longer for the self-employed than for the employed non-British, with the difference ranging from one year for black Caribbeans to nearly six for Indians and the Chinese. Self-employment in this case is therefore not generally an adjustment to recent migration but something that takes time to develop. A further indication that we are not dealing with a general migration effect is apparent when we differentiate by age. In general there is an inverse U shape relationship between age and self-

employment (Parker 2009; Karim, 2013). Distinguishing migrants aged under 40 from those over 40, we find the older group is more likely to be self-employed (with the exception of black Africans and Caribbeans). For instance, 7.8% of non-British Indians under the age of 40 are self-employed compared to 12.8% aged 40 or over. For Pakistanis the figures are 10.5% and 15.2%. This is consistent with the poorer prospects in the labour market for earlier cohorts of migrants leading to a higher take-up of self-employment. These results also suggest either that it takes time to get established in self-employment or that some people turn to this relatively late in life. They also suggest that self-employment does not result directly from migration.

We now turn to the UKHLS to understand more about these results. We again expect education to have a stronger negative effect on self-employment for ethnic minorities. We also expect self-employed ethnic minorities to earn lower wages relative to employed ethnic minorities (and this difference to be greater than for the white British majority), and that minorities will work longer hours and have lower job satisfaction.

A longitudinal analysis

In the following models we include socio-demographic controls (born in the UK, education, gender, age, marital status, dependent children, self-perceived health), region (including urban area, an index of multiple deprivation, and 2011 census area-share of migrants), and year of survey.

What factors affect the probability of self-employment relative to other outcomes? Table 4 shows models by gender. The coefficients are differences relative to the white British majority. In the case of self-employment where the individual employs staff, the few results

reaching statistical significance are negative (for men and women). In the case of the self-employed working for themselves all the coefficients are negative and, barring one, statistically significant. Ethnic minorities are less likely than the white British majority to work for themselves. Controlling for their characteristics it seems that ethnic minorities are in general unlikely to be self-employed, especially in potentially less productive forms⁷.

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As argued above, education in particular is an important factor in these outcomes. Table 5 (pooling both genders) presents the effect of highest qualification on being self-employed rather than in any other state (inactivity, unemployed or working as an employee), taken from separate multinomial logistic regressions by ethnicity. Among the white British those with upper secondary or tertiary qualifications are more likely to be self-employed both with and without employees than in any other activity, indicating a positive selection into self-employment. Only black Caribbeans have a similarly significant ($p < 0.05$) positive result. Overall, for ethnic minorities there is an insignificant or negative association between education and self-employment, including where higher remuneration from this form of work is likely. These outcomes confirm the LFS results mentioned above. Where education allows, ethnic minorities are less likely to be self-employed.

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Table 6 shows differences by ethnicity in the probability of moving into another state when currently self-employed (combining those with and without employees). Perhaps because of small sample sizes, the coefficients do not achieve statistical significance and are therefore indicative only. Yet it is striking that most ethnic minorities are between 1 and 4 percentage points less likely to remain self-employed the next wave, and this is offset by a somewhat higher inflow into paid employment. This suggests that self-employment might serve as a pathway into paid employment for some minority groups, which, while this might be prolonged, tends also to be transitional⁸.

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Although not all the above results are conclusive, they suggest that self-employment sometimes operates as a transitional pathway into employment, and that higher education reduces the probability that ethnic minorities will be self-employed more than it does for the white British majority.

In a final analysis we test the extent to which outcomes – in terms of total work income, hours worked per week, and job satisfaction – differ between the self-employed and employees by ethnicity. Table 7 presents the estimated ethnic differences, the general effect of self-employment, and the interaction term between these, therefore showing how the effect of self-employment differs over ethnic groups. This is based on a random effects model (which includes a random person-specific error to account for person characteristics)⁹.

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The main effect of ethnicity on income indicates that most ethnic minorities earn substantially less as employees than similarly qualified white British workers. Being self-employed with employees is associated with a slightly lower wage than employees for the white British (row 7), but with a substantially lower wage for Chinese and black African minorities, while Bangladeshi minorities who own a business are able to close the payment gap with white British. Being self-employed without employees (row 14) is associated with a substantially lower wage than being an employee for the white British and all ethnic minorities, although the penalty is somewhat smaller for Pakistani and Bangladeshi self-employed, and substantially heavier for black Africans. So, while self-employment may offset some of the large negative penalties for Bangladeshi and Pakistani employees, it generally remains associated with a lower wage than being an employee and exacerbates outcomes for other groups such as black Africans and the Chinese¹⁰.

The next column partly explains why the wage penalty for self-employment is smaller for some ethnic minorities than for the white British. All self-employed work longer hours than employees, but while most ethnic minority employees work fewer hours than the majority group, Pakistani, Bangladeshi, Chinese and black African self-employed with employees, and Pakistani and Bangladeshi self-employed without employees, work more hours than the self-employed white British – who themselves work more hours than white British employees (rows 7 and 14). This extra time investment is smaller for black Caribbean self-employed

with employees and for Chinese and black African self-employed without employees.

Minority groups have to work especially hard to make a living.

Job satisfaction is generally somewhat higher among Indian and Pakistani employees than among the white British, but lower for black Africans and Caribbeans. The self-employed white British report higher job satisfaction than their employed counterparts, but this positive evaluation is weaker for most ethnic minorities (though not statistically significantly for most ethnic-minority self-employed with employees). In terms of satisfaction with pay, job security, and other factors, Meager shows that scores have generally declined, though they mostly remain higher than for the employed (2015: 46-8). We show that the white British benefit from being self-employed through higher satisfaction with their work, even if they work more hours and earn less on average than their employee counterparts. This benefit is weaker for ethnic minorities, who on average put in more hours and still earn substantially less than their employee counterparts.

Conclusions

We have argued that self-employment entails considerable risk, and more so for ethnic minorities than for the majority working population. This means that where possible ethnic minorities will avoid self-employment, even if there might be strong positive drivers – a need for independence, a quest for creativity, a desire to become rich. At any level, from window-cleaning to setting up a large business, the risks are considerable. The failure rate is high (Taylor 1999; Clark and Drinkwater 2010). We have additionally argued that this risk is greater for ethnic minorities, not only because their potential markets might be more uncertain but because in the face of perceived and actual discrimination employment also

carries risks. In the decision between employment and self-employment ethnic minorities therefore face a double uncertainty and therefore a double risk.

We have hypothesised that one way round this, acting as a sort of insurance policy, is investment in education. This insurance is at the group rather than the individual level as it is unlikely that self-employment is consciously considered a potential alternative to employment for most members of ethnic minorities. Investment in education in effect buys people out of the problem of risk. Indeed, we see a negative or at best neutral relationship between education and self-employment in the LFS and UKHLS analysis we present for ethnic minorities, but not for the white British majority. There is also a larger flow from self-employment to employment for these groups indicating that for some self-employment might act as a temporary way forward.

Self-employment can serve to close gaps with the majority in terms of earnings worked for Pakistani and Bangladeshi minorities, though it does not do so for other groups. Further, ethnic minorities generally have to work more hours than the white British majority in self-employment, and most enjoy less job satisfaction through this form of work than the majority group. We conclude that for the less well educated self-employment might be more of a last resort while for the more educated it is perhaps more of a free choice. It is perhaps reasonable to hypothesise that as education increases even more amongst ethnic minorities, their reliance on self-employment will fall. In sum, self-employment is not an ethnic-minority phenomenon, and can in fact generally be considered to be the reverse of this.

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AUTHOR BIOGRAPHIES

Dr Malcolm Brynin is a Reader at the Institute for Social & Economic Research, University of Essex. His research is predominantly on (1) ethnic and gender wage inequalities and (2) the value of higher education. All his research uses largescale datasets. He has published academic papers on the subject of wage inequalities and also produced commissioned reports for the Rowntree Foundation and the Equality and Human Rights Commission.

Dr Mohammed Shamsul Karim is a Lecturer at the Essex Business School, University of Essex, UK. He has held several academic and research positions in the UK and Bangladesh over the last sixteen years. Before joining the University of Essex, Karim worked for the Global Entrepreneurship Monitor (GEM) in the UK as a national team member, and as the Country Director of GEM Bangladesh. His research focuses on gender & ethnicity in entrepreneurship, refugee entrepreneurship, poverty entrepreneurship, and technology & innovation in entrepreneurship.

Dr Wouter Zwysen finished his PhD in applied social and economic research on the intergenerational transmission of economic disadvantage at the Institute of Social and Economic Research, University of Essex in 2016. His research interests include social mobility, labour market inequality and international migration. He currently works on labour market integration of migrants and ethnic inequality as a senior research officer at the Department of Sociology at the University of Essex.

TABLES

Table 1a: Economic Activity 1993-2014 (men, years pooled, column totals=100%; LFS)

	White British	Black Caribb	Black African	Indian	Paki-stani	Bangla-deshi	Chinese
Employed	64.6	56.3	56.5	61.5	43.8	50.3	47.9
Self-employ	13.5	9.1	7.0	14.2	19.6	10.0	14.5
Unemployed	5.7	14.5	14.0	6.9	12.0	13.5	5.6
Home	1.1	1.3	1.0	1.0	1.7	1.9	1.2
Other	15.2	18.8	21.5	16.5	22.9	24.2	30.8
<i>N</i>	2,791,356	25,867	25,847	61,018	37,851	12,935	11,439

Table 1b: Economic Activity 1993-2014 (women, years pooled, column totals=100%; LFS)

	White British	Black Caribb	Black African	Indian	Paki-stani	Bangla-deshi	Chinese
Employed	61.0	60.6	48.6	52.9	22.3	20.1	45.9
Self-employ	5.1	2.4	2.6	4.6	2.5	0.9	8.0
Unemployed	3.5	8.3	10.0	5.5	6.5	6.4	4.2
Home	11.6	10.0	16.7	17.8	46.6	52.5	15.6
Other	18.9	18.7	22.1	19.2	22.1	20.1	26.3
<i>N</i>	2,985,071	34,143	31,923	63,529	39,640	13,659	13,987

Table 2: Ethnic self-employment and higher education

	% graduate		<i>N</i>
	Employed	Self-employed	
White British	19.1	19.1	4,145,518
Black Caribbean	16.6	16.6	38,401
Black African	33.5	43.2	32,727
Indian	33.6	32.0	82,690
Pakistani	28.0	17.2	33,809
Bangladeshi	23.3	11.6	10,670
Chinese	45.0	25.1	13,854

Note: Total N is of the employed and self-employed, excluding other activities.

Table 3: Ethnic self-employment by migrant status (out of total labour force)

	Non-British	British	<i>Max N</i>
White British		9.1	4,452,969
Black Caribbean	5.4	5.2	26,355
Black African	4.5	5.0	48,665
Indian	10.6	6.1	87,279
Pakistani	12.7	7.2	50,789
Bangladeshi	6.1	2.5	20,955
Chinese	11.4	6.3	20,099

Note: Total N is across all activities.

Table 4: Probability of different activity by ethnicity (UKHLS)

	Men (N=56,183)					Women (N=70,861)				
	<i>Inactive</i>	<i>Unemployed</i>	<i>Employee</i>	<i>Self-employed boss</i>	<i>Self-employed, alone</i>	<i>Inactive</i>	<i>Unemployed</i>	<i>Employee</i>	<i>Self-employed boss</i>	<i>Self-employed, alone</i>
Ref. white British										
Indian	-0.00	0.00	0.02	0.00	-0.03**	0.01	0.01**	0.00	0.01	-0.03***
Pakistani	-0.01	0.01	-0.08***	0.02	0.06***	0.21***	0.03***	-0.22***	0.01	-0.03***
Bangladeshi	0.02	-0.00	0.02	0.01	-0.04***	0.14***	0.04***	-0.12***	-0.01***	-0.04***
Chinese	-0.06***	-0.01	0.07	0.06	-0.07***	-0.01	-0.00	-0.04	0.03	0.02
Black Caribbean	0.05***	0.01	-0.01	-0.02***	-0.03**	-0.05***	0.00	0.07***	0.00	-0.02*
Black African	0.05***	0.01	0.01	-0.01	-0.06***	-0.03*	0.02**	0.04**	-0.01***	-0.03***

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, weighted and standard errors clustered by person.

Estimated difference in probability of being in each outcome group from the white British controlling for region of residence and year; and education, age, family situation, health, urbanicity, deprivation and share migrants in the local area.

Table 5: Estimated effects of education on the probability of being self-employed (UKHLS)

	Self-employed as boss		Self-employed alone	
	Upper secondary (ref. GCSE)	Tertiary (ref. GCSE)	Upper secondary (ref. GCSE)	Tertiary (ref. GCSE)
N=127,130				
white British	0.002	0.004*	0.016***	0.009*
Indian	-0.006	0.011	-0.008	0.003
Pakistani	-0.002	-0.002	-0.055**	-0.053*
Bangladeshi	0.013	0.029	-0.023	-0.025
Chinese	-0.205**	-0.172*	0.021	0.028
black Caribbean	0.010*	0.011*	-0.010	-0.012
black African	-0.004	0.017	-0.006	0.008

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, weighted and standard errors clustered by person.

Estimated effect of education on probability of being self-employed from multinomial logistic regression of activity, controlling for region of residence and year; and education, age, family situation, health, urbanicity, deprivation and share migrants in the local area.

Table 6: Difference from white British (proportion) in destination next wave if currently self-employed (UKHLS)

N=10,323	Inactive	Unemployed	Employee	Self-employed (all)
Indian	-0.014	0.000	0.033	-0.019
Pakistani	-0.017	0.010	0.014	-0.007
Bangladeshi	-0.034***	-0.007***	0.078	-0.037
Chinese	-0.025*	-0.002	0.066	-0.040
black Caribbean	-0.021	0.015	0.013	-0.007
black African	0.030	0.010	0.029	-0.070

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, weighted and standard errors clustered by person. Estimated difference in predicted proportion of being in each state next wave compared to white British if currently self-employed, estimated at average margin from multinomial logistic regression model, controlling for region of residence and year; and education, age, family situation, health, urbanicity, deprivation and share migrants in the local area.

Table 7: Difference in income, hours worked and job satisfaction by ethnicity and self-employment (random effects; UKHLS)

	Log income	Hours worked	Job satisfaction
Ethnic (ref. white British)			
Indian	-0.08***	-0.74**	0.14***
Pakistani	-0.28***	-3.38***	0.14***
Bangladeshi	-0.41***	-5.74***	0.02
Chinese	0.05	-0.20	-0.03
black Caribbean	0.06**	0.26	-0.29***
black African	-0.10***	-1.02***	-0.17***
Self-employed boss	-0.04*	6.97***	0.45***
Ethnic*self-employed boss			
Indian	-0.14	-0.10	-0.23*
Pakistani	0.03	3.82***	-0.24
Bangladeshi	0.66***	4.43***	-0.19
Chinese	-0.80***	4.32**	-0.13
black Caribbean	-0.27	-4.72***	0.13
black African	-0.82***	1.47	-0.39
Self-employed alone	-0.61***	0.86***	0.33***
Ethnic*self-employed alone			
Indian	0.03	0.57	-0.20**
Pakistani	0.19***	2.07***	-0.54***
Bangladeshi	0.36***	2.21**	-0.34**
Chinese	0.03	-3.00**	-0.26
black Caribbean	-0.03	-0.55	0.37***
black African	-0.30***	-2.22***	-0.20
Observations	106,880		
Unique people	32,646		

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Random effects regression of ethnicity and self-employment on monthly income, hours worked and job satisfaction (1 completely dissatisfied to 7 completely satisfied), controlling for region of residence and year; and education, age, family situation, health, urbanicity, deprivation and share migrants in the local area.

¹ Fisher and Nandi (2015) find that the recent recession has hit household income for some ethnic minorities particularly hard, but this unfortunately tells us nothing about the self-employed.

² Employment discrimination might lead to a need to find low-cost housing, producing an economically based residential segregation (Finney and Simpson 2009).

³ However, the association between education and self-employment differs by ethnicity in ways which are not predictable. Pakistani graduates are, it seems, more inclined to entrepreneurial activity than non-graduates. The opposite seems to apply to Indian graduates (Thompson *et al* 2010).

⁴ While discrimination might apply more to women than to men, if they, for instance, wear Islamic clothing (Bhavnani 2006) their participation in self-employment is low and this requires analysis on its own merits. Also, with many lower-level service jobs requiring interpersonal skills, young working-class males from minority groups might be at a particular disadvantage (Deakins *et al* 2003; McDowell *et al* 2014).

⁵ Not all of our results are presented here, but these are available on request

⁶ We also seek to show what the expected hourly wage for self-employed people would be if they were to choose employment instead. Using Propensity Score Matching we match the self-employed against their employed equivalents, based on: age, gender, family, education,

region of residence, whether British, and survey year. We take the hourly wage for employed people within each group for these categories combined and impute the hourly wage for the equivalent self-employed. We find by far the highest imputed wage for the white British (£15.2), with most other groups close to each other (£13.0-13.9) except Pakistanis (£11.3) and Bangladeshis (£9.3). This indicates that self-employed Pakistani and Bangladeshi workers would, given their characteristics, have low salaries if they were employed, implying that self-employment might be a rational choice based on material prospects. Only in the case of the white British group are potentially highly productive people attracted into self-employment.

⁷ Further, comparing models only controlling for year of survey and region of residence with models with full socio-demographic controls we find that substantial differences in labour market outcomes are due to differences in the socio-demographic composition between groups, for instance in terms of age and education (though not all the gaps can be explained in this way).

⁸ Analysing transitions both in and out of self-employment provides insight into whether self-employment is stable across ethnicities, but we do not present these results as there is relatively little ethnic variation. We note, however, that *all* ethnic minorities are less likely than the white British majority to move into self-employment from unemployment (though these results do not achieve statistical significance), moving instead into employment. We again do not find evidence of self-employment being a last resort for most minorities.

⁹ In random effects a normally distributed person-specific error term is introduced which is unbiased as long as that error term is not correlated to the outcome. We also ran fixed effects models. The fixed effects estimator is more stringent and compares the outcomes for the same respondent when an employee and when self-employed, thus controlling for time-invariant unobserved characteristics such as entrepreneurship or motivation. As characteristics that do not vary over time are not included there is no main effect estimation for ethnicity, but the ethnic difference in the effect of self-employment can be estimated. We do not cite these results as they produce largely the same results as the random effects models.

¹⁰ These results are largely supported by the fixed effects regression models.