

TECHNICAL APPENDIX

Immigrant Earnings Growth: Selection Bias or Real Progress

Garnett Picot and Patrizio Piraino*

* Picot, Statistics Canada, Analytical Studies Branch, dgpicot@reogers.com. Piraino, School of Economics, University of Cape Town, Patrizio.piraino@uct.ac.za.

APPENDIX

TABLE A1. INCIDENCE OF IMMIGRANTS OVER TIME IN THE CENSUS AND LAD-IMDB

Proportion of immigrants in the sample							Proportion of immigrants landed <i>before</i> 1980 in the comparison group ^a
1. LAD-IMDB			2. Census			3. Census	
<i>cohort: 1985-89</i>							
<i>Year</i>	N. of obs	N. of immigrants	%	N. of obs	N. of immigrants	%	
1990	801,772	19,494	2.43	863,459	20,746	2.40	5.98
1995	748,567	15,576	2.08	803,699	17,625	2.19	5.72
2000	710,157	14,689	2.07	749,061	16,645	2.22	5.72
2005	663,986	14,082	2.12	697,100	16,493	2.37	5.56
<i>cohort: 1990-94</i>							
<i>Year</i>	N. of obs	N. of immigrants	%	N. of obs	N. of immigrants	%	
1995	804,393	29,049	3.61	856,416	28,483	3.33	3.27
2000	776,789	26,703	3.44	815,563	26,326	3.23	3.31
2005	753,034	24,940	3.31	782,863	25,354	3.24	3.33
<i>cohort: 1995-99</i>							
<i>Year</i>	N. of obs	N. of immigrants	%	N. of obs	N. of immigrants	%	
2000	780,890	28,116	3.60	813,354	27,819	3.42	1.28
2005	770,008	24,925	3.24	795,307	25,643	3.22	1.34

Notes: Authors' calculations from LAD-IMDB and Census. In each year, observations are restricted to 25-64 years of age and positive earnings. Immigrants migrated between 25-44 years of age.

^a Comparison group refers to the sample we use as native-born group in the LAD-IMDB files (which includes immigrants landed before 1980).

TABLE A2. IMMIGRANT'S EARNINGS GROWTH WITH CONTROLS FOR EDUCATION:
LONGITUDINAL VS. CROSS-SECTIONAL DATA

LAD-IMDB		
	1. Longitudinal	2. Cross-sectional
<i>1985-89 Cohort</i>		
<i>Years since migration</i>		
6-10	.143 (.007)	.096 (.010)
11-15	.320 (.011)	.325 (.013)
16-20	.335 (.015)	.408 (.017)
<i>1990-94 Cohort</i>		
<i>Years since migration</i>		
6-10	.345 (.005)	.399 (.008)
11-15	.435 (.008)	.536 (.010)
<i>1995-99 Cohort</i>		
<i>Years since migration</i>		
6-10	.243 (.006)	.287 (.008)

Notes: Data from LAD-IMDB files. The table reports the coefficients on the “years since migration” dummy variables. Reference category is immigrants with 1 to 5 years since migration. Standard errors in parentheses. All coefficients are statistically significant at 5% level.

TABLE A3. SENSITIVITY TEST FOR AGE AT MIGRATION: ABSOLUTE IMMIGRANT EARNINGS GROWTH

	LAD-IMDB		
	1. Longitudinal	2. Cross-sectional	3. Census
	<i>1985-89 Cohort</i>		
<i>Years since migration</i>			
6-10	.103 (.006)	.056 (.008)	.036 (.008)
11-15	.251 (.008)	.255 (.009)	.236 (.010)
16-20	.248 (.011)	.330 (.011)	.311 (.012)
	<i>1990-94 Cohort</i>		
<i>Years since migration</i>			
6-10	.323 (.004)	.360 (.006)	.359 (.007)
11-15	.399 (.006)	.491 (.008)	.481 (.009)
	<i>1995-99 Cohort</i>		
<i>Years since migration</i>			
6-10	.206 (.005)	.258 (.007)	.233 (.008)

Notes: Same specification as Table 3 but different age at migration restriction (20 to 54). Standard errors in parentheses. All coefficients are statistically significant at 1% level.

TABLE A4. SENSITIVITY TEST FOR AGE AT MIGRATION: RELATIVE IMMIGRANT EARNINGS GROWTH

	LAD-IMDB		
	1. Longitudinal	2. Cross-sectional	3. Census
<i>1985-89 Cohort</i>			
<i>Years since migration</i>			
6-10	.111 (.005)	.084 (.007)	.082 (.008)
11-15	.195 (.005)	.187 (.008)	.181 (.009)
16-20	.215 (.006)	.222 (.008)	.223 (.009)
Entry gap	-.333 (.008)	-.323 (.009)	-.327 (.010)
<i>1990-94 Cohort</i>			
<i>Years since migration</i>			
6-10	.201 (.004)	.216 (.006)	.218 (.007)
11-15	.247 (.005)	.265 (.006)	.276 (.008)
entry gap	-.447 (.007)	-.469 (.008)	-.461 (.010)
<i>1995-99 Cohort</i>			
<i>Years since migration</i>			
6-10	.148 (.004)	.151 (.006)	.144 (.007)
entry gap	-.264 (.009)	-.266 (.010)	-.211 (.010)

Notes: Same specification as Table 5 but different age at migration restriction (20 to 54). Standard errors in parentheses. All coefficients are statistically significant at 1% level.

TABLE A5. ABSOLUTE IMMIGRANT EARNINGS GROWTH ACROSS COHORTS (POOLED SAMPLE)

	LAD-IMDB		
	1. Longitudinal	2. Cross-sectional	3. Census
<i>Years since migration</i>			
6-10	.236 (.003)	.259 (.005)	.253 (.006)
11-15	.360 (.006)	.423 (.007)	.410 (.008)
16-20	.391 (.009)	.495 (.011)	.476 (.011)

Notes: Data from Census and LAD-IMDB files. Reference category is immigrants with 1 to 5 years since migration. Standard errors in parentheses. All coefficients are statistically significant at 1% level.

TABLE A6. RELATIVE IMMIGRANT EARNINGS GROWTH ACROSS COHORTS (POOLED SAMPLE)

	LAD-IMDB		
	1. Longitudinal	2. Cross-sectional	3. Census
<i>Change in the earnings gap</i>			
<i>Years since migration</i>			
6-10	.171 (.003)	.164 (.004)	.168 (.005)
11-15	.234 (.004)	.233 (.005)	.232 (.006)
16-20	.264 (.006)	.277 (.008)	.269 (.009)
<i>Cohort dummies</i>			
1985-89	-.323 (.006)	-.326 (.007)	-.332 (.006)
1990-94	-.438 (.006)	-.446 (.006)	-.415 (.006)
1995-99	-.329 (.006)	-.321 (.007)	-.285 (.006)

Notes: Data from Census and LAD-IMDB files. Reference categories are immigrants with 1 to 5 years since migration. Standard errors in parentheses. All coefficients are statistically significant at 1% level.

TABLE A7. WOMEN: IMMIGRANT'S EARNINGS GROWTH: LONGITUDINAL VS. CROSS-SECTIONAL DATA

	1. Longitudinal	2. Cross-sectional
<i>1985-89 Cohort</i>		
<i>Years since migration</i>		
6-10	.159 (.008)	.161 (.011)
11-15	.285 (.012)	.334 (.014)
16-20	.289 (.016)	.440 (.018)
<i>1990-94 Cohort</i>		
<i>Years since migration</i>		
6-10	.279 (.006)	.300 (.009)
11-15	.358 (.009)	.436 (.011)
<i>1995-99 Cohort</i>		
<i>Years since migration</i>		
6-10	.234 (.006)	.282 (.010)

Notes: Data on women from the LAD-IMDB files. The table reports the coefficients on the “years since migration” dummy variables in model (1). Reference category is immigrants with 1 to 5 years since migration. Standard errors in parentheses. All coefficients are statistically significant at 1% level.

TABLE A8. WOMEN: RELATIVE IMMIGRANT EARNINGS GROWTH: LONGITUDINAL VS. CROSS-SECTIONAL DATA

	1. Longitudinal	2. Cross-sectional
	1985-89	
<i>Years since migration</i>		
6-10	.132 (.006)	.107 (.009)
11-15	.185 (.007)	.176 (.010)
16-20	.196 (.008)	.208 (.010)
Entry gap	-.236 (.009)	-.226 (.011)
	1990-94	
<i>Years since migration</i>		
6-10	.190 (.004)	.192 (.007)
11-15	.235 (.006)	.235 (.008)
entry gap	-.373 (.008)	-.378 (.009)
	1995-99	
<i>Years since migration</i>		
6-10	.181 (.006)	.169 (.008)
entry gap	-.312 (.009)	-.307 (.011)

Notes: Data on women from LAD-IMDB files. The table reports the coefficients on the immigrant status dummy and on the changes in the earnings gap over time (i.e. “years since migration” variables). Reference category is immigrants with 1 to 5 years since migration and 25-29 years of age at arrival in Canada. Standard errors in parentheses. All coefficients are statistically significant at 1% level.