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EXAMINING THE RELATIONSHIP BETWEEN IMMIGRATION AND UNEMPLOYMENT USING NATIONAL INSURANCE NUMBER REGISTRATION DATA

Examining the relationship between immigration and unemployment using National Insurance Number registration data

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Abstract

Immigration has been central in recent UK policy debates and has attracted significant concern over its possible adverse effect on labour market outcomes. This paper contributes to the evidence on this issue by presenting initial results on the impact of migration inflows on the claimant count rate using previously unused data on National Insurance Number registrations of foreign nationals. Our results, which appear robust to different specifications, different levels of geographic aggregation, and to a number of tests, seem to confirm the lack of any impact of migration on unemployment in aggregate. We find no association between migrant inflows and claimant unemployment. In addition, we test for whether the impact of migration on claimant unemployment varies according to the state of the economic cycle. We find no evidence of a more adverse during periods of low growth or the recent recession.

Introduction

Immigration was a central policy issue in the last UK general election, and the Coalition Government pledged to introduce a cap on immigration and reduce the number of non-EU immigrants. Part of the reason for public and political concern about immigration is its potential impact on the labour market. This was less of an issue before the recession; for a long period in the 2000s the overall UK employment rate was at the highest sustained level in recorded economic history, at the same time as immigration was also at historically very high levels. However, while the financial crisis and its aftermath have lead to a sharp rise in unemployment, immigration recovered to near-record levels in 2010, despite the depressed labour market.

It is not surprising therefore that concern about the labour market impacts of immigration, and in particular its impact on unemployment and benefit dependency, should be particularly acute. In making the argument for restrictions on immigration, Ministers have repeatedly highlighted the (asserted) link between immigration and unemployment. The Secretary of State for Work and Pensions has drawn an even more direct connection:

"Good immigration is managed immigration - it should not be an excuse to import labour to take up posts which could be filled by people already in Britain. ... Controlling immigration is critical or we will risk losing another generation to dependency and hopelessness," [2]

[1] We thank Rebecca Riley, Ana Rincon-Aznar and Lucy Stokes for comments and suggestions received, and Pawel Paluchowski for the help creating the maps. The views expressed in this work and errors therein are those of the authors.

[2] IDS speech, 1 July 2011, quoted in Daily Mail and elsewhere: http://www.dailymail.co.uk/news/article-2010067/Iain-Duncan-Smith-immigration-row-Majority-jobs-UK-foreigners.html

It is therefore of keen policy interest to establish whether there is in fact a link between increased immigration and increased unemployment, whether over the short or the medium run, and whether the impact has increased (or decreased) in the current depressed state of the labour market and general economy. This discussion note contributes to the existing evidence on the issue by relying on the novel use of data from National Insurance Number (NINo) allocations to adult overseas nationals entering the UK as measure of migrant inflows. The data is analysed using a spatial correlation approach, a common technique used to attempt to identify the labour market impact of migration. We follow the methodology used by Lemos and Portes (2008) on the Worker Registration Scheme (WRS) data. Our results seem to confirm the lack of impact of migration on unemployment in aggregate. Further estimations also fail to identify any evidence that this impact is more adverse when economic growth is lower.

Previous literature and contribution of this note

A considerable body of UK evidence now exists on the impact of immigration on native labour market outcomes, particularly employment and wages. Most of this work suggests that, on average, the impact of immigration on native residents has been small. Virtually no published study has found any significant impact on employment or unemployment. Some studies have found some impact on wages, particularly towards the bottom wage distribution.[3] However such impacts are quite small compared to the influence of other factors (for example the minimum wage).

A popular strand in the literature uses a 'spatial correlations' approach, which compares employment changes across local areas with different migrant shares to identify the impact of immigration. For example Dustman, Fabbri and Preston (2005) use Labour Force Survey (LFS) regional-level data over time and find no strong evidence of overall effect on aggregate employment and unemployment. Lemos and Portes (2008) apply a similar methodological approach using Worker Registration Scheme data and find no significant effect of migration from A8 countries on either unemployment or wages. Other papers try to identify the impact of migration by splitting the population into segments based on workers characteristics, such as age, gender and skill levels. The impact of migration can then be estimated by comparing the changes in employment across segments of the population with differing migrant inflows. This methodology however, rests on the assumption that migrant and native workers in each segment are substitutes. This is a central consideration, as the impact of immigration on the labour market outcomes of a given segment of the native population is likely to be more adverse (beneficial) the greater the substitutability (complementarily) between migrants and workers that same segment. Work by Manacorda, Manning and Wadsworth (2006) suggests that immigrants and UK-born workers might in fact be imperfect substitutes in the UK, possibly explaining the general lack of evidence indicating negative impacts. Similarly, they find that the degree of substitution may be greater among the less skilled, consistently with recent research by Dustmann, Frattini and Preston (2008) and Nickell and Salaheen (2008) who find that competition for jobs may be greater between migrants and less skilled natives. Overall, however, in the UK context there is still little evidence of significant impacts on native

[3] For a detailed review, see Blanchflower and Shadforth (2009)

workers, on average, and there may be at most a generally modest wage impact on the less skilled.

This paper aims to contribute to the existing body of evidence by replicating the empirical approaches described above using data on National Insurance Number (NINo) allocations to adult overseas nationals entering the UK as a measure of migrant inflows. This data has recently gained currency among users of migration statistics (ONS, 2009; Boden and Rees, 2010) but has been relatively underexploited in the literature. As far as we are aware this is the first empirical paper to make use of this data to examine the employment effects of migration. As detailed in the following section, we believe using NINo registration data offers a good opportunity to revisit the impact of migrant inflows on local unemployment using a spatial correlation approach.

Finally, much of the existing evidence on the labour market impact of migration is based on pre-recession data. Little is known about whether the impact of immigration varies across the economic cycle, which in current economic circumstances is clearly an important policy issue. By using NINo registration data up to 2010/11, this note also aims to provide some initial evidence on this issue.

Description of the data

All new migrants to the UK who start work or want to claim benefits or tax credits are required to register for a National Insurance Number (NINo). Administrative data from such registration can therefore be used as a measure of migrant flows from abroad. While not perfect, NINo registration data offers a number of advantages that make it attractive, in particular relative to the LFS data that has generally been used for previous studies. Firstly, NINo registrations are a direct measure of new migrant inflows,[4] which arguably makes it better suited to exploring the impact of recent migrants than flow measures derived from the difference in stocks over two points in time, as is generally necessary with the LFS. Secondly, coming from an administrative data source, NINo registration data draws on information on the full population of several hundred thousand new migrants each year. This contrasts with a sample of about 700 new migrants per year in the LFS, and therefore allows for reliable estimates at smaller geographies. Finally, as the majority of new NINo registrations are likely to be for employment purposes,[5] registration data can be seen as a good measure of employment-driven immigration rather than the wider movement of foreign nationals into the UK. For example, it will generally include foreign students or family members in so far as they take up a job. It will also count any employed migrants regardless of their intended length of stay, thereby capturing a wider set of migratory patterns. If considering the labour market impact of immigration, NINo registration may therefore be considered a highly relevant measure of migration inflows. NINo registration data also comes with some limitations, namely its limited information on the personal characteristics of migrants, again compared to the LFS. These are limited to age, gender and nationality and exclude other relevant characteristics such as skill level or wages.

[4] Migrants may leave the UK and return at a later date without needing to re-register for a new NINo. The total number of registrations is therefore an underestimate of the gross migrant inflow.

[5] Entitlement to benefits is in many cases restricted to individuals who have satisfied a given employment requirement. We therefore expect NINo registrations to be predominantly triggered by employment starts.

We use NINo registration data to construct a measure of new migrant inflow rates across the 378 Local Authorities in England, Scotland and Wales using annual data from financial year 2002/03 to 2010/11.[6] The short panel is clearly a limitation of the data, but we emphasise how the geographical cross-sectional dimension compares favourably with work carried out on other datasets. In any case, given the very substantial increase in (particularly work-related and EU) migration over the last decade, as well as broader changes to the UK labour market, it is at least arguable that pre-2000 experience may not be as relevant to the current labour market impacts of migration to the UK. Figure 1 below provides a visual representation of the migrant inflow rate obtained by dividing total NINo registrations by working age population for 2005 and 2009. The Figure makes the geographical richness apparent, and confirms the variation of the inflow rate across areas.

Figure 1: Geographical distribution of migrant inflows as measures by NINo data

Empirical approach

This note closely replicates the approach taken by Lemos and Portes (2008) on data from the Worker Registration Scheme (WRS).[7] There are strong similarities between NINo registration data and the WRS which make this appropriate, although the NINO data covers

[6] Local authorities in Northern Ireland were excluded because of difficulties obtaining the necessary data. City of London and Isles of Scilly were dropped because of missing data.

[7] During 2004 to 2011, incoming nationals of the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia or Slovenia (the EU A8 accession countries) wishing to work for a UK employer were required to register under the Worker Registration Scheme.

all migrants, not just those from the new EU Member States.[8] Both are a direct measure of inflows which is sourced from administrative data that allow for empirical approaches at detailed geographies. We use a spatial correlation approach to identify the impact of inward migration on local claimant count rates. Measuring the true impact of migration would require comparing how local claimant count rates change over time in the presence of migrant inflows with the change we would have observed in the absence of any immigration. This counterfactual is obviously impossible to observe. To address this, the spatial correlation approach exploits the variation in migrant inflows across local areas in an attempt to identify the causal impact of migrant inflows. If the geographical variation in inflow rates is exogenous, then the impact of migration can be identified by comparing the change in unemployment in areas with high and low migrant inflow rates.

The possible issue with this approach is that the geographical distribution of the flows may not be exogenous. Specifically, in this case, the extent of migrant inflows into a given local area might be correlated with the performance of the area's local labour market as migrants might choose to seek work, or might be more likely to find work, in areas where unemployment is falling.[9] If this is the case, the estimate of the impact of migration would be biased and indicate a less adverse or even favourable impact of migration on unemployment. A possible solution is therefore to check the robustness of one's results to instrumentation of the migrant inflow variable. In this context, instrumental variables estimation involves using a variable that is correlated with the migrant inflow but not with (the unexplained part of) local labour market performance. In this note we consider as instruments lags of the potentially endogenous variable and migrant presence as measured in the 2001 Census, in light of the frequent use of similar instruments in the literature (Dustmann, Fabbri and Preston, 2005; Altonji and Card, 1991; Hunt, 1992). However, it is worth noting that previous migrant settlement patters may have been correlated with previous local labour market circumstances and these in turn may be correlated with current local labour market performance, which would invalidate the instruments.

Secondly, the spatial correlation approach assumes each local area is a closed labour market. This is unlikely to be the case, particularly for Local Authorities within metropolitan areas. The movement of natives between areas will therefore need to be accounted for as this also can affect local unemployment rates. In particular, natives might move away from local areas where competition for jobs increases because of migrant inflows. This is essentially an empirical issue. On the one hand, there is evidence that labour mobility in the UK, especially in the short term, may be small and that is may not be very responsive to local labour market conditions (Gregg et al., 2004; Biswas, McHardy and Nolan, 2008). However, there is also evidence that internal migration is in fact one of the mechanisms through which regional labour markets adjust to immigration shocks (Hatton and Tani, 2005). Any native response which is not accounted for in our specification would dampen any adverse effect of immigration on unemployment. We address this in two ways. Firstly, we attempt to control for population changes and flows in the model specification directly.

[8] NINo data coverage is also likely to be more complete than the WRS. Although registration for the latter was notionally compulsory, enforcement was very light, and there is some anecdotal evidence of non-registration. By contrast, a NINo is necessary to work (legally) or claim benefits, so coverage is likely to be very high.

[9] Rincon-Aznar and Stokes (2011) find that fewer immigrants from Asian countries and the A8 chose to locate in areas where unemployment was higher, which suggest it is the level rather than the rate of change that matters for migrant settlement patterns. This type of endogeneity will not bias our estimates, since the change in unemployment, rather than the level, is the dependent variable.

Secondly, we estimate our model at increasing levels of geographical aggregation (Local Authority/district, Local Authority/county and Government Office Regions). The idea behind this is that while any possible detrimental impact of migration at the district level may be offset by native's mobility into other areas, this response is less likely to be feasible as we extend the geographical area of consideration to counties and then regions.

Following the approach taken by Lemos and Portes (2008), we use a conventional empirical specification (Borjas, 1999; Card, 2001; Dustmann et al., 2005) which can be summarised as follows:

$$\Delta N_{it} = \beta \Delta M_{it} + \varphi \Delta X_{it} + f_t + \Delta \varepsilon_{it} \qquad (1)$$

where ΔN and ΔM are the change in the claimant count rate and the change in the migration rate,[10] ΔX are control variables for labour demand and supply, population growth and native flows, f are year dummies and ε is the error term. Subscript *i* identifies local area and *t* the year. The interpretation of the coefficient β is that a for every one percentage point increase in the migration inflow rate, the claimant count rate changes by β percentage points.

The model is in first-differences so that time invariant area-specific differences in the claimant unemployment rate are netted out. We also weigh the observations by population size. Year dummies capture changes in the claimant count rate that are common to all areas in a given year. Controls within X aim to pick up factors that can affect labour supply and demand.[11] We account for shifts in labour supply by the change in the share of the working age population who are women, young (between 18 and 24 years of age) and from ethnic minorities, because of the often different employment rates experienced by these groups. Further labour supply controls include the lagged change in the proportion of NINo registrations relating to female and young migrants. To capture the changes in labour demand we use the change in the share of claimants who have been on JSA for over 6 months.[12] Finally, we include controls for natives' mobility. We use lagged working age population growth by NVQ qualifications group (Dustmann et al., 2005; Borjas, 2005) as well as an explicit account of the net flows of natives.[13]

We also exploit the fact that NINo registration data include years after the recent recession to explore whether the impact of migration has been different over the business cycle. To do this, we run a slightly modified version of equation (1) above:

$$\Delta N_{it} = \beta \Delta M_{it} + \gamma \Delta M_{it} \times GDP_t + \varphi \Delta X_{it} + f_t + \Delta \varepsilon_{it} \qquad (2)$$

[10] As NINo registrations are already a measure of gross inflows, we calculate the change in the migration rate as the number of NINo allocations in area *i* and year *t* divided by the working age population in area *i* and year *t.* Implicitly, we are assuming that the outflow of migrants is zero, which is consistent when wishing to identify the impact of recent migrants on the rest of the population, understood as including natives and previous migrants.

[11] With the exception of data on NINo registrations, we use data available online from NOMIS.

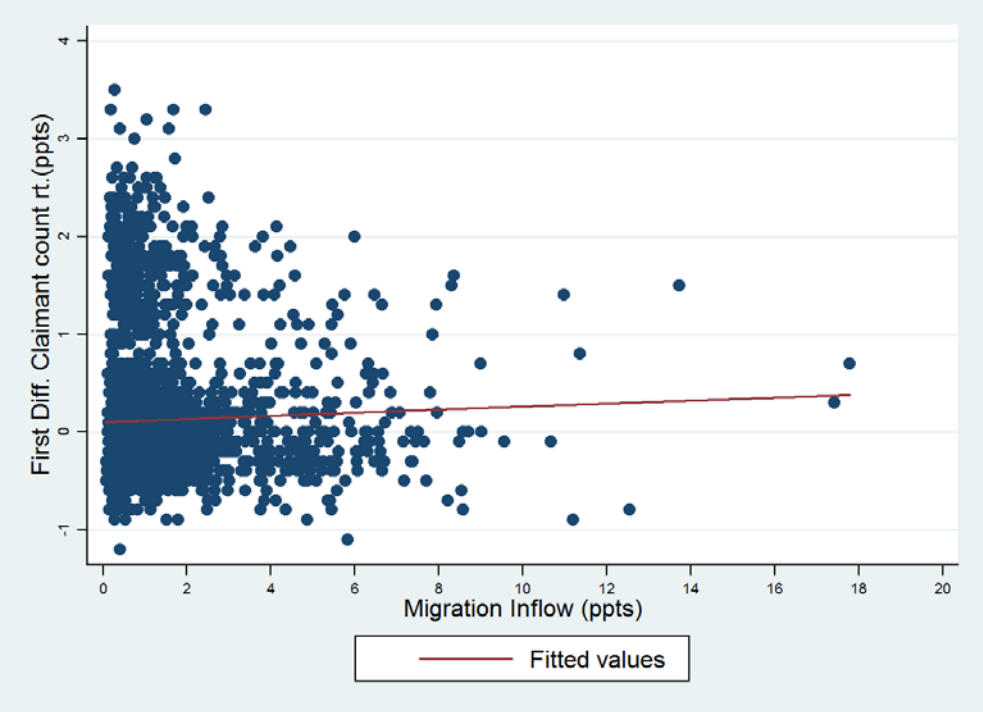
[12] As an alternative specification, we also use the ratio of notified vacancies to working age population, which does not affect the results.

[13] We define the net flow of natives as the change between this year's working age population excluding the inflow of new migrants and the working age population in the previous year.

We interact the migrant inflow rate variable with the UK GDP growth rate, measured in percentage point changes over the financial year.[14] The interpretation of the coefficient β is now that a for every one percentage point increase in the migration inflow rate, the claimant count rate changes by β percentage points if GDP growth is zero. When GDP growth is not zero, every one percentage point increase in the migration rate is associated with a change in the claimant count rate of β + γ x GDP growth. This allows us to estimate whether the overall impact of migration is different during years of strong and weak economic performance.

Results and discussion

As a preliminary exploration of the relationship between migrant inflows and changes to the claimant count rate can be attempted through a scatter plot of these two variables as in Figure 2. The graphs allows us to read the raw correlation between the two variables, which is found to be positive but small by looking at the mild slope in the line of best fit.



Needless to say, the raw correlation is presented for illustrative purposes only. More robust correlations are using regression techniques following the approach outlined above. Estimation results for equation 1, excluding and including the vector of controls X, are presented in Table 1a and 1b respectively. For each specification, results are shown at the district, county and regional level.[15]

[14] GDP growth is not included on its own as it would be collinear with the year dummies.
[15] The total number of observations at the regional level is low. Results are included to allow for comparison with other geographies but should be considered with caution.

Table 1a: Equation 1 excluding vector of controls X

	District/LA	*County/LA*	*GOR*
Migrant inflow rate (NINo, ppts)	-0.00677	-0.0059	-0.0146
	[0.00464]	[0.00420]	[0.01481]
Year dummies	Yes	Yes	Yes
N	3402	1566	99

Table 1b: Equation 1 including vector of controls X

	District/LA	*County/LA*	*GOR*
Migrant inflow rate (NINo, ppts)	-0.00822	-0.00741	-0.03162 *
	[0.00521]	[0.00478]	[0.01379]
Change in share of women in population (ppts)	0.01109	0.00772	-0.33941 ***
	[0.00912]	[0.01602]	[0.08142]
Change in share of ethnic minorty population (ppts)	-0.00137	0.00307	0.00237
	[0.00401]	[0.00532]	[0.05066]
Change in share of youth in population (ppts)	0.00207	-0.00164	-0.12768
	[0.00260]	[0.00463]	[0.08271]
Change in lagged share female NINO registration (ppts)	0.00127	0.00305	0.02499 *
	[0.00110]	[0.00171]	[0.00983]
Change in lagged share youth NINO registration (ppts)	-0.00018	0.00028	0.03548 **
	[0.00109]	[0.00187]	[0.01258]
Change in share JSA claimants over 6 months (ppts)	0.01519 ***	0.01192 ***	0.00011
	[0.00180]	[0.00252]	[0.00992]
Change in growth of population without NVQ qualifications	0.00034	0.00071	0.0045
	[0.00020]	[0.00037]	[0.00322]
Change in growth of population with NVQ 1-2 qualifications	0.00013	-0.00022	-0.00621
	[0.00049]	[0.00076]	[0.00598]
Change in growth of population with NVQ 3-4 qualifications	0.00033	0.00089	-0.00044
	[0.00068]	[0.00115]	[0.00728]
Change in native net flow rate (ppts)	-0.00223	-0.00847 *	0.01849
	[0.00255]	[0.00425]	[0.02816]
Year dummies	Yes	Yes	Yes
N	2646	1218	77

Coefficient estimates. Standard errors in square brackets.
* for p<.05, ** for p<.01, and *** for p<.001

The results show a very small negative and generally insignificant correlation between the migrant inflow rate and the change in the claimant count rate. A hypothetical example can help give a sense of how small this coefficient really is. A 2 percentage point increase in the migrant inflow rate, akin in magnitude to the large and sudden inflow of A8 migrants in the years 2004-2006, would, according to these estimates, be associated with a fall in the

claimant count rate in the order of only 0.02 percentage points.[16] For all practical purposes, these results suggest that migration has essentially no impact on claimant count unemployment.

It is useful to comment on the methodological robustness of these results before discussing them further. Firstly, our results are robust to the incremental layering of controls, the exclusion of London, and the estimation of equivalent fixed-effect models. Secondly, we instrument the migration inflow variable with its first and second lag. We also use migrant presence as measured in the 2001 Census which is another common instrument in the literature. This exercise does not alter the results. Tests confirm these variables are correlated with the migration rate. The choice of lagged values ensures they are antecedent to the claimant count rate. However, our tests cannot exclude that our instruments may be still correlated with the error term, most probably as previous migrant settlement patterns may have been influenced by previous local labour market performance and the latter may be persistent over time. We also re-run the full equation (1) using several techniques to account for first order autocorrelation, spatial correlation and errors of unknown form. While we cannot be entirely confident of the adequacy of the tests conducted, as many rely on having a long time-series, this seems unlikely to call into question the validity of the main conclusion.[17] Finally, it is worth considering whether the variation in the migrant rate and claimant count rate originate from the numerator of these fractions (NINo registrations and claimant respectively) rather than from changes in the denominator (working age population). Indeed, our estimated coefficients may include an arithmetic 'composition effect' arising from the extent to which the claimant rate amongst the migrant inflow differs from the rate amongst the existing population. At the extreme, if we believe that NINo registrations occur predominantly for employment purposes, such inflow of migrants may add to the working age population and cause the claimant count rate to drop arithmetically even in the absence of any genuine impact on the native population. Following Lemos and Portes (2008), we control explicitly for population growth by NVQ qualification and native net flows in equation (1), which may help to net out this composition effect. As a further check, we calculate the arithmetic effect on the estimated coefficients that we would expect under the extreme circumstances where all NINo registering migrants start work (i.e. none claim benefits) and where the pre-existing working age population and number of claimants remain unaltered, for each district and each year on year change. The magnitude of this effect is in the order of -0.02, implying that our result of an essentially zero correlation between migration inflows and changes to the claimant count rate would remain unchanged even in the most extreme scenario and even if our controls failed to pick up any of this compositional effect

Overall therefore, our results indicate a lack of any significant correlation between migrant inflows and changes aggregate claimant count rates, in line with the general message emerging from previous research that migration has had generally negligible effect on unemployment rates. This result is consistent across different specifications, and robust to a number of econometric tests. However, as is usual in this literature, some caveats are appropriate when interpreting these results. Firstly, while our empirical strategy is aimed at identifying the causal effect of immigration on the claimant count rate, the inevitable

[16] We obtain this number by multiplying 2 percentage points by a rounded coefficient of -0.01.

[17] Indeed, even if an ideal correction for the error structure were to reveal that our results were significant, the very small coefficients would still support a practical interpretation that the overall correlation between migrant inflows and changes to the claimant count is negligible.

limitations of any empirical technique imply it is possible that this may not have been fully achieved. It is therefore still the case that while our results could be interpreted as indicating that migrant inflows cause a small negative and not statistically significant reduction in the claimant count rate (for example, because of complementarities with native labour), it is also possible that we are picking up part of the causality in the opposite direction: that falling claimant count rates (symptomatic of a buoyant labour markets) may attract migrants. Secondly, while our finding would confirm the lack of an aggregate effect on claimant count rates, this does not exclude that there might in fact be some important effects happening which are not being picked up in our aggregate specification. For example, we cannot exclude that migrant inflows may be having positive effects on the employment of highly skilled native labour (because of complementarities) and negative effects on low skilled native workers (because of substitutability) which net out in the aggregate. Indeed, establishing who competes with whom is essential to identify in which parts of the labour market we might expect to find possible impacts. This partly explains the recent move toward identification techniques that segment the labour market along combinations of worker characteristics, which unfortunately is not possible using this data.

Finally, we proceed to explore whether the impact of migrant inflows may vary across the business cycle. Results obtained when interacting the migrant inflow rate variable with the UK GDP growth rate, measured in percentage point changes over the financial year, are shown in Table 2 overleaf, again at district, county and regional level. The coefficients of interest here are on the migrant inflow rate and its interaction with GDP growth, representing respectively the intercept and slope of the impact of migration over the business cycle. Every one percentage point increase in the migration rate is associated with a change in the claimant count rate of $\beta + \gamma$ x GDP growth, which ranges from around -0.01 percentage points when GDP is falling by 2 percentage points to around -0.004 percentage points when GDP if growing by 2 percentage points in the district level specification. These numbers are consistent with the very small negative and generally insignificant correlation found above.

Perhaps surprisingly , the interaction between migrant inflows and GDP emerges as positive and significant, albeit very small, indicating that during periods of lower growth, migrant inflows are associated with a lower claimant rates relative to the counterfactual - in other words, slower claimant growth than would otherwise have occurred. Consistent results are obtained when interacting the migrant flow variable with the recessionary year 2008/09. We see this as a preliminary result for which we can only offer speculative interpretations and which may not be robust to alternative specifications. It is possible that migrants might more carefully select their settlement location during recessionary periods so that the correlation between stronger local labour markets and settlement patterns increases. Alternatively, by boosting local demand, migration might perhaps mitigate the impact of a recession on native workers, but we have no evidence on these hypotheses at present. What is clear, however, is that contrary to what might be expected, our initial results do not suggest that immigration has a more adverse impact on unemployment during periods of recession or low growth.

Table 2: Equation 2 - Interacting migrant inflows with GDP growth

	District/LA		*County/LA*		*GOR*	
Migrant inflow rate (NINo, ppts)	-0.00708		-0.00681		-0.0346	**
	[0.00426]		[0.00405]		[0.01111]	
Migrant inflow rate x GDP growth	0.00176	***	0.00135	***	0.00158	***
	[0.00016]		[0.00016]		[0.00039]	
Change in share of women in population	0.01029		0.00867		-0.31131	***
	[0.00887]		[0.01563]		[0.08726]	
Change in share of ethnic minorty population (ppts)	0.00014		0.00539		0.054	
	[0.00343]		[0.00462]		[0.04440]	
Change in share of youth in population (ppts)	0.00117		-0.00324		-0.07154	
	[0.00255]		[0.00457]		[0.07420]	
Change in lagged share female NINO registration	0.00083		0.0021		0.00716	
	[0.00111]		[0.00171]		[0.01076]	
Change in lagged share youth NINO registration	-0.00063		-0.00043		0.02792	*
	[0.00108]		[0.00188]		[0.01290]	
Change in share JSA claimants over 6 months	0.01666	***	0.0132	***	0.00622	
	[0.00173]		[0.00245]		[0.00885]	
Change in growth of population without NVQ	0.0001		0.00025		-0.00058	
	[0.00019]		[0.00034]		[0.00291]	
Change in growth of population with NVQ 1-2	-0.00018		-0.00069		-0.00962	
	[0.00045]		[0.00069]		[0.00531]	
Change in growth of population with NVQ 3-4	-0.00024		-0.00005		-0.01144	
	[0.00065]		[0.00107]		[0.00665]	
Change in native net flow rate (ppts)	-0.00126		-0.00676		0.04226	
	[0.00253]		[0.00419]		[0.03011]	
N	2646		1218		77	

Coefficient estimates. Standard errors in square brackets.

* for p<.05, ** for p<.01, and *** for p<.001

Conclusion

While immigration has been central in recent UK policy debates and has attracted significant concern over its possible adverse effect on labour market outcomes, the existing evidence on the issue instead suggests a lack of impact on average and at most a generally modest impact on the less skilled. This discussion note contributes to this evidence by presenting initial results on the relationship between migration inflows and the claimant count rate using data on NINo registrations of foreign nationals. This data source, which we regard as more comprehensive and reliable that data on migrants from the Labour Force Survey, has, to our knowledge, not been used previously for this purpose. Furthermore, our paper builds on previous work by including the recent recession in the time period considered.

As always, data and empirical techniques come with limitations. In particular, our spatial correlation approach requires one to address the issue of the possible endogeneity of migrant settlement patterns and the identification of areas that truly match closed labour

markets. Our estimates are also limited to aggregate impacts, which might conceal dynamics occurring at the sub-group level. However, our results, which appear robust to different specifications and to a number of tests, seem to confirm the general lack of an aggregate impact of migration on unemployment. These support previous findings in the literature indicating an overall lack of impact on aggregate unemployment rates. In particular, our work is methodologically close to Lemos and Portes (2008) who also use administrative full count data offering detailed geographical disaggregation in relation to A8 migrant and find very little or no indication of significant impacts. In addition, we find no evidence of a more adverse impact of immigration during the recent recession.

Finally, we anticipate there will be opportunities to improve on the above work in the future. For example, the analysis could be revisited to include instruments beyond the ones used here. Furthermore, by offering information on migrant's age, gender, and, possibly more interestingly, country of origin, NINo registration data can allow some segmentation of the population to explore impacts by sub-groups and to test for possible variation in the impact of immigration from different regions of the world.

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