DISCUSSION PAPER SERIES

IZA DP No. 1807

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October 2005

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

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October 2005

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ABSTRACT

An Auction Model of Canadian Temporary Immigration for the 21st Century*

Temporary Canadian immigration has grown beyond traditional programs for students, caregivers and agricultural workers to include trade-related temporary visas under NAFTA and the GATS. Several questions emerge under these temporary schemes including who should choose the number of temporary immigrants and under what employment conditions. This paper offers an alternative policy to the current government-determined quota on temporary visas to answer these two questions. Under the proposed scheme, offered in this paper a potentially-displaced Canadian worker places a job voucher up for auction on the Internet. If the Canadian worker finds an acceptable offer for his one-year (or less) voucher, then the temporary immigrant is admitted. Thus, under this auction scheme Canadian workers are compensated for the presence of temporary immigrants, and the actual number of temporary immigrants admitted depends on the total number of Canadian workers who sell their vouchers, not on a government fiat.

JEL Classification: F22, J61

Keywords: labour market, immigration, employment

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* The critical comments by D. Coulombe helped clarify the underlying arguments. This paper was presented to an inter-ministerial seminar hosted by Human Resources Development in May 2000.

I. Introduction

Temporary immigration issues have recently arisen in Canada as a focal point in the debate surrounding new Canadian immigration policies. The most dramatic debate surrounds the proposed temporary visa whose genesis lies in the call for the geographical dispersion across Canada of putative future permanent immigrants.[1] In addition, the continued debate over the size and permanence of the Canada-U.S. brain drain is predicated on the existence of the NAFTA-created TN temporary visa.[2] On a more mundane level, niche positions in the Canadian labour market have been historically filled with temporary foreign workers and these programmes are now subject to debate. Two traditional segments of the Canadian labour market filled by temporary visa holders include unskilled agricultural workers and foreign caregivers.[3] Other temporary visitor permits have become more permissive. In the last decade, foreign students, and their spouses, have been granted temporary work permits while in Canada in order to earn funds for subsistence purposes, and to gain valued Canadian labour market experience.[4] Finally, Canada's membership in various trade agreements (NAFTA, GATS) has given rise to growing demands by some member countries to expand the immigration visa provisions to permit temporary admission into Canada. Specifically under NAFTA's section 16, in addition to admissions of U.S. citizens, Mexican and Chilean citizens have gained prolonged temporary access to the Canadian labour market through the provision of a NAFTA-based TN visa.[5] Also, new forces have arisen to expand temporary mobility provisions to a much wider group of Canadian trade partners under the GATS agreement. Under the existing GATS trade agreement, limited temporary admission to Canada of foreign traders and professionals amongst GATS' 63 signatories is currently allowed.[6] At the WTO meetings in Doha, circa 2001 less-developed countries who are signatories of GATS argued for the increased mobility of so called 'natural persons' or unskilled to Canada and other developed countries. If approved, this provision for the movement of 'natural persons' would allow unskilled temporary workers to have access to the Canadian labour market under the same provisions as traders and professionals.

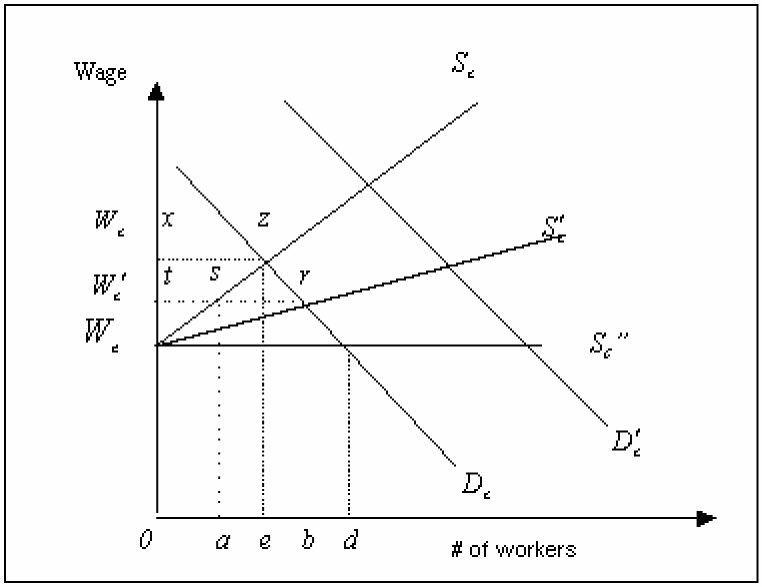
In sum, the current state of temporary immigration legislation in Canada is complex in terms of tenure, eligibility, and, most importantly, labour market standards which must be satisfied before admission. At one extreme, the temporary admission of foreign agricultural workers to Canada is permitted only after strict labour market wage and working conditions are met.[7] At the other extreme, Canada issues NAFTA TN visas without any labour market tests or caps on total numbers. What is missing is a coherent labour market analysis of the effect of these current temporary immigration programs on resident Canadian workers.[8] I will argue in this essay that without a theoretical construct it is impossible to decide on the optimal number of temporary admissions and measure the associated welfare impacts on resident Canadian workers.[9]

II. Standard Model of Immigrant Impact on the Labour Market

I have argued elsewhere (DeVoretz, 1999a & 1999b) that the Rawlsian goal of maximizing economic gain to resident Canadians without reducing the welfare of the bottom fifth of Canadian society is one possible evaluation framework for an immigration program. Even if we accept some version of this Rawlsian framework, it is still necessary to isolate the exact components of this general welfare principle to provide analytical principles to insure that temporary immigration to Canada will realize a Rawlsian optimum state.

The positive or negative impacts of immigrants on the labor market and on the treasury are often cited in the literature as welfare assessment criteria to insure a positive Rawlsian outcome (DeVoretz ,2006). I will argue that the direction of these labour market and financial effects as a consequence of temporary immigration are unknown *a priori*. In Canada's public finance sector, temporary immigration can enhance or reduce the tax base and lead to a treasury gain, depending upon the temporary immigrants' demand for public monetized services. In turn, the exact public finance outcome - gain or drain - depends on the temporary workers' stage in the life cycle as well as eligibility requirements for social programs (DeVoretz and Pivnenko, 2004).

Figure 1: Temporary Immigrant Impact on Canadian Labour Market



Depending on shifts in the intercepts and the supply and demand elasticities embedded in figure 1, the labour market outcomes of resident Canadians can be enhanced or harmed by the influx of unskilled temporary workers. In other words either wage compression or growth, and job displacement or creation can occur after a temporary immigrant arrives.

Figure 1 indicates that, under a static demand curve, resident Canadian workers must absorb either labour displacement or wage compression, or both, when a temporary worker is admitted. The key assumption in this view of the world is that the labour supply curve in the rest of the world (S'_c) lies everywhere below the Canadian supply curve (S_c), and is horizontal. In addition, given that the intermediate supply curve (S''_c) represents the number of quota of temporary immigrants plus the domestic supply forthcoming at each wage rate, it is now possible to determine the wage and employment effects of temporary immigration.[10] For example, at equilibrium wage rate Wc' in figure 1, *ab* foreign temporary workers are admitted by the government, and these immigrants displace *ae* domestic workers. The wage rate of Wc' however still exceeds the foreign wage rate (We), so that the admitted foreign workers' welfare is increased. In addition, the decreased domestic wage rate (Wc to Wc') increases the return to Canadian employers as the wage costs decline by an amount of *XZRT*. The three agents involved in the temporary immigrant marketplace are the immigrants, the Canadian employers, and, finally, the Canadian employees. Clearly, both the employers and contemporary immigrants will gain from a temporary admission as figure 1 illustrates. However, there is no economic gain to displaced Canadian workers since they experienced wage compression or job loss.

Given this outcome, the Canadian government invokes the criterion that a net economic benefit must appear to justify temporary immigration. The net economic benefit criterion in this context implies that each temporary immigration program must provide, on balance, a positive benefit to all resident Canadians. Thus, given that workers experience a loss and employers gain, it is clear that we require a methodology to assess workers' loss to calculate net benefits.

In addition, there exist world-wide several temporary worker models for unskilled inflows (Devoretz, 1999a, 1999b, 2000; Lindsay Lowell, 1999; Straubhaar, 1999); these suggest caution in allowing the uncritical growth of temporary immigration provisions if national net economic benefits is the sole criterion for a successful program. Germany, Israel, Japan, Malaysia, Norway, and the United States all permit temporary inflows, and their experiences should direct critical thinking in this area. All of these countries historically started with modest temporary admissions programs when there existed worker "shortages" in the policy makers' mind, and their version of the net economic benefit criterion was met. However, all these programs were later abandoned after they had grown in size and their labour market implications became evident. Canada's current temporary worker program for either skilled or unskilled is small and well-served from a management viewpoint (Greenhill & Aceytuno, 2000; Pascoe & Davis, 2000). However, efficient management alone should not be the sole objective of Canada's temporary worker program. Several broader economic goals must also be met including equity, and, as noted, a more fulsome test for net economic benefits. Equity issues in terms of the labour market impacts on Canadian resident workers are of paramount concern to complete the calculation of net economic benefits. Most current Canadian temporary-immigrant legislation contains some provisions to protect resident Canadian workers, since a labour market test is required for all but NAFTA-based TN visa issuance. But how much protection is required? Should temporary immigration to Canada be halted if wages (or unemployment rates) fall (rise) by 5 or 10 % or some other preordained number? Moreover, how do the potentially-affected Canadian resident workers express their agreement to any set of preordained unemployment/wage guidelines on an individual basis?

In sum, both economic theory as well as cross-country comparative experiences alluded to above suggest that any particular temporary immigration program may, or may not, realize the Rawlsian goal of conditioned maximum net benefit to resident Canadians.

III. A Canadian Economic Model of Temporary Movers

Current Canadian Memoranda Of Understanding (MOU) with temporary immigrant-sending countries reflect the myopic managerial model that has served Canada well in the past, with its limited non-permanent foreign-worker programs. These MOU arrangements reflect the apparent policy imperative of setting standards and conditions in the relevant labor markets to satisfy the net economic benefit criterion. For example, wage floors (i.e., minimum wages), housing standards, food provision, and maximum deductions for employer-provided benefits are all incorporated in the MOU. These conditions in turn are presumed operational equivalents to insulating Canadian residents from wage or (un)employment effects, and mitigating any impacts on the publicly-financed health and social benefits. However, two crucial questions are begged in this managerial approach. First, what is the optimum number of temporary immigrants in any sector? Secondly, who do we compensate, and by how much, when substantial labour market impacts arise?

The market offers an alternative to the current Canadian management model for temporary immigration admission to answer these questions. An auction market should be legally created to ascertain the value of Canadian jobs that are offered to foreigners. In turn, equilibrium in the auction market will allow us to determine the optimal number of temporary immigrant visas allocated. Under the current temporary admission system, three of the four agents in the temporary worker market (i.e., the Canadian employer, a broker, and the foreign worker) clearly gain. However, if a foreign worker arrives under the supply conditions in figure 1, the Canadian worker incurs a loss that equals either:

a. The difference between his[11] marginal product and the minimum wage paid to a temporary migrant worker if the Canadian worker absorbs the wage compression outlined in figure 1 or

b. The loss of his job (*ae* in figure 1).

How can the potential loss to the resident worker by the admission of a temporary migrant be measured and compensated for? How large should this compensation be, and how many Canadian resident workers should be compensated? Furthermore, how many unskilled temporary workers should be admitted and in what occupations or industries? These are complex questions which existing management agreements attempt to answer in an *ad hoc* manner by proposing an orderly management system under existing MOU.arrangements. However, the proposed auction market in this paper offers us an alternative method to yield internally-consistent answers to these questions.

Below I present a stylized version of the auction model which highlights its resulting equity and efficiency gains. Under the proposed Canadian auction scheme, all previously-employed (un)skilled Canadian resident workers are issued a voucher by Revenue Canada as part of their tax statement; this voucher entitles them to auction off the job(s) that they held in the preceding year to an approved list of foreign workers. The implicit trade-off facing the Canadian worker is the yearly value of his current job, or leisure, plus benefits and job security, compared to the gain from a prospective new job, plus the voucher auction price. Thus, the Canadian worker can offer his voucher on the Temporary Hiring (Un)skilled Monster Board (THUMB) Internet site to see if his “reservation auction price” is met. The actual conditions of the auction, legal statements, any bonding or vetting are under the control of Revenue Canada and/or Citizenship and Immigration Canada. A small processing fee is charged to the person who places the offer. Any potential broker or foreign worker also pays a fee to Revenue Canada to use the service. These fees are adjusted to insure that the auction board is cost-free to Canadian taxpayers, such that enforcement costs are absorbed by auction-market participants to insure an orderly market. The fee is set to provide an actuarially-sound insurance fund to compensate for any malfeasance arising from fraud on the board, and to insure validation of both job offers and the *bona fides* of the foreign bidder. Furthermore, full information on terms and conditions of successful auctions are supplied daily to any registered Canadian who has a job offer on “THUMB.org”. This information consists of the terms of successful auction transactions, i.e., number of hours sold, where, when, in what industry, and at what price. Thus, a Canadian worker can re-offer the voucher obtained from Revenue Canada daily if there has been no previous taker. He can also remove it from THUMB.org, and continue to work if the price offered for his job falls below his reservation price. Given that the voucher is only valid for a maximum of 365 days annually, the value of the voucher fluctuates over a calendar year, if the offered job is seasonal and as the number of calendar days declines. This possible rise or fall in the voucher price may permit a futures market in vouchers to appear. For example, with a futures market brokers buy vouchers from Canadian workers early in the calendar year, and assume all the downside risk as they search the world for temporary foreign workers at a wage below the auction price. If these brokers are unsuccessful, they pay more to the Canadian jobholder for a one-year job than they obtain on the THUMB auction market. Finally, in both the spot and futures market, the optimal solution on Thumb.org arises daily, as both forward and spot contracts appear under various job matches.

In spite of this sophisticated auction market, short-run disequilibria could still arise, for example, if there are mismatches in the offer-bid process between foreign workers and Canadian skilled or unskilled voucher-holders. If no transaction takes place between foreign migrants and Canadian voucher-holders, then a longer-run optimal solution could be achieved by actions of the Canadian employer. A continuous short-run disequilibria will lead the Canadian firm to relocate to where the foreign temporary workers reside. This result is a corner optimal solution when no temporary workers enter Canada.

What of industries or sectors previously 100 percent dependent on foreign temporary immigrants? An example in Canada is services, such as caregivers. Here the service firm cannot relocate abroad since the service provided by the temporary worker is tied to Canada. In this case with no history of past Canadians with a reservation wage above the minimum wage in the job market, the auction market could still be used. Vouchers would be issued to existing Canadian firms that have provided these services with foreign workers, since they have already diverted Canadian unskilled workers from the industry. At this point, a two-stage market would appear. The first stage of the auction would be reserved for Canadian workers with a previous attachment to this portion of the labour market. The evidence for the latter would be a two year old or less employment-earnings stub, or T-4 slip. In the first stage the employer would offer a job and/or voucher to a Canadian in the form of an hourly wage and number of hours offered per year. The Canadian worker can either accept this job offer or buy the equivalent voucher from the firm, and offer it on THUMB.org to a foreign temporary worker. Thus the Canadian worker still has the option to take this previously unfilled job, and/or usurp a portion of the rent that would normally accrue to the employer. If no offers were made by previously unemployed Canadian workers with attachment to the labour market, then the firm would lower its voucher price such that the net gain to the unemployed Canadian after the resale of the voucher to a foreigner is sufficient to induce a trade with a temporary foreign worker. In the extreme, the Canadian firm would pay the previously-unemployed Canadian worker to take the voucher to complete the job match for the firm. In effect, the previously-unemployed worker would act as a broker and search for the foreign worker with the prospect of earning a rent between the cost of the voucher and the lower-contracted wage for the temporary foreign worker.

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IV. Conclusion:

In sum, this auction market simultaneously provides a daily temporary wage rate for a specific job to a prospective temporary foreign worker, and the yearly number of temporary visas offered (from zero to 100 percent) for all jobs previously held by Canadians. It also determines the location (i.e., in Canada or offshore) of the unskilled intensive Canadian-owned firm that depends on temporary foreign workers. All these transactions arise without the necessity of a government official trying to calculate an ephemeral net benefit value for a particular number (*ab*) of temporary workers entering in a particular occupation. Moreover, in a world of free exchange, all agents gain. Employers, resident Canadian labour, and foreign temporary workers would share in the efficiency gains. Thus, the Rawlsian imperative of welfare improvement with no harm inflicted on low-income earners would be satisfied. Many administrative issues still remain; they must be resolved and placed in any contracted offer posted on THUMB.org. I outline them in Appendix I.

Appendix I. Administrative Issues:

In addition to satisfying the Rawlsian-DeVoretz welfare criterion an ideal evaluation model for temporary migration must also address the following issues:

1. Types of Visas
    a. Optimal length of stay
    b. Spousal sponsorship
    c. Minor sponsorship
    d. Renewal from within or outside

2. Employment Authorization: Alternatives
    a. Individual or industry-wide authorizations
    b. Private-firm issuance of authorization under an audit and bonded scheme
    c. Government employment authorization with expedited service by fee class

3. Conversion Rights
    a. Mobility rights across firms, industries or broad occupational groups
    b. Ascension to full mobility rights
    c. Conversion rights from limited employment-earned benefits to generalized social benefits after an assessment period
    d. Spousal working permits after an assessment period
    e. Conversion to permanent immigrant status after an assessment period

4. Profile of Economically Ideal Temporary Migrant
    a. Age, marital status, gender and number of household members
    b. Education or previous work experience
    c. Language competency
    d. Previous mobility for employment
    e. Country/area of origin.

Once each issue is settled by debate or fiat, the implied necessary side conditions arising from the resolution of these debates can be inserted in the voucher offered in the auction market. As the conditions become more stringent, the price of the voucher will rise, and the number of temporary workers will decrease.

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[1] Under this geographical dispersal scheme temporary visas would be issued to recent arrivals who have a job offer. After a waiting period in the designated area, the applicants would have their temporary visa converted to a permanent landed status.

[2] The TN visa arises out of Section 16 of NAFTA which permits Canadian (Americans) to live for an indefinite period in the United States (Canada) if they have a bona fide job offer in one of 72 occupations which require at least a B.A. degree. It is estimated that 100,000 Canadians lived in the United States circa 2000 with this visa (see Citizenship and Immigration Canada, 2002a).

[3] The caregiver program allows the provisional admission of workers to Canada who, after a 3-year period of satisfactory employment, are allowed to convert their temporary status into a permanent or landed status. The agricultural worker program employs approximately 60,000 workers under contract (see Citizenship and Immigration Canada, 2002b).

[4] Upon completion of their degree, foreign university students in Canada can apply for a temporary work permit in an occupation related to their education. If approved, these students can work for up to one year in this position. Mobility rights with this visa are restricted, a separate visa is needed for each new job, and the tenure is limited to one year. Of course foreign graduate students are issued student visas which allow them to study and work as teachers or researchers at the institution they attend. Foreign undergraduates and secondary students are also given temporary work permits with strict controls regarding the number of hours worked, but are not restricted to on-campus activities.

[5] The United States does not consider Chile a member of NAFTA and no TN visa is issued to Chileans by the Americans. In addition, the United States limits the number of TN visas issued to Mexicans, and applies a series of additional measures to restrict entry into the United States under this visa provision.

[6] Under the GATS agreement, traders and professionals are admitted to Canada for only six months if they can convince Human Resources Development Canada that no Canadian will lose a job as a result of their admission.

[7] In the agricultural sector the Canadian employer, the migrant broker who arranges for contracted foreign workers, and the worker face a myriad of restrictions. The most dramatic restriction, however, is that no one can re-contract for workers in the next season if they fail to abide by the substantial regulations. For example, if workers do not leave Canada in a timely manner at the end of the current agricultural seasons, they are not eligible to re-enter in the next season.

[8] With the exception of a NAFTA temporary visa, all temporary Canadian visa requests require a certification by Human Resources Development Canada that no significant Canadian wage compression or job loss results from the issuance of the temporary visa.

[9] Under the NAFTA agreement the optimal number of temporary immigrants is equal to the number of arrivals since there is no numerical limit. The NAFTA temporary visa holder in effect only needs a job offer to enter. Even though this visa is demand-driven by the employer, the terms and conditions on the offer are unrestricted. Hence, the wage can obviously be less than that offered to a Canadian, and no labour market impact test is required. The NAFTA visa can thus be used to hire a temporary foreign worker to substitute for a more highly-priced Canadian worker.

[10] In fact this is what the Canadian government does when it puts a yearly quota on all temporary visas except the TN visa. It consults both labour and employers, and defines terms and conditions to insure a minimum wage in the sector; it then admits those numbers of temporary immigrants consistent with the stated demand of employers at the stated minimum wage.

[11] The masculine is used throughout to facilitate reading.