Intergenerational Spillovers of Integration Policies
Evidence from Finland’s Integration Plans

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Collegio Carlo Alberto
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Introduction

• Immigrants’ children struggle at school
  e.g. Algan et al. (2010), Belzil and Poinas (2010), Dustmann and Theodoropoulos (2010), Dustmann et al. (2012), Bratsberg et al. (2012), Ansala et al. (2020)

• Many possible explanations
  • discrimination, preferences/beliefs
  • parental income, neighborhoods
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- Many possible explanations
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  - parental income, neighborhoods

- Hypothesis: helping parents may also help their children

**Immigrant-native gaps in completing secondary education, Finland**

![Figure 2: Immigrant–native gaps in educational attainment. Note: This figure reports region of origin fixed effects...](https://doi.org/10.1093/jeg/lbz017)

• Treatment: Finland’s integration plans
  • refining how immigrants were allocated to ALMP
  • increased language training $\rightarrow$ increased earnings by 47%  
  (Sarvimäki and Hämäläinen, 2016)
This paper

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• Research design: phase-in-rules of a 1999 reform
  • integration plans mandatory only for unemployed immigrants who had arrived to Finland after May 1st, 1997 $\rightarrow$ RD design
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- **Take-aways**
  - parents’ integration plans pushed an average complier child
    - from the 28th to the 38th percentile of the 9th grade GPA distribution
    - from the 30th to the 50th percentile of highest degrees’ average earnings
    - from the 87th to the 82th percentile of idleness distribution
  - effects larger for girls, no detectable difference by parent’s origin country
  - hypothesized mechanism: better language skills, information, peers
• Descriptive work on the education of immigrants’ children  
  e.g. Algan et al. (2010), Belzil and Poinas (2010), Dustmann and Theodoropoulos (2010), Dustmann et al. (2012), Bratsberg et al. (2012), Ansala et al. (2020)

• Impact of integration programs for adult immigrants  
  e.g. Åslund and Johansson (2011), Joona and Nekby (2012), Sarvimäki and Hämäläinen (2016), Battisti et al. (2019), Lochmann et al. (2019), Dahlberg et al. (2020), Foged, Hasager, Peri, Arendt, Bolvig (2022a, 2022b), Heller and Slungaard Mumma (2020); see Hangartner, Sarvimäki and Spirig (2021) for a review

• Impact of school-based interventions on immigrants’ children  
  e.g. Avvisati et al. (2014), Goux et al. (2015), Silliman (2017), Alesina et al. (2018), Alan et al. (2021), Carlana et al. (forthcoming)

• Impact of parents’ income and employment on children’s education  
  e.g. Akee et al. (2010), Aizer et al. (2016), Dahl and Lochner (2012), Hilger (2016), Rege et al. (2011)
Related literature and our contribution

• Closest to us: Foged, Hasager, Peri, Arendt, Bolvig (2022a,b)
  • Danish reform changing the approach for integrating refugees
  • research design, data and results similar to ours
    ▶ higher completion rates from lower secondary school and lower juvenile crime rates
      for boys who were below school-starting age when their parents were treated

• Our contribution
  • digging deeper in educational outcomes and potential mechanisms
  • another country and reform → increases the credibility of both projects
Treatment and research design
The treatment

- 1999 Act on the Integration of Immigrants and Reception of Asylum Seekers
  - main component “integration plans”: individualized sequence of training, subsidized work etc. based on the existing ALMP framework
  - obligatory for recently arrived immigrants who are unemployed or collect welfare benefits (non-compliance sanctioned)
  - no new resources allocated to integration of immigrants

Sarvimäki and Hämäläinen (2016)
- increased earnings by 47%, reduced benefits by 13%
- had no impact on the total amount of training or sanctions
  ... but did affect the content of training

Pesola (VATT) and Sarvimäki (Aalto)
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Research design

- RDD based on a phase-in rule of the reform
  - new legislation into force in May 1st, 1999
  - those who arrived before May 1st, 1997 exempted

Figure 1: Parents’ integration plans and children’s outcomes by parents’ time of arrival

(a) Parents’ integration plans

(b) Children’s standardized grade point average at 9th grade

(c) Children’s educational attainment (degree’s average earnings)

Note: This figure shows date of arrival (horizontal axis) and the share of parents receiving an integration plan (panel a), child’s GPA at the end of mandatory education (panel b) and average earnings associated with the child’s highest degree or enrollment at age 27 measured using earnings of former graduates from the degree (panel c). The lines represent local linear estimates using the edge kernel and the optimal bandwidth selection algorithm of Imbens and Kalyanaraman (2012) using data on all immigrants who arrived to Finland between January 1990 and April 1999. The dots correspond to sample means in two month bins.

Pesola (VATT) and Sarvimäki (Aalto) Intergenerational Spillovers September 2022 6 / 18
Data

• Administrative data on the entire Finnish population
  • enrollment in education and educational outcomes
  • employment and annual earnings
  • background characteristics

• Sample: children of immigrants arriving with their parents
  • include only those arriving before age 15
  • on average, 11 years old at arrival
  • second-generation excluded
  • follow until age 27

• 3,261 children born between 1980 and 1988
  • 1,141 arrived within two years of May 1st, 1997
Outcomes and background characteristics

- Average earnings at age 35 based on highest degree / enrollement at age 27
  - average earnings from population-level data for 1996 to 2015
- Grade point average at grade 9
  - end of mandatory education
  - non-standardized, but used in allocation for further education
- Idleness between ages 15–27
  - share of (end of) years NEET
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Table 1: Background characteristics by time of arrival

<table>
<thead>
<tr>
<th>Time of arrival</th>
<th>Jump in 5/97</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>(2)</td>
</tr>
</tbody>
</table>

A: Children

- Age
  - 10.99
  - 11.20
  - 11.85
  - 12.26
  - 0.20 (0.21)
- Female
  - 0.46
  - 0.50
  - 0.49
  - 0.50
  - -0.03 (0.06)

B: Parents

- Age
  - 37.64
  - 37.63
  - 38.91
  - 39.12
  - 0.83 (0.62)
- Female
  - 0.48
  - 0.48
  - 0.49
  - 0.50
  - 0.01 (0.01)
- Single parent
  - 0.10
  - 0.13
  - 0.11
  - 0.06
  - 0.02 (0.03)
- Children under 18
  - 0.85
  - 0.84
  - 0.85
  - 0.87
  - -0.05 (0.04)
- Regional unemployment rate
  - 14.31
  - 12.99
  - 11.41
  - 11.11
  - 0.07 (0.38)
- Urban municipality
  - 0.80
  - 0.83
  - 0.85
  - 0.82
  - 0.06 (0.04)
- Legal status:
  - Refugee
    - 0.23
    - 0.18
    - 0.15
    - 0.17
    - -0.09 (0.05)
  - Ingrian Finn
    - 0.27
    - 0.28
    - 0.31
    - 0.16
    - 0.14 (0.05)
  - Family member
    - 0.03
    - 0.06
    - 0.09
    - 0.12
    - -0.05 (0.02)
  - Other/Unknown
    - 0.47
    - 0.48
    - 0.45
    - 0.55
    - 0.00 (0.05)
- Region of birth
  - Asia
    - 0.16
    - 0.21
    - 0.22
    - 0.21
    - -0.14 (0.05)
  - Africa
    - 0.05
    - 0.04
    - 0.04
    - 0.07
    - 0.04 (0.03)
  - New EU members
    - 0.09
    - 0.13
    - 0.06
    - 0.08
    - 0.01 (0.02)
  - form. Soviet Union
    - 0.49
    - 0.51
    - 0.63
    - 0.56
    - 0.20 (0.06)
  - form. Yugoslavia
    - 0.17
    - 0.09
    - 0.02
    - 0.07
    - -0.03 (0.02)
  - Other
    - 0.05
    - 0.03
    - 0.03
    - 0.01
    - 0.01 (0.02)

Number of children: 362 255 298 226 0.41 0.27
Number of parents: 474 338 398 337 0.32 0.13

Notes: The table reports sample means of background characteristics by time of arrival. Parents’ characteristics denote the mean of mother’s and father’s characteristics. All characteristics are measured at the year of arrival. The share of female parents includes parents arriving in separate years.
Results
Main result: effect on educational attainment

Figure 1: Parents’ integration plans and children’s outcomes by parents’ time of arrival

(a) Parents’ integration plans

(b) Children’s educational attainment (degree’s average earnings) at age 27

Notes. This figure shows date of arrival (horizontal axis) and the share of parents receiving an integration plan (panel a), average earnings associated with the child’s highest degree or enrollment at age 27 measured using earnings of former graduates from the degree (panel b), child’s GPA at the end of mandatory education (panel c) and time spent outside of employment, education or training at ages 15–27 (panel d). The lines represent local linear estimates using the edge kernel and the optimal bandwidth selection algorithm of Imbens and Kalyanaraman (2012). The dots correspond to sample means in two month bins.
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### Table 2: Impact of parent’s integration plan on GPA and educational attainment

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<tr>
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<td><strong>A: Estimates</strong></td>
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<tr>
<td>Reduced form</td>
<td>2,935</td>
<td>2,514</td>
<td>0.29</td>
<td>0.23</td>
<td>-0.07</td>
<td>-0.05</td>
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<td>(1,041)</td>
<td>(1,037)</td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.03)</td>
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<tr>
<td>First-stage</td>
<td>0.59</td>
<td>0.62</td>
<td>0.57</td>
<td>0.60</td>
<td>0.57</td>
<td>0.60</td>
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<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.05)</td>
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<tr>
<td>Local average treatment</td>
<td>4,964</td>
<td>4,078</td>
<td>0.51</td>
<td>0.39</td>
<td>-0.13</td>
<td>-0.08</td>
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<tr>
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<td>(1,828)</td>
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<tr>
<td>Compliers’ expectation in</td>
<td>20,559</td>
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<td>-0.74</td>
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<tr>
<td>Never-takers’ average</td>
<td>26,231</td>
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<td>0.20</td>
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<td>Native’s average</td>
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**Notes.** This table reports local linear estimates for the jump at the May 1, 1997 cutoff of father’s arrival time for educational attainment as measured by average earnings of earlier graduates with the same degree (columns 1–2), standardized 9th grade GPA (columns 3–4) and the share of years the person is not in employment, education or training at ages 15–27. Reduced form refers to the jump in the outcome at the May 1997 threshold and first-stage to the jump in the likelihood for either parent getting an integration plan. Additional covariates are child’s sex and age at arrival and parents’ age, marital status, number of children under 18, regional unemployment rate, type of residence municipality (urban, semi-ruban, rural), legal status (refugee, Ingrian Finn, family member, other/unknown) and region of birth. All background characteristics are measured at the year of arrival. The bandwidths are chosen using the optimal bandwidth selection algorithm of Imbens and Kalyanaraman (2012).
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Other outcomes

(c) Children’s standardized grade point average at 9th grade

(d) Not in employment, education or training at ages 15–27
Figure 2: Robustness to alternative bandwidths and estimation approaches

(a) Average earnings of the highest degree

<table>
<thead>
<tr>
<th>CCT optimal</th>
<th>IK optimal</th>
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<tbody>
<tr>
<td>-2000</td>
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<td>0</td>
<td>2000</td>
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<tr>
<td>4000</td>
<td>6000</td>
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<td>8000</td>
<td>10000</td>
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</table>

(b) Grade point average at 9th grade

<table>
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<tr>
<th>CCT optimal</th>
<th>IK optimal</th>
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<tbody>
<tr>
<td>0</td>
<td>.25</td>
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<td>.25</td>
<td>.5</td>
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<td>.5</td>
<td>.75</td>
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<td>.75</td>
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(c) Not in employment, education or training

<table>
<thead>
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<th>CCT optimal</th>
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<tbody>
<tr>
<td>-39</td>
<td>-29</td>
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<td>-29</td>
<td>-20</td>
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<td>-20</td>
<td>-10</td>
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<td>-10</td>
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</table>

Notes. The blue circles show local linear reduced form estimates using triangle kernels and alternative bandwidths (x-axis). The shaded area corresponds to the corresponding conventional 95% confidence intervals and the blue spikes to the "honest confidence intervals" of Armstrong and Kolesár (2020). The red squares and spikes are the Calonico et al. (2014) bias-corrected estimates for alternative bandwidths and the corresponding 95% confidence intervals. For reference, we also show the baseline estimates reported in Table 2 (horizontal dashed line) and the optimal bandwidths based on Calonico et al. (2019) and Imbens and Kalyanaraman (2012) (vertical dashed lines).
## Table 2: Impact of parent's integration plan on GPA and educational attainment

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<tr>
<td></td>
<td>(1,041)</td>
<td>(1,037)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>First-stage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.59</td>
<td>0.62</td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Local average treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>effect (LATE)</td>
<td>4,964</td>
<td>4,078</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>(1,828)</td>
<td>(1,695)</td>
<td>(0.22)</td>
</tr>
<tr>
<td><strong>B: Benchmarks</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliers’ expectation in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the absence of the treatment</td>
<td>20,559</td>
<td>21,301</td>
<td>-0.83</td>
</tr>
<tr>
<td></td>
<td>(1,210)</td>
<td>(1,166)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Never-takers’ average</td>
<td>26,231</td>
<td></td>
<td>-0.28</td>
</tr>
<tr>
<td>Native’s average</td>
<td>27,433</td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Additional covariates</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bandwidth (months)</td>
<td>31.8</td>
<td>26.8</td>
<td>27.6</td>
</tr>
<tr>
<td>Observations</td>
<td>1,345</td>
<td>1,201</td>
<td></td>
</tr>
</tbody>
</table>

**Notes.** This table reports local linear estimates for the jump at the May 1, 1997 cutoff of father’s arrival time for educational attainment as measured by average earnings of earlier graduates with the same degree (columns 1–2), standardized 9th grade GPA (columns 3–4) and the share of years the person is not in employment, education or training at ages 15–27. Reduced form refers to the jump in the outcome at the May 1997 threshold and first-stage to the jump in the likelihood for either parent getting an integration plan. Additional covariates are child’s sex and age at arrival and parents’ age, marital status, number of children under 18, regional unemployment rate, type of residence municipality (urban, semi-ruban, rural), legal status (refugee, Ingrian Finn, family member, other/unknown) and region of birth. All background characteristics are measured at the year of arrival. The bandwidths are chosen using the optimal bandwidth selection algorithm of Imbens and Kalyanaraman (2012).
Further robustness checks

- McCrary test
- Placebo thresholds
- Alternative parent definitions
- "Donut hole" specifications
Figure 3: Effect heterogeneity and potential mechanisms

(a) Effect heterogeneity

A. Degree
i. By gender
1. Sons
2. Daughters

ii. By parent's origin country HDI
3. 10th percentile
4. Median
5. 90th percentile

B. GPA
i. By gender
1. Sons
2. Daughters

ii. By parent's origin country HDI
3. 10th percentile
4. Median
5. 90th percentile

C. Not in employment, education or training (reversed)
i. By gender
1. Sons
2. Daughters

ii. By parent's origin country HDI
3. 10th percentile
4. Median
5. 90th percentile

Notes.
Panel (a) reports LATE estimates for parents' integration plan on child's outcomes by child's gender and parent's origin country Human Development Index; see footnote 8. Panel (b) reports LATE estimates for parent's integration plan on parental outcomes and child's 9th grade peers. All outcomes are normalized to have zero mean and standard deviation of one. The overall indices in the bottom panel are constructed as in Kling et al. (2007) using the components listed in each subpanel.
Possible mechanisms

- Improved financial resources
  - unlikely to be the entire story:
    education free at all levels,
    limited credit constraints
Possible mechanisms

- Improved financial resources
  - unlikely to be the entire story: education free at all levels, limited credit constraints
- Information, values and beliefs
  - language and civic courses
  - parent’s colleagues
  - children’s school mates

Notes.
Panel (a) reports LATE estimates for parents’ integration plan on child’s outcomes by child’s gender and parent’s origin country Human Development Index; see footnote 8. Panel (b) reports LATE estimates for parent’s integration plan on parental outcomes and child’s 9th grade peers. All outcomes are normalized to have zero mean and standard deviation of one. The overall indices in the bottom panel are constructed as in Kling et al. (2007) using the components listed in each subpanel.
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  - children’s school mates

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Conclusions

• Parents’ integration plans improved their children’s education
  - 24% increase in degree’s earnings
  - 0.5 SD increase in 9th grade GPA, 36% decline in idleness
  - effects larger for girls, no heterogeneity along HDI
  - possible mechanisms: financial resources, language skills, information, peers

Take-away 1: Integration programs have positive unintended consequences
  - cost-benefits ratio even better than currently understood
  - but: we know little about the relative effectiveness of alternative components

Take-away 2: Designing and testing interventions specifically aimed to improve educational investments probably a good idea, too
  - feel free to propose such interventions to your funders / friends!

Pesola (VATT) and Sarvimäki (Aalto)
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Take-away 2: Designing and testing interventions specifically aimed to improve educational investments probably a good idea, too
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Appendix
Notes: The figure shows observations by month of arrival of the father. The lines represent local linear estimates using the edge kernel and the optimal bandwidth selection algorithm of Imbens and Kalyanaraman (2012). The dots correspond to the number of observations entering the population register by month.
Figure A4: Alternative thresholds

(a) Average earnings of the highest degree

(b) Grade point average at 9th grade

(c) Not in employment, education or training

Notes.
This figure presents estimates for made-up thresholds using the same approach as our baseline reduced form estimates and data only for families arriving to Finland before May 1st, 1997. The horizontal axis shows alternative cutoff dates away from May 1st, 1997. The blue circles represent local linear reduced form estimates, the shaded area depicts the corresponding conventional 95% confidence intervals and the blue spikes the “honest confidence intervals” of Armstrong and Kolesár (2020). The red squares and spikes are the Calonico et al. (2014) bias-corrected estimates for alternative bandwidths and the corresponding 95% confidence intervals. For reference, we also show the baseline estimates reported in Table 2 (horizontal dashed line).
Table A1: Impact of parent’s integration plan on GPA and educational attainment using first parent’s arrival time

<table>
<thead>
<tr>
<th>A: Estimates</th>
<th>Degree’s average earnings</th>
<th>Standardized GPA</th>
<th>Not in employment, education or training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Reduced form</td>
<td>2,246</td>
<td>3,186</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>(987)</td>
<td>(1,088)</td>
<td>(0.12)</td>
</tr>
<tr>
<td>First-stage</td>
<td>0.47</td>
<td>0.61</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Local average treatment effect (LATE)</td>
<td>4,796</td>
<td>5,261</td>
<td>0.47</td>
</tr>
<tr>
<td></td>
<td>(2,168)</td>
<td>(1,824)</td>
<td>(0.28)</td>
</tr>
<tr>
<td>B: Benchmarks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliers’ expectation in the absence of the treatment</td>
<td>21,238</td>
<td>20,526</td>
<td>-0.30</td>
</tr>
<tr>
<td></td>
<td>(1,607)</td>
<td>(1,280)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>Never-takers’ average</td>
<td>26,231</td>
<td></td>
<td>-0.28</td>
</tr>
<tr>
<td>Native’s average</td>
<td>27,433</td>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td>Additional covariates</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bandwidth (months)</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1,603</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes. This table is identical to Table 2 except that we now use the date of arrival of the parent who first arrives in Finland as the running variable, while our main analysis is based on the date of arrival of the father.
Table A2: Impact of parent’s integration plan on GPA and educational attainment with parents
defined at age 15

<table>
<thead>
<tr>
<th></th>
<th>Degree’s average earnings</th>
<th>Standardized GPA</th>
<th>Not in employment, education or training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>A: Estimates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced form</td>
<td>2,502</td>
<td>1,784</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>(1,032)</td>
<td>(1,030)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>First-stage</td>
<td>0.56</td>
<td>0.59</td>
<td>0.55</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
<td>(0.04)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Local average treatment effect (LATE)</td>
<td>4,497</td>
<td>3,044</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>(1,924)</td>
<td>(1,764)</td>
<td>(0.23)</td>
</tr>
<tr>
<td>B: Benchmarks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compliers’ expectation in the absence of the treatment</td>
<td>21,100</td>
<td>22,213</td>
<td>-0.48</td>
</tr>
<tr>
<td></td>
<td>(1,329)</td>
<td>(1,250)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>Never-takers’ average</td>
<td>26,231</td>
<td>-0.28</td>
<td></td>
</tr>
<tr>
<td>Native’s average</td>
<td>27,433</td>
<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Additional covariates</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Bandwidth (months)</td>
<td>34</td>
<td>31</td>
<td>No</td>
</tr>
<tr>
<td>Observations</td>
<td>1,376</td>
<td>1,306</td>
<td>2,387</td>
</tr>
</tbody>
</table>

Notes. This table is identical to Table 2 except that we now define parents as the adult living in the same dwelling and belonging to the same family as the child when the child is 15 years old.
Figure A5: Excluding observations around the cutoff

(a) Average earnings of the highest degree

(b) Grade point average at 9th grade

(c) Not in employment, education or training

Notes. This figure reports estimates from “donut hole” specifications, where we leave out observations close to the threshold. The horizontal axis shows the number of days excluded around the cutoff of May 1st, 1997. The blue circles show local linear reduced form estimates, the shaded area depicts the corresponding conventional 95% confidence intervals and the blue spikes the “honest confidence intervals” of Armstrong and Kolesár (2020). The red squares and spikes are the Calonico et al. (2014) bias-corrected estimates for alternative bandwidths and the corresponding 95% confidence intervals.
Table A3: Impact of parent’s integration plan by gender and parents’ origin country

<table>
<thead>
<tr>
<th></th>
<th>Degree</th>
<th>GPA</th>
<th>NEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: By gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local average treatment</td>
<td>2,608</td>
<td>1,985</td>
<td>0.39</td>
</tr>
<tr>
<td>effect (LATE)</td>
<td>(2,039)</td>
<td>(1,912)</td>
<td>(0.23)</td>
</tr>
<tr>
<td>× female</td>
<td>4,197</td>
<td>4,037</td>
<td>0.26</td>
</tr>
<tr>
<td></td>
<td>(1,517)</td>
<td>(1,487)</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Compliers’ expected outcomes in the absence of the treatment</td>
<td>22,949</td>
<td>23,397</td>
<td>-0.98</td>
</tr>
<tr>
<td></td>
<td>(1,334)</td>
<td>(1,289)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>× female</td>
<td>-4,293</td>
<td>-4,043</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>(995)</td>
<td>(997)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>B: By parent’s origin country HDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local average treatment</td>
<td>5,449</td>
<td>4,420</td>
<td>0.52</td>
</tr>
<tr>
<td>effect (LATE)</td>
<td>(1,803)</td>
<td>(1,725)</td>
<td>(0.21)</td>
</tr>
<tr>
<td>× HDI</td>
<td>-36</td>
<td>179</td>
<td>-0.05</td>
</tr>
<tr>
<td></td>
<td>(573)</td>
<td>(589)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Compliers’ expected outcomes in the absence of the treatment</td>
<td>20,330</td>
<td>21,252</td>
<td>-0.84</td>
</tr>
<tr>
<td></td>
<td>(1,202)</td>
<td>(1,181)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>× HDI</td>
<td>1,308</td>
<td>1,328</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>(379)</td>
<td>(392)</td>
<td>(0.05)</td>
</tr>
<tr>
<td>Additional covariates</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>