Economics of Immigration

Why immigration become vital in Canadian Economic Policy?

1. Immigration may be contributing to the deterioration in labor market conditions such as increased labor unemployment, and increased wage polarization.
2. Perception that immigrants pose a burden to Canadian Social Programs that has been suffering from cutbacks.
3. Changing ethnic and geographic composition of migrants may mean a change in assimilation rates, the argument to which when extended may mean increased polarization between the haves and the have not.
4. Insofar as latter day migrants are becoming a large proportion of the Canadian labor force, and that this trend is a manifestation of the globalization of labor markets, Canadian or otherwise, it would be of substantive importance to gain an understanding of its economic implications.

A Simple Model of the Immigration Decision

→ **Why Economic Agents Migrate: Differential in Wage Structures and Geographic Mobility**

The simplest way to model or think about migration is to use the human capital framework we used earlier. Consider an individual or family considering whether to migrate from one country, *A* to *B*, or one state to another. Let earnings for this individual be w_t^C where *t* indexes the period and *C* indexes the location. Further let the cost of migration be *M*. Then what these economic agents consider is the following:

$$PV^A = \sum_{t=0}^{T} \beta^t w_t^A \gtreqless \left(\sum_{t=0}^{T} \beta^t w_t^B \right) - M = PV^B$$

Where *PV* denotes the **net present value**. We have as before assume that the outcome is certain. This simple model can be extended to factor uncertainty in the host country or state, as well as economic outlook of the destination country. Then what an agent would migrate if an only if the present value of income or outcomes are greater in the host country than in the country of origin.

→ **What are some empirically testable outcomes generated by this simple model?**

1. An improvement in the economic opportunities in the destination country raises the net gains to migration, and hence the likelihood of migration.
2. An increase in cost of migration, such as increased paper work or cost of paper work, or increased barriers such as security checks, reduces the gains to migration and hence reduces the likelihood of migration.

Some Stylized Facts Regarding Immigration in Canada.

1. Until mid 1980s overall immigration levels fluctuated considerably with the economy, and since then, Canada admits 200,000 immigrants per year, but the numbers are nonetheless comparable and in fact slightly lower (based on per capita).

2. Source Countries are very different. In the mid 1960, migrants came from the US, U.K, and Western Europe. Today, the main groups are Asians.
3. Of all migrants, about 85 percent reside in the **Census Metropolitan Areas** (CMA), compared to 55.2% of natives.

→ **What can policy makers control?**

1. The numbers admitted.
2. Who gets admitted.

Historically, immigration into Canada was open to anyone, with the exception of Chinese. This trend was curtailed in the mid 1960s, both in numbers and type. But what really affects these decisions. We venture some here.

1. The skills that migrants bring that may be currently in short supply. This group of migrants enter on what they can bring to Canada, and is typically referred to as the **assessed class**, **independent immigrants**. The manner in which this works today (since 1967) is through the point system. This serve as a guide to bureaucrats in examining the likelihood of successful integration into Canadian economy and culture.
2. Since current migrants will be future natives, policies would aim to allow family reunification. Typically referred to as non-assessed, or **family class**.
3. Humanitarian concerns such as refugees from war torn regions, and is referred to as **refugee class**. This is also a non-assessed class.

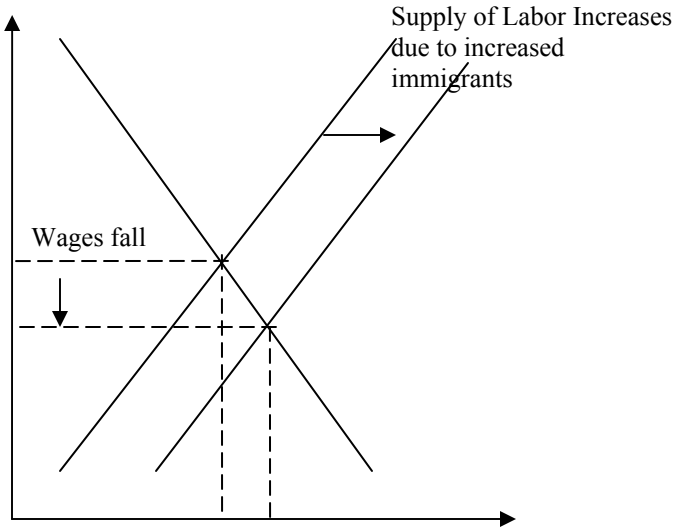
→ **What are some of the concerns created by such a immigration system?**

1. **What is the impact of immigrants on the Canadian labor and consumer markets?** If immigrants have not adverse impact on the native economy, then policy makers need only focus on humanitarian concerns. However, if depending on who enters, impact may be different, policy makers have to evaluate who should be permitted to enter into Canada.
2. How do immigrants perform in Canada? We need to know which qualities would best encourage assimilation into the general populace, and consequently be vital elements within the Canadian economy.

How do Immigrants Affect the Canadian Labor Market?

The simplest way to consider this question is through the standard demand and supply analysis.

1. Increase in new immigrants increases the population of potential workers, and increases the labor supply, hence suppressing the wages, and if economy is operating at full employment, this would result in increased unemployment and become a burden to social programs.



2. However, if the assessed class is admitted as a result of labor shortages, the above naïve analysis cannot be true. In fact if entry is based on shortage, so that prior to entry the labor market is in disequilibrium, immigrants then relieve shortage without any adverse effect.
3. Immigrants may bring about an increase in demand for goods, raising the derived demand for labor, hence canceling out the possibility of wages being surpressed.
4. Change trade patterns due to information that immigrants bring to Canada about their source country.
5. Immigration may be a substitute for importation of goods.
6. Immigrants may also invest in Canadian companies, or start their own businesses, thereby raising employment in the Canadian economy.

→ **Estimation Problems:**

1. Impact of immigrants are dependent on the relevant sectors in which they enter, and hence is difficult to segment to entire labor market to discern the real impact.
2. Lack of counter-factual, i.e. we do not know how the labor market would have been had there be no immigrants.
3. The timing of entry by immigrants is endogenous, i.e. dependent on the going economic conditions. This then impedes our ability to understand the impact of immigration.

→ **Possible Solutions:**

1. Measure the degree of substitutability between native and immigrant labor. This is done by estimating the aggregate production function of the economy, using cross-industry, and cross-occupation mixes of immigrants to identify substitutability. If the latter is complementary to the former, the greater the proportion of immigrants, the greater would production or output be (impact that is greater than 1), while if substitutable, the greater the proportion of immigrant

would imply no change to the aggregate output. It has been found that this immigrants has little impact except in low skilled labor markets.

2. Using time series, examine the changes in unemployment rates as a result of immigration. It has been found that immigration has very small adverse impact. Some caveats here should be noted. This mild adverse impact may simply reflect adjustment time of immigrants themselves so that in the long run, immigrants has no impact of unemployment. However, we cannot separate the unemployment rate into immigrant and native labor. Further, although there is no aggregate impact on unemployment, we cannot generalize this observation into the micro impact on the various industries and comprise the labor market.
3. Since city of choice vary among immigrants, we could exploit this variation to examine the net impact immigrants have on the destination. If all cities have the same economic circumstance, the adverse impact of immigration would suppress wages in the city with higher recent immigrant concentrations as compared to another with lower immigrant concentrations. However, not all cities are the same, and insomuch as they are different, it would affect our predictions. That is the unobservable differences that attract immigrants to different cities may be correlated with the proportion of immigrants in a city (An example is how cosmopolitan a city already is, whether the city has a substantial ethnicity of which the immigrant belongs). One solution is to examine the change in immigration rates, and its impact on changes in wages and other outcomes instead. The idea is that this procedure would cancel out all intervening permanent characteristics of the city. Take for example the following:
   Let an immigrant choose a city to immigrate to, be dependent on the level of discrimination that a immigrant have to face. This is an unobservable quality of a city, and will be included in the error term since we have not accounted for it. The manner in which discrimination affects the wage is through firms hiring on the basis of citizenship status. Then the regression of wages without considering this impact or concern would be
   $$w_{t,c} = a_1 + a_2 prop_{im,t,c} + AX_{t,c} + u_{t,c}$$
   $$\Rightarrow w_{t,c} = a_1 + a_2 prop_{im,t,c} + AX_{t,c} + \left(e_{t,c} + dis_c\right)$$
   However, if we run the regression on differences over time, the following is obtained
   $$w_{t,c} - w_{t-1,c} = a_1 + a_2\left(prop_{im,t,c} - prop_{im,t-1,c}\right) + A\left(X_{t,c} - X_{t-1,c}\right) + \left(e_t - e_{t-1}\right)$$
   Note now the discrimination term is cancelled out, and we can estimate the coefficient of the impact of immigration on wages.
   Nonetheless, the issue of selection into the various cities remain. Further the analysis still ignores the need for a counterfactual. What would have happened to Toronto without immigrants. It has been found that immigration seems to have little impact on the native's economic outcome if any, and is at most concentrated in low skilled labor markets. (Note that there is also the problem that economic circumstance of cities attract immigrants, and not that immigrants bring "good fortune" to a city, that is there is still the problem of simultaneity.)
4. Use of natural experiments to measure the impact of immigration, such as flood of "refugees" due to exogenous circumstance. The results as before shows little

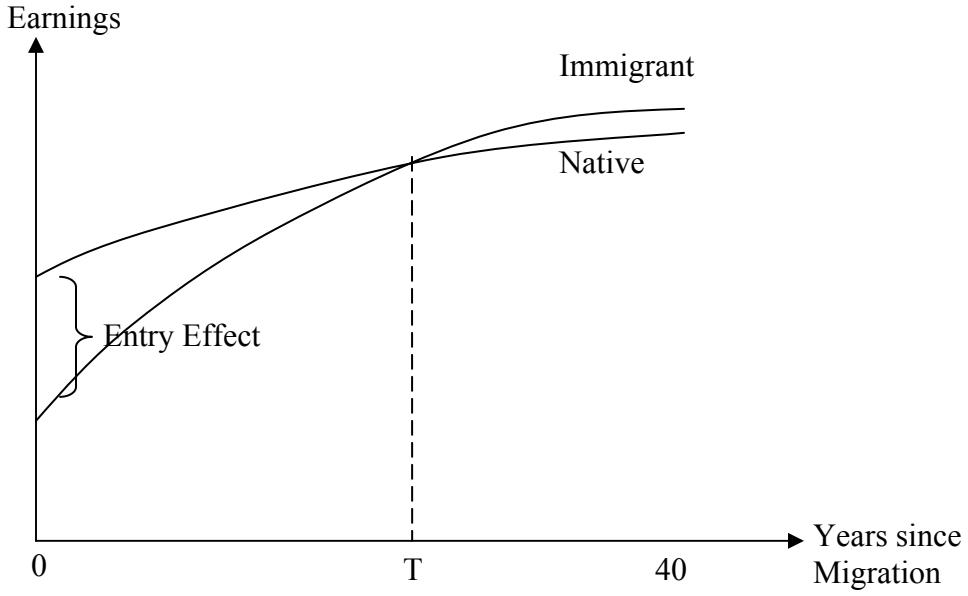
impact of immigration. (However, what is the economic and social status of these individuals or families forced to immigrate.)

Economic Performance of Immigrants

→ **We now examine how well immigrants assimilate into their destination environments.**

1. Immediately upon arrival, immigrants face unemployment as they go about their job search. Adjustment may reveal itself through;
   a. Lower hours of work.
   b. Lower wages because credentials not transferable, and/or language, and/or lack of knowledge of local labor market, and/or differences in skill requirements.
2. With time, it is expected that immigrants' wages would tend towards that of natives. If immigrants are positively selected, that is if Canada's immigration policy is effective in selecting immigrants best suited for the needs of the labor market, their wages may eventually exceed that of natives.
3. If immigrants have to face discrimination, passage of time may mean a dissipation of these effects, and hence lead to a rise in wages.

Based on the above arguments, the earning profile over time for an immigrant labor would like the following,



→ **What are some of the key features of the above hypothetical assimilation profile?**

1. Comparing two individuals who differ only on one aspect, their state of residence at birth. The above profile essentially says that based on the above points, an immigrant would suffer an entry effect on arrival when compared to a native of the same age and on other observable and unobservable traits.

2. With time, or as years since immigration increases, our arguments suggests that these immigrants would eventually assimilate, and obtain the same wages.
3. Further if there is positive selection, the wages of immigrants may even continue to grow at a faster rate than native, hence exceeding the native's earning as time progresses.
4. The time to assimilation, T, is dependent on how large the initial entry effects are, and the rate of assimilation. The faster the assimilation rate, the steeper the immigrant's assimilation profile, and the smaller T is. Similarly, the greater the entry effect is, the longer it would take for assimilation to occur, and the larger T would be.

→ **Estimation and Empirical Problems**

1. Using Cross Sectional Analysis on Census data (using census from different years, i.e. pooled cross section), we can compare immigrants and natives who possess similar characteristics. By comparing recent immigrants to natives of the same age and characteristics we can hence estimate the entry effect. By comparing recent immigrants with immigrants who has been in the country for a longer period of time, we can infer the rate of assimilation of immigrants. However, there are some problems with this approach.
    a. **Cohort Effects**: This assumes that each cohort faces the same entry effects, and the same assimilation rates. If violated, we will not be able to discern the true entry effects, and assimilation rates.
    b. **Self Selection**: We have to contend with the possibility that in any census period, the remaining immigrants who remains in the post initial immigration period is representative of those who are just arriving. What if this is not true, such as when immigrants who leave Canada are systematically the better ones (upper tails in the distribution of immigrant type) or the lower ones (lower tails)? It would be difficult to solve this problem even with a quasi panel where we compare immigrants from the same immigration cohort, but across different census.
2. Use Panel Data and track immigrants.

→ **Some results that were found:**

1. Meng (1987), and Abbot & Beach (1993) found using the Job Mobility Survey (JMS) that entry effects was about 15%, with immigrants taking 0 to 14 years to catch up with the natives. The latter paper also found that immigrants enjoyed a higher rate of return to experience than native, that is with time, earnings of the former superseded the latter.
2. However, Baker & Benjamin (1994), and Bloom, Grenier & Gunderson (1995) using census data between 1971 through to 1986 found that a substantial increase in entry effects, and reported negligible assimilation rates. In fact the former paper found that the sharp increase in entry effects is correlated with the source country among latter day immigrants. It should be noted that Grant (1999) using to census years of 1986 and 1991 found significant assimilation rates (17%), and also found that entry effects has stopped increasing. She argues that the changes were likely due to better economic circumstance in the late 1980s. Why the difference?

McDonald and Worswick (1998) suggests that it is difficult to identify the true entry effects and assimilation rates, and found conclusions to be very sensitive to the researchers choice of census years, principally due to the differential in points along a business cycle in which the surveys were drawn.

3. Beach & Worswick (1993) using the JMS found that although immigrant women enjoy earnings premium over native female labor, but lower assimilation rates. Bloom, Grenier and Gunderson (1995) found however little entry premium, lower entry effects as compared to men, and no assimilation as well. The argument for this is based on the Family Investment Hypothesis where women enter the labor market and take on jobs with low prospects as a result of borrowing constraints due to their immigrant status.
4. Baker and Benjamin (1995a, & b) and Crossley, McDonald, and Worswick (2001) found that despite poor economic outcomes, immigrants were less ikely to use unemployment insurance and social assistance. Akbari (1995) using 1991 census found that taxes paid out by immigrants far outweigh transfer receipts. Hence arguments that immigrants who fail to assimilate represents a burden to Canadian taxpayers does not seem to hold.
5. On another level, we would also like to know if the Point System adopted in Canada were better able in choosing immigrants who were more likely to adapt and assimilate, with lower entry effects. Green & Green (1995), and Wright & Maxim (1993) found that the policy has indeed been successful. That is the assessed class of immigrants fare better than the non-assessed. That immigrants from developing countries fare the worse.