Panacea for International Labor Market Failures? Bilateral Labor Agreements and Labor Mobility

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Low-Skill Labor Mobility is Controversial

- Receiving Country
  - Labor market, social, and fiscal concerns
  - "There is nothing more permanent than temporary foreign workers"
- Sending Country
  - Concerns about abuse by employers abroad
  - Government promoting low-skill labor mobility at the costs of worker rights and conditions

Low-Skill Labor Mobility is Beneficial

- Receiving Country
  - Alleviates excess demand of labor as population age
  - Retain firms that would instead move their production processes abroad
    - Tax revenues
    - Winning elections
- Sending Country
  - Relieves excess supply of low-skill labor
    - Supports political and social stability
  - Generates remittances
    - Highly resilient in recessions
    - Exceeding Foreign aid, portfolio investment, and FDI in many developing countries

Triple-Win?

- Bilateral Labor Agreements (BLAs) recently touted as an example of formal international cooperation that can lead to "triple-win"
  - Memorandum of Understanding (MOUs) or Memorandum of Agreement (MOAs)
  - Flexible bilateral arrangements that specify cost assignments, the terms and conditions of employment, recruitment and grievance procedures and social security benefits
- Under BLA-governed migrant worker programs, receiving countries, sending countries, and migrants can all reap the economic benefits of higher cross-border labor mobility while mitigating the political costs
  - For receiving countries, ensured return of migrant workers
  - For sending countries, better protected working conditions for migrant workers sent
  - For migrant workers, the opportunity to accrue location wage premiums and accumulate human capital

Do BLAs Facilitate Cross-Border Labor Mobility?

- Large literature links international institutions and higher cross-border mobility of goods and capital
- Few studies offer systematic evidence linking international institutions and higher cross-border mobility of people
- Mixed evidence among recent empirical work
  - Positive, negative, null

Main Problems

- Country-level data confounds country effects with migrant worker effects
  - Different workers work in different destination countries
    - Filipino nurses in UK vs. construction workers in UAE
  - Heterogeneous BLA effects on labor mobility conditional on individual-level characteristics
    - Skill level

Goals of the Paper

- Contrasts theoretically the effect of international agreements on people flows against goods or capital flows
  - Bilateral agreements actually introduce additional costs on the mover in labor migration (migrants) in contrast to lowering barriers and costs for the mover in trade (goods) and investment (capital)
- Proposes a theory that reconciles extant mixed findings
  - Skill level mediates the effect of BLAs
  - BLAs reduce mobility for low-skilled workers but increase mobility for high-skilled workers
- Test empirically the theoretical implications with new dyadic skill-level Overseas Filipino Worker (OFW) data
  - More fine-grained and relevant population for BLAs

Theories of International Institutions

- Literature finds positive effects of international organizations and agreements on cross-border goods and capital flows
- Help reduce state-level market failures due to problems with 3"C"s:
  - Communication: transparency and signaling device that reduces language miscommunications and asymmetric information
  - Commitment: commitment device that induces audience and reputation costs for reneging
  - Coordination: coordination device that reduces vacancy and screening costs by delegating
- Therefore, if BLAs parallel PTAs or BITs in their effects, BLAs should promote labor mobility

Theories of Migration Costs

- Instead of simply reducing costs related to market failures, BLAs are unique in which they shift costs to sending state governments, receiving country firms and employers, ultimately passed on to migrant workers
- E.g. transportation, insurance, health, legal, administrative fees or costs

Implications for Labor Mobility

$$\text{BLA} \xrightarrow{\text{Skill Level}} \text{Labor Mobility}$$

- Low-skill migrant workers are more vulnerable to BLA-induced costs
  - High debt, little market and bargaining power
- BLAs can further reduce receiving country firm demand for foreign low-skill labor
  - Minimum wage requirements
- High-skill labor are less vulnerable to BLA-induced costs
  - Fees waived, more savings, access to financing, regulated under GATS mode 4
- High-skill labor benefit from BLA-induced positive externalities
  - Public goods such as human rights, working conditions, and minimum wage

Hypotheses

Hypothesis 1

Holding all else equal, the existence of BLAs mitigate international labor market failures and increases the mobility of BLA-regulated labor migrants, mainly the low-skilled.

Hypothesis 2a

Holding all else equal, BLAs increase migration costs for low-skill labor migrants and decreases their mobility.

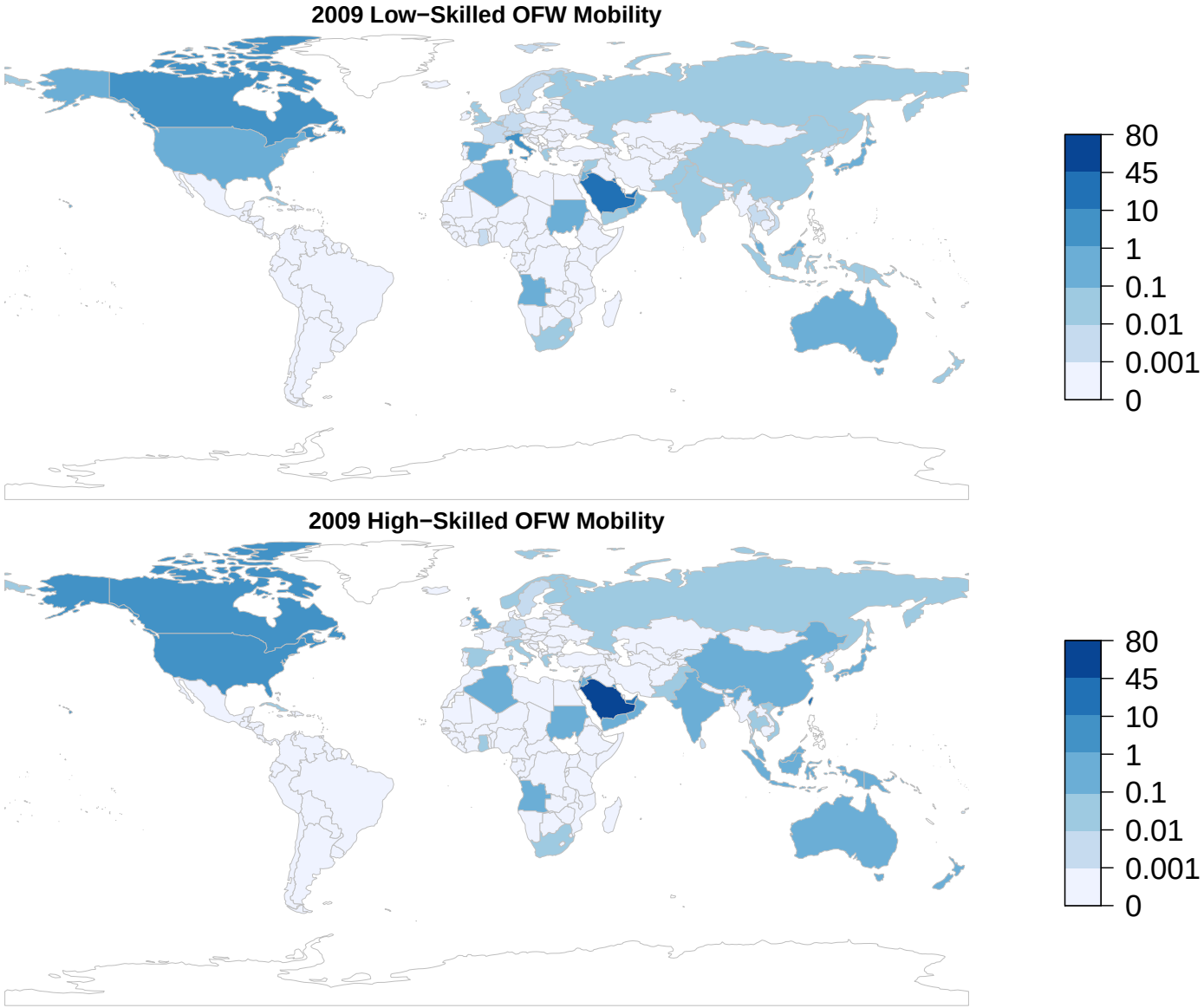
Hypothesis 2b

Holding all else equal, high-skill labor migrants are less vulnerable to BLA-induced migration costs and may even benefit from positive BLA externalities, which increases their mobility.

Data and Operationalization

- Unit of analysis: skill-destination country-year
- Universe of analysis: Overseas Filipino Workers (OFW) to 173 destination countries from 1992-2009
- Outcome of interest: OFW Mobility
  - OFW new hires for a given skill level, destination, and year as % of total OFW new hires in the same skill level and year
  - Mckenzie, Theoharides and Yang (MTY 2014)
- Key Covariates: BLA, Skill Level, BLA*Skill
  - Dichotomous variables
  - Philippine Overseas Employment Administration (POEA) and MTY (2014)
- Control Covariates:
  - Various individual-level, destination country-level, dyad-level time-varying characteristics

OFW Mobility in 2009



Philippine Bilateral Labor Agreements

Country	*Year of First BLA*
Bahrain	2007
Canada	2006
Indonesia	2003
Iraq	1982
Japan	2009
Jordan	1981
South Korea	2004
Kuwait	1997
Lao People's Democratic Republic	2005
Libya	1979
New Zealand	2008
Norway	2001
Papua New Guinea	1979
Qatar	1997
Spain	2006
Switzerland	2002
Taiwan	1999
United Arab Emirates	2007
United Kingdom	2002
United States	1968

Model and Methods

Bayesian generalized linear mixed model with varying intercepts for destination countries and years.

$$Mobility_{ijt} \overset{indep.}{\sim} \mathcal{N}(\delta_j + \lambda_t + \beta_i BLA_{jt} + \zeta skill_i + \gamma \boldsymbol{X}_{jt}, \sigma_y^2)$$

$$\delta_j \overset{i.i.d.}{\sim} \mathcal{N}(\delta, \sigma_\delta^2),\ \lambda_t \overset{i.i.d.}{\sim} \mathcal{N}(\lambda, \sigma_\lambda^2),\ \beta_i \overset{i.i.d.}{\sim} \mathcal{N}(\alpha_0 + \alpha_1 skill_i, \sigma_\beta^2),$$

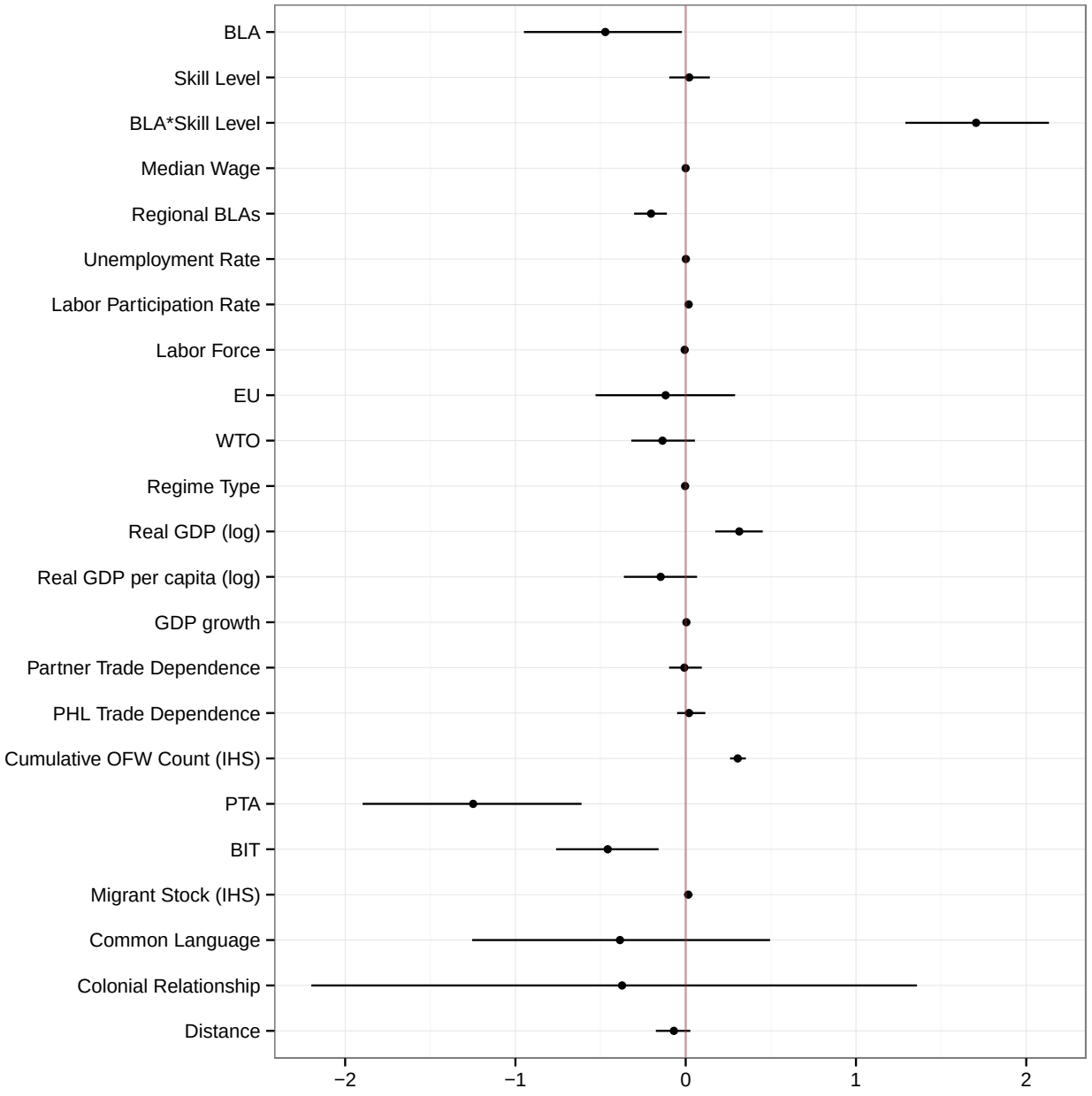
$$\zeta = (\zeta_1)^\top,\ \gamma = (\gamma_1\ \gamma_2\ \dots\ \gamma_{19})^\top,$$

$$\boldsymbol{X}_{jt} = \Big(region.BLA_{jt}\ unemploy_{jt}\ labor.par_{jt}\ labor.tot_{jt}\ EU_{jt}\ WTO_{jt}$$

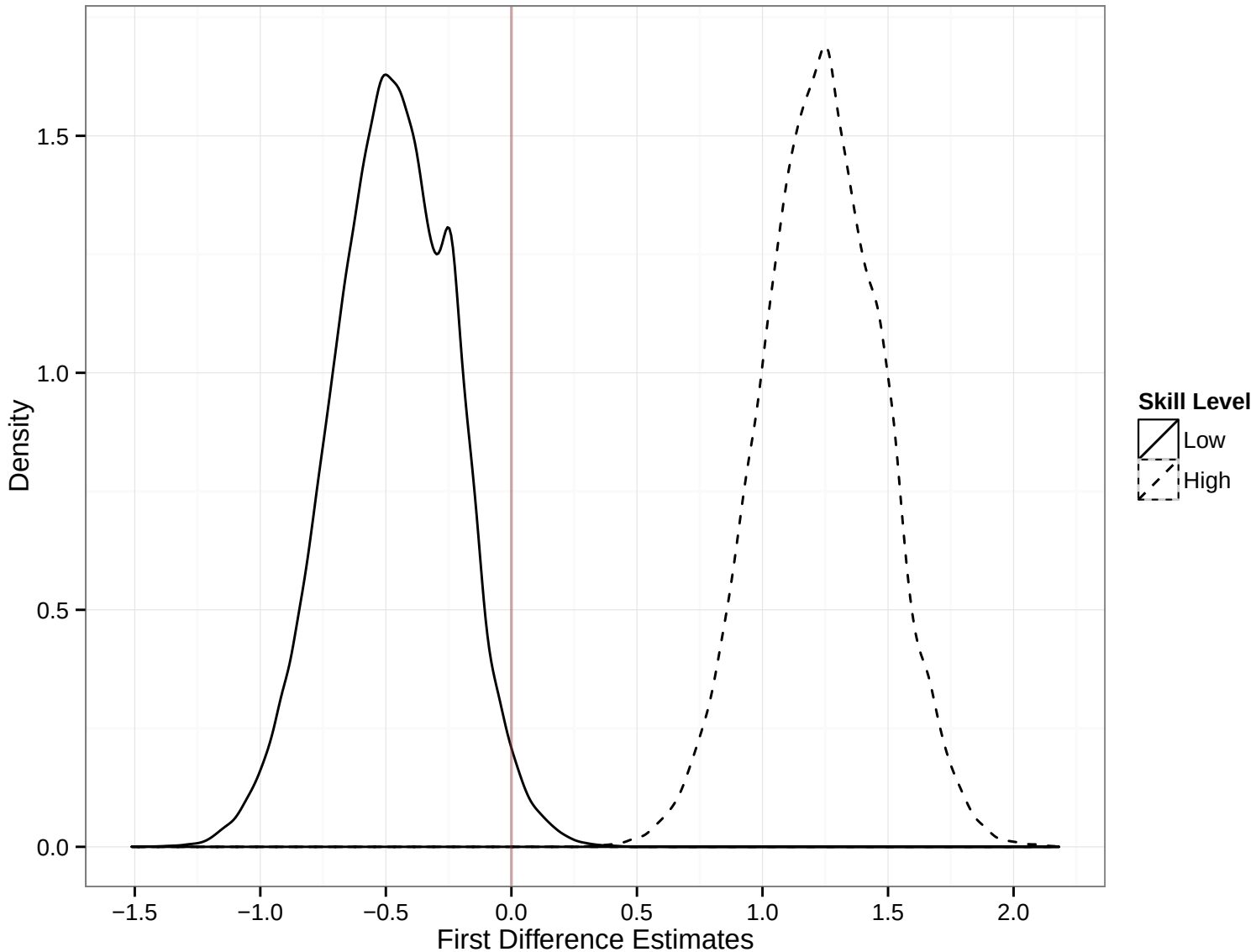
$$regime_{jt}\ gdp_{jt}\ gdp.pc_{jt}\ gdp.growth_{jt}\ p.trade_{jt}\ phl.trade_{jt}\ cumulate.OFW_{jt}$$

$$PTA_{jt}\ BIT_{jt}\ mig.stock_{jt}\ language_j\ colony_j\ distance_j\Big)$$

Coefficient Posterior Means and 95% Central Credible Intervals



BLA Effect Heterogeneity across Skill Level



Concluding Remarks

- The premise that international institutions promote cross-border economic integration by mitigating problems with market failures is central to the political economy literature
- My findings using OFW data suggest a more complicated picture:
  - The effect of BLAs are mediated by the skill level of migrant workers
  - Unique nature of BLAs: help solve state-level market failure problems by shifting costs to migrant workers instead
  - Reconciles some of the emerging negligible or mixed BLA effect findings

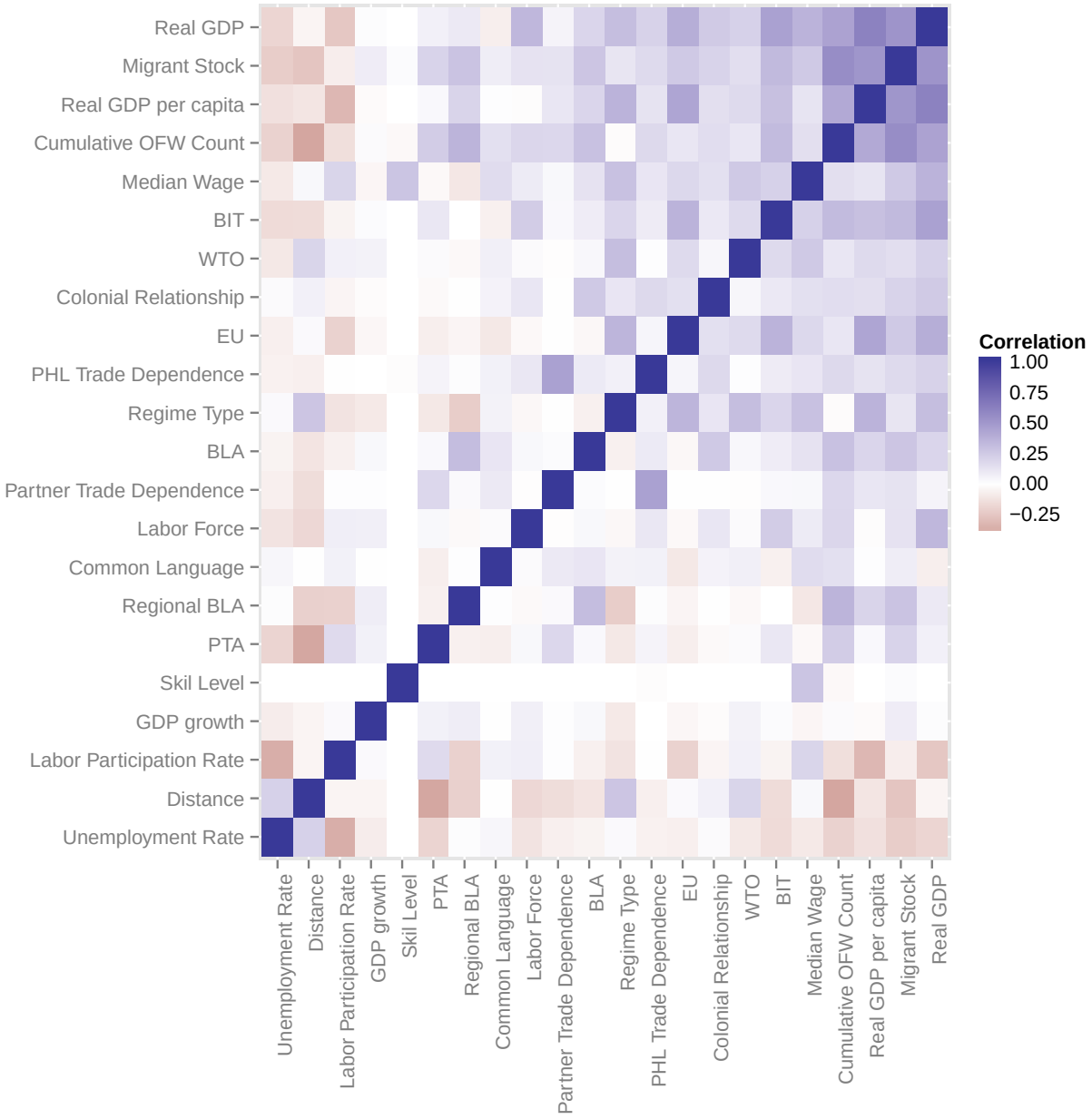
Broader Implications

- The study of formal international cooperation in migration introduces an additional layer of actor preferences absent in the literature.
  - Migrants have preferences while goods and capital don't. Complicates interaction between state and firms.
- The importance of examining whether migration policy and agreement effects match their intentions
  - Political economy explanations about migration policy outcomes rely on fundamental assumptions about how policy effects shape actor preferences
  - Yet, little empirical work has been done to verify whether such assumptions hold outside of experimental settings
- The heterogeneous treatment effect of BLAs shows the benefits of incorporating as fine-grained data available
  - Especially important in political economy research on migration where individual characteristics can often confound state or dyad-level characteristics studies are interested in

Variables, Operationalization, Sources

Variable	*Operationalization*	*Source*
OFW Mobility	Count of OFW new hires for a given skill level, destination, and year as percentage of total OFW new hires in the same skill level and year.	Constructed based on MTY (2013)
BLA	Destination country and PHL have a signed BLA (MOU or MOA) in a given year. 1 = yes, 0 = no.	POEA
Skill Level	Skill level of OFW? 1 = high (MTY 2013's level 3 and 4), 0 = low (MTY 2013's level 1 and 2). Average years of schooling for low and high-skill are 12.2 and 14.45, respectively.	Constructed based on MTY (2013)
Median Wage	Median wage of OFW for a given skill level, destination, and year.	Constructed based on MTY (2013)
Regional BLA	Number of Philippine-involving BLAs existing in same region of the destination country at t - 5 years.	Constructed based on POEA and UN data
Unemployment Rate	Destination country total unemployment as percentage of total labor force.	WDI augmented with TWN National Statistics Data
Labor Participation Rate	Destination country percentage of total population ages 15+ and economically active.	WDI augmented with TWN National Statistics Data
Labor Force	Destination country people ages 15+ and economically active, total in millions.	WDI augmented with TWN National Statistics Data
EU	Destination country EU membership. 1 = yes, 0 = no.	EU official website
WTO	Destination country WTO/GATS membership. 1 = yes, 0 = no.	WTO official website
Regime Type	Destination country Polity Score 2.	POLITY IV
Real GDP	Destination country log GDP (constant 2000 USD).	MTY (2013); WDI
Real GDP per capita	Destination country expenditure side real GDP at constant 2005 PPPs (in million 2005 USD)/total population in millions	Constructed based on PWT 8.0
GDP growth	Destination country GDP growth (annual %).	WDI
Partner Trade Dependence	Bilateral trade of goods (exports + imports)/ destination country expenditure side real GDP.	Constructed based on UN Comtrade and PWT 8.0
PHL Trade Dependence	Bilateral trade of goods (exports + imports)/ Philippines expenditure side real GDP.	Constructed based on UN Comtrade and PWT 8.0
Cumulative OFW Count	Destination country cumulative count of OFW in the same skill level since 1992 (IHS).	Constructed based on POEA data
PTA	Destination country PTA in force with PHL. 1 = yes, 0 = no.	Department of Trade and Industry (DTI), PHL.
BIT	Destination country BIT in force with PHL. 1 = yes, 0 = no.	UNCTAD
Migrant Stock	Stock of PHL-born population in the destination country (IHS).	WB Global Migration Database; POEA; TWN National Statistics
Common Language	A language is spoken by at least 9% of the population in both PHL and destination country? 1 = yes, 0 = no.	CEPII
Colonial Relationship	Dyad ever in colonial relationship? 1 = yes, 0 = no.	CEPII
Distance	Thousand kilometers between most populated cities of dyad (log).	CEPII

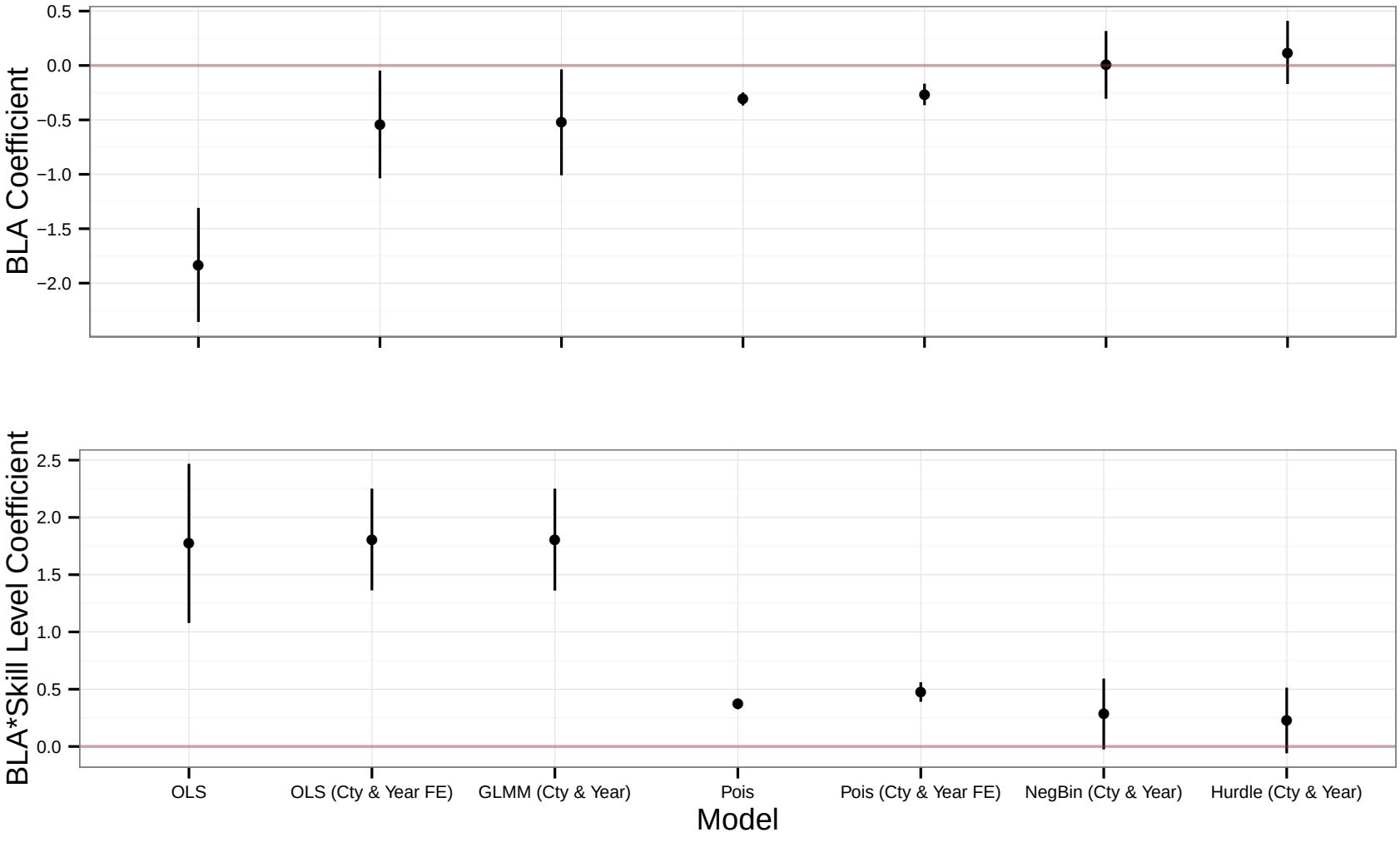
Covariate Correlation Matrix



Descriptive Statistics

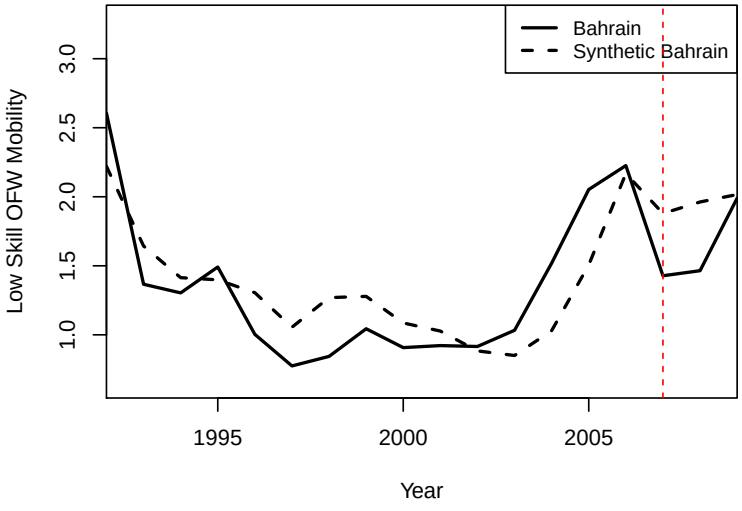
Variable	$\bar{x}$	Min	Max	n	#NA
OFW Mobility	0.58	0.00	79.26	6228	0
BLA	0.06	0.00	1.00	6228	0
Skill Level	0.50	0.00	1.00	6228	0
Median Wage	763.81	200.00	2632.79	1327	4901
Regional BLA	0.57	0.00	6.00	6228	0
Unemployment Rate	8.85	0.30	59.50	3332	2896
Labor Participation Rate	63.52	39.80	90.00	6120	108
Labor Force (millions)	16.11	0.06	802.22	6114	114
EU	0.10	0.00	1.00	6228	0
WTO	0.59	0.00	1.00	6228	0
Regime Type	2.84	-10.00	10.00	5694	534
Real GDP (ten millions)	18923.29	9.22	1170000.00	5992	236
Real GDP per capita (thousands)	10.55	0.15	116.42	5616	612
GDP growth	3.80	-50.25	106.28	5968	260
Partner Trade Dependence	0.14	0.00	4.23	3082	3146
PHL Trade Dependence	0.23	0.00	7.32	3400	2828
Cumulative OFW Count (thousands)	5.67	0.00	793.34	6228	0
PTA	0.05	0.00	1.00	6228	0
BIT	0.11	0.00	1.00	6228	0
Migrant Stock (thousands)	18.49	0.00	2836.49	3796	2432
Common Language	0.27	0.00	1.00	6228	0
Colonial Relationship	0.01	0.00	1.00	6228	0
Distance (thousands)	9.94	1.11	19.03	6228	0

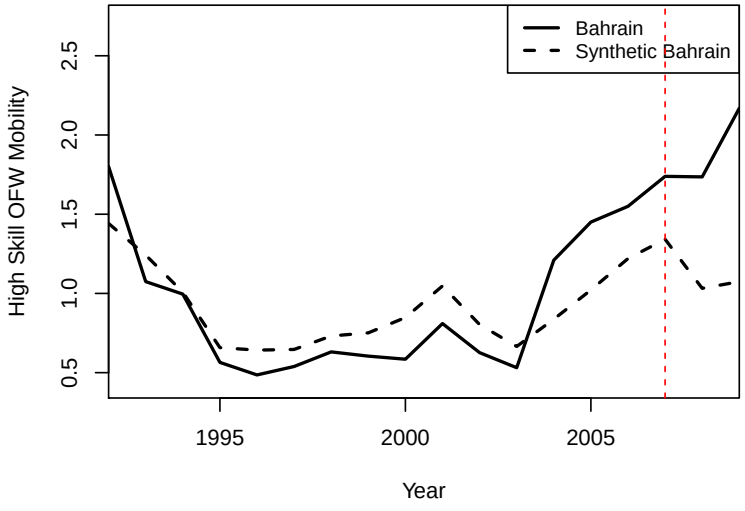
Robustness Checks

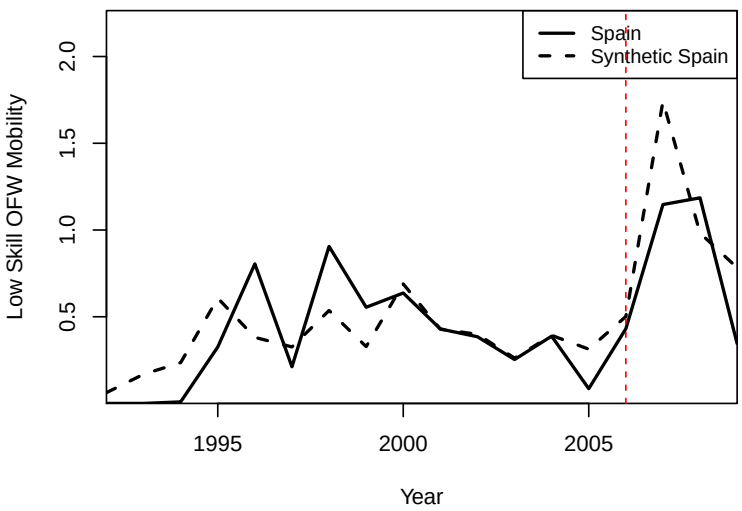


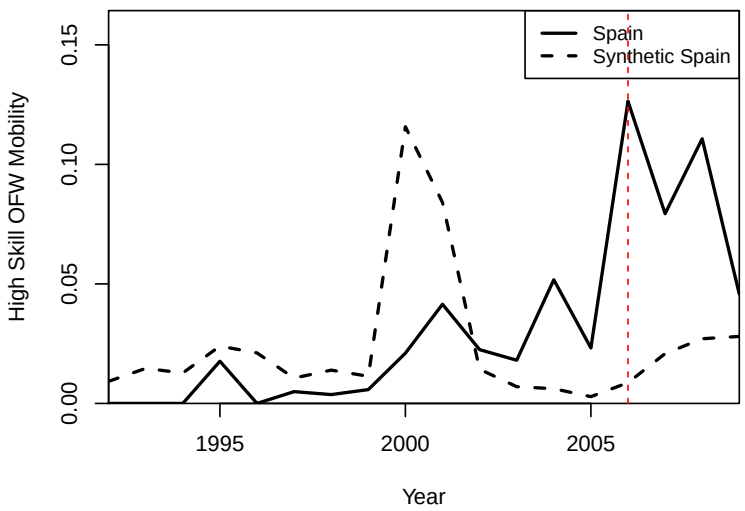
BLA Effect Heterogeneity across the Treated

The Synthetic Control Method: Supportive Cases



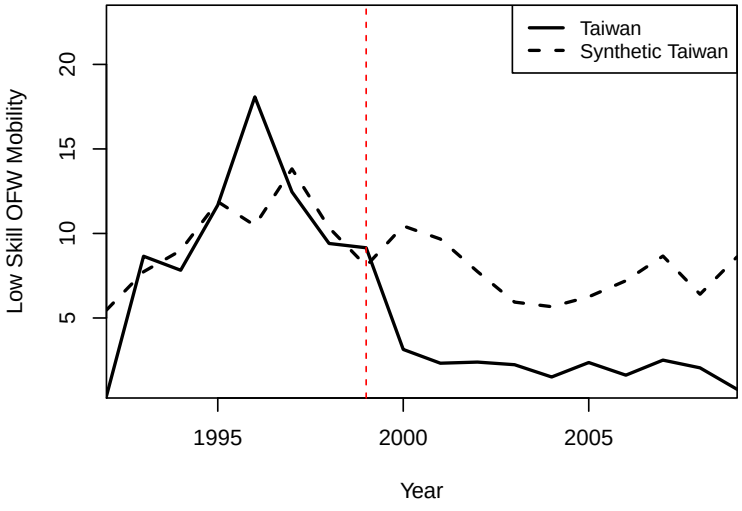


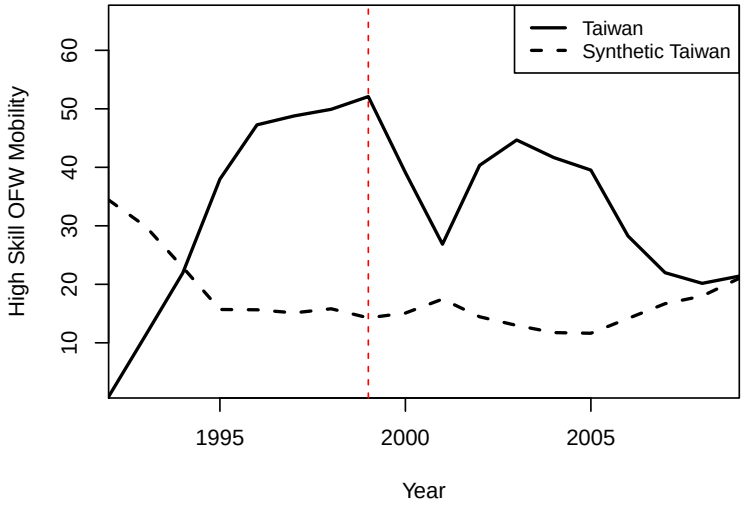


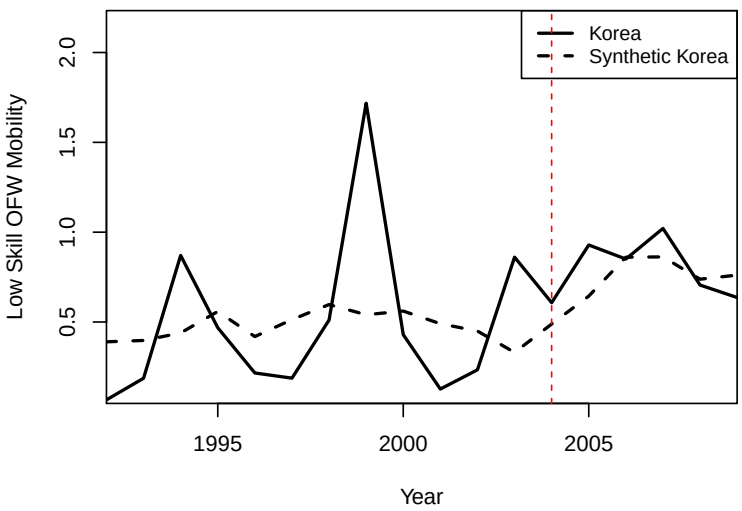


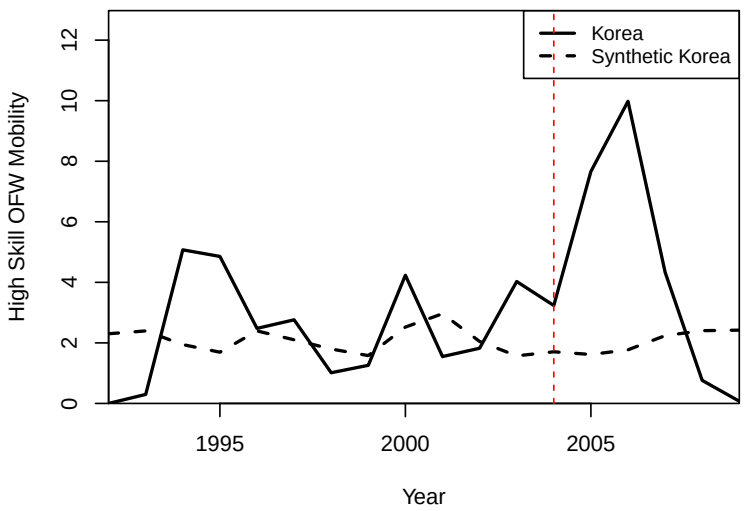
BLA Effect Heterogeneity across the Treated

The Synthetic Control Method: Ambiguous Cases









BLA Effect Heterogeneity across the Treated

The Synthetic Control Method: Contradicting Cases