

Discussion of: The Shift in Canadian Immigration Composition and its Effect on Wages

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Introduction

Research Question

- ▶ What are the effects of major changes on immigration patterns into Canada on the income distribution?

Intuition

- ▶ Since 2015, both the intensity and composition of immigration to Canada have seen significant changes.
⇒ These shifts in immigration involve:
 - ▶ Greater share of less-skilled.
 - ▶ Shift from permanent to temporary: From PR → NPR
- ▶ New immigrant groups compete for jobs held by the least-skilled native workers.
 - ▶ Has this contributed to rising income inequality in Canada?

Research Strategy and Findings

- ▶ Authors provide a convincing data-description exercise illustrating the changes in immigration inflows to Canada.
- ▶ Use a decomposition of mean wage differentials and find:
 - (1) The NPRs have wages 9.5% lower than natives.
 - (2) Counterfactual: Without the shift in immigration, aggregate wages would have been 0.7% larger.

Comment 1: Assumptions of Empirical Exercise

- ▶ The decomposition is based on the assumption that:
 - ▶ Natives and Immigrants face the same wage structure.

$$\text{Equal return to } \begin{cases} \text{Education} & \rightarrow S \\ \text{Experience} & \rightarrow E \end{cases}$$

- ▶ The core specification in the paper is:

$$\ln w = X'\beta + \delta M + \varepsilon$$

where vector X includes:

$$X = \begin{pmatrix} S \\ E \\ E^2 \\ \vdots \end{pmatrix} \begin{matrix} \rightarrow \beta_1 \\ \rightarrow \beta_2 \\ \rightarrow \beta_3 \end{matrix}$$

Comment 1: Assumptions of Empirical Exercise

- ▶ This is a constrained model in which:

Immigrant		Native	
β_1^M	=	β_1^N	$\longrightarrow S = \text{Education}$
β_2^M	=	β_2^N	$\longrightarrow E = \text{Experience}$
β_3^M	=	β_3^N	$\longrightarrow E^2 = \text{Experience}^2$

- ▶ Authors borrow this specification from Fortin, Lemieux, and Firpo (2011) and Cain (1986).
 - ▶ Cain (1986): Specification used in lawsuits.
 \Rightarrow Wage differentials WITHIN the same firm.
 - ▶ The firm is forced to set the same wage structure for two groups A and B :

$$\beta_1^A = \beta_1^B, \quad \beta_2^A = \beta_2^B, \quad \beta_3^A = \beta_3^B \quad \text{e.g.} \quad \begin{array}{l} A = \text{Male} \\ B = \text{Female} \end{array}$$

Comment 1: Assumptions of Empirical Exercise

- ▶ Hard to argue that the wage structure will be the same for immigrants and natives across Canada.
- ▶ There is evidence for Canada that the wage structure is different for Immigrants and Natives.
 - ▶ Ferrer and Riddell (2008) in *CJE*
 - ▶ Fortin, Lemieux, and Torres (2016) in *Labour Economics*

Find this for different groups of Immigrants estimating a specification like:

$$\ln w = \beta_0 + \beta_1 S + \beta_2 E + \beta_3 E^2 + \beta_4 M + \beta_5 S \times M \\ + \beta_6 E \times M + \beta_7 E^2 \times M + W' \gamma + \varepsilon$$

Ferrer and Riddell (2008) find: $\hat{\beta}_5 < 0$, $\hat{\beta}_6 < 0$, $\hat{\beta}_7 > 0$

Fortin et al. (2016) find: $\hat{\beta}_5 < 0$, $\hat{\beta}_6 > 0$, $\hat{\beta}_7 < 0$

Comment 2: Split Analysis by Gender

- ▶ Authors pool the sample for males and females.
- ▶ Once again, Ferrer and Riddell (2008) and Fortin et al. (2016), using the same specification:

$$\ln w = \beta_0 + \beta_1 S + \beta_2 E + \beta_3 E^2 + \beta_4 M + \beta_5 S \times M \\ + \beta_6 E \times M + \beta_7 E^2 \times M + W' \gamma + \varepsilon$$

- ▶ Both find that in absolute value:

$$\hat{\beta}_5^{Male} < \hat{\beta}_5^{Female}$$

$$\hat{\beta}_6^{Male} < \hat{\beta}_6^{Female}$$

$$\hat{\beta}_7^{Male} < \hat{\beta}_7^{Female}$$

- ▶ So that the wage structure faced by Female Immigrants is different than that of Male Immigrants and penalizes more Females than Males.

Comment 3: Follow Card (2009) - AER P&P

- ▶ The research question of this paper is the same as that posed in Card (2009).
- ▶ Card splits the sample of native workers in:
 - ▶ High-school equivalents
 - ▶ College equivalents
- ▶ Using a shift-share IV strategy finds that:
 - ▶ High-school equivalents and College equivalents are *imperfect substitutes*
 - ▶ Within these two broad education classes: Immigrants and Natives are *imperfect substitutes*
 - ⇒ ...the competitive effects of additional immigrant inflows are concentrated among immigrants themselves, lessening the impacts on natives.

Comment 4: Time Since Arrival / Age at Arrival

- ▶ It might be a good idea to also consider the time since arrival or the age at arrival.
- ▶ Using results from Bowlus, Miyairi, and Robinson (2016):
 - ▶ Equilibrium Search Model (Burdett and Mortensen, 1998)
 - ▶ It takes Immigrants about 13 years to acquire the Native job search parameters.
 - ▶ Arrival rates of job offers.
 - ▶ About 13 years for job-search assimilation.
- ▶ Ferrer and Riddell (2008) also find different results by age of arrival.
 - ▶ Different to penalty on return to education and experience depending on age when individual arrived.

Summary and Final Suggestions

- ▶ Do not pool the sample of Immigrants and Natives. Instead perform a traditional Oaxaca-Blinder decomposition.

$$\text{Immigrant: } \ln w_M = X'_M \theta_M + \varepsilon_M$$

$$\text{Native: } \ln w_N = X'_N \theta_N + \varepsilon_N$$

$$\Rightarrow \Delta W = (\bar{X}_M - \bar{X}_N)' \hat{\theta}_N + \bar{X}'_M (\hat{\theta}_M - \hat{\theta}_N)$$

- ▶ Do not pool Males and Females.
- ▶ Do not get counterfactuals using the Oaxaca-Blinder decomposition.
- ▶ Follow Card (2009) to assess the degree of substitution between Natives and Immigrants of the same educational group.
- ▶ Separate by time since arrival and/or age at arrival to Canada

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