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# **All Look the Same? Diversity of labour market outcomes of Chinese ethnic group populations in the UK**

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**Abstract:** With high average levels of qualifications and pay, ethnic Chinese minorities in the UK are often regarded as a migrant ‘success story’. At the same time, the limited evidence we have suggests that Chinese minorities may face ethnic penalties in the labour market, and that there is considerable heterogeneity within the aggregate Chinese ethnic category. In this paper, we address these issues of labour market outcomes and heterogeneity among UK Chinese using 38 pooled quarters of the UK Labour Force Survey. We show that for both wages and employment there are differences in labour market experience across five distinct Chinese origin groups compared to those similarly qualified in the white majority. Consistent ‘winners’ are Taiwan and Malaysian-born Chinese, while Mainland Chinese and Hong Kong-born experience substantial wage penalties. UK-born Chinese face wage penalties when working in traditional industries, in which they continue to cluster, and unemployment penalties. An important contributory factor to labour market outcomes of the different groups appears to be the extent of their relationship with the ethnic economy. We relate our findings to theories of ethnic embeddedness and enclave economies, as well as to the varying contexts of reception faced by immigrants from different cohorts.

**Keywords:** Chinese; ethnic penalties; employment; wages; UK; enclave economies

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## **Introduction**

The socio-economic position and labour market outcomes of the ethnic minority populations of the UK have been subject to a wealth of analysis over recent decades. The introduction of an ethnic group question in the 1991 Census and subsequent incorporation of ethnic group information into mainstream government and social surveys has enabled an unprecedented understanding of the socio-economic position of the UK's minority groups. Heath and McMahon's (1997) introduction of the concept of ethnic penalties in their analysis of employment outcomes in the 1991 Census has been followed by analysis of penalties in pay (e.g. Longhi and Platt 2008), social mobility (e.g. Zuccotti 2016), and occupational outcomes (e.g. Cheung and Health 2007). Yet, in much of this literature the position of the Chinese has been excluded or under-developed. This is partly an issue of group size and density. The Chinese form one of the smallest of the measured ethnic group categories: with under 300,000 (0.3% of the population of England and Wales) in 1991, it grew to just under 400,000 (0.7% of the population) by 2011. This translates into small numbers in standard surveys. Additionally, the relatively geographically dispersed nature of the population reduces the possibilities for sampling in large numbers even for specialist surveys. The youth of the UK-born Chinese population means that many have yet to reach adulthood, limiting analysis in the rapidly developing 'second generation' literature (Heath, Rethon and Kilpi 2008). This issue of small sample sizes renders interrogation of within-group diversity challenging. The statement made by Cheng in 1996 that '[t]here is little knowledge about the socio-economic profile of the British-born Chinese' (p.179) remains largely true today.

The relative neglect of the UK Chinese's socio-economic position is arguably not simply a question of the analytic challenges associated with small numbers. With high

average wages (Longhi and Platt 2008) and striking educational success (e.g. DfE 2016), the Chinese population of the UK has often been regarded as an ‘immigrant success story’ (Francis and Archer 2005), and hence ‘unproblematic’ from the perspective of policy and academic analysis. Unlike the extensive US literature, which has tried to explain the routes to success of American-Chinese (Coleman 1988; Zhou 1995; Lee & Zhou 2015) and highlighted the diversity of those with Chinese origins (e.g. Waldinger et al. 1992), in the UK, as in Europe more generally, greater attention has been paid to those groups seen to be lagging behind.

Yet this rosy picture of a ‘model minority’ that cannot fail to attain occupational integration across the generations via educational success (Cheng 1996) is a partial one. First, it implies common cultural practices across a ‘group’ with diverse histories and countries of origin. Second, it is already challenged by a small extant body of quantitative research that suggests substantial diversity – or even polarisation – in economic outcomes across the Chinese category (Platt 2011; Luk 2008), and ongoing ethnic penalties in the labour market (Cheung and Heath 2007; Rafferty 2012).

Such diversity of outcomes across the UK Chinese population accords with the different routes by which Chinese subpopulations arrived and the resources they brought with them; whether, for example, they arrived as labour migrants, through chain migration, as refugees or students, at times of economic buoyancy or of depression. It also speaks to the contexts in which they were inserted following migration, including the extent to which they were embedded in ethnic communities, the opportunities available to them, and the degree of discrimination they encountered.

In this paper we ‘unpack’ the UK Chinese ethnic group and describe the socio-economic position of five subpopulations who self-identify as Chinese, representing different countries of origin and migration trajectories. We highlight the dangers of ascribing average experience to those belonging to a constructed ethnic category, which is

then used to invoke cultural accounts (Jiménez et al 2015). Instead, we draw on theories of ethnic embeddedness, ethnic resources, and contexts of reception to frame our understanding of different outcomes. Specifically, we utilise the literature on the positive aspects of ethnic embeddedness in terms of social, cultural (Coleman 1988; Portes and Zhou 1993) and ethnic (Borjas 1992) capital, as well as that highlighting the more negligible or negative consequences of 'enclave economies' (Clark and Drinkwater 2002; Xie and Gough 2011) to illuminate the economic risks and benefits associated with close reliance on ethnic economies. Our study offers a stimulus to reconsidering existing literature on Chinese ethnic embeddedness and suggests caution for those assuming cultural explanations based on administrative categories.

### **Chinese migration to the UK: History, group heterogeneity and intra-ethnic dynamics**

Our analysis takes place against the backdrop of broad historical, political, cultural, linguistic and self-selective migrant cohort differences among the main Chinese groups in the UK. These main groups, which together make up over 90 per cent of the self-identified Chinese in the UK, are the Hong Kong-born (around 18 per cent), the Mainland Chinese (around 35 per cent), the Taiwanese, Malaysians and Singaporeans (around 11 per cent), the Sino-Vietnamese (Vietnamese-born Chinese) (around 4 per cent), and the UK-born children of all of these communities (dominated by the children of Hong Kong migrants), who now form a quarter of the UK Chinese, though many are still children.

In the UK, Chinese communities were traditionally dominated by Cantonese-speaking pre-revolutionary or mid-century arrivals from southern China and from pre-handover Hong Kong. A key characteristic of this early first generation community in the UK, has been its role in the establishment of enclave economies based around food and catering, in response to historical exclusion from the mainstream economy.

The UK's Chinese Vietnamese-born population largely derives from the forced migration following the fall of Saigon and the associated refugee resettlement programme in the late 70s and early 80s. This was a migration primarily of Sino-Vietnamese. The Sino-Vietnamese refugees were initially dispersed to reception centres across the UK, though they subsequently typically resettled in large conurbations with some degree of co-ethnic contact. These refugees predominantly spoke Cantonese (spoken by around 60 per cent of the Sino-Vietnamese overall), and had little English language fluency. They were not positively selected in terms of education or skills. Despite resettlement programmes, their outcomes have typically been marked by low income and high unemployment.

In the 1980s and 1990s, increased freedom of movement for citizens of the People's Republic of China, and the rapid development of East and Southeast Asian economies, started a wave of migration that shifted the demographic and cultural balance of the Chinese diaspora. Migration from Taiwan, and Commonwealth Malaysia and Singapore, was associated with highly educated professionals from a range of linguistic backgrounds. The Taiwanese spoke Mandarin and Hokkien; while Chinese migrants from Commonwealth Malaysia and Singapore have particular flexibility and cultural capital as fluent English speakers, and most are conversant in, or at least understand, Mandarin, Hokkien and Cantonese, the main Chinese dialects used across the different Chinese subgroups

By contrast, legal and illegal flows from China's Fujian province throughout the 1990s to the early 2000s have been presented, primarily in qualitative literature, as a new low-skilled, low-wage labour force of 'last resort' for the more established Hong Kong/Cantonese run ethnic economy (Biao and Pieke 2010). While the Hong Kong reception community provided employment, wages were often exploitative; and language and cultural barriers between the Mandarin speaking employees and their Cantonese employers meant that employment was not accompanied by a substantive sense of a

coethnic community with social support and opportunities for social mobility (Pai 2008).

This period of migration was followed by increasing restrictions on non-EU migration. Working visas for non-EU unskilled migration were eliminated in 2008 and all non-EU migration was capped from 2011. However, the rate of non-student migration from China has stayed stable and now selects for the highly-educated, while the numbers of Mainland Chinese students have increased dramatically. As a result, seventy-nine per cent of the increase in the recorded Chinese population between the 2001 and 2011 Censuses (from 0.4-0.7% of the population) is due to immigration from Mainland China (ONS 2013). According to Home Office migration statistics, China has been the largest single source country for non-visitor, non-EU immigration to the UK since 2013 (Home Office 2018).

Across these cohorts from different origin countries, language is clearly a major cleavage that disrupts potentially unifying Chinese identification. Intra-group linguistic barriers may inhibit communication and commonality, with no common spoken language for several of the largest Chinese subgroups other than English. Fluency in English itself varies, with the 2011 Census reporting that 30 per cent of those whose first language was Mandarin, 40 per cent of Cantonese speakers, and 25 per cent of speakers of other Chinese languages spoke English not well or not at all, though this disguises differences between origin countries.

There are several other key intra-ethnic divisions worth noting. Political animosity between supporters of Taiwanese or Hong Kong nationalism, and those loyal to the unitary Chinese state also splits the diaspora. Different class backgrounds in migration cohort profiles can also result in divisions in terms of social and geographical space and economic activity. For example, in the USA we see the Taiwanese avoiding historically working-class Cantonese-dominated ethnic enclaves, employing strategies for economic integration that leverage their higher levels of capital and education (Waldinger et al. 1992).

Yet these intra-ethnic dynamics are all but invisible in the UK literature. And even as the cultural and demographic landscape of the Chinese in Britain has changed, the now dominant Mainland Chinese population, as well as the increasing Taiwanese and Malaysian Chinese populations, remain poorly understood.

Contemporary literature on European migrant integration has a strong emphasis on second-generation outcomes. UK-born Chinese and Indians are noted for their high academic achievement (DfE 2016), albeit without much in the way of explanation (Heath, Rethon and Kilpi 2008). However, the British-born Chinese (BBCs) are today a smaller percentage of the UK Chinese population than they were at the time of the 1991 Census, having dropped from 28% to 23.4% by 2011 (ONS 2013; Cheng 1996), as the migrant generation continues to be refreshed by new arrivals. In this context, the future of subsequent BBCs cannot be straightforwardly 'read off' from the current second generation: the diversity of first generation Chinese migrant outcomes may speak to different sorts of future trajectories for BBCs.

Where, despite data constraints, work *has* covered the UK Chinese it has revealed internal economic diversity or even polarization (Platt 2011), and persisting ethnic penalties (Heath and Cheung 2007; Heath, Rethon and Kilpi 2008; Simpson et al. 2006), despite high average wages and qualifications, and accompanying positive stereotypes (Burgess and Greaves 2013). Noting the challenges in receiving adequate returns to qualifications, Rafferty (2012) highlighted specific ethnic penalties and increasing 'over-education' for tertiary-educated British-born Chinese men. At the same time, an extensive qualitative literature has highlighted the insecurity and poor economic position of undocumented Mainland Chinese migrant workers (Biao and Pieke 2010; Pai 2008; Pharoah, Bell, Hui and Yeung 2009; Scott et al. 2012). Together these literatures draw attention to the limitations of our current understanding of the UK Chinese diaspora and possible differentiated experiences across migration cohorts.



Luk (2008) provides one study that aimed to illuminate the contemporary diversity of the British Chinese communities. Primarily a geographical spatial analysis based on 2011 Census tables rather than microdata, Luk's study nevertheless highlighted some key differences between groups, namely the low socio-economic status of the Vietnamese-born refugee generation, and the clustering of the Hong Kong-born population in catering and hospitality. However, Luk's (2008) characterization of the Mainland Chinese inflows at that time as mostly low-skilled and poorly educated has been superseded by the changes in migration patterns; and the grouping of Taiwanese with Mainland Chinese prevented consideration of their potentially distinctive integration pathways.

Even within existing data constraints, there are therefore good reasons for investigating the economic diversity of the UK Chinese population and its roots. Key literature attempting to account for the economic outcomes of Chinese in the US has centred on Chinese ethnic enclave economies (Zhou 1995; Zhou and Logan 1989; Lee and Zhou 2015). We turn next to the Chinese ethnic economy for potential insight into the Chinese minority's differentiated economic outcomes in the UK.

#### *Ethnic embeddedness, ethnic enclaves and contexts of reception*

Despite much discussion of Chinese enclave economics, physical Chinese enclaves are not the typical residence of the majority of the UK's Chinese population. The UK Chinese have the widest geographical dispersion of any of the ethnic minorities in the country, theorized by Luk (2009) as an outcome of their historical strategy of chasing the 'white market' beyond the enclave, to escape co-ethnic competition. Thus, although similar in size to the Bangladeshi community, the Chinese lack that community's geographical concentration, community solidarity, or political visibility. Nevertheless, ethnic embeddedness – or its absence – remains relevant to the context of reception of different migration flows, and for its potential impact on future trajectories.

There is a lively debate in the literature on the positive or negative impact of ethnic enclaves on workers. One perspective suggests that they provide an alternative to marginalization in the secondary labour market (Portes and Jensen 1987; Esser 2006), by allowing returns to skills not recognized in the host society. This operates through provision to an ethnically specific market, via entrepreneurialism or employment by co-ethnic entrepreneurs. For new immigrants, the enclave can thus theoretically offer better economic returns, and reduce the information (not to mention language and cultural communication) costs associated with an unfamiliar labour market. Yet this positive construction of the ethnic enclave has been contested.

Addressing the experience of new immigrants in the US, Xie and Gough (2011) failed to identify the positive economic benefits of enclaves proposed in the literature. They situated their argument within the debate around the ways in which enclaves may (e.g. Portes and Jensen 1987), or may not (e.g. Sanders and Nee 1987) have positive implications for migrants' employment and wage growth. Key to the latter argument is the division of interests between employers and employees in the enclave with employers having an interest in suppressing the wages of employees to remain competitive. In the UK context, Clark and Drinkwater (2002) also found no support for the positive labour market effects linked to enclaves. They found instead that occupational segregation was linked to labour market exclusion, while lacking the characteristics of ethnic embeddedness and entrepreneurialism associated with enclave economies.

Comparable to the literature on ethnic enclaves, studies of 'segmented assimilation' (Portes and Zhou 1993) of multigenerational migrant communities have emphasized the effect of the ethnic minority 'reception community' not only in the integration of new migrants when they arrive, but for the patterns of economic success of the second generation (e.g. Luthra, Soehl and Waldinger 2017; Waters et al. 2010). The work of Zhou (1995; Zhou and Logan 1989; Portes and Zhou 1993; Lee and Zhou 2015)

has emphasised the role of the enclave community in facilitating educational success in Chinese communities in the US through forms of social capital, harking back to Coleman's (1988) classic study of the role of social capital in the production of human capital. In similar vein, Borjas (1992) has highlighted the role of community 'ethnic capital' in facilitating the educational and economic success of co-ethnics without independent resources. Yet, as the theory of segmented assimilation explicitly indicates, the positive or negative role of community, ethnic embeddedness or community density cannot be assumed, but will vary both with the nature of the receiving society response as well as with the class backgrounds, culture, language exposure, skills, or different source countries, even for the 'same' ethnic group (Esser 2006; Waldinger et al. 1992; Waters et al. 2010).

Luk (2009) draws on and extends the literature on ethnic embeddedness in his model of the Chinese ethnic economy. For him, despite not being physically situated in an ethnic enclave, the UK Chinese are nonetheless defined by relationships to it – even if those relationships are based on rejecting rather than belonging to the enclave economy. Luk theorizes heterogeneous pathways to economic and social integration for a diverse Chinese population. The different groups are envisaged as slotting in various ways into a 'Chinese industrial system': an urban ethnic economy of major industries expanding out from the enclave hub of London's Chinatown.

Even while describing the Chinese 'success story', Pang and Lau (1998) highlight the circumscribed nature of the occupations that Chinese work in, and the waste of human capital associated with the occupational 'niche' of the catering industry. They have pointed to a 'bimodal' trend in British Chinese labour market segregation, suggesting a split between the professional class and ethnic sector workers (cf. Scott et al. 2012). As the Chinese population increases and diversifies, the dependence on this potentially inequitable 'industrial system' may reduce; but we currently have little understanding of

how far low-wage industries typical of the Chinese ethnic economy are implicated in ethnic penalties for different Chinese subgroups.

This paper, therefore, investigates diversity and cleavages within the UK Chinese population; and it addresses the contribution of the (low wage) 'enclave' economy to the employment outcomes of those distinguished by country of origin and (by implication) cohort, language, and context of reception. To this end, it asks the following research questions:

1. Do Chinese subgroups with distinct migration histories face different ethnic penalties (or premia) in earnings and unemployment?
2. To what extent can any differences in labour market outcomes of Chinese subgroups be explained by timing of arrival and representation in the ethnic economy?

Given existing evidence suggests that the aggregate Chinese group suffer an ethnic penalty in employment after controlling for education, we expect to find ethnic penalties among the Chinese subgroups; but based on the preceding discussion we would expect them to differ in the following ways:

- a) We expect the Hong Kong-born, given that they are the group traditionally most closely associated with the low-wage ethnic enclave economy and its related 'system' of entrepreneurial self-employment, to experience substantial wage penalties linked to occupational clustering, though limited wage penalties *within* those occupations. Based on the potential trade-off between ethnic economies and employment, we expect them to have the lowest chances of unemployment.
- b) We expect the Mainland Chinese to have relatively high unemployment, once taking account of their educational level, as a result of the barriers to the labour market for skilled Mainland migrants documented in other countries, and less historical connection to the high-employment ethnic economy. As the most recently arrived cohort, we expect that much of their disadvantage will be mediated by time of arrival, with more recent arrival

linked to more negative employment and wage outcomes across the board. We expect that wage levels for those in work outside the ethnic economy will be largely driven by their educational qualifications; while wages in the enclave economy will be low, even compared to the average wages in these occupations, given their documented susceptibility to enclave exploitation.

c) We expect the Sino-Vietnamese to have low wages across both enclave and non-enclave employment, which will partly be explained by education, and partly due to their profile of forced migration rather than self-selective economic migration. We also expect them to face higher unemployment, for the same reasons.

d) We expect the British-born Chinese, primarily the children of the Hong Kong-born migrants to have the smallest labour market penalties (given education) of all the subgroups when compared with the white British. This expectation stems from existing ethnic penalty research showing the relative advantage of the second generation compared with the foreign-born, and the role of the aspirations of economic migrants for their children (Lee and Zhou 2015; Francis and Archer 2005)

We have no clear expectations about the labour market experience of Taiwanese, Malaysian, Singaporean and other smaller Chinese subgroups, as there is no existing UK literature to draw on for them.

## **Data and methods**

### *Data and sample*

We pooled 38 waves of the UK Quarterly Labour Force Survey (LFS) from the first quarter of 2008 to the second quarter of 2017. The Labour Force Survey is a national survey focusing on labour market participation of UK resident adults living in private households. It is a quarterly study, with around 60,000 interviews carried out each quarter. The survey has a rotating semi-panel design with respondents interviewed for five consecutive

quarters. Earnings information is only asked in the first and fifth wave. We retain respondents from wave 1 only, giving a set of unique observations, with wage information for those in paid employment. We restricted our sample to those aged 20-64 and excluded full-time students. Those who had migrated to the UK within the last six months are ineligible for the LFS, thus excluding the most transient populations.

The LFS has the advantage of detailed country of birth and ethnic group information, as well as date of migration, and educational qualifications. A non-comparable ethnic group question was employed in Northern Ireland, so we restrict our sample to Great Britain. We are concerned with those who selected Chinese as their ethnic group. This provided us with 2,107 respondents who self-identified as ethnically Chinese. We necessarily exclude all those of ethnic Chinese origin but who chose not to identify as Chinese.<sup>1</sup> Wage information is only available for those economically active and in paid employment. Taking into account in addition around 34 percent non-response on the earnings measure, we had a sample of 864 Chinese with wage information. Analysis of unemployment is based on the economically active population, who amount to 1,585. Hence, by pooling sufficient numbers of waves of data we were able to construct a sufficiently large sample to enable us to explore differences within the Chinese category. We constructed a comparison sample of 385,928 identifying as white majority who were born in the UK, with 183,243 having wage information; and 288,560 economically active.

The LFS is supplied with weights to adjust for non-response to the survey as a whole and for the additional non-response on earnings data, enabling us to provide robust

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<sup>1</sup> By definition, since we analyse those who choose to identify as Chinese, we do not know the extent of non-Chinese identification by those of Chinese ancestry, or the implications for our findings. However, we do know that the Chinese category is the most stable and inter-generationally 'sticky' of the UK minority groups, and that ethnic attrition would mostly affect those who are of mixed Chinese and other ethnicity, who we assume are predominantly BBCs (blinded). Some evidence suggests that outcomes for Mixed people who select into mono-ethnic Asian ethnic groups may be midway between those who choose white British (who have lower status) and those who choose Mixed (higher status), meaning that our results for BBCs could be either biased upwards or downwards (blinded).

population level estimates. The appropriate weights were used in all analyses.

### *Measures*

#### Dependent variables

We analysed two key labour market outcomes: earnings and unemployment. For earnings we used the derived variable of hourly pay of those in paid work, deflated by the Consumer Price Index (Q1 2015=1); and log-transformed the measure. Self-employment income is challenging to estimate reliably so is not derived in the LFS. As a result, entrepreneurial income is necessarily excluded from our analysis. We discuss the implications of this exclusion in the text. We measure unemployment using the derived variable that follows the International Labour Organisation (ILO) definition.

#### Explanatory variables

We distinguished five Chinese subgroups, based on country of birth, for which we could construct samples large enough for analysis. The five groups are, in order of sample size: Mainland Chinese, born in China – hereafter Mainlanders (N=741; with wage information N=281); Hong Kong & Macau-born Chinese – hereafter Hong Kong Chinese (N=488; with wage information N=165); UK-born Chinese - hereafter BBCs (N=379; with wage information N=183); Taiwanese, Malaysian, Singaporean Chinese – hereafter TMS Chinese (N=389; with wage information N=180), and Sino-Vietnamese, Other South East Asian and Islander Chinese – hereafter Sino-Vietnamese and others (N=150; with wage information N=55).

A small number of Macau-born Chinese were grouped with Hong Kong-born, given close colonial and postcolonial relationships and cultural and linguistic commonalities. Singaporean Chinese were grouped with Malaysians due to close colonial, postcolonial and cultural-linguistic relationships, and the tendency to form joint communities in the

diaspora. Due to sample size constraints, they were further combined with the Taiwanese due to broad commonalities of economic development, and very similar descriptive characteristics in all but age cohort and time of migration. These analyses on the combined group were checked for consistency with analyses on the individual groups.

We grouped Sino-Vietnamese with Other Southeast Asian Chinese and Island-born Chinese to provide an analytical sample of sufficient size. Those who were born in Vietnam but who did not identify as Chinese were, necessarily excluded from analysis. We assume that those excluded were primarily not Sino-Vietnamese. This assumption is supported by the fact that, according to the 2011 Census, those Vietnamese who identified as Chinese predominantly arrived in the pre-1981 period, in line with the refugee flow, while later arrivals from Vietnam overwhelmingly identified as 'Other Asian' rather than Chinese (ONS 2014). 'Other Southeast Asian' Chinese were primarily Thai and Filipino Chinese who had migrated more recently, and had a younger and more educated profile. Jamaican Chinese were grouped with Mauritian Chinese, due to both being multi-ethnic small island states not in Asia, with small Chinese minorities, similar early postcolonial/post-WWII outmigration patterns to the UK and Europe, and correspondingly similar age profiles. As with the TMS Chinese group, analysis of this combined group was checked for consistency against the patterns in the small individual groups and showed the same pattern.

We excluded the small numbers of self-defined Chinese who did not fit in any of these country of birth categories.

Our reference group against which to compare these Chinese groups was those identifying as white UK (British, English, Welsh, Scottish, Northern Irish) who were born in the UK.

Other measures



To estimate ethnic penalties, i.e. employment outcomes conditional on education, we included a dummy for tertiary educated. While a rather simple measure of educational qualifications this was the only consistent measure for those educated in different national contexts.

To capture the impact of relatively recent migration, while still allowing for comparison across cohorts, we distinguished those who had arrived less than 10 years previously from those who migrated earlier (or were UK-born). For sensitivity, we checked, and confirmed, that the results were consistent using an alternative measure based on only five years since migration.

Finally, to capture the Chinese ethnic enclave economy we drew on the LFS occupational group of 'distribution, food and hospitality', the SOC code which most closely maps on to the catering and related activities typical of the Chinese 'niche' economy. As part of our descriptive analysis we also measured rates of self-employment.

### Controls

All analyses were adjusted for age in bands (20-29, 30-39 and 40+) and for sex.<sup>2</sup> Broad banded age dummies took account of potential non-linearities in age and better enabled us to compare results across groups with different age distributions.

Descriptive statistics by sub-group are provided in Table 1.

[Table 1 about here]

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<sup>2</sup> We considered additional controls such as those for marital status and health status. But given the potential endogeneity of these with wages, we preferred our more parsimonious model. Results were unaffected by alternative specifications including such additional measures.

### *Analytical strategy*

To address question 1, we estimated a sequence of OLS models of log wages on the pooled sample. We first controlled only for age and sex, and then included education to ascertain the extent to which subgroups experienced ‘ethnic penalties’ relative to the majority population (cf. Heath and McMahon 1997), followed by recency of arrival to capture any effects linked to the timing of arrival.

For question 2, we re-estimated the models adding our measure of the enclave economy (distribution, hospitality and catering), to identify the extent to which concentration in the enclave economy was linked to wage penalties, and then interacting the industry dummy with the Chinese subpopulations, to identify the extent to which there were wage penalties *within* the low-wage ethnic economy.

The log transformation of earnings means that we can interpret coefficients in the OLS models as representing the proportional change in earnings associated with that characteristic. For ease of exposition we present graphical illustrations of our main findings.

To identify unemployment penalties, and to ascertain if there appeared to be any trade-off between pay and unemployment, we estimated logistic regression models for the probability of unemployment. We present two models, the first controlling for age, sex, and education, and the second adding recency of arrival to clarify the extent to which differences in labour market access across groups was driven by being newer migrants. We report average marginal effects, which describe the percentage point difference in unemployment for the Chinese sub-groups compared to the White British majority.

Due to sample size constraints, we estimate pooled models for men and women. However, exploratory models estimated for each sex separately produced results consistent with the overall pattern presented here. Adding gender interactions to the models resulted in no statistically significant interactions. Descriptive data showed

similarly high employment rates and participation in the 'distribution, hospitality and retail' sector for both Chinese women and men.

Our results on penalties are subject to the assumption that there is no differential onward or return migration across our groups. If there was, then those subgroups with more onward or return migration might appear to be doing worse if the most highly selected left. Dustmann and Weiss (2007) suggest that return migrants predominantly leave within the first five years after migration. As a sensitivity analysis, we therefore re-estimated our models excluding all those who had arrived in the UK within the last five years to provide estimates for those who can be assumed to be long-term in the UK. Results were consistent with those presented here (see online supplementary material, Tables S1 and S2).

## **Results**

### *Wages*

We first verified that very high rates of tertiary education amongst both Chinese migrants and the UK-born Chinese translated into significant wage penalties for the Chinese group as a whole, consistent with earlier research (e.g. Rafferty 2012). Our aim was to understand how far this pattern prevailed across the different subgroups. Table 2 shows the results from the wage equations, with just the basic controls (Model 1) then adding tertiary education (Model 2), and recency of arrival (Model 3).

Focusing first on Model 2, as expected, the Sino-Vietnamese and non-Commonwealth Southeast Asian and Island-nation Chinese group suffered substantial wage penalties (18 per cent less than equivalent white majority workers), as did the Hong Kong-born penalty (14 per cent). Mainlanders had a wage penalty of 11 per cent. The BBC's overall wage advantage was entirely driven by education, as shown by the small, and non-statistically significant, coefficient in Model 2. However, contrary to our hypotheses, it

was not the UK-born who were proving most successful in the labour market among the Chinese populations. Instead, TMS Chinese, the least researched of the main Chinese groups, were the 'success story' when it came to wages, with a substantial pay advantage that was only partly mediated by their educational qualifications.

[Table 2 about here]

We anticipated that the more recent arrival of the Mainlanders would be implicated in their pay penalties. As illustrated in Model 3, having migrated within the last 10 years was significantly associated with a 12 per cent lower wage, demonstrating how integration into higher wage employment is a temporal phenomenon. Once taking into account relative recency of arrival, Mainlanders no longer suffered a statistically significant wage penalty compared to the white majority, while TMS Chinese had a 12 per cent pay advantage over the white British (Model 3 and Figure 1).

[Figure 1 about here]

Past literature on Chinese labour market outcomes in the UK emphasises the prevalence of self-employment as an economic strategy to 'escape' the low-wage physical enclave. Self-employment has been associated with an income advantage over being an employee for Chinese people – the opposite of the situation for other ethnic groups (Clark and Drinkwater 2002). As Table 1 illustrated, the distribution of self-employment/small business ownership among the Chinese subgroups varied widely. Only the Hong Kong-born and to a much lesser extent Mainlanders had a markedly higher self-employment rate than the white majority, and for TMS Chinese self-employment rates were below the majority average. The demographic (and institutional) changes that have led to these

varied patterns of self-employment are insufficiently recognised in existing theories, which have assumed high levels of Chinese self-employment overall as part of the narrative of Chinese migrant success.

It is likely that our picture for the Hong Kong-born specifically is partial, since they have high rates of self-employment and the LFS does not enable us to factor the returns to self-employment into our wage estimates. Given the potential distinction to returns for employers compared to employees working in the ethnic economy (Sanders and Nee 1987), we may have a more negative picture than if we were able to include self-employment incomes. We therefore carried out additional analysis using income information from the Citizenship Survey for England and Wales (2005-2011), where the income measure includes all income including that from self-employment or small business ownership. This supplementary analysis (available on request) indicated income penalties for Mainlanders compared to the White British, after controlling for recency of arrival and tertiary qualifications, but suggested the Hong Kong born faced only a marginally significant income penalty, even if a lower point estimate. This finding is consistent with the argument that self-employment may provide *some* financial benefit for this group. While experiencing low wages in paid work, higher income from self-employment may be lifting the Hong Kong Chinese's relative position, although not necessarily enough – or among enough of them – to completely eliminate their disadvantage. How far the ethnic economy is a source of the disadvantage across the population subgroups is the issue we turn to next.

#### *Occupational clustering*

We re-estimated the LFS log wage equation, including a control for the 'distribution, restaurant and hospitality' industries (Model 4 Table 2). The inclusion of this variable significantly improved model fit, indicating that these industries are linked to pay in

general. Indeed, the industry dummy was associated with 24 per cent lower pay. The reduced size of earnings penalties for Hong Kong and Sino-Vietnamese subgroups in Model 4 indicates that their concentration in these low-paying industries was largely mediating the earnings penalty. This was in line with our expectations for Hong Kong Chinese in particular. For TMS Chinese, their pay advantage increased, indicating that it was achieved in other industries. This becomes clearer when we interact the Chinese groups with the industry dummy (Table 2, Model 5 and Figure 2).

Figure 2 illustrates how the distribution, restaurant and hospitality industries were associated with significantly lower wages for the Chinese groups than for the white UK-born also working in these industries. The exception is TMS Chinese who are paid comparably to their white counterparts in these industries, even as they are less likely than other Chinese to participate in them. It is therefore not simply greater participation in a low-paying sector that contributes towards lower pay among many groups of Chinese, but the wages that Chinese people command in these specific industries. Conversely, for the TMS Chinese, their weaker relationship to the ethnic economy could be part of their source of advantage.

We see from the main effects in model 5 that outside the enclave economy, Mainlanders, Hong Kong Chinese and Vietnamese experienced no pay penalty, while BBCs and (especially) TMS Chinese experienced a substantial pay advantage. Access to occupations outside traditional ones seem to offer, then, some potential for earnings assimilation. Within the niche economies, however, Mainlanders had predicted pay of 21 per cent less per hour (0.07-0.28) than the white majority in these same, low-paying industries (amounting to 45 per cent less than white majority working in other industries); and the Hong Kong-born were estimated to be paid around 24 per cent (0.053-0.295) less per hour than their white majority industry counterparts. This illustrates how for these groups, both concentration in the industry and the pay within it drives overall earnings

penalties. Counter to expectations, the within-industry penalties were no worse for Mainlanders than for Hong Kong Chinese. Some of these industry differentials may be due to differences in English language proficiency, which has been argued to be one of the most important predictors of migrant outcomes, independent of qualifications gained in the home country (Dustmann and Fabbri 2003; Esser 2006). This would be consistent with existing understanding of the different language capabilities of the different migration cohorts, as well as with the effect of more recent migration.

However, it fails to account for the disadvantage of the UK-born and educated. Strikingly, BBCs working in the ethnic economy industries also faced a pay penalty of 12 per cent (0.095-0.216) relative to their white majority counterparts. Yet, as Table 1 showed, nearly a third of these UK born Chinese continue to work in this sector, compared to only 17 per cent of the white majority population. Given that the current adult generation of UK-born Chinese are dominated by children of Hong Kong migrants, who established and were heavily concentrated in the ethnic enclave economies, these findings suggest that the historical circumstances that produced this clustering have more multigenerational persistence than is generally assumed (cf. the discussion in Pang and Lau 1998).

[Figure 2 about here]

### Unemployment

Even if the ethnic economy does not guarantee good wages, it has been argued to offer a possible trade-off by protecting against unemployment. We therefore consider whether there are differential risks of unemployment across the groups. Table 3 shows that only the Mainlanders and BBCs (at the 10 per cent level) had significantly higher

predicted unemployment than the white majority (Model 1), though point estimates were positive for all groups. Interestingly, and counter to our expectations, the Sino-Vietnamese subgroup fared no worse in unemployment than the other Chinese groups; and the Hong Kong Chinese did not fare notably better. For Mainlanders the unemployment penalty was around 3 percentage points, consistent with international evidence that China's new wave of middle-class tertiary educated migrants struggle to find their qualifications and experience accepted overseas in the short-to-medium term (Ho 2011; Man 2004). Recency of arrival (Model 2) mediated this effect, indicating that it was the Mainlanders' relative lack of familiarity with the UK labour market and potentially less developed English language skills on arrival that was driving these risks. This is reinforced by supplementary analysis excluding those who arrived in the last five years (online supplementary materials, Table S2), which shows no unemployment penalty for Mainlanders.

BBCs, however, had probabilities of unemployment rates 2.6 percentage points higher than their white majority peers. This meant the predicted probability of unemployment for BBCs was 7.8 per cent, 50 per cent higher than the 5.2 per cent predicted for the white majority. This unemployment penalty is surprising given our expectation that the BBCs would be doing the best. Like the Mainlanders, they may have higher expectations of suitable work than their less educated counterparts. But as a native-born and educated population, their penalty compared to the white majority defies easy explanation, especially since they do not have the English language challenges that Mainlanders may face. Their high levels of participation in the industries associated with the ethnic economy deliver lower pay than they might otherwise achieve, but apparently without the compensation of greater employment security.

## **Discussion**

Despite popular impressions of the Chinese in the UK being a small and close-knit



community, this study depicts a fragmented population with varied labour market outcomes. Our analysis suggested that the most important explanation for wage penalties can be sought in the nature of each group's relationship with the 'distribution, restaurants and hospitality' industry cluster most closely related to the original Hong Kong Chinese-run ethnic economy. The fact that this appears to be a disadvantage perpetuated across generations supports theories of segmented assimilation, which suggests specific ethnic contexts will have a significant effect on labour market outcomes for both the first and second generations (Portes and Zhou 1993; Waters et al. 2010). Rather than acting as a resource or launchpad for social mobility (Zhou 1995), in the UK the ethnic economy seems linked to ongoing economic constraints.

Our analysis offers only limited support for the argument that the Chinese ethnic economy functions as the site of a trade-off between low unemployment and low wage jobs (Luk 2009; Clark and Drinkwater 2002). The Mainland Chinese face high unemployment when they first arrive, which seems to feed into high 'enclave' industry participation, a large 'enclave' industry wage penalty, and abiding status as employees not employers. Given that such a large proportion of the most newly arrived Chinese migrant group – Mainlanders – have been absorbed into this low-wage enclave industry system, this raises the question of whether the pattern of multigenerational enclave wage penalties will be repeated for their children, as it appears to have been for a sizeable share of the children of the Hong Kong migration.

The size and ongoing growth of the Mainland Chinese population underlines the importance of understanding their specific barriers to labour market participation, including the persistent role of discrimination and exclusion over time (Heath 2017). Their experiences may prove a better guide to future outcomes of the 'UK Chinese' than theoretical expectations based on the earlier survival strategies of the Hong Kong-born: a very different community in a very different era, even though both groups share

concentration in and wage penalties within the ethnic economy.

The previously unresearched TMS Chinese seem to have a very different relationship to the ethnic economy, and experience very different outcomes. Their lack of any significant wage penalty within the enclave industries, and their overall wage premium suggests a lack of reliance on the low-wage economy. If any group matches the common stereotype of Chinese success, it would be appear to be this little-studied set of groups.

Some research has suggested that avoiding Mainlanders, Cantonese people, and Chinatown enclaves is a successful economic strategy employed by highly educated Taiwanese migrants in the US (Waldinger et al. 1992). Meanwhile, the idea of Singaporeans and Malaysians having optimal cultural capital as a 'bridge' community between the ethnic and mainstream economies in the UK seems to be born out in their observed success. They may have had less need of a protective Chinese enclave, and, if they seek it out, they may be able to demand higher pay and positions as an educated, higher-skilled community without language limitations. Understanding more about the selection of these more successful migrants may shed light on how such trajectories are achieved.

## **Conclusions**

By focusing on diversity within an ethnic group that has been understudied in quantitative migration research the UK, we have shed new light on existing discussions relating to contexts of reception, migrant selectivity and the role of enclave economies. Our study has challenged the simple linear perspective on Chinese immigrant success, and presented unexpected findings on the challenges faced by second generation Chinese in reaping the benefits of their educational achievements. It indicates that, within the UK, the Chinese ethnic group is diverse and has diverse experiences of the labour market, with no unified Chinese reception community providing consistent social and economic integration for new migrants. Our findings suggest that some groups have become 'trapped' in the low-

wage enclave due to historical path dependency and intergenerational persistence, and that these ethnic enclaves do not bring the benefits that have been associated with them in more optimistic interpretations (Portes and Jensen 1987; Zhou 1995). Instead, overrepresentation within these low wage economies appears to account for ethnic penalties experienced by many of the Chinese sub-populations, but avoided by TMS Chinese. Our study provides further weight to existing research which has suggested a more cautious interpretation of enclave economies (Clark and Drinkwater 2002; Sanders and Nee 1987; Xie and Gough 2011).

The traditional notion that Chinese are on a rapid path to upward mobility (Cheng 1996) is challenged by the persistent overrepresentation of BBCs in the 'enclave' industries, where they work for lower wages than is typical for these jobs. This abiding multigenerational industry penalty associated with the ethnic economy, contrasts sharply with evidence of wage advantages for Taiwanese, Malaysians and Singaporeans, who have arrived free of a family history in the enclave, and tend to be highly selected in terms of language and skills. For the UK-born, we see evidence in their experiences of a legacy of exclusion and disadvantage, despite the positive stereotypes they also encounter (Chau and Yu 2001; Heath 2017; Francis and Archer 2005). At the same time, free of the ethnic enclave they experience the wage, but not employment, advantages associated with the Chinese success story (Lee and Zhou 2015), indicating polarised labour market outcomes even within this subpopulation.

Our study illustrates the potential for future research on numerically small minorities. Despite limitations, this study has revealed the potential for further research using a disaggregated approach, as well as presenting findings that demand further attention in more sophisticated analyses. This is not to say the approach is without its problems. We remain constrained by the need to combine conceptually important and distinct groups, such as the Sino-Vietnamese with others, and we can only employ rather

crude covariates, given that the data are not specifically designed to collect information on migrants and their qualifications. Our use of self-reported ethnic group means we are unable to consider those of Chinese ancestry who do not identify as Chinese. While, as noted, Chinese identification is almost universal among those with two Chinese parents, limited sample sizes in existing sources means we have little understanding of the identification of those of mixed Chinese ancestry. Further work with data sources that are able to capture parental ethnicity in sufficient numbers for analysis of Chinese people would be needed to ascertain how far this is an issue, and the likely direction of any ensuing bias. Similarly, being more categorically able to identify those Sino-Vietnamese who were part of the post-1975 refugee flow, might enhance our understanding of this group. While highlighting the relevance of migrant selectivity to our understanding of different subpopulations' trajectories, we cannot fully take account of the potential impact of selective remigration. Future attempts to address the implications of selective migration would enhance our insights into more and less successful groups. Nevertheless, we believe we have shown that there is significant scope for further exploring the relationship of different UK Chinese subgroups within the UK labour market.

Our findings have also highlighted the importance of gathering information on language capabilities in large-scale social surveys. Even when language fluency is included in UK Censuses and surveys, measures categorise those who speak poor English, essentially capturing deficiencies. We have suggested instead, that multilingual *capabilities* may provide important cultural capital.

Future research that attempts to account for the 'unexplained' advantage of Taiwanese, Malaysians and Singaporeans, alongside the disadvantage of UK-born Chinese, has the potential to provide better understanding of group boundaries and identity, and to contribute to work that avoids simplistic culturalist explanations of socio-economic outcomes, and which takes seriously different pathways to success and marginalisation

(Jiménez et al. 2015). Our study also aligns with wider moves towards considering the articulation of selectivity from origin with reception at destination in migration studies (Luthra et al. 2017); and with the focus on how economic outcomes are distributed across populations rather than simply how they affect the average member. It therefore has potential theoretical payoffs beyond the important reconsideration of Chinese economic wellbeing in the UK.

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251.

**All look the same: Figures and Tables**

	White	Total Chinese	Chinese sub-groups by country of birth				
	British UK-born	in subgroups	Mainlander	Hong Kong	TMS Chinese	BBC	Sino-Vietnamese and others
N	385,928	2,107	741	448	389	379	150
Mean age & S.D	44.4 (12.78)	40.1 (11.41)	37.6 (10.35)	46.1 (10.86)	41.6 (11.42)	33.4 (8.80)	46.5 (10.95)
% Aged 20-29	16.56	21.90	25.51	9.82	15.17	36.41	6.67
% Aged 30-39	19.41	32.84	34.82	17.63	32.90	41.42	24.67
%Aged 40+	64.03	45.26	39.68	72.54	51.93	22.16	68.67
% female	52.0	57.7	59.9	55.8	65.0	48.3	57.3
% tertiary educated	32.28	54.5	54.2	38.3	64.4	70.2	38.1
% arrived in last 10 years	0.01 <sup>1</sup>	22.6	39.6	8.8	30.5	0.00	17.8
Mean year of migration	N/A	1994	2001	1985	1995	N/A	1989

Median year of migration	N/A	1999	2002	1984	1999	N/A	1988
Analytical sample: ILO economically active, N	288,560	1585	532	333	291	327	102
% ILO-defined Unemployed	5.2	6.4	7.5	5.1	4.8	7.7	4.9
Analytical sample: with wage information N	183,243	864	281	165	180	183	55
Median hourly wage in £	11.52	12.63	11.54	10.95	16.18	13.16	8.75
Mean hourly wage in £ (SD)	14.30 (14.39)	15.30 (10.47)	14.66 (9.96)	13.45 (9.01)	18.22 (11.95)	15.87 (10.75)	12.87 (9.07)
N= distribution, food & hospitality	47,573	608	215	173	79	101	40
% of total economically active in distribution food & hospitality	16.6	38.8	42.2	50.9	26.6	31.8	38.8
N=with occupational class	379,628	2068	722	446	385	369	146

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data (NS-Sec)								
% of total with class data	8.8	10.4	9.7	18.4	5.4	8.1	8.9	
self-employed/ small business owners								

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Table 1: Sample descriptive statistics, white majority and Chinese subgroups

Source: Labour Force Survey, January-March 2008 to April-June 2017, adults aged 20-64 excluding full-time students, unweighted Ns, means and proportions.

Analytical samples for economically active and wages exclude all those with missing values on covariates. <sup>1</sup>Despite being UK-born a small number of this group 're-entered' the UK from having lived abroad and so provide information on year of arrival.

Table 2. Log wages. Estimates from OLS regression models (standard errors in parentheses), N=184,107

	Model 1: Age and sex	Model 2: +tertiary education	Model 3: plus recency of arrival	Model 4: +ethnic economy industry	Model 5: + interaction Chinese subgroup & industry
Chinese sub-group (Ref=white British UK-born)					
Mainland China	0.0182 (0.039)	-0.105** (0.035)	-0.063 (0.038)	-0.018 (0.036)	0.071 (0.043)
Hong Kong	-0.086† (0.049)	-0.137*** (0.042)	-0.122** (0.043)	-0.064 (0.039)	0.053 (0.043)
Taiwan, M'sia & SG	0.236*** (0.046)	0.090* (0.040)	0.122** (0.042)	0.152*** (0.040)	0.197*** (0.042)
Vietnam & others	-0.136† (0.077)	-0.184** (0.067)	-0.159* (0.067)	-0.0848 (0.062)	0.012 (0.094)
BBC	0.155*** (0.042)	-0.000 (0.038)	-0.000 (0.038)	0.034 (0.036)	0.095* (0.041)
Recent migrant (<10 years)			-0.123** (0.045)	-0.112** (0.043)	-0.089* (0.042)
Hospitality, catering and distribution industry				-0.235***	-0.233***

				(0.00297)	(0.00298)
Industry*Mainlander					-0.280***
					(0.066)
Industry*HK					-0.295***
					(0.078)
Industry*TMS					-0.196*
					(0.090)
Industry*Viet & other					-0.215†
					(0.117))
Industry*BBC					-0.216**
					(0.079)
Controls for age and sex	YES	YES	YES	YES	YES
Controls for tertiary education	NO	YES	YES	YES	YES
Constant	2.345***	2.170***	2.170***	2.240***	2.240***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Adjusted R2	0.248	0.249	0.272	0.272	0.248

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Source: Labour Force Survey, January-March 2008 to April-June 2017, adults aged 20-64 in paid work, excluding full-time students, income weights applied.

\*\*\* p<0.001; \*\* p<0.1; \* p<0.05; † p<.10

Table 3. Probability of unemployment. Average Marginal Effects from logistic regression models (standard errors in parentheses), N= 290,145

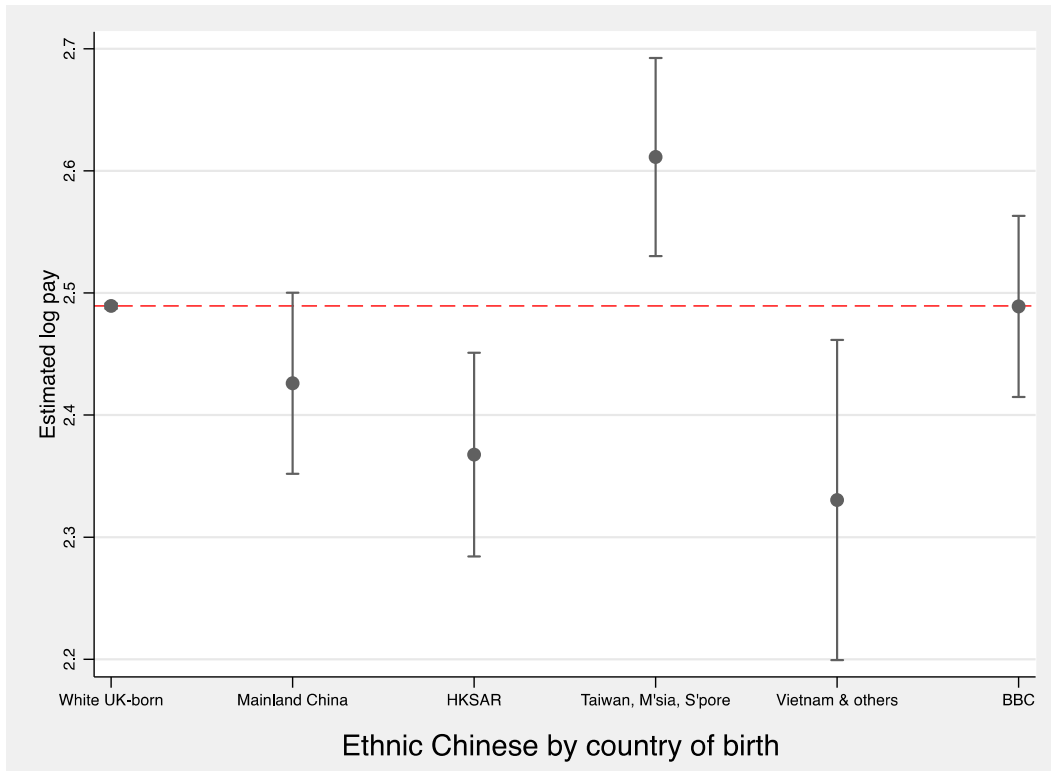
	Model 1: Controlling for age, sex and education	Model 2: plus recency of arrival
Chinese sub-group (Ref=white British UK-born)		
Mainlander	0.030 (0.012)*	0.010 (0.012)
Hong Kong	0.009 (0.013)	0.003 (0.013)
Taiwan, M'sia, S'pore	0.016 (0.017)	0.002 (0.015)
Vietnamese and others	0.008 (0.026)	0.000 (0.024)
BBC	0.026 (0.15)†	0.026 (0.15)†
Control for recent migrant (<10 years)	NO	YES
Controls for age sex and tertiary education	YES	YES
Pseudo R2 from full model	0.042	0.042

Source: Labour Force Survey, January-March 2008 to April-June 2017, economically active adults aged 20-64 excluding full-time students, sampling weights applied

\* p<0.05; † p<.10

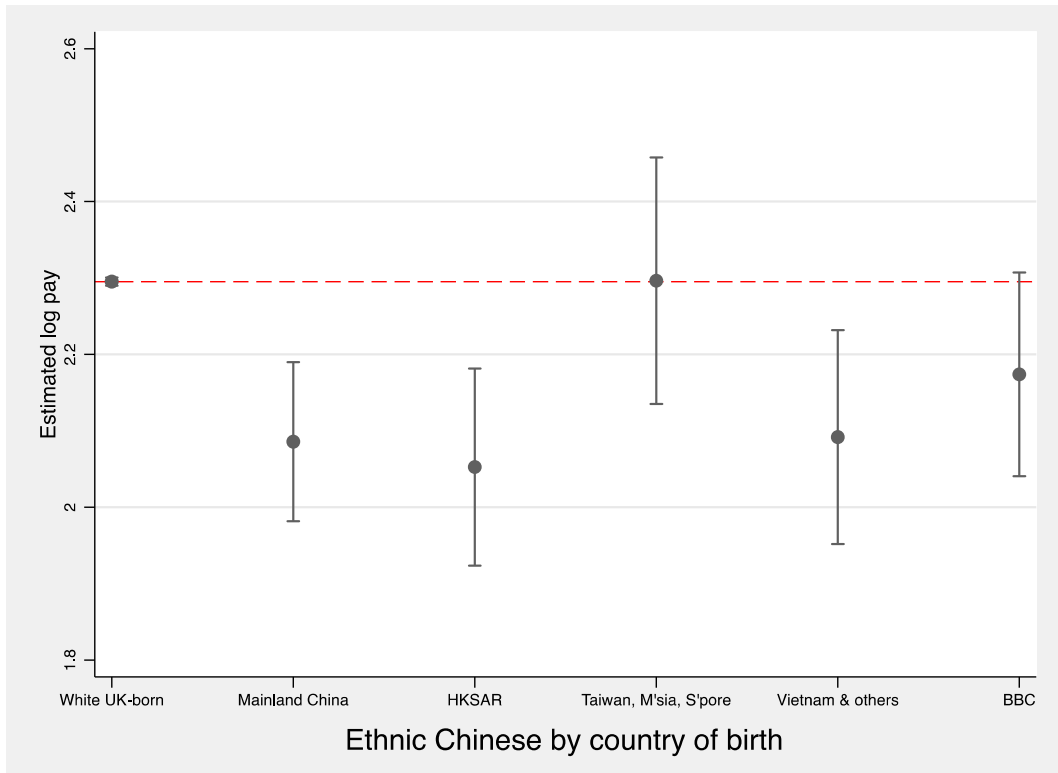
Figure 1: Estimated log hourly wages for white British & Chinese subgroups, 95% CIs





Source: Labour Force Survey, January-March 2008 to April-June 2017. Estimates from OLS, controlling for age, sex, tertiary education, and recent migration.

Figure 2: Estimated log hourly wages for White British and Chinese subgroups in the distribution, hotel & restaurant industries, 95% CIs



Source: Labour Force Survey, January-March 2008 to April-June 2017. Estimates from OLS including interaction between industry and subgroup, controlling for age, sex, tertiary education, and recent migration

**All Look the Same? Diversity of labour market outcomes of Chinese ethnic group populations in the UK: Supplementary online materials**

Table S1. Log Hourly Wage, excluding those who migrated in last 5 years. Estimates from OLS regression models (standard errors in parentheses), N=184,003,

	Model 1: Age and sex	Model 2: +tertiary education	Model 3: plus recency of arrival	Model 4: +ethnic economy industry	Model 5: + interaction Chinese subgroup & industry
Chinese sub-group (Ref=white British UK-born)					
Mainlander	0.064 (0.044)	-0.056 (0.039)	-0.045 (0.040)	0.0002 (0.038)	0.094* (0.046)
Hong Kong	-0.090† (0.052)	-0.134** (0.044)	-0.130** (0.045)	-0.071† (0.041)	0.052 (0.046)
TMS Chinese	0.269*** (0.048)	0.119** (0.042)	0.131** (0.044)	0.158*** (0.042)	0.210*** (0.044)
Sino-Viet and others	-0.084 (0.084)	-0.127† (0.073)	-0.121 (0.073)	-0.053 (0.068)	0.047 (0.096)
BBC	0.155*** (0.042)	-0.000 (0.038)	-0.000 (0.038)	0.034 (0.036)	0.095* (0.041)
Recent migrant (5-10 years)			-0.064 (0.062)	-0.048 (0.058)	-0.021 (0.058)

Hospitality, catering and distribution industry				-0.235*** (0.003)	-0.233*** (0.003)
Industry*Mainlander					-0.295*** (0.069)
Industry*HK					-0.307*** (0.083)
Industry*TMS					-0.235* (0.101)
Industry*Viet&other					-0.234† (0.127)
Industry*BBC					-0.216** (0.080)
Controls for age & sex	YES	YES	YES	YES	YES
Controls for tertiary education	NO	YES	YES	YES	YES
Constant	2.345*** (0.003)	2.170*** (0.003)	2.170*** (0.003)	2.240*** (0.003)	2.240*** (0.003)
Adjusted R2	0.083	0.248	0.248	0.272	0.272

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Source: Labour Force Survey, January-March 2008 to April-June 2017, adults aged 20-64 in paid employment, excluding full-time students and those who arrived in the UK five or fewer years before being surveyed, income weights applied.

\*\*\* p<0.001; \*\* p<0.1; \* p<0.05; † p<.10



Table S2: Probability of Unemployment, excluding those who migrated in last 5 years.

Average Marginal Effects from logistic regression models (standard errors in parentheses),

N=289,940

	Model 1: Controlling for age, sex and education	Model 2: plus recency of arrival
Chinese sub-group (Ref=white British UK-born)		
Mainlander	0.009 (0.013)	0.002 (0.013)
Hong Kong	0.009 (0.014)	0.006 (0.014)
Taiwan, M'sia, S'pore	0.007 (0.017)	-0.001 (0.017)
Vietnamese and others	0.016 (0.029)	0.013 (0.028)
BBC	0.026 (0.015)†	0.026 (0.15)†
Control for recent migrant (5-10 years)	NO	YES
Controls for age sex and tertiary education	YES	YES
Pseudo R2 from full model	0.042	0.042

Source: Labour Force Survey, January-March 2008 to April-June 2017, economically active adults aged 20-64 excluding full-time students and those who arrived in the UK five or fewer years before being surveyed, sampling weights applied

\* p<0.05; † p<.10