**A preliminary literature review on the effect of immigration upon Australian domestic employment and wages**

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**Introduction**

The effects of immigration upon domestic Australian employment levels and wages are ongoing and controversial topics. In this paper, we use the term “incumbent” to describe Australian born workers or non-visaed residents, although this population could variously be described as “domestic workers,” “local workers” or “native workers.” The relationship between migrants and domestic workers has attracted increased salience during COVID-19 in part because of a populist belief that border closures may have singlehandedly increased domestic employment over this period of historic low immigration intake (for example, Hutchens (2022)). However, a correlation is not a causal link and there may be other explanations for this relationship. In addition, the diverse context of different countries matters and conclusions from one country may not be relevant for another.

A detailed examination of this topic demonstrates that proving a relationship between domestic employment and wages and high rates of immigration remains challenging in the Australian context, especially in recent years with the increasing complexity of the immigration visa system. In this short piece, we set out the contributions of the global scholarship on the relationship between employment, wages and immigration and discuss its limitations when applied to the Australian context. We then consider the strong need for such a study in Australia given its high rates of both permanent and temporary immigration, its complex visa structure, the unusual nature of its industrial relations system and its geographical concentration of its population. We move onto a discussion of the strengths and limitations of existing Australian studies before concluding with some future directions for research.

1. **The global scholarship on employment, wages and immigration**

The global scholarship on the relationship between immigration, employment and wage growth is highly contested both with regards to its findings and the appropriate methodologies. Looking at the issue of a purported association between immigration and employment, David Card’s work (2005) suggests that overall low skilled immigration does not harm the job opportunities of “less educated natives.” However, this can be contrasted with other recent contributions in the United States that do find evidence of downward effect of immigration upon both unemployment rates and wage growth (for example, Anastasopoulos et al. (2021)). Research in the United Kingdom demonstrates that the benefits of immigration to the labour market may be unequally distributed with those “supplying labour which is closely substitutable [suffering] at the receiving location whereas labor which is complementary [gaining]” (Dustmann and Preston, 2019, 794). The Migration Advisory Committee (2012) of the United Kingdom (UK) found that influx of non-EU immigration workers saw a reduction in employment of UK workers from 1995-2010. These findings were replicated in the City of London (Devlin et al., 2014).

Much of the debate within this scholarship relates to specification differences (between structural and non-structural methods) and identifying the relevant comparator group.[[1]](#footnote-1) The appropriate level of labour market analysis – national or local – is also decisive (Dustmann et al., 2016; Edo, 2019). Common non-structural empirical specifications look at exploiting variation across geographical areas (that is, geospatial analysis), skill groups based on education and experience (that is, national skill-cell approach), or a mix of the two (Dustmann et al., 2016). Importantly, the specification chosen alters the parameter being estimated, interpretation, and therefore, comparability (Dustmann et al., 2016). The geospatial specification measures “the total wage effect of immigration on a particular native skill group that takes into account complementarities across skill cells and across labour and capital” (Dustmann et al., 2016, 32). The skill-cell specification allows a national-level labour market with fixed labour markets defined by education-experience skill groups (Dustmann et al., 2016; Borjas, 2003; Breunig et al., 2017). This measures “a relative wage effect of immigration [by examining] one experience group versus another within education groups” (Dustmann et al., 2016, 32). Finally, the mixture approach uses variation in immigration flows both across regions and across education groups and identifies the relative effect of immigration of one education group when compared with another (Dustmann et al., 2016, 32). The geospatial approach has found mixed results ranging from negative to small positive total wage effects (for example, Altonji and Card (1991), Dustmann et al. (2013), Card (2007), Dustmann et al. (2016)). The skill-cell and mixed approach, generally, both find negative results, but varying in magnitude (for example, Borjas (2003), LaLonde and Topel (1991), Dustmann et al. (2016)).

An alternate non-structural method uses quasi-experimental techniques to study the impact of migration on employment and wages (Edo, 2019). This requires identifying an event that triggers the labour supply movement of migrants and is exogenous to the economic conditions in the receiving country. Studies have tended to find null to negative effects on wages and employment (for example, Tumen (2016), Dustmann et al (2017), Edo (2019)). However, results can be sensitive to how the effected labour market is split into subpopulation groups – for example, Card (1990), Borjas (2017), Peri and Yasenov (2019) all studied the Mariel Boatlift event that saw a large influx of Cuban asylum seekers arrive in Florida in 1980 and assessed the effect of these migrants upon the domestic labour market. Results vary from null to negative, depending on the subpopulation examined. While this methodology overcomes potential endogeneity issues, similarly large enough quasi-experimental events are relatively infrequent given the rarity of such events. Further, they are often best suited to capture short-run effects and estimates of unexpected events and may overstate effects as there is less time for adjustment in the receiving economy than under standard, slower migratory flows (Edo, 2019).

Structural models are the final commonly used methodology. These models impose a theoretical framework to estimate key parameters to then predict how a receiving economy may react to a change in migration labour supply. The methodology and estimates are heavily dependent on the assumptions the model is built around (for example, the inclusion of wage rigidities (see Edo and Toubal (2015)) or the degree of substitutability between migrant and incumbent workers (for example, Ottaviano and Peri (2012)). By construction, they often infer negative short-run impacts which dissipate overtime to slightly positive or null as production adjusts and spillover effects (such as productivity) occur (Edo, 2019).

**2. Application of the global scholarship to Australia**

In any event, a further and important limitation of this scholarship is that it is largely (although not exclusively) focuses on low skilled workers (both overseas and native) and also often immigration programmes that have a low skilled emphasis. Unlike Australia, these studies are from countries that have not historically used a points-based model for immigration selection and their immigration programmes are traditionally focused on either family migration or free movement (Boucher and Gest, 2018, Chapter 4). Further, the scale of immigration as a percentage of the population into Australia is greater than these other countries, rendering this issue arguably more, not less, important in Australia than elsewhere (UNPD, 2019). Finally, Australia’s economic immigration system is more complex and has a broader array of visas sub-classes than any comparable country (Beine et al., 2016). Perhaps the most directly comparable country to Australia in terms of its immigration system and the overall size of its immigrant stock is New Zealand (Alimi et al., 2020, 4). Here, a few studies find a small and positive effect of immigration upon incumbent youth unemployment (for example, McLeod and Maré (2013)) and another more recent study finds some evidence of a negative impact of immigration upon inequality in wages between 1986 and 2013 (Alimi et al., 2020). In short, directly applying international findings to Australian does not adequately consider the different economic and especially, immigration context, in Australia.

There are few studies focussing specifically on Australia.[[2]](#footnote-2) The skill-cell empirical specification has been a common empirical specification used in recent years in the small array of Australian studies. Kifle (2009) analysing the 2001 Census, found that immigration reduces wages in low-skill occupations while improving them in high-skill occupations. However, the estimated wage losses in low-skill occupations could be due to over-qualification rather than substitution of migrant workers for incumbents. Breunig et al. (2017) analyse multiple datasets (Household, Income and Labour Dynamics in Australian (HILDA), Census, Survey of Income and Housing (SIH)) covering the period 2001-2013 and examine the impact of immigration on the Australian-born population’s earnings, wage levels, hours worked, participation rate, and unemployment rate. The authors do not find significant effects of immigration on wages or earnings for the native-born population. However, they do find strong evidence of immigration self selection into certain types of employment – that is, immigration flows into skill groups where wages and employment are high.

Other studies are mixed, but identify either neutral or positive effects of immigration upon employment. D’Souza (2019) replicated the methodology of Breunig et al. (2017), using the SIH from 2003-2016, and her findings are broadly in line. Sinning and Vorell (2012) use a different identification strategy, utilising regional variation from the Censuses 1996, 2001, 2006, to estimate the effects of immigration to Australia on economic and social outcomes. They find no evidence of adverse effects on unemployment rates or median incomes. Crown et al. (2020b) combine approved Temporary Work Visa applications with HILDA from 2005-2015 to examine the labour market impact the Temporary Work Skilled Visa (subclass 457) Programme on incumbent workers. Their analysis indicates that skilled international workers increase the wages of native workers due to skill complementarities among incumbent and immigrant workers. This is the first empirical study on the impact of a particular visa group on wages or employment of native workers in Australia (Crown et al., 2020b, 602). In general, as we discuss further below, data limitations within existing studies mean that this topic has not been analysed fulsomely, and therefore, there are some limits to the conclusions that can be reached.

1. **Why such a study is important to Australia**

Understanding migration, the experience of migrants and the impact of migrants on incumbent workers and labour markets is of particular importance in Australia. Australia has a very large stock of migrants, with 29.7 per cent of Australia’s population having been born overseas (Australian Bureau of Statistics, 2020). It also has very large flows of migrants, with 537,800 overseas arrivals in 2018-2019 (the last year for which we have data that was unaffected by the COVID pandemic). These were offset by almost 300,000 departures. Net overseas migration (NOM) was still nearly 240,000 (Australian Bureau of Statistics, 2020). As pointed out in Section 2, simply taking overseas evidence and applying it to Australia might provide quite misleading information about the effect of migration on the Australian economy.

There are several institutional features that are very important when considering immigration into Australia and its likely economic effects. The first of these, is the geographical isolation of the island continent which is Australia. As noted above, Australia does not experience large, unregulated inflows of refugees or low-skill workers from developing countries as the US and many continental European countries do. The Australian labour market, while much less regulated than that in Europe, is much more conducive to workers than the US labour market. Unions, while weakened in membership, still exert powerful influence on wage setting through collective bargaining and the ubiquitous award system that is institutionalised through the Fair Work Commission (see Australian Bureau of Statistics (2018) and Fair Work Commission (2022)). The size and composition of the permanent migration program is set each year through the Australian Government's Budget process rather by Congress in the United States, meaning it is more open to annual changes.

Skilled migrants can enter through both permanent and temporary visa categories under a very detailed array of visas, which increasingly focus on employer sponsorship (work in progress by Boucher and Wright; Boucher and Davidson, 2019; Productivity Commission, 2016). The temporary migration program more broadly is uncapped and designed to attract migrants to work or study and includes: international students; recent international graduates; working holiday makers; temporary skilled short-term employer-sponsored workers; and some temporary protection visa holders.[[3]](#footnote-3) This strong focus on temporary immigration means that Australia has a large percentage of migrants (64.3 per cent (Australian Bureau of Statistics, 2020)) coming to Australia with permission only to stay for a short period of time. The largest group of these are international students who face some limits on working rights while studying. Another important group, making up almost 10 per cent of all arrivals to Australia, are “working holiday” visa holders (Australian Bureau of Statistics, 2020). These individuals generally have relatively high human capital but occupy low-paying jobs (picking fruit, serving in bars and cafes) in exchange for permission to live in Australia for one and two years and take advantage of that time to travel and see the country. The geographical distribution of migrants is quite concentrated in Australia with the vast majority flocking to the two largest cities, Sydney and Melbourne (Australian Bureau of Statistics, 2020).

In summary, Australia’s industrial and labour market institutions, its geographic isolation, the socio-economic and economic mix of migrants, their visas of entry, the geographical concentration of migrants and the specific, idiosyncratic aspects of Australia’s economy all suggest that evidence from overseas on the impact of migrants on wages and employment will be only somewhat useful and that more detailed and applied analysis of the Australian context is needed.

1. **Gaps in the current Australian studies and proposed future direction**

In terms of Australia, the best evidence that we have on the impact of migrants on incumbents’ wages and employment come from studies using publicly available census or survey data. These data capture most individuals in Australia on permanent visas, but not, for the most part, those who are here on temporary visas. This means that when these studies look at the number of migrants working in particular geographical areas or industries or skill-levels, they are missing the majority of migrants because, as noted, the Australian immigration programme is now predominately temporary in nature. These studies have also been hampered by data collection related to temporary migrants such as the non-observability of visa status for those who are born overseas.

For studies of the overall impact of migrants on the economy, this is probably not a serious flaw. Flows of temporary and permanent migrants move up and down together, generally in line with overall economic conditions, and most statistical techniques employ changes in the number of total migrants to identify impacts on Australians. Provided that the changes in permanent and temporary migrants are in the same direction, then using permanent migration as a proxy (or an instrumental variable) for overall migration is satisfactory.[[4]](#footnote-4) These studies, combined with the institutional features of the Australian labour market outlined above, do provide some confidence that at least over the past 20 or 30 years, immigrant flows have not had negative impact on wages and employment at the overall level of the Australian economy. When one considers the stimulatory impact of migrants and the undeniable fact that migrants do work in areas where there are shortages of Australian workers, as well as the skill focus in the permanent aspects of the program, this is not surprising. Our intuition on these bases is that the impact of migrants at the overall level of the economy is much more likely to be positive than zero or negative.

Nonetheless, there is great benefit to expanding research to better understand differential impacts of visa subclasses and the heterogeneity across and within different and detailed sectors of the labour market. Specific areas where data availability has not allowed convincing answers are: (1) the impact on specific sectors of the labour market; and, (2) the differential impact of different types of migrants based on visa type and status. Employment and wage adjustments in response to a change in labour supply could vary depending on the type of work, the skill set required, mobility options across occupations/industries/regions, the employment conditions, the firms production response, employer and employee preferences and the productivity spillovers, just to name a few. Furthermore, visa categories may interact differently with different segments of the labour market. For example, the hospitality industry attracts large inflows and outflows of young workers, including international students and other temporary migrants, and is often a source of employment for young Australians while they are studying (Borland and Coelli, 2021). By contrast, the medical profession requires a specified skill set that takes time to develop and employees are less-likely to flow to alternative occupations. Both of these labour markets have a relatively high proportion of migrant workers. Student and working holiday makers have increased more rapidly than other migration categories (Australian Bureau of Statistics, 2020).

Some argue that the increase in temporary visa classes over the last twenty-years may be having a disproportionate impact on young, unskilled, or regional Australian workers (Borland and Coelli, 2021; Daley, 2019; Boucher, 2016). This raises the question of the impacts that students and holiday makers have had on low-wage jobs in specific geographical areas such as Sydney and regional Australia. Questions of this nature are difficult to answer with currently available data.

Recent work by the Australian Treasury looking at the fiscal impact of migrants shows that age and income of migrants are the two largest determinants of the net benefit (exclusively in fiscal terms) of immigration to Australia (Varela et al., 2021). The younger migrants come and the more they earn, the more that Australia profits from such migrants. Skilled workers who are sponsored by employers, contribute much more to Australia’s economy than those who arrive on family or humanitarian visas. Further, wage competition at higher skill levels could be fundamentally different than wage competition at lower skill levels (Breunig et al., 2017). The pattern of complementarities which determine whether or not migrants create productivity spillovers may differ between low and high skill workers. A gardener might simply displace another gardener but a computer programmer might render the rest of the workers in the company more productive. Of course, low skill workers, such as a truck driver, might also produce large spillovers if the truck would otherwise sit idle in the absence of a driver. The data required for better understanding such relationships is not yet publicly available for researchers, but once it is, it will be a valuable resource to extend our knowledge about the impact of specific visa status on local conditions and it will allow for much finer estimation at different levels of geography, occupation and age.

Beyond data limitations, differences in views on identification strategies discussed in Part 1 are methodologically challenging in this space. This is particularly the case given the many endogenous factors that influence where migrants live and work. Instrumental variables have been employed, but do have their own limitations (for example, Goldsmith-Pinkham et al. (2020) and Jaeger et al. (2018)). Others argue that the skill-cell approach does not succumb to these same endogeneity issues “in the short run as any occupation cannot be freely chosen by immigrants” (Kifle, 2009, 352). However, some studies have disputed this (for example, Llull (2018)) and such an assumption overlooks the capacity of sponsoring employers to determine the area of employment and even the particular workplace. Quasi-experiments, as stated earlier, are an alternative method to overcome these endogeneity issues, but Australian evidence using this technique is limited and there are few scenarios that would allow such a method to be deployed.

Finally, while Australian studies have tended to focus on the labour supply side of the equation, firm production and labour demand responses also influence the impact migrants have on employment and wages of local workers (Brell and Dustmann, 2019). Simply, the firm may change its production structure without altering wages to absorb the additional labour supply – for example, firms may adjust output and trade (for example, Rybczynski (1955) and Hanson and Slaughter (1999)), address skill shortages, introduce new technologies or change in the intensity of skilled or unskilled labour (for example, Acemoglu (2002) and Beaudry and Green (2003)). These adjustment factors highlight the importance of research on how migration has impacted firm productivity in Australia, and how spillover effects could vary depending on the type of migrants employed and industry.

The role of migration on innovation is another important channel that can either directly or indirectly impact incumbent workers – for example, creating jobs or increasing productivity. International research in this area is picking up (for example, Kerr and Kerr (2020) for the US; Blit et al. (2020) examining Canada; Bosetti et al. (2015) for Europe), but reasonably sparse for Australia (Crown et al. (2020a)[[5]](#footnote-5); Jensen (2014) [[6]](#footnote-6)). All of these factors will influence how migration impacts employment and wages of incumbent workers. It is difficult to capture how they all interact. Nonetheless, partial analysis of these different mechanisms can shed light on the impact of migration on incumbent workers employment and wages.

1. **Conclusion**

Immigrants clearly make important contributions to Australia society in a variety of dimensions. The available evidence on the impact of immigration on wages and employment predominantly tells a positive story but this evidence is based almost exclusively on the permanent migration program and the national level of analysis. Permanent migrants have a positive impact on the fiscal position of Australia, with employer-sponsored, skilled migrants having a particularly large, positive impact on the Australian budget at both the state and federal level. The picture on wages and employment is similarly positive. The existing studies suggest that permanent migrants have either a positive or a negligible effect on the wages and employment levels of incumbent Australians.

Yet, less is known about the effect of temporary migrants on Australian workers. There is some anecdotal evidence that temporary migrants may have negative effects on the labour market prospects of younger Australians. Further investigating these issues requires unit-record level data that provides information on demographics that determine labour market outcomes linked to precise information about visa type and immigrant status. New data sources which are becoming available will lead to increased understanding of these issues.

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1. See Dustmann et al. (2016) for summaries on selected international studies on the impact of immigration on wages and different empirical specifications. See Edo (2019) for a review on existing international literature examining the impacts of immigration on both employment and wages, looking at both non-structural and structural methods. [↑](#footnote-ref-1)
2. See Brell and Dustmann (2019) for a summary on Australian literature examining the impact of immigration on wages. [↑](#footnote-ref-2)
3. Working holiday visas have country-specific caps, but these are rarely reached. [↑](#footnote-ref-3)
4. Some studies use net overseas migration whereas others use inflows. In either case, this point about statistical identification is relevant. [↑](#footnote-ref-4)
5. For a recent study on the effect of Temporary Graduate Visa (subclass 485) on regional innovation outcomes. [↑](#footnote-ref-5)
6. For a literature review and ideas on analysing innovation in the Australian context. [↑](#footnote-ref-6)