

Labour Market Activity of Immigrant Families in Germany

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March 27, 2008

Aim of the Paper

Labour Market
Activity of
Immigrants

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Motivation

The FIH

Revisiting the
FIH

Alternative
Specifications

Summary

- Evaluate the **Family Investment Hypothesis (FIH)** for immigrant families in Germany
 - FIH: Newly arrived couples facing credit constraints adopt a family investment strategy wherein, upon arrival, one spouse invests in host country-specific human capital while the other partner works to finance the family's current consumption.

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- Correct for potential bias in the observed assimilation profiles caused by selectivity into marriage and assortative mating after arrival

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- Correct for potential bias in the observed assimilation profiles caused by selectivity into marriage and assortative mating after arrival
- Compare the labour market adjustment of couples arriving simultaneously and couples arriving sequentially

Structure of Presentation

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- The family investment hypothesis

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- The family investment hypothesis
- Revisiting the FIH: Test for Germany

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- Qualifications and alternative specifications

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Theory of immigrant assimilation

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Labour market adjustment as a function of:

- Years since migration (YSM) : With length of residence, migrants invest and adapt their human capital to host country (Chiswick, Duleep and Regets, etc)

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Labour market adjustment as a function of:

- Years since migration (YSM) : With length of residence, migrants invest and adapt their human capital to host country (Chiswick, Duleep and Regets, etc)
- Cohort quality matters (Borjas)

General Result

Labour supply and earnings of immigrant men grow faster with years of residence than for comparable natives

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- Long (1980) observed initial earnings advantage of female immigrants, diminish over years of stay

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 - Strategy of **providing** and **investing** roles allocated between couple

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 - Wife work longer hours in a job with poorer career opportunities while husband invests in country-specific human capital in order to pursue employment with high expected wage growth
 - Assimilation pattern: Immigrant women married to immigrant men work more immediately after migration, have flatter wage profiles and a lower propensity to undertake human capital investments than immigrant women married to native-born men

Existing Literature

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- **Support:** Beach and Worswick (1993, Can), Duleep and Sanders (1993, US); Baker and Benjamin (1997, Can)

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- **Support:** Beach and Worswick (1993, Can), Duleep and Sanders (1993, US); Baker and Benjamin (1997, Can)
- **Non-support and Mixed Evidence:** Blau et al (2002); Cobb-Clark and Crossley (2004)

Econometric Specification

Hours equations similar to Baker and Benjamin (1997) specification, estimated separately for husbands and wives:

$$\begin{aligned} h_{it}^g &= \mathbf{X}_{it}\beta + \alpha_1 YSM_{it}^W + \alpha_2 YSM_{it}^{W^2} \\ &\quad + \delta_1 YSM_{it}^H + \delta_2 YSM_{it}^{H^2} \\ &\quad + \sum_{k=1}^K \gamma_{1k} C_{ik}^W + \sum_{k=1}^K \gamma_{2k} C_{ik}^H + \kappa_t + u_{it} \end{aligned} \quad (1)$$

- \mathbf{X}_{it} : Vector of own and spousal characteristics (age, Schooling, German-language ability), number of kids, presence of kids under 7, region of origin, and state of residence
- YSM : Years since migration
- C : Dummies indicating immigration cohorts.
- κ_t : Time fixed-effects

Econometric Specification

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Wage equations take the same form but without spousal YSM or cohort effects

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- GSOEP, 1984-2005, West Germany

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- Germans and immigrants, married, aged 16-64

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69 % native couples, 24 % immigrant couples, 7 % mixed

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- Immigrant couples married before migration: 7,550
63 % migrated simultaneously, 37 % migrated sequentially

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63 % migrated simultaneously, 37 % migrated sequentially
- Data extracted with the use of Panelwhiz (Haisken-DeNew 2006)

Table 1: Labor Supply and Wage Assimilation of Immigrants (Including Mixed Families 1984-2005)

	ANNUAL HOURS		LOG WAGES	
	Wives	Husbands	Wives	Husbands
YSM, wife	43.178**	-18.175	0.020*	
YSM ² , wife	-0.669**	0.233	-0.000*	
YSM, husband	-13.041	37.197*		0.013 ⁺
YSM ² , husband	0.046	-0.536 ⁺		-0.000
IM89up, wife	-567.033**	89.893	-0.470**	
IM7488, wife	-651.693**	268.392 ⁺	-0.305**	
IM4973, wife	-490.625**	285.326	-0.232 ⁺	
IM89up, husband	300.011**	-635.516**		-0.475**
IM7488, husband	420.605**	-698.988**		-0.417**
IM4973, husband	478.876**	-859.007**		-0.401**
Constant	555.750**	-1790.595**	0.421*	0.618**
R-squared	0.195	0.219	0.126	0.191
N	59276	59276	35509	52686

Table 2: Net assimilation Profile in Labour Supply: Germany vs. Canada

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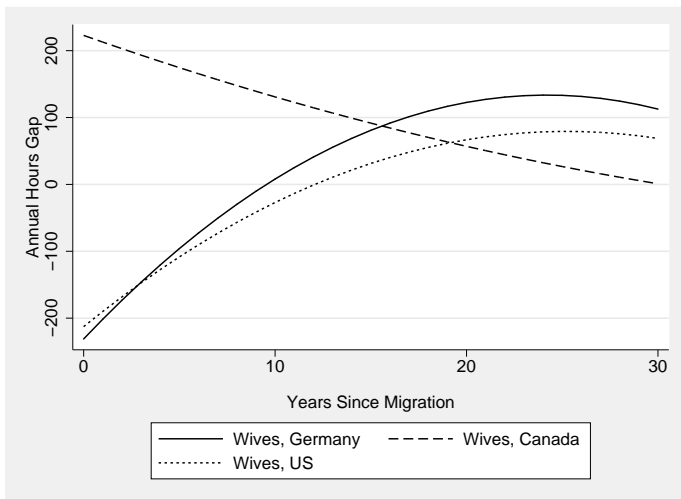
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Summary

	Germany		Canada	
	Wives	Husbands	Wives	Husbands
YSM, wives	+	-	+	+
YSM, husbands	0	+	-	+
Net arrival effects	-	-	+	-
Net assimilation effects	+	+	-	+

Figure 1: Hours Profiles for Immigrant Wives Relative to Native Wives



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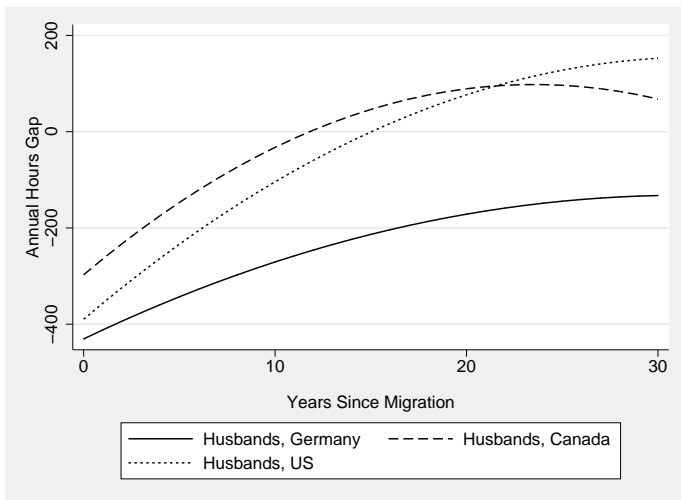
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Figure 2: Hours Profiles for Immigrant Husbands Relative to Native Husbands



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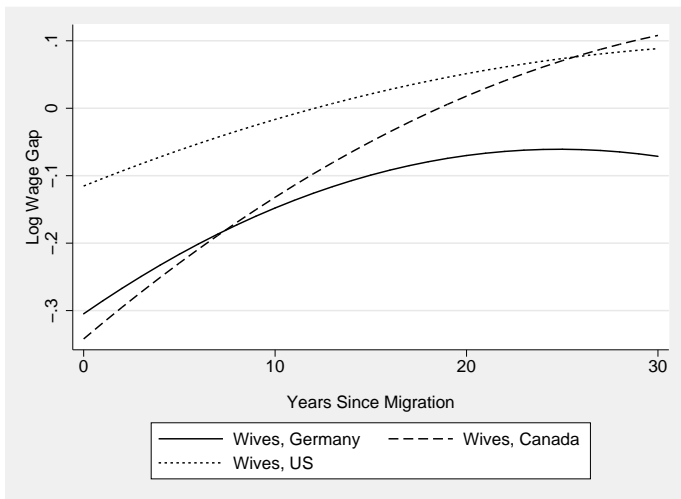
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Figure 3: Wage Profiles for Immigrant Wives Relative to Native Wives



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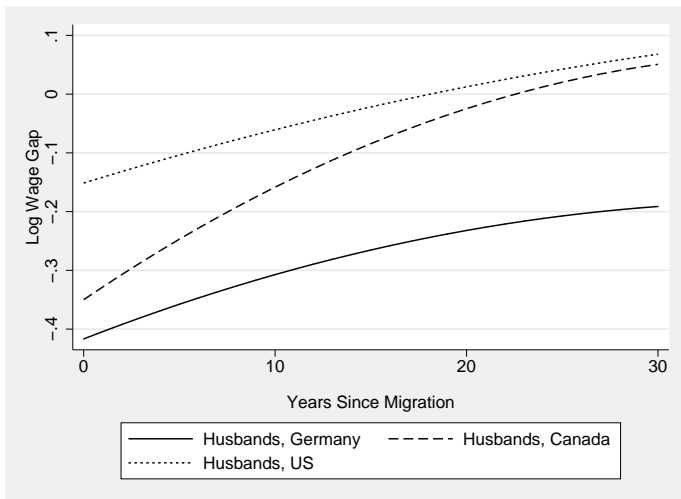
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Figure 4: Wage Profiles for Immigrant Husbands Relative to Native Husbands



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Augmented Estimation

- We augment the basic specification in order to account for the effects of wage earnings and non-labor income on labor supply.

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Augmented Estimation

- We augment the basic specification in order to account for the effects of wage earnings and non-labor income on labor supply.
- Wages for those who are unemployed are imputed by predicting log wages from a regression on a sample of individuals who worked less than 700 hours in the previous year separately for husbands and wives.

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- Wages for those who are unemployed are imputed by predicting log wages from a regression on a sample of individuals who worked less than 700 hours in the previous year separately for husbands and wives.
- We further estimated this model by two-stage least squares (2SLS) using the individuals' wage deciles as an instrument for their wages, to adjust for potential measurement error in the wage variable, assuming that the measurement error is likely to be smaller in measuring deciles than actual or predicted wages (Blau et al., 2003)

Augmented Estimation

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- **Results:**
 - Wage and asset income effects are in general significant
 - Assimilation effects previously observed are still significant
 - The assimilation patterns in labor supply remain unchanged

Augmented Estimation

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Summary

So far:

- Assimilation profiles for immigrant husbands and wives do not provide evidence for the family investment hypothesis (symmetric patterns of hours of work for immigrant husbands and wives).
- Both labor supply and wages of immigrant husbands and wives increase with the number of years since migration
- Assimilation patterns are in line with the simple (traditional, individual) process of human capital accumulation

Human Capital Investments and Tenure

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- FIH predicts that husbands would invest more in formal training upon arrival as the work behaviour of wives permits them to do so.

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Summary

- FIH predicts that husbands would invest more in formal training upon arrival as the work behaviour of wives permits them to do so.
- FIH expects increasing tenure of husbands as he finds a more suitable job, while the wife stays in one job in initial years.

Table 3: Indirect Evidence on Family Investment Hypothesis

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Summary

	PROB. OF TRAINING		JOB TENURE	
	Wives	Husbands	Wives	Husbands
YSM, husband	-0.007	-0.042	0.319*	0.305*
YSM ² , husband	-0.000	0.001*	-0.006**	-0.003
YSM, wife	0.018	-0.015	0.165	0.045
YSM ² , wife	-0.000	0.000	-0.003	0.001
IM89up, husband	0.521 ⁺	0.196	-3.228**	-9.238**
IM7488, husband	0.188	0.418	-2.693 ⁺	-7.901**
IM4973, husband	0.280	0.298	-4.153*	-9.693**
IM89up, wife	-0.008	0.209	-5.428**	-1.873 ⁺
IM7488, wife	-0.046	-0.040	-4.101**	-1.710
IM4973, wife	-0.193	0.048	-1.700	-2.111

- YSM do not significantly affect the decision to take up formal training.
- Job tenure of immigrant wives and immigrant husbands in Germany both increase as their duration of stay increases.

Assimilation of Immigrant families

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- We exclude immigrants who are married to natives from our analysis.

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- We restrict the analysis on immigrants who were already married to each other before immigrating to Germany. (Ensures that the assimilation effects that we capture are not affected by selectivity into marriage in the new country.)

Assimilation of Immigrant families

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- **Results:**
 - The estimated assimilation patterns for labor supply and wages are very similar to those reported above.
 - Compared to the overall sample, the hours and wage assimilation are somewhat faster.

Simultaneous vs. Sequential Migration

We differentiate immigrant families according to how family migration took course, namely simultaneously or sequentially (husband migrating ahead of the wife).

- Clarify the coherence of the thesis of the family investment model and the specification used by the existing literature.

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Simultaneous vs. Sequential Migration

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- Clarify the coherence of the thesis of the family investment model and the specification used by the existing literature.
- Immigrant partners migrating together may face a set of constraints and incentives different from those faced by households who migrated in succession
 - Spouses who migrated together are expected to require more capital in settling in the new country.
 - These couples may have stronger incentives to stay permanently in Germany and thus a relatively higher motivation to invest in own or in spouse's skills suited to the German labor market.
 - → We test whether the stricter constraints and stronger incentives to stay leads the family investment hypothesis to hold particularly for these couples.

Figure 5: Simultaneous v Sequential Migration: Hours Profiles for Immigrants

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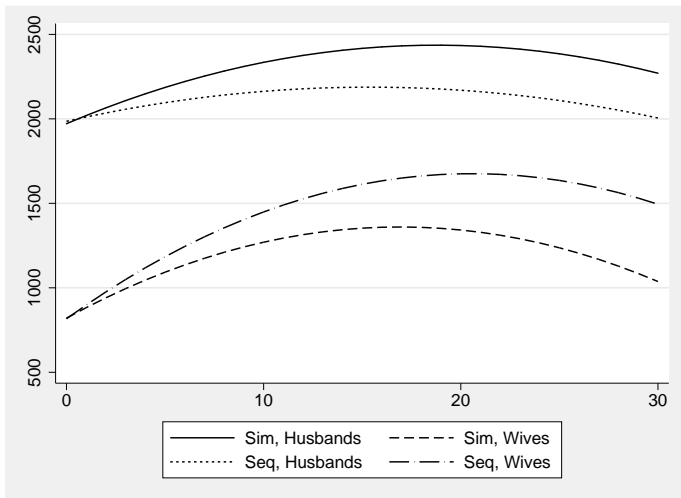


Figure 6: Simultaneous v Sequential Migration: Wage Profiles for Immigrants

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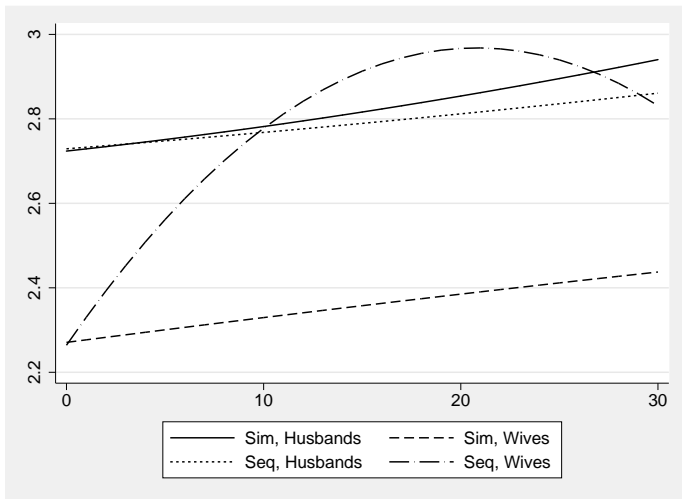
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- Using panel data from the GSOEP, we do not find evidence for the family investment hypothesis.
 - Immigrant husbands and wives both work less upon arrival than natives with similar characteristics.
 - Immigrant husbands and wives increase their labor supply as their numbers of years since migration increase
 - Positive but weak assimilation of the wages of immigrants (no catch-up)

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 - Positive but weak assimilation of the wages of immigrants (no catch-up)
- Assimilation patterns are in line with a standard process of human capital accumulation of individuals.

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- Differentiating immigrant couples according to the mode of arrival, we find:
 - Husbands and wives who migrated simultaneously experience assimilation in labor supply but not in wages.
 - For couples who migrated sequentially, we observe that wives who migrated after their husbands assimilate both in labor supply and wages. (She benefits from the information of her husband)