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**Reflections on Australia's Skilled Migration Policy** 

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# Reflections on Australia's Skilled Migration Policy

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#### Abstract

This paper outlines some recent points of debate over the economic impact of skilled migration on Australia. It is argued that the national gains from an increase in skilled immigration are likely to be small but there are significant effects on income distribution. Recent general equilibrium modeling results are used to show that the skill based immigration programme is a blunt instrument for targeting particular skills needs and may have many potential unintended consequences including the "crowding-out" of higher education in Australia.

Keywords Migration, Skilled immigration, Human capital, Education.

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### 1. Introduction

There has been a dramatic shift in the composition of immigrant flows to Australia over the last two decades. Between 1990-95 Australia halved its intake of permanent migrants from 120 thousand per year to around 60 thousand. In something of a "policy backflip" the intake then accelerated again up to an annual inflow of 140 thousand immigrants in 2006. Significantly nearly all of this expansion, of 80 thousand migrants per year, was due to people entering under the skilled migrant category with little change in the family reunion category (Productivity Commission 2006). This rapid change in migrant selection policies towards skilled visas implies an increase in the average skill level of immigrants. In particular, as shown by Birrell et al (2006) there has been a dramatic increase in the net inflow of *Professionals*, particularly building and engineering professionals and teachers.

What are the benefits of this change in composition of migrants toward skilled migrants? One potential benefit, cited by Miller (1999), is that the points system may have contributed to better labour market outcomes for migrants. More generally, however, the points system itself is based on the presumption that it provides a low cost source of talent to the Australian economy. The aim of this paper is to provide a brief survey of economic perspectives of the costs and benefits of importing skilled labour focusing, in particular, on the recent study by the Productivity Commission (2006) report and the ensuing debate.

## 2. National Benefits from Immigration

The official explanation for the shift toward skilled visa based migrant inflows is the so called skills shortage and expected labour market shortages due to an ageing labour force. There is good reason to be cautious about this explanation. As argued by Gittens (2006) the notion of a "skills shortage" is difficult to reconcile with the basic workings of a market. Excess demand should, in a properly function market, generate high wages and attract entry from students and induce substation to alternative production methods by firms. If something is preventing labour markets from clearing then the appropriate policy response should be toward these barriers. Nor is increased immigration an appropriate response to population ageing. In particular Guest and

McDonald (2002) show that changes in immigration policy could have, at best, only a very minor impact on the decline in labour force participation rates.

An alternative view is that the recent resurgence in migration is a response to lobby groups that favor immigration, particularly Real Estate, Property Development and Construction sectors, (see Birrell and Birrell 1978). According to Betts and Gilding (2006) these groups did increase their lobbying activities during the lull in the late 1990s, and suggest that the increase in immigration was then a direct response to this lobbing.<sup>1</sup>

The nice aspect of this political economy explanation is that, in contrast to the "skillshortage" argument, it does square with basic economic theory which suggests that the effects of immigration on the redistribution of incomes is quantitatively much more important than the overall gains from immigration. To appreciate this point first consider the standard economics of immigration. Standard models indicate that immigration can, in principle, raise the welfare of both immigrants and natives, (Berry and Soligo 1969, Parmenter 1990, Clarke and Ng, 1993). Nevertheless Borjas (1995) argues that the stakes are quantitatively small. According to Borjas (1995) the presence of these immigrants in the USA (approximately 10% of the USA labour force) reduces average wages relatively to what they might be otherwise by a number equal to 1.9 percent of GDP and raises the returns to capital by 2.0% of GDP. Though these are large redistributions the net gain is the difference between these numbers which is just 0.1 % of GDP.<sup>2</sup>

Moreover this figure ignores other costs associated with government transfers that accrue to immigrants. In addition the fact that the gains will be in the form of increased returns to capital, a large fraction of which is owned by foreigners. Taking these factors into account, Peters and Verikios (1996) find that the overall gains to Australia from

<sup>&</sup>lt;sup>1</sup> Betts and Gilding (2006) offer evidence of the pro-growth lobby, among which includes the fact that from Jan 2001 to Oct 2006 *The Australian* ran 18 pro-immigration editorials and only one opposed to immigration.

<sup>&</sup>lt;sup>2</sup> It also needs to be recognized that not all labour is the same. Some types of labour may gain and others may loose depending on the degree of substitutability between the different types. See also, for example Gang and Rivera-Batiz (1994) Borjas (2003) and Ottaviano Peri (2006).

immigration are likely to be negative.<sup>3</sup> Econometric literature in Australia, as surveyed by Withers (2003), however tends to suggest that there is little detrimental impact of immigrants on the macroeconomic aggregates and in particular there is a small positive net contribution to the government budget surplus. In short there is evidence each way on the impact. Nevertheless the point still remains that the national economic benefits are likely to be small.

However Borjas' (1995) simple numerical example also shows that, even at the national level, there are large redistributive effects of immigration. In his example the presence of immigrants in the USA represented a transfer of 1.9% of GDP from labour to capital. This argument is not specific to the USA but a point about relative magnitudes. That is the net benefits will always be small relative to the size of the transfers. Irrespective of the overall national gains immigration clearly brings about large gains to some groups within the economy. This is why the political economy argument has so much resonance.

#### 2. The Welfare Gains from Immigration.

From the preceding discussion it might be tempting to conclude that immigration has no real welfare benefits. This conclusion would be wrong, however, as can be ascertained from Hamilton and Whalley (1984). They used a computable general equilibrium model to compute the gains to the world economy from removing all barriers to migration. They found that removing world barriers to labour mobility would more than double world GDP! This is a very large effect and, for example, far outweighs the expected gains from global trade liberalization.<sup>4</sup> Similarly Walmsley

<sup>&</sup>lt;sup>3</sup> With respect to tax and foreign ownership issues, Peter and Verikios (1996) find that an annual intake of 107 thousand people (the intake for 1991-92) creates a Berry Soligo triangle worth 0.006 percent of GDP for Australia.<sup>3</sup> After allowing for foreign owned capital stock, however, this changed into a loss equal to 1.4% of GDP to native residents. Thus taking policy as given it appears that the Beryy-Soligo welfare gains are not only small, but dwarfed by other considerations. Clarke and Ng (1993), however, argue that tax and foreign ownership factors are both under the control of natives and could, in principle, be adjusted to maximize gains from immigration.

<sup>&</sup>lt;sup>4</sup> Trade liberalization will also reduce differences in wages between countries, but it will only equalize them if each countries has identical technologies.

and Winters (2005) consider the effects of reducing restrictions on temporary migration between countries. They find that an increase in developed economies' quotas on inward movements of labour of just 3% of their labour force would raise world GDP by 0.6%. This figure is 1.5 times more than the estimated gains expected from World trade liberalization.

Clearly these figures are much larger than the Borjas's (1995) estimates. The difference is that the Hamilton and Whalley (1984) and Walmsley and Winters (2005) estimates include the gains to the migrants themselves from the higher wages they receive in their adopted countries. The Borjas (1995) figure of 0.1% includes only the gains to host country residents.

Thus I have argued that: (i) the welfare gains from migration are indeed large but; (ii) the host country national gains are unlikely to be large and, and hence; (iii) the main gains from migration accrue to the migrants themselves. From an ethical perspective then, immigration is a very important economic policy. It would seem to be ethically desirable to allow unskilled immigrants as this contributes significantly to the incomes of those immigrants, and may also be o some small net benefit to Australia. The same does not apply for skilled immigrants however due to the standard "brain drain" arguments. That is, if education is subsidized, taking skilled immigrants imposes a financial burden on the source country which will generally be much poorer countries than Australia.<sup>5</sup> The question remains however whether, by focusing on skilled immigrants only, the economic gains may be more substantial.

## 3. The Effects of Increasing the Skilled Migrant Intake

I have argued above that the notion that immigrants bring large benefits to Australian residents is somewhat dubious. Is the case any stronger if we consider skilled immigrants? In particular bringing in skilled immigrants might be expected to bring labour services the complement existing labour thus raising productivity of capital and domestic labour.

<sup>&</sup>lt;sup>5</sup> See also the discussion in Clarke (2006) who argues there is a strong economic case for skilled migration but an ethical case against it. Clarke also argues that skilled immigration has a repressing effect on inequality which may also be desirable.

This question has been addressed recently by the Productivity Commission (2006) who undertook an economic analysis of the consequences expanding the skilled immigration level. Specifically they considered the effects of expanding the skilled visa intake by a further by 50% over the next 20 years.

The PC (2006) find that after 20 years there is a small increase in per-capita output of about 0.7 percent. Of this increase only 0.27% is attributed to the higher average skill levels of the migrants. The remainder comes about largely due to the increased working hours per person.<sup>6</sup> A similar study under taken by Econtech (2005) for The Department of Immigration and Multicultural Affairs. They found slightly larger effect of 1.1 percent after 20 years. This is much larger than the PC (2006) to be sure, but still a small number in absolute terms.

Thus the quantitative evidence suggests that the national gains from increased migration are small for skilled migrants as well. Hence the main point of interest in assessing the impact of immigration on the Australian economy should not be on the aggregate welfare gains but rather on who gains and who loses.

The strength of the PC's (2006) report however is the detailed modeling of occupation levels and industries. This allows us to make inferences about the distributive impacts at a relatively high level of detail.<sup>7</sup> The detailed results with respect to the impact of skilled immigration on occupations and industries have been published by Giesecke and Meagher (2006), who undertook some of the background modeling for the PC.

In their study the PC (2006) found that an expansion of the skilled visa immigration intake would have a substantial affect on wage growth of *Professionals*. As a whole they find that the level of wages and salaries after 20 years of a higher skilled visa intake would be 10% lower than it would have otherwise been. At a more detailed level Giesecke and Meagher (2006) report that the wages and salaries of *Natural and Physical Science Professionals* would be 14 percent lower with the expansion of

<sup>&</sup>lt;sup>6</sup> The PC 2006 estimates do no measure the gains to natives as it includes wages of the immigrants. On the other hand it doesn't include the gains to the immigrants either. Effectively they measure the change in welfare of a average Australian household. If the immigrants are poorer than Australia natives on average this will tend to reduce this average gain and vice versa.

<sup>&</sup>lt;sup>7</sup> The PC (2006) however does not report results at a high level of detail.

skilled migration. Likewise, *Medical Practitioners* are 13 percent lower, *Teachers* are 10 percent lower and *Nurses* are 8.8 percent lower. Broadly the implied fall in the return to post graduate degrees is 7 percent (Giesecke and Meagher 2006, Cuxson and Giesecke 2006).

Interestingly however with respect to occupations such as *Plumbers* and *Construction Tradespersons* Giesecke and Meagher (2006) report that in response to a large predicted inflow of immigrants there is very little expected change in wages. This is because skilled immigration not only brings in more skilled workers but also fuels demand in *Construction*. Thus the report highlights the difficulties in using immigration policy to tackle alleged shortages in specific labour markets.

Interestingly the PC (2006) and Giesecke and Meagher (2006) also found that the sector which gains the most from the immigration intake is *Construction* and in particular, within that broad sector, *Residential Building, Ceramics, Plaster, Cement* all experience substantial increases in demand. Indeed their results show that whether immigration is biased towards skill migrants or just a mix of skill and family visa, it is these same sectors which benefit the most.

Whether these changes are good or bad is a moot point and depends on whether one accepts the skill shortage argument. Irrespective however it identifies fairly clearly the groups which are most threatened by increases in skilled immigration.<sup>8</sup> Moreover, having identified these groups the results give credence to the Birrell and Birrell (1978) hypothesis that it is in the interests of the Property and Construction sectors to lobby for increased migration.

## 4. Long Run Considerations

The modeling work undertaken by the PC (2006) and Giesecke and Meagher (2006) considers a time horizon of 20 years and the dynamic impact allowing for capital accumulation. The emphasis on dynamics mainly results from the PC's underlying objective of modeling a realistic policy experiment. They wish to consider the effects

<sup>&</sup>lt;sup>8</sup> These results reflects both the assumed composition of the qualifications of immigrants under the points system and also the relatively specialized skills of these groups that leave them with limited alternatives for substituting into other occupations.

of a substantial change in the skilled migration intake, and choose a ballpark figure of a 50% increase. Clearly such an increase could not be achieved in a year or even 5 years. Hence they consider a gradual increase in the intake over 20 years. On the one hand this gives the policy experiment some realism in terms of the way any policy change might realistically impact. On the other hand it draws attention to long run dynamic effects which are inherently very uncertain.

Econtech (2006) criticized the PC (2006) for their assumptions regarding the speed on transition, which they argued was two slow. This concerns the extent which investors respond to changes in the rental rate on capital. If the transition speed is faster, as Econtech (2006) argue, this tends to raise the long term economic gains to migration significantly as more capital accumulates over a given finite horizon.

Unfortunately however there is little evidence to support either fast or slow transitions and a weak case can be model for both. Macroeconomic models routinely encounter this problem with the calibration of adjustment costs parameters, for which there exist no reliable empirical estimates. The point then is that while it realistic to consider a 20 year horizon in an experiment which considers a 50 percent increase in skilled migrants, this time horizon also amplifies the uncertainly over which we can safely say anything meaningful.

This long run uncertainty includes also the effects of urban congestion and related negative environmental costs, the effects of economies of scale; emigration, and possible impacts on the global supply of skilled workers. Again these issues have dynamic impacts which have very little empirical knowledge. These are all effects which are impacts are likely to be felt in the longer term, and hence, serve to increase the uncertainly of long run impacts.

## 5. The Biggest Loser. More Long Run Implications

Adding to this long run uncertainty is another potential cost of immigration that was not considered either by Econtech (2006) or the PC (2006). The Marshallian definition of the long run is that all factors are variable – including human capital. Over a 20 year policy horizon it is reasonable to expect that potential students will respond to changes in expected wages by altering their education plans. For example an expected reduction

in salaries of *Medical Practitioners* by 13% might reasonably be expected to reduce the demand for medical degrees.

Indeed standard growth theory suggests that an increase in supply of skilled workers from immigration would initially raise the ratio of skilled to less skilled works S/U. Consequently however there will be a transition whereby the ratio of S/U tends to decline over time. In a long run (steady state) equilibrium it would fall back the original steady state level. Thus Shea and Woodfield (1996) consider a model of long run optimal responses to immigration policy and find that skilled immigration reduces investment in education. Shea and Woodfield (1996) thus also find that because less people become educated this raises the supply of unskilled labour and hence tends to reduce wages of unskilled workers, not skilled workers. In short they find that the effects are almost the opposite of those found by the preceding studies where the supply of domestic skilled labour was held fixed.<sup>9</sup>

These findings moreover are replicated in much of the "Brain Drain" literature, such as Bhagwati and Hamada (1974) and McCulloch and Yellen (1977), which finds that outflows of skilled workers induce an increase in demand for education in the source country.<sup>10</sup> Essentially the source country is providing education for its own economy as well as the migrant destination countries.<sup>11</sup> Reversing the logic for the recipient country essentially gives us the Shea and Woodfield (1996) result.

Likewise Harris and Robertson (2007) have recently used a dynamic computable general equilibrium model, which features endogenous skilled labour formation decisions, to evaluate the impact of the increase in skilled migration. They also find

<sup>&</sup>lt;sup>9</sup> Though it must be noted that in the PC (2006) and the Giesecke and Meagher (2006), domestic labour was able to substitute between occupations. Allowing high levels of substitution would be one way of incorporating endogenous responses of education decisions to changes in wage incomes. The possibility of crowding out was clearly discussed by the PC during the course of their investigation and is mentioned briefly in PC (2006), but given little importance presumably because the lack of any empirical evidence.

<sup>&</sup>lt;sup>10</sup> See also Commander and Winters (2007) who survey recent brain drain models.

<sup>&</sup>lt;sup>11</sup> Robertson (2002) considers a version of the Lucas growth model with both skilled and unskilled workers In that model also, an unanticipated increase in human capital results in an immediate fall in labour time allocated to human capital formation along a transition path.

that an increase in skilled immigration "crowds out" domestic education. Moreover, they find that this effect holds not only in the long run, but in the short run as well. Thus a policy announcement that generates expectations of immigrants arriving in the future causes students to enter the labour force rather than undertake training. According to their estimates, a permanent increase of 20 thousand immigrants per year (which accords roughly with the increase in migrants between 1999-2005 whose stated occupations was *Professionals*) results in a 12% fall in student enrollments in higher education and hence a 12% fall in the output of the *Higher Education* sector.<sup>12</sup>

These considerations then potentially reverse the earlier conclusions about the distributive effects of skilled migration. With a fixed supply of skilled labour the burden of adjustment falls upon the wages and salaries of skilled workers. Recognizing that incoming workers can substitute away from professions that are in excess supply however changes this story. In this case existing skilled workers need not experience slower wages and salary growth to accommodate the increased supply of migrants. Rather the burden of adjustment falls mainly on the education sector.

This is not necessarily a bad thing for the Australian economy. Education is expensive and skilled immigration allows us to achieve the same level of skills in the economy at lower costs. Nevertheless it may be bad for the Australian higher education sector and reflects a potentially unforeseen distributional impact of the current skilled visa based immigration policy.

Finally it should be noted tat there is no empirical evidence that I am aware of that indicates that skilled immigration does crowd out domestic education. This lack of evidence however is due to the fact that few people ever seem to have seriously considered this theory seriously. This would appear to be an important empirical issue waiting to be explored.<sup>13</sup>

<sup>&</sup>lt;sup>12</sup> In their modeling of skilled immigration the PC (2006) finds that the education sector expands more or less in line with the rest of the economy, increasing by 3.9%.

<sup>&</sup>lt;sup>13</sup> The possibility of crowding out of the domestic education sector has been acknowledged by Chapman and Withers (2002) and Corden (2003). Neither study however give it much credence. A rare empirical study is Baker and Wooden (1992). They investigate, but dismiss, the proposition that immigration acts as a deterrent to employer sponsored training programmes or domestic workers in Australia.

### 6. Conclusion

I began this discussion by drawing attention to the recent switch in immigration policy which has seen Australian immigrant flows switch from being primarily family reunion based to primarily skill based. I then questioned the wisdom of this change in policy if the aim is, as stated, to alleviate a "skills shortage." This skepticism is based on three main observations. First the simple economics of immigration suggest that immigration has little overall national benefit. Second immigration is a blunt policy instrument and may have unintended consequences. As shown by the PC (2006) study, increasing immigration has demand effects as well as labour supply effects and the former may serve to exacerbate any short term skills shortage. Third increasing skilled immigration is likely to consequences on the domestic supply of labour and the education sector. The concern here again is that this crowding out of higher education may be an unintended consequence of an ill conceived policy to raise skill levels.

This is not to say that zero skilled immigration is desirable either. As argued by Birrell (2001) current flows of skilled migration largely serve to offset the outflow of skilled labour. Moreover within in particular occupations and at particular times in history there are also likely to be important knowledge spillovers associated with immigration. There is also an important ethical case for allowing immigration, especially with respect to refugees. Nevertheless for any given economic problem there is some first best policy response. As long as we have a well functioning education sector it is not clear that opening the gates to skilled migrants, and closing them to others, is sensible economic policy.

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