

# Immigrant Integration Revisited: Disentangling effects of the “where and when” of migration, education and experience

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# Acknowledgements

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- Research assistance provided by Yun Liang.

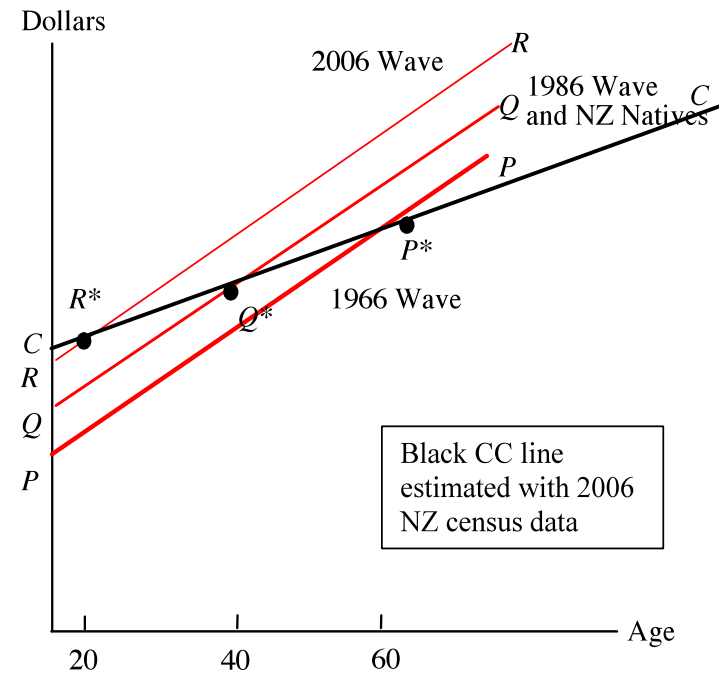
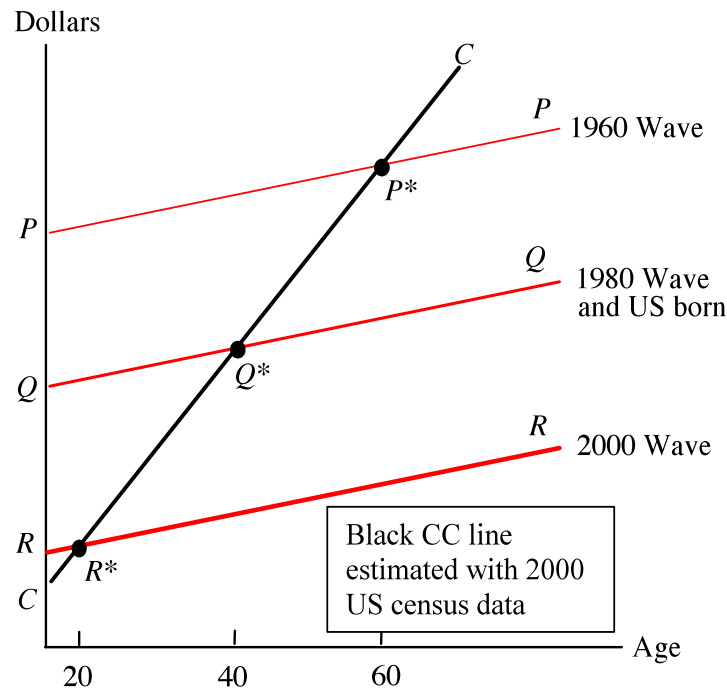
# How are migrants economically affected by their own migration?

- Generally, migrants benefit from migrating, economically or in broader terms,
- .....but initial outcomes may differ considerably from those of 'comparable' people in the host country.
- Outcomes generally improve with years in the host country,
- .....but there may or may not be a 'catching up' or 'overtaking'.
- Economic research on integration focuses predominantly on labour market outcomes such as
  - Job-skills mismatch
  - Earnings
  - Labour force participation or employment rates
  - Spells of unemployment
  - Post-arrival education and on-the-job training

# Some causes of the initial pay gap

- Skills are not immediately transferable
- Communication difficulties due to a language barrier
- Job search may be longer and less efficient due to limited local labour market knowledge and limited networks
- Foreign qualifications may not be recognised
- Cultural factors may influence how immigrants 'compete'
- Spatial, occupational and industrial clustering of immigrants
- Selection effects: e.g. 'working holiday'; 'lifestyle migrants'
- Employers have imperfect information, this may lead to stereotyping, also called 'statistical discrimination'
- There can also be other forms of discrimination

Just one census of data can give the wrong conclusions regarding economic integration: pooled censuses allow identification of cohort effects



US example (left): The cross-sectional age-earnings profile in 2000 erroneously suggests that immigrant earnings grow *faster* than those of natives.

In New Zealand (right), *rising* skill levels of cohorts of immigrants will *underestimate* earnings growth with age/years in NZ in a cross-section of e.g. census data

Besides 'years since arrival', 'year' matters in several other ways as well:

- Year of arrival ( 'hysteresis' or 'cohort' effects)
- Year of observation ('business cycle' effects)
- Age in the year of observation ('potential experience' effects)
- Age in the year of arrival ('life course' effects)
- Years of education (before or after migration)
- Years since completing education
- ....it is difficult to estimate these effects separately, but by pooling microdata from three censuses and making some reasonable assumptions, we can capture most of these effects

## A selection of previous econometric research on integration of immigrants in the NZ labour market

- Poot, J., Nana, G., and Philpott, B. (1988) *International Migration and the New Zealand Economy*. Wellington: Institute of Policy Studies. **census cross-tabulations 1981**
- Poot, J. (1993) Adaptation of Migrants in the New Zealand Labor Market. *International Migration Review* 27(1): 121-139. **census pooled cross-tabulations 1981 & 1986**
- Winkelmann, L. and Winkelmann, R. (1998). Immigrants in the New Zealand Labour Market: A Cohort Analysis using 1981, 1986 and 1996 Census Data. *New Zealand Labour Market Bulletin*, 182: 34-70. **census microdata regressions 1981, 1986 & 1996**
- Boyd, C. (2003) Migrants in New Zealand: An Analysis of Labour Market Outcomes for Working Aged Migrants Using 1996 and 2001 Census Data. Wellington: Department of Labour. **descriptive analysis of census microdata 1996 & 2001**
- Nana, G. and Sanderson, K. (2008) Migrants and Labour Market Outcomes. Wellington: Berl. **multivariate analysis of census cross-tabulations 1981, 1996, 2001 and 2006**
- Stillman, S. and Maré, D. (2009) The Labour Market Adjustment of Immigrants in New Zealand. Wellington: Department of Labour. **1997-2007 NZ Income Survey microdata regressions**
- Woolf, J. (2010) The Economic and Social Outcomes of Children of Migrants in New Zealand. Statistics New Zealand. **2008 General Social Survey microdata regressions**
- Stillman, S. (2011) Labour Market Outcomes for Immigrants and the New Zealand-born 1997-2009. **1997-2007 NZ Income Survey microdata regressions**
- Grangier, J., Hodgson, R. and McLeod, K. (2012) Points of Difference: Does the Skilled Migrant Category Points System Predict Wages? Working paper No. 4, IIP Massey University. **2005-2009 Longitudinal Immigration Survey of New Zealand (LisNZ, 3 waves) microdata regressions**

# Features of the data

- 1996, 2001 and 2006 census data
- Outcomes: (a) Employment and (b) Estimated total annual income of wage and salary earners working 30 hours or more per week
- Three groups of individuals aged 25-59:
  - New Zealand born
  - 1.5 generation (foreign born, but arriving before age 17; or older but having completed fulltime education in NZ)
  - Foreign born arriving in NZ after completing schooling abroad
- Education levels are converted to completed years of education (with quality adjustment via country of birth indicators)
- Potential experience is calculated as age minus education minus five years
  - For foreign born, the split between years of potential experience abroad and in NZ is known
- Focus on five NZ labour market entry cohorts: 1981-1985; 1986-1990; 1991-1995; 1996-2000; 2001-2005



# Determinants of employment and income

(separate regressions by gender and migration status: NZ born, 1.5 generation, adult migrant)

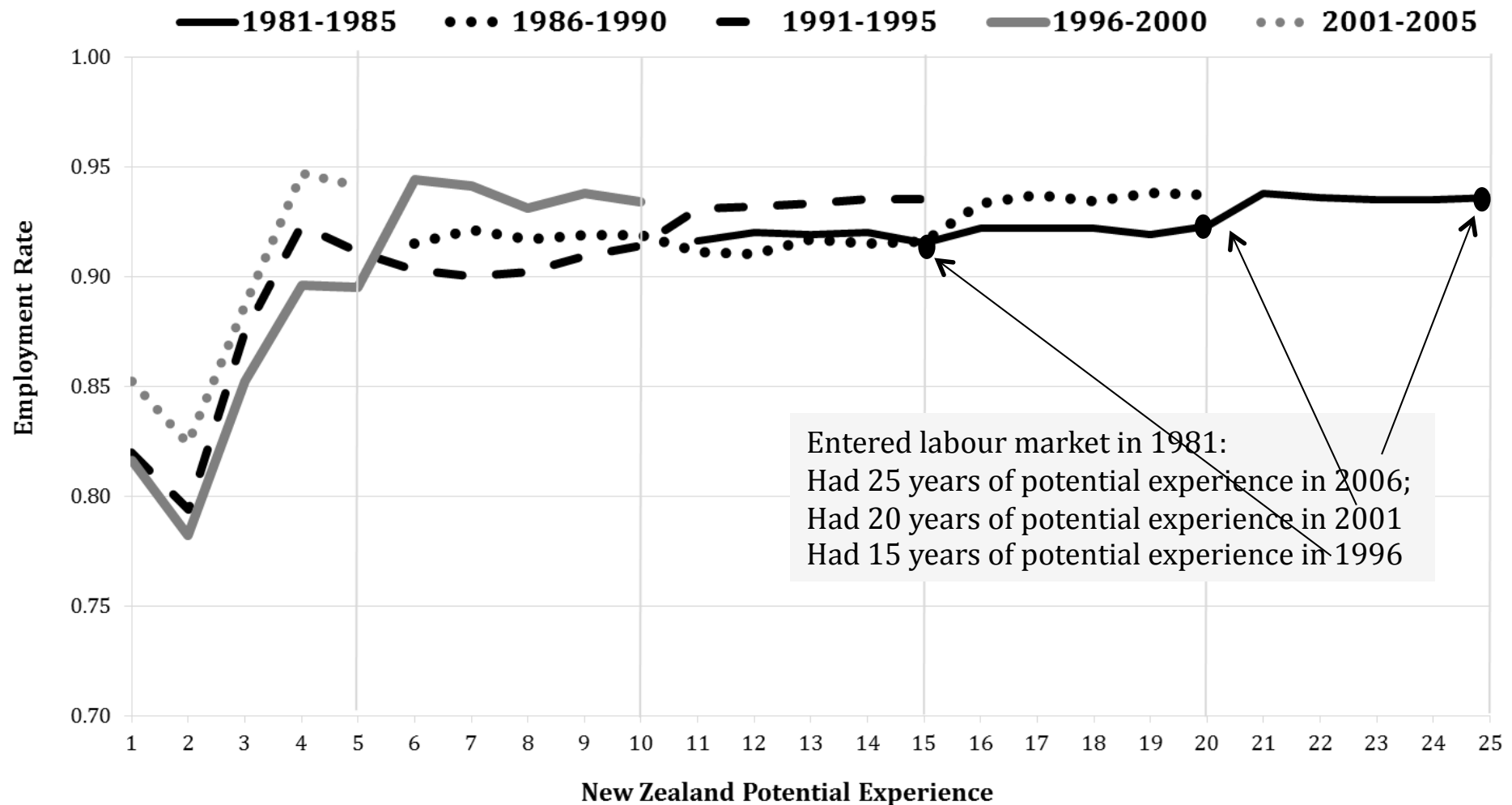
- Year of observation
- Age at arrival (for 1.5 generation)
- Years of education (NZ or foreign)
- Languages spoken (number and type)
- Country of birth
- Marital status, family type, urban/rural, location (140 labour market area fixed effects)
- For total income: hours worked (>29) by wage & salary earners

# Number of observations in each group

Group	Sex	Population aged 15-54	Fulltime salary and wage earners
NZ born	male	1,051,884	693,627
	female	1,111,818	648,492
1.5 Generation Migrants	male	102,567	64,845
	female	105,234	61,089
Adult Migrants	male	181,470	105,150
	female	214,989	101,715

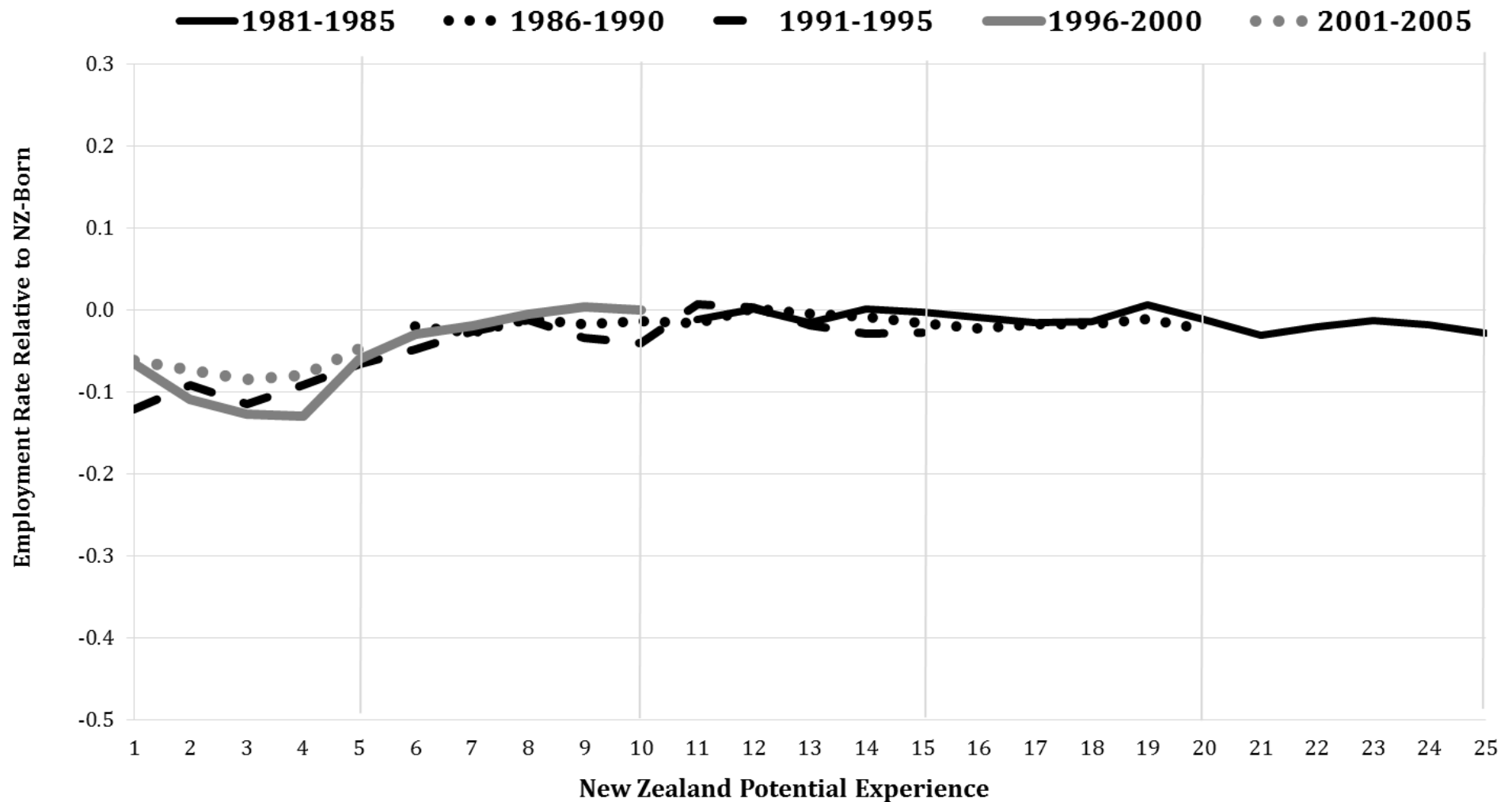
# The impact of potential experience on the male employment rate

## a) New Zealand-Born



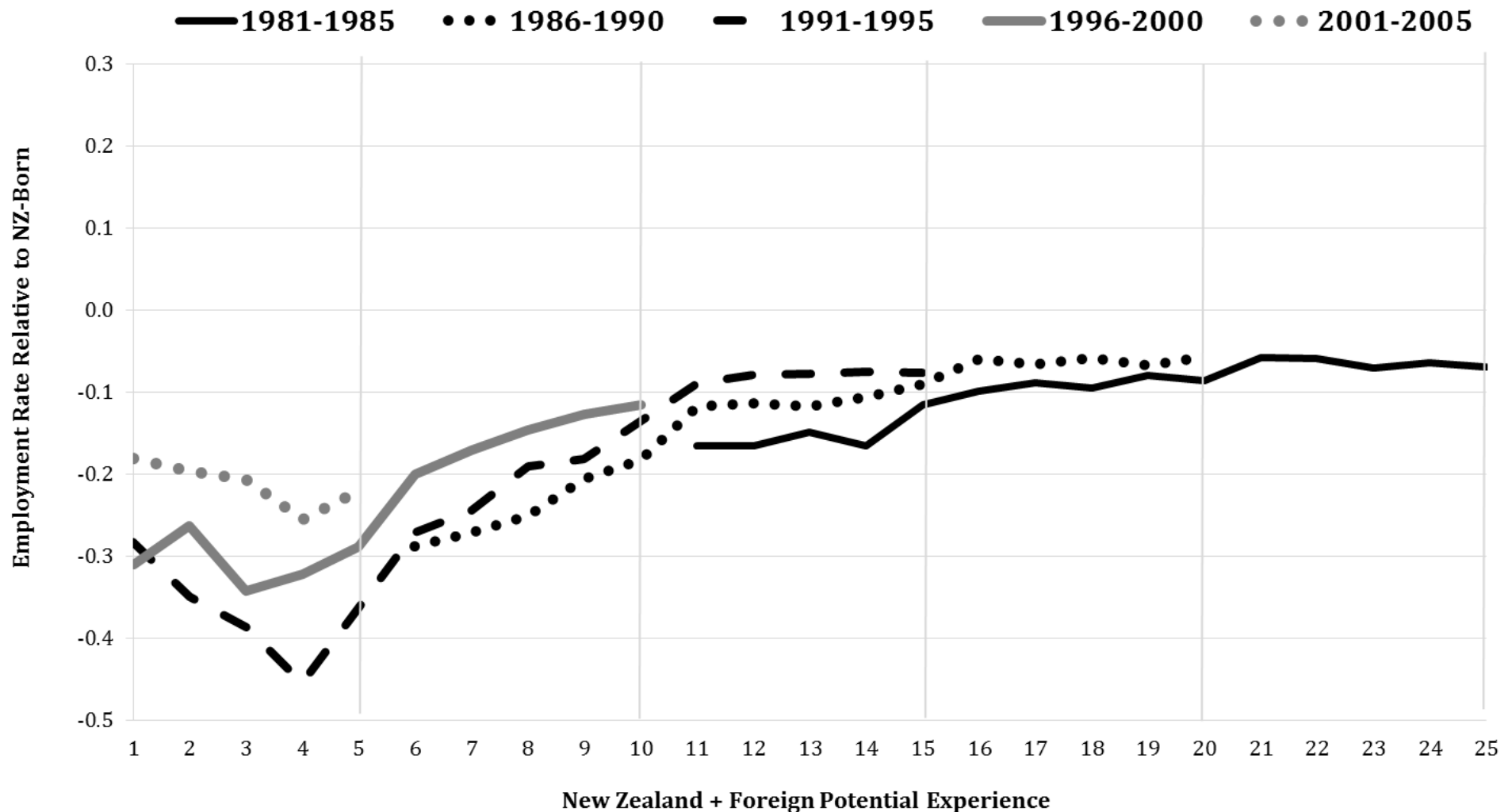
# The impact of potential experience on the employment rate: 1.5 generation of male migrants, relative to NZ born

## b) Child Migrants



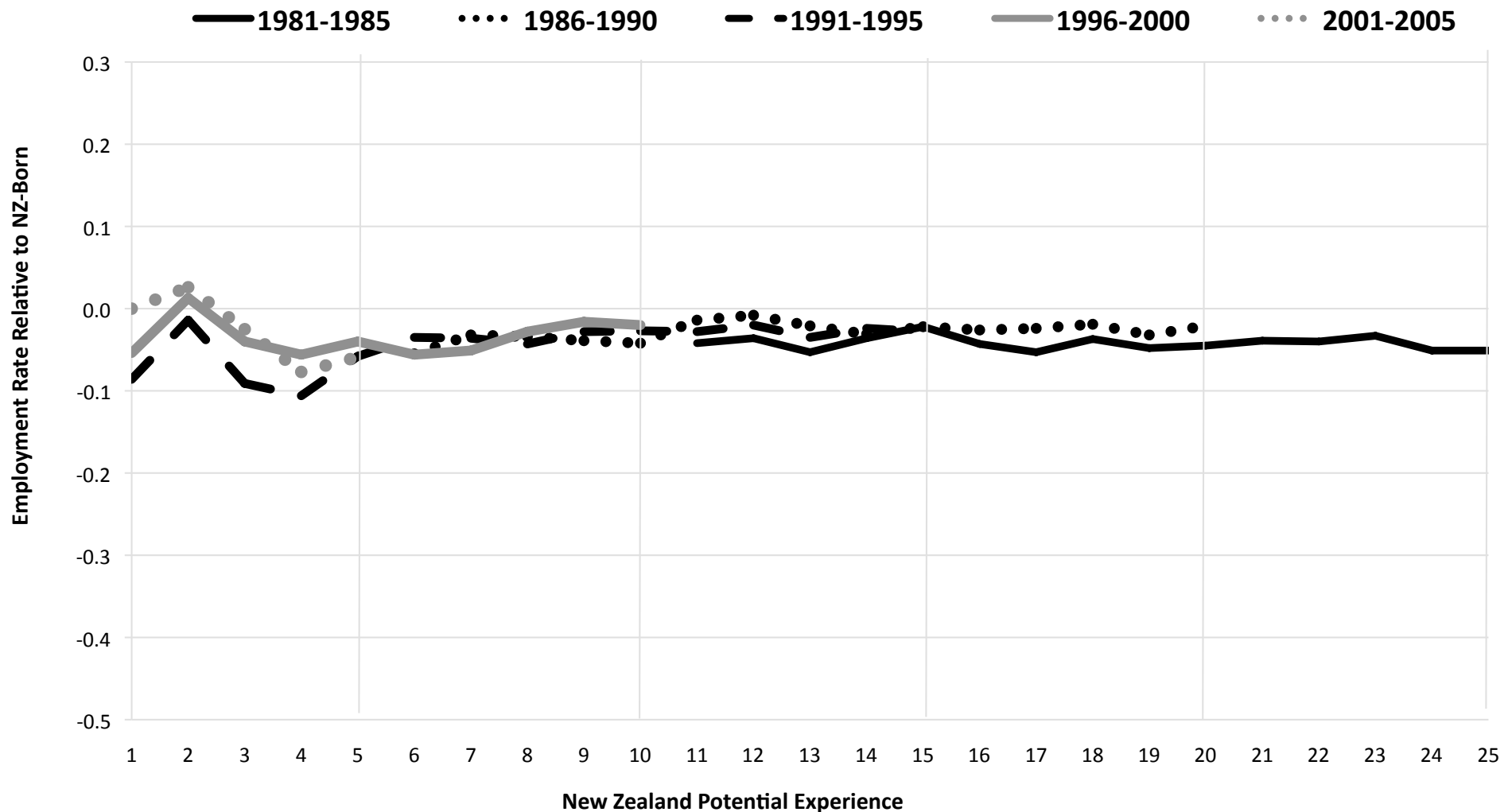
# The impact of potential experience on the employment rate: adult male migrants, relative to NZ born (foreign and NZ pot. experience are both counted)

## c) Adult Migrants: Total Potential Experience



# The impact of potential experience on the employment rate: adult male migrants, relative to NZ born (foreign pot. experience is not counted)

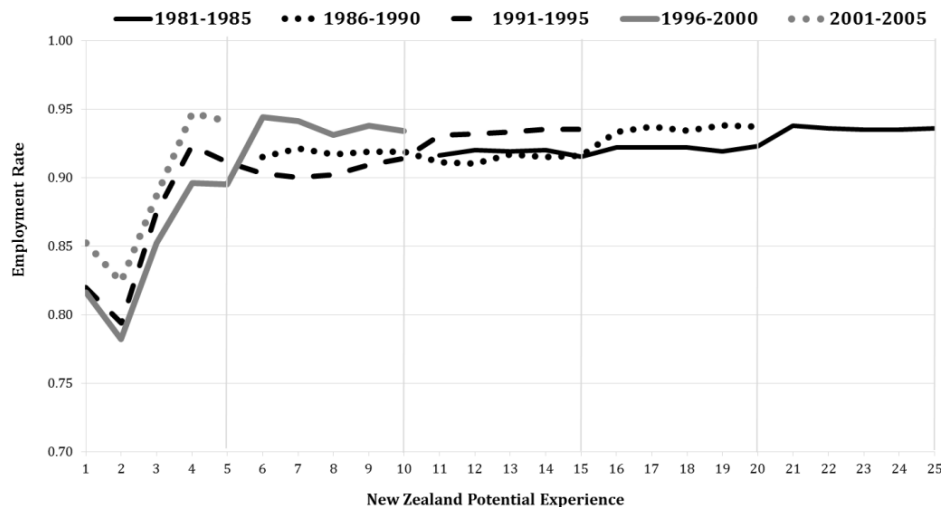
## d) Adult Migrants: Only New Zealand Experience



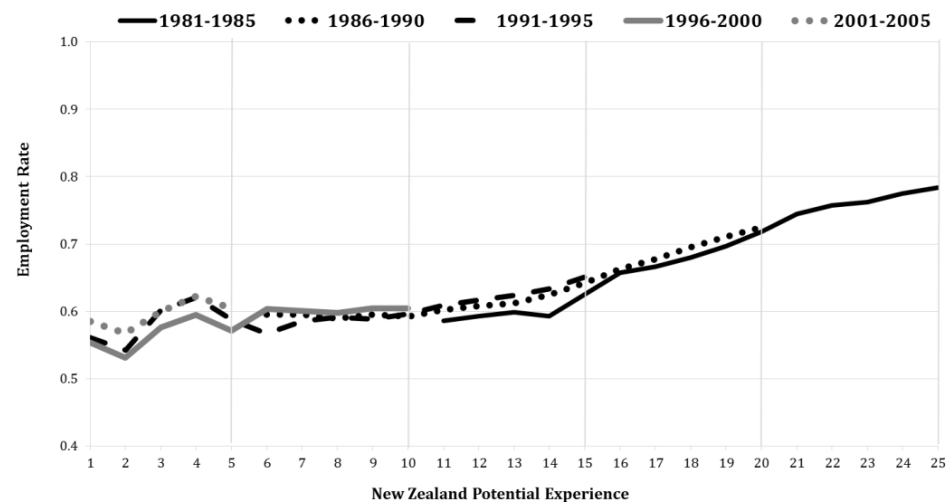
# Employment rates: Men versus women

## *NZ born men and NZ born women*

a) New Zealand-Born Males

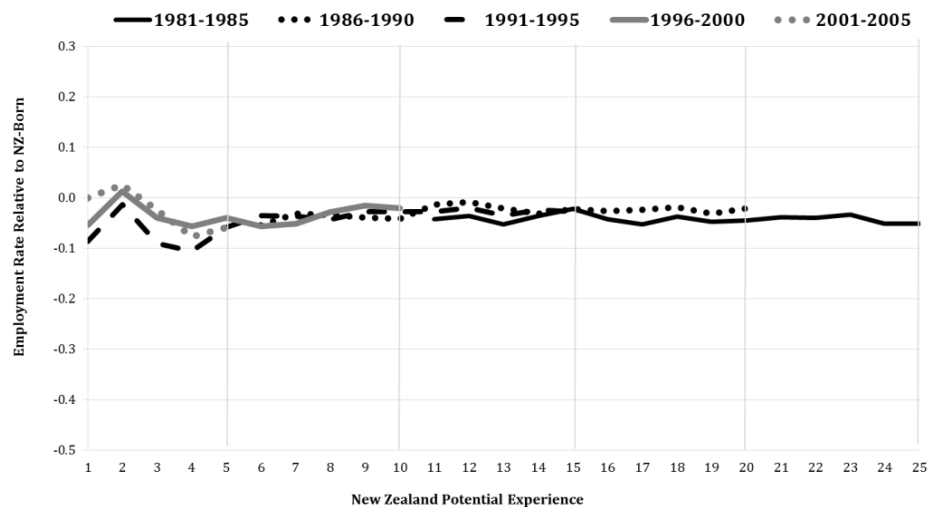


a) New Zealand-Born Females

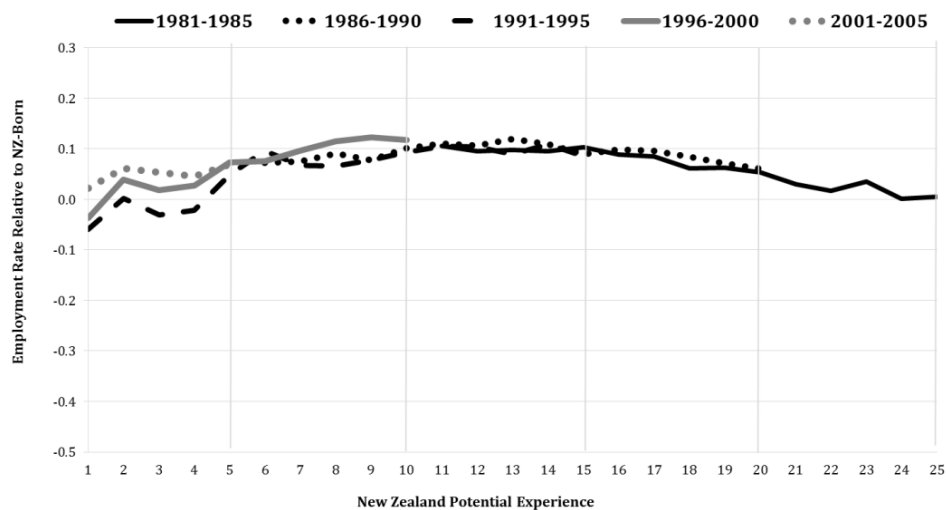


## *Male and Female Migrants relative to NZ born: only potential NZ experience counts*

d) Adult Migrants: Only New Zealand Experience (Males)

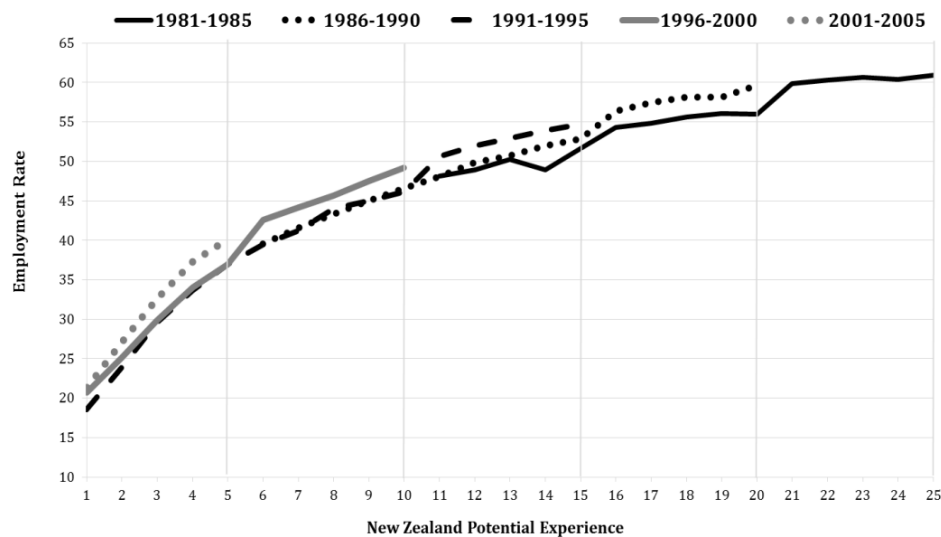


d) Adult Migrants: Only New Zealand Experience (Females)

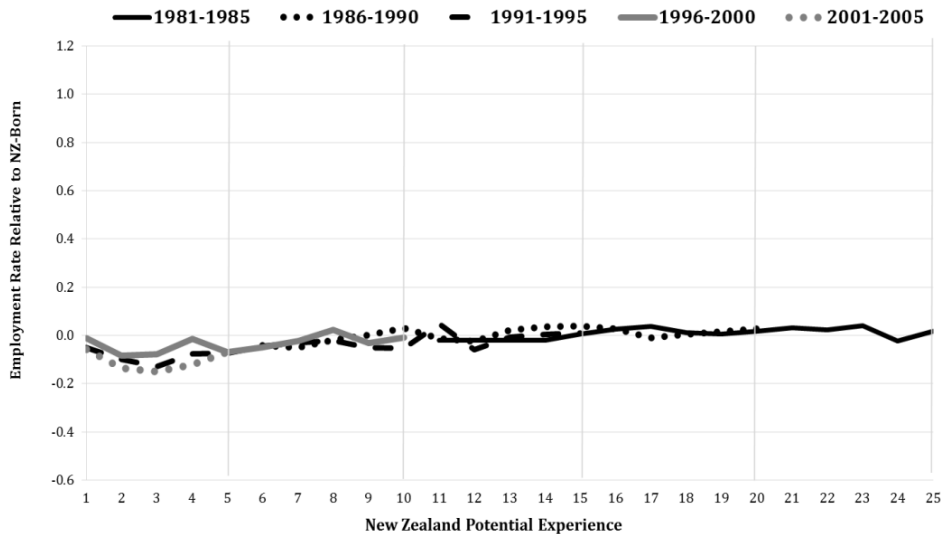


# Male Real Annual Income (1996\$) by Immigrant Status

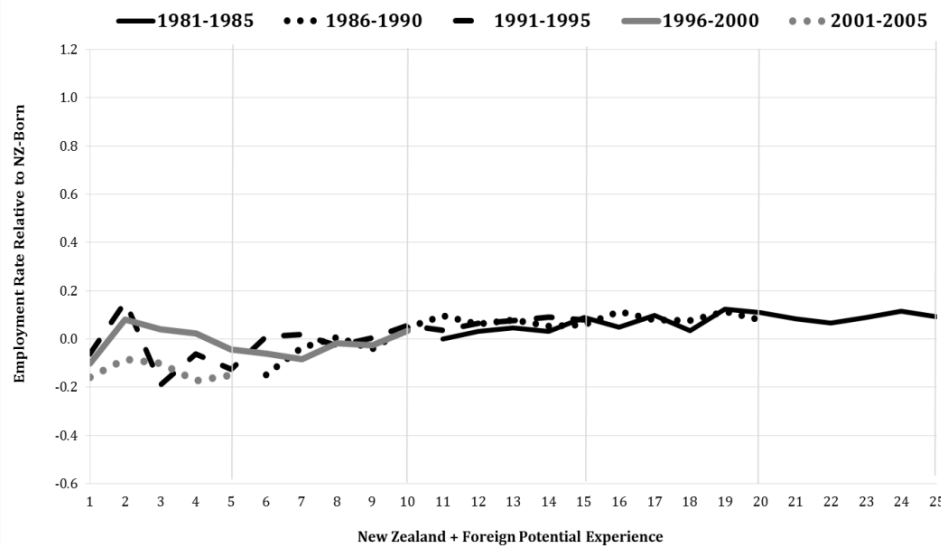
a) New Zealand-Born



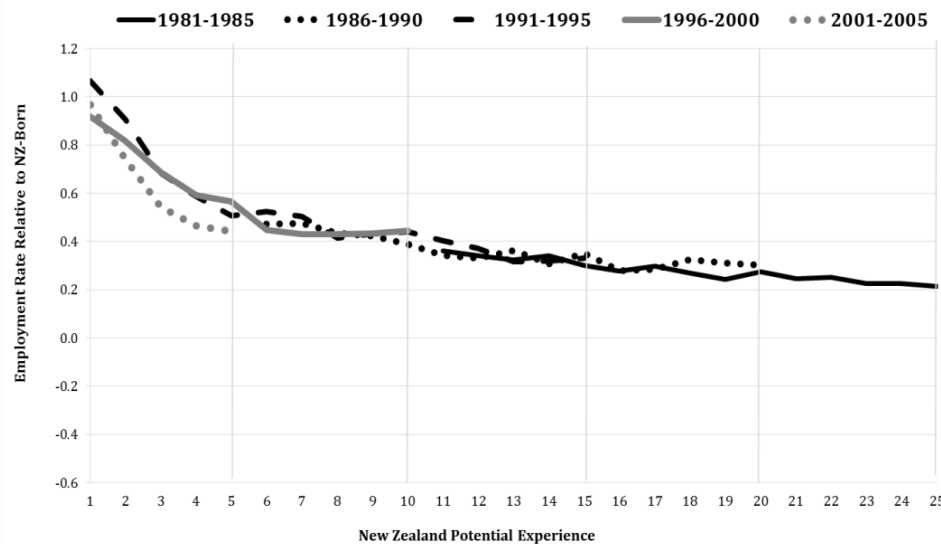
b) Child Migrants



c) Adult Migrants: Total Potential Experience



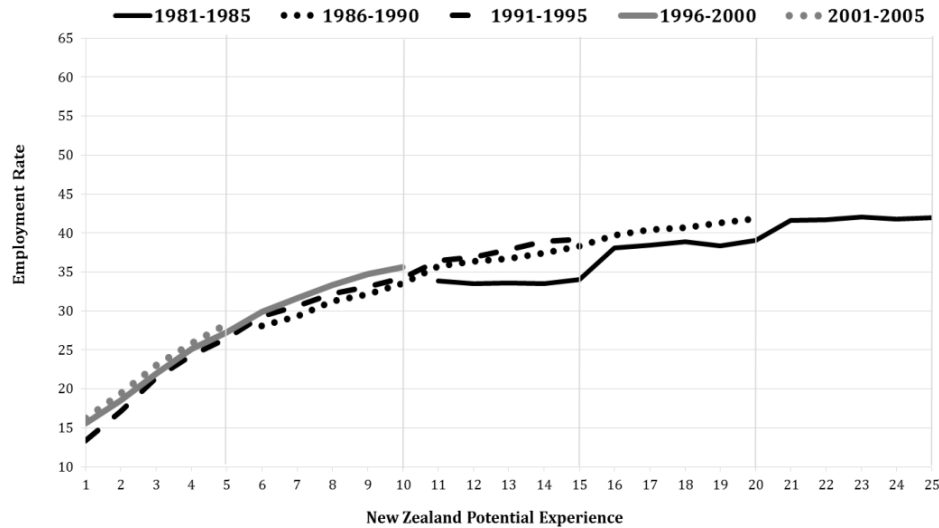
d) Adult Migrants: Only New Zealand Experience



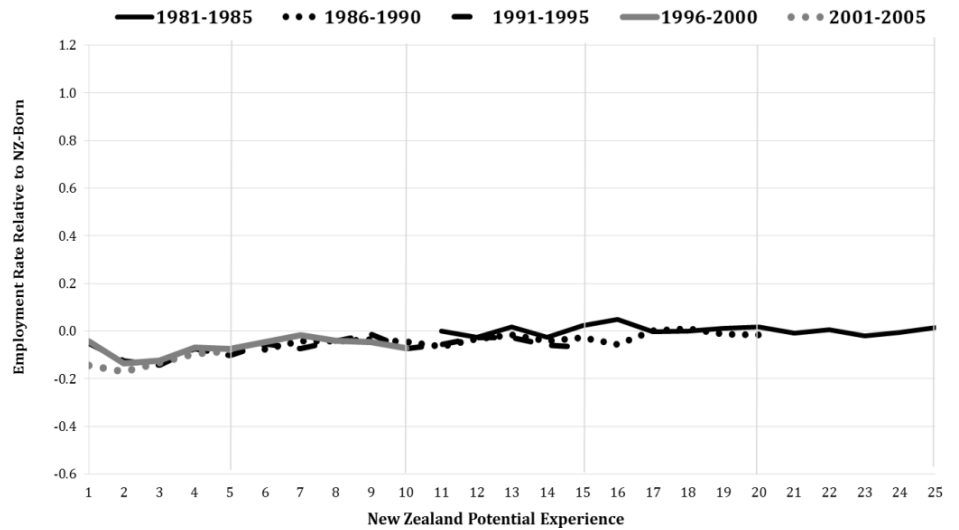


# Female Real Annual Income (1996\$) by Immigrant Status

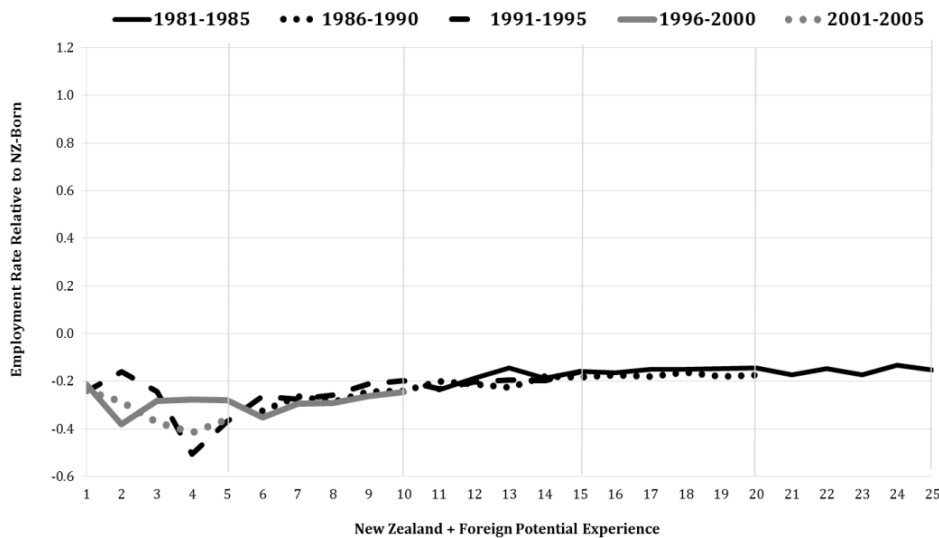
a) New Zealand-Born



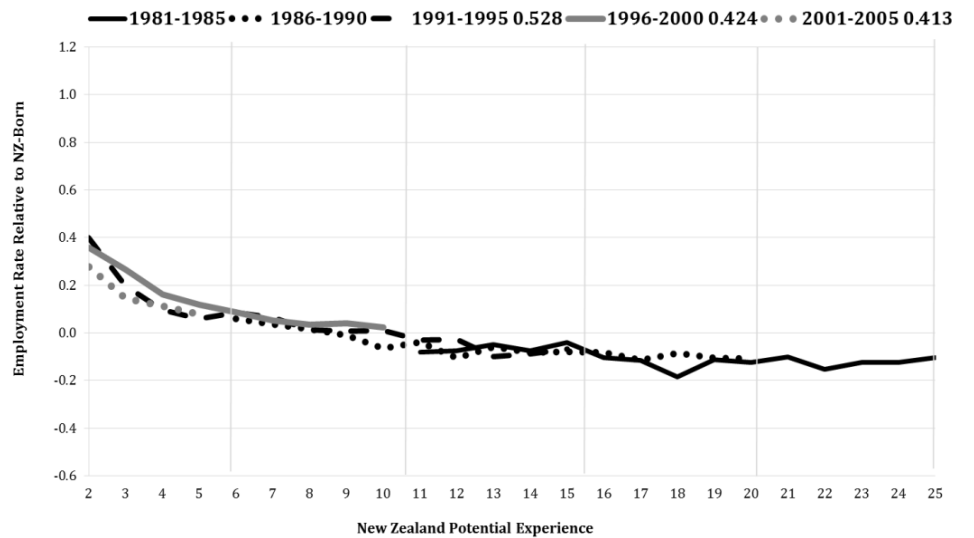
b) Child Migrants



c) Adult Migrants: Total Potential Experience



d) Adult Migrants: Only New Zealand Experience



# Other interesting findings

- Buoyant economic conditions have a stronger positive effect on migrants than on the NZ born and the 1.5 generation;
- The more years of NZ education foreign born children have, the better;
- Speaking multiple languages worsens outcomes among the NZ born, but it can be better for migrants (and the more languages, the better);
- The “distance” between a language spoken and English can matter;
- Many country-of-birth effects are significant, but more so for adult migrants than for the 1.5 generation;
- Adult migrants who “look European” have significantly better outcomes than other adult migrants; this is much less the case for the 1.5 generation;
- These results are obtained with the full range of controls: a total of about 280 regression coefficients for each of six groups (immigration status by gender).

# Conclusions

- This paper advances significantly beyond earlier census cohort analyses of immigrant integration, starting with Winkelmann and Winkelmann (1998);
- The innovations of the new research have been: (1) the distinction between adult migrants and the 1.5 generation; (2) comparing outcomes across cohorts in a simple non-parametric way; (3) distinguishing between adult migrant labour market potential experience in NZ and abroad; (4) very detailed analyses of languages and country of birth;
- It takes up to 10 years for adult migrants to fully integrate in terms of employment, even after that the employment rate remains about 10 percent lower;
- Migrant men do NOT face an earnings disadvantage and extensive experience is rewarded better than for comparable NZ born men;
- Migrant women DO face an earnings shortfall of about 20% that persists with increasing potential experience;
- 1.5 generation migrants face a slight disadvantage up to about 5-6 years after finishing education;
- No survey or administrative data could provide the depth of cultural and language analysis that these pooled census data provide; a further improvement, however, would be linking of individuals across censuses which would enable a test of cohort “contamination”.

Nga Tangata  
Oho Mairangi



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## INTEGRATION OF IMMIGRANTS PROGRAMME

**2007 – 2012**



National Institute of  
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