

**The Skill Composition of Migration
and the Generosity of the Welfare
State:
Free vs. Policy-Controlled Migration**

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Motivation

- **By the year 2000, immigration amounted to approximately 175 million people (about 3% of the world population).**
- **In the period between 1990 and 2000 (which we focus on) the number of migrants in the world increased by 14% (21 millions).**
- **International immigration is motivated by labor, family reasons, asylum, ideology and other reasons.**
- **This work addresses labor immigration.**

Motivation

- **Labor immigration is driven mostly by wage opportunities of the immigrants.**
- **In competitive markets, wages reflect productivity.**
- **Thus, immigration induces efficient labor allocation, and is desirable by the host country as the immigrants' production exceeds their compensation.**
- **This may not be true, however, if taxes and benefits are taken into account.**
- **In this case, the question whether immigration is beneficial to the host country depends upon whether immigrants “pay their way” in the welfare system.**

Motivation

- **This question heavily relies upon the relative skill composition of immigrants.**
- **If the skill composition of the immigrants is lower than that of their natives peers, the migration flow may indicate a fiscal burden upon the host country.**
- **The reason is simple:**
 - **Normally, low (high) skilled immigrants have low (high) wages, and pay low (high) taxes**
 - **On the other hand, they are more (less) in need for social services and benefits**
 - **Thus they impose fiscal burden (relief) upon their host countries**

Motivation

- **On the other hand, an inflow of young working age immigrants may slow down population aging and help paying for social security.**
 - **"Over the next 10 years Germany faces a demographic disaster and immigration could be part of the solution. As the birth rate dwindles and life expectancy goes on rising, the country's population is both declining and ageing. Unless this double-whammy is confronted head-on, the economy will collapse under the weight of an expensive welfare state that lacks the productive workforce to finance it." (Financial Times, June 27, 2008).**

Motivation

- **Both arguments serve as an incentive for governments to encourage immigration on the base of *quality-selection*.**
- **Australia, New Zealand and Canada have already made such efforts (privileging high-skilled workers).**
- **The U.S. has also adopted rules, since 1990, which favors immigrants with academic degrees or special professional skills.**
- **A growing number of EU countries (including France, Ireland and the UK) have introduced programs aiming at attracting a qualified labor force (especially in the field of information, communication and technology) (Docquier and Marfouk, 2006).**

Motivation

- **However, within the EU countries, such policy is not applicable, given the free mobility clauses embedded in their binding treaties.**
- **This difference in policy regimes, across EU and non EU states, provides an opportunity to examine the differential implications of welfare-state policy on immigrants across both regimes.**

Research Question

- **What is the effect of welfare state generosity in host countries, over the skill composition of their immigrants?**
- **We decompose our analysis into two extreme cases of migration regimes:**
 - **Free migration**
 - **Policy-Restricted Migration**

Hypothesis

- **First, we argue that the effect of welfare-state policy on immigrants, is not coherent across skill levels.**
- **High benefits of the welfare state may increase the volume of immigrants (“welfare migration”).**
- **A refinement of that observation, however, suggests that while some indeed are attracted, others are deterred by the welfare-state policy of host countries.**
- **Specifically, low-skilled immigrants are attracted to countries with high welfare benefit, while high skilled are deterred thereby (other things being equal).**
- **Hence, the skill composition of immigrants is adversely affected by the welfare generosity of host countries.**

Hypothesis

- **Secondly, we maintain that the above argument is not necessarily true for all types of source-host countries pairs.**
- **For countries between which immigration is free, indeed, the considerations of potential immigrants may lead to lower skill composition as a response to a more generous welfare-state policy.**
- **If, however, immigration is controlled and screened by policy of the host country, the opposite may occur, given the considerations of voters in the host country.**

Related Literature

- **Welfare migration empirical literature is inconclusive.**
- **Normally, evidence suggests that welfare serves as a magnet for immigrants:**
 - **Southwick (1981); Gramlich and Laren (1984); Blank (1988); Borjas (1999); Gelbach (2000); McKinnish (2005, 2007)**
- **On the other hand, some find that welfare benefits has no significant effect over migration:**
 - **Walker (1994); Levine and Zimmerman (1999)**
- **These studies however, do not address international immigration, only migration within the U.S.**

Related Literature

- **Peridy (2006) and Warin and Svaton (2008) find that aggregate welfare-state benefits have a positive effect on migration.**
- **They do not, however, separate between high-skilled and low-skilled immigrants.**
- **De Giorgi and Pellizzari (2006) find that this positive effect is coherent across different levels of education among the immigrants.**
- **Docquier, Lohest and Marfouk (2006) find that while all education groups are indeed attracted to welfare-benefits, the unskilled are motivated by social expenditure much more than the skilled.**
- **These studies, however, do not differentiate between free and policy-controlled migration.**

Theory: Policy-Controlled Migration Stylized Model

- **Production:** $Y = AL_s^\alpha L_u^{1-\alpha}, 0 < \alpha < 1$

- **Labor:** $L_s = (s + \sigma\mu)l_s$

$$L_u = (1 - s + (1 - \sigma)\mu)l_u$$

- **Government Budget:** $Nb = \tau Y$

- **Individuals:** $u_i = c_i - \frac{\varepsilon}{1 + \varepsilon} l_i^{\frac{1+\varepsilon}{\varepsilon}}$
 $c_i = b + (1 - \tau) l_i w_i$

Theory: Policy-Controlled Migration Stylized Model

- **Indirect Utility function:**

$$V_i(\sigma; \mu, \tau) = \\ = b(\sigma; \mu, \tau) + (1 - \tau) l_i(\sigma; \mu, \tau) w_i(\sigma; \mu, \tau) - \frac{\varepsilon}{1 + \varepsilon} l_i(\sigma; \mu, \tau)^{\frac{1 + \varepsilon}{\varepsilon}}$$

- **Median Voter:** $\frac{dV_i(\sigma)}{d\sigma} = \frac{db}{d\sigma} + (1 - \tau) l_i(\sigma) \frac{dw_i(\sigma)}{d\sigma}$

Theory: Policy-Controlled Migration

Stylized Model

- **The share of skilled immigrants, σ , has two effects on the indirect utility.**
- **First, an increase in σ increases labor productivity and thereby the level of benefits, b .**
- **Second, an increase in σ depresses skilled labor wages and raises unskilled labor wages.**
- **If the median voter is unskilled, both effects are positive. Thus, the unskilled median voter is unambiguously for skilled immigration.**
- **If the domestic median voter is skilled, however, the two effects are conflicting.**
- **Therefore: $\sigma^s < \sigma^u = 1$.**

Theory: Policy-Controlled Migration Stylized Model

- **Comparative statics:** $\frac{d\sigma^u}{d\tau} = 0; \frac{d\sigma^s}{d\tau} > 0$
- **If the median voter is an unskilled individual, then an exogenous increase in the tax rate, τ , does not change the σ^u (since it is a corner solution).**
- **If, however, the median voter is a skilled individual, an exogenous increase in the tax rate, τ , will change the migration policy, σ^s , in the direction of larger share of skilled immigrants.**
- **The reason: when the tax rates increases, the redistribution burden upon a skilled median voter is higher; therefore, additional skilled immigrants alleviate such burden.**

Theory: Free Migration Stylized Model

- **We make two simplifying assumptions:**
- **First, the immigrants flows is too small to affect labor supply, productivity and wages in the host countries.**
- **Second, individuals in the source country, in each skill level, are a continuum (with respect to any other quality other than labor skills, for instance, migration costs).**

Theory: Free Migration Stylized Model

- Define skilled and unskilled migration:

$$m_s = \sigma \mu$$

$$m_u = (1 - \sigma) \mu$$

- Rewrite the indirect utility function:

$$V_i(\sigma, \mu; \tau) = b + \frac{1}{1 + \varepsilon} (w_i (1 - \tau))^{1 + \varepsilon} = \bar{u}^i(m_i), i = \{s, u\}$$

- The above set of equations implicitly determines the equilibrium quantities of immigrants, m_s and m_u .
- Total derivative of both equations with respect to the tax rate, τ , yields: $\frac{d\sigma}{d\tau} < 0$

Theory: Free Migration Stylized Model

- **Exogenous increase of the tax rate, τ , deters skilled immigrants and attracts unskilled immigrants.**
- **The reason is simple:**
- **If migration has no effect on the markets in the host countries, then only the direct effect of the tax rate exists: more benefits on the one hand, and less disposable income on the other hand.**
- **Consequently, those who are net contributors to the welfare state (skilled workers) suffer and those who are net earners of the welfare state (the unskilled workers) benefit.**
- **This outcome reflects the selection choice of the potential migrants, among several host alternatives.**

Theory: Testable Implication

- **The main results of the theory:**

$$\frac{d\sigma^R}{d\tau} \geq 0; \frac{d\sigma^F}{d\tau} < 0$$

- **Namely, if migration is free, the generosity of the welfare state has an adverse effect on the skill composition of immigrants.**
- **If, however, the skill mixture of migration is controlled by policy, then the generosity of the welfare state has a positive effect on it.**

Theory: Testable Implication

- **Both results hinge on the redistributive nature of the welfare state:**
- **Under free migration, equilibrium reflects (among other) the interests of the immigrants.**
- **Thus, a generous welfare state inflicts a fiscal burden on skilled immigrants. This serves as a deterrent.**
- **In the policy-controlled migration regime, however, political-economy considerations of the native born in the host country are prominently at play.**
- **Therefore, the fiscal burden of a generous welfare state falling on skilled native born, induces this group to endorse higher rates of skilled immigration**
- **(The unskilled native born is in favor of maximum level anyhow).**

Theory: Testable Implication

- In reality, it could be that both effects exist.
- Nevertheless, we expect the political economy consideration to be more dominant in restricted migration regimes than in free migration regimes.
- Similarly, we expect the considerations of the immigrants regarding alternative host countries to be more dominant in free migration regimes than in restricted ones.
- Hence, our hypothesis relates to the differential effect of the welfare state on the skill composition of immigrants across both regimes: $\frac{d\sigma^R}{d\tau} > \frac{d\sigma^F}{d\tau}$

Empirical Evidence: Assumptions

- **We confront the prediction of the model with a cross section data of source-host developed country pairs.**
- **We decompose the data into two groups:**
- **The first group (group A) contains only source-host pairs of countries which enable *free mobility* of labor among themselves, pursuant to a long line of treaties since 1951.**
- **They also prohibit any kind of discrimination between native born and immigrants, regarding labor market accessibility and welfare-state benefits eligibility.**

Empirical Evidence: Assumptions

- **These are 16 European countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden, U.K., Norway and Switzerland.**
- **The second group (group B) includes only source-host pairs of countries, within which the source country residents cannot freely move, work and get benefits in either of the host country.**
- **The host countries are the same 16 countries.**
- **The source countries are 10 developed countries: U.S., Canada, Japan, Australia, New Zealand, Israel, Taiwan, Hong Kong, Korea and Singapore.**

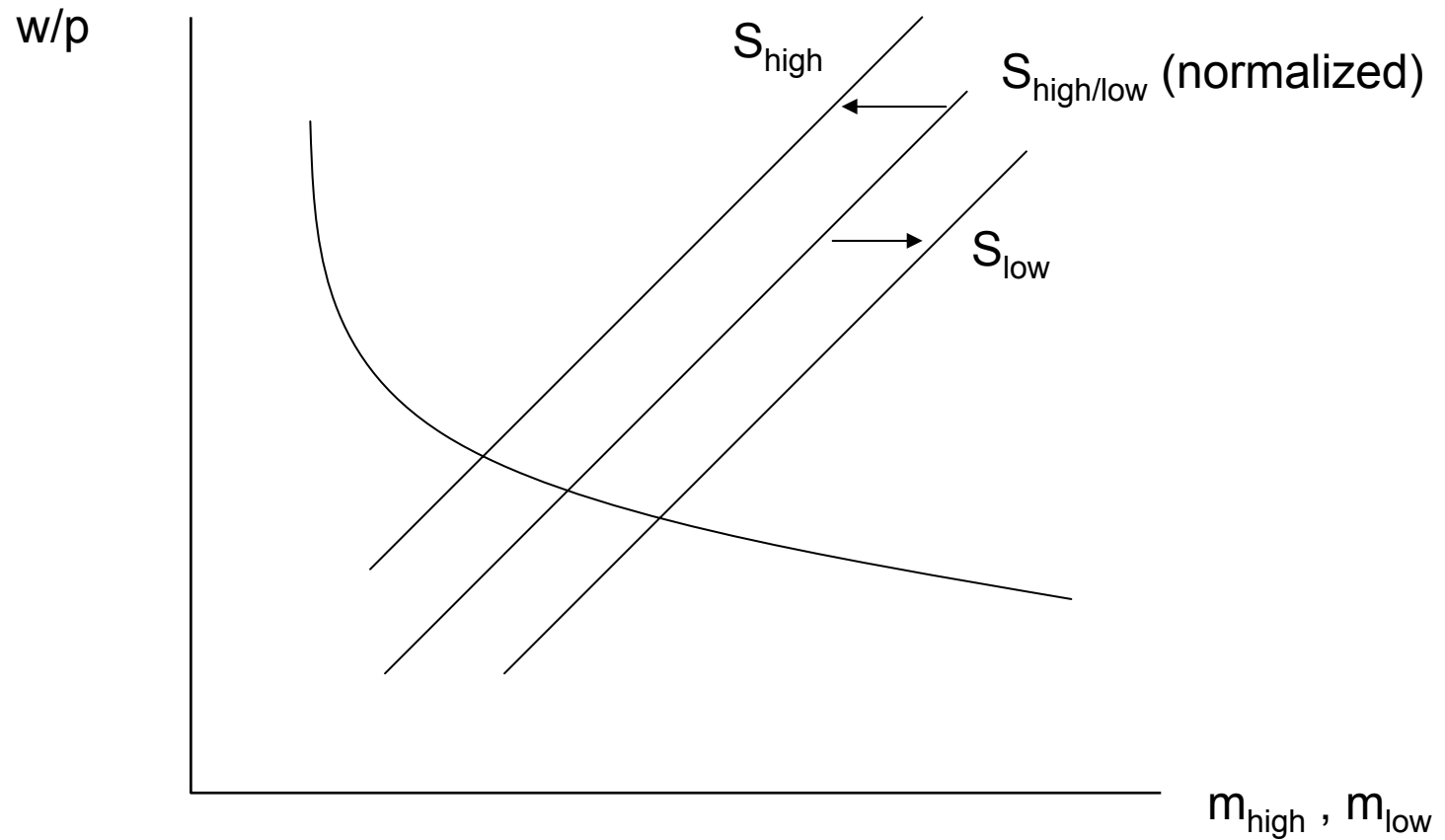
Empirical Evidence: Assumptions

- **This decomposition is vital to the identification strategy.**
- **It embodies our threefold identification assumptions:**
 - **Immigration within group A is free**
 - **Immigration within group B is controlled and screened by policies of the host countries**
 - **The decomposition into groups A and B is exogenous to the skill composition of immigrants**
- **We now turn to explain the necessity of these assumptions to properly identify our parameters of interest.**

Empirical Evidence: Assumptions

- If immigration is indeed free within Group A, then a competitive equilibrium is achieved.
- In which case, a change in welfare-state benefits within the host countries, other things being equal, generate a change in the supply side of immigrants.
- Plausibly, the demand for labor immigrants is independent of the welfare-state benefits.
- Hence, within group A, welfare-policy changes identifies the considerations of the potential immigrants.
- These consideration implicates that: $\frac{d\sigma^F}{d\tau} < 0$

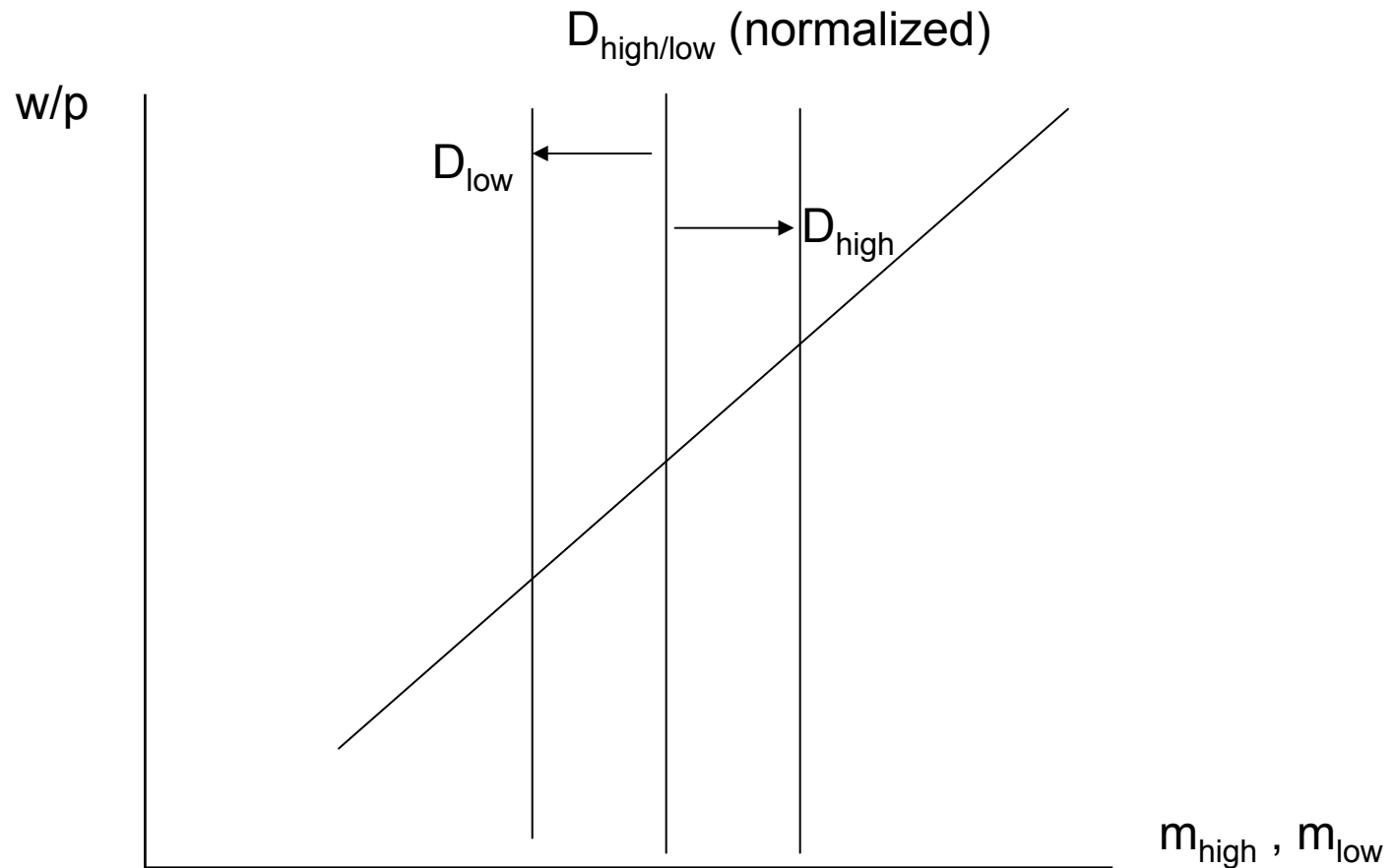
Empirical Evidence: Assumptions



Empirical Evidence: Assumptions

- If immigration is indeed restricted within group B, then the “demand” for immigrants is perfectly inelastic.
- (It is not demand per se, but regulated quota)
- Therefore, only shifts of the “demand” side, that is, the migration policy, can change the equilibrium rates of immigration.
- Hence, within group B, welfare-policy changes identifies the considerations of the policy-makers within the host countries.
- These consideration implicates that: $\frac{d\sigma^R}{d\tau} \geq 0$

Empirical Evidence: Assumptions



Empirical Evidence: Assumptions

- **We further assume, plausibly, that the categorizing of both groups is exogenous to the skill composition of immigrants.**
- **This assumption relies on the fact that this categorizing, in fact, reflects the history of the EU establishment, since the post-WWII treaties.**
- **It is safe to assume that this long line of agreements were not signed with regard to the skill composition of their future immigrants.**
- **Hence, the difference between the estimated parameter within group A and group B can also be identified.**

Empirical Evidence: Data

- **Immigration Data (Docquier and Marfouk (2006)):**
- **The data contains bilateral stock of immigrants, based on census and register data, for the years 1990 and 2000.**
- **Immigrants are at working age (25+), defined as foreign born, subdivided into three classes of education level: low-skilled (0-8 schooling years), medium-skilled (9-12 schooling years) and high-skilled (13+ schooling years).**
- **Stock variables are more reliable than flow data, as flow data disregards return migration movements, which may distort the estimated effects.**
- **Moreover, endogenous dynamic of equilibrium rates, are better captured by stocks than flows.**

Empirical Evidence: Data

- **Data for welfare-state benefits per capita is based on OECD's Analytical Database.**
- **We use lagged average rates between 1974-1990.**
- **Social benefits encompass all kinds of social public expenditures, in cash or in kind, including, for instance, old age transfers, incapacity related benefits, health care, unemployment compensations and so on.**
- **The data is PPP-converted to 1990 U.S. dollars.**

Empirical Evidence: Econometric Model

- Assume that emigration stock rates, in 2000, are explained by the following equation:

$$m_{s,h}^e = \beta_0^e + \beta_1^e R_{s,h} + \beta_2^e B_h + \beta_3^e R_{s,h} \cdot B_h + X_{s,h} \alpha^e + u_{s,h}^e;$$

$$e \in \{h, l\}; u_{s,h}^e = \theta_{s,h} + \epsilon_{s,h}^e$$

$$R_{s,h} = \begin{cases} 1, & \{s, h\} \subsetneq EU \\ 0, & \text{otherwise} \end{cases}$$

- We subtract the low-skilled equation from the high-skilled equation:

$$\Delta m_{s,h} = \Delta \beta_0 + \Delta \beta \cdot R_{s,h} + \Delta \beta \cdot B_h + \Delta \beta \cdot R_{s,h} \cdot B_h + X_{s,h} \Delta \alpha_1 + X_{s,h} R_{s,h} \Delta \alpha_2 + \Delta \epsilon_{s,h}$$

Empirical Evidence: Econometric Model

- The dependent variable, Δm , is a measure for the skill composition of immigrants, with higher values indicating better skill composition of immigrants.
- Hence, a positive estimation of a certain coefficient indicates a positive effect on the skill composition measure of the immigrants, and vice versa.
- Note that the skill-differences model eliminates part of the error term, $\theta_{s,h}$.
- Any variable whose impact over immigration is skill invariant, is canceled out.
- This neutralizes the effect of any omitted variables which are source-host dependent (fixed effect).

Empirical Evidence: Econometric Model

- **Additionally, including past migration stocks (in 1990) accounts for all time invariant effects.**
- **Hence any time independent omitted variables are also neutralized.**
- **To further treat possible endogeneity, we use lagged values of the welfare-state benefits and robustness test using instrumental variables.**
- **The IV we use is the legal origin of the host countries:**
 - **It reflects some cultural trait that is associated with welfare ideology on one hand**
 - **It is unlikely to be otherwise correlated with immigration, on the other hand**

Dependent Variable: High-Low Difference in Migration Stock Shares at 2000				
	OLS	OLS	IV	IV
benefits per capita (host country)	-0.139 (0.049)***	-0.111 (0.054)**	-0.199 (0.079)**	-0.205 (0.086)**
benefits per capita (host country) X R	0.135 (0.054)**	0.133 (0.061)**	0.195 (0.079)**	0.226 (0.088)**
migration stock share in 1990 - low skilled	-0.755 (0.097)***	-0.757 (0.095)***	-0.750 (0.098)***	-0.750 (0.097)***
migration stock share in 1990 - low skilled X R	1.673 (0.185)***	1.694 (0.180)***	1.669 (0.185)***	1.687 (0.181)***
migration stock share in 1990 - high skilled	1.076 (0.131)***	1.082 (0.127)***	1.071 (0.132)***	1.071 (0.130)***
migration stock share in 1990 - high skilled X R	-0.729 (0.134)***	-0.734 (0.130)***	-0.723 (0.135)***	-0.723 (0.133)***
high-low labor ratio in 1990 (host country)		-0.459 (0.165)***		-0.459 (0.165)***
high-low labor ratio in 1990 (host country) X F		-0.088 (0.558)		0.221 (0.542)
Observations	400	400	400	400
R-squared	0.857	0.858	0.856	0.856

Migration into 16 European countries, from 26 developed countries (inclusive of the 16 host countries, among which free migration is allowed);

F (R) is a dummy variable for the 16 (10) source countries whose migration into the 16 host countries is (not) free

IV: legal origin of the host country (English, Scandinavian, German-French)

Robust standard errors in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

Empirical Evidence: Results

- **The first null hypothesis, is that $\Delta\beta_2 < 0$ (benefits per capita).**
- **It captures the migrant choices in the free migration regime.**
- **Indeed, the coefficient is negative and significant in all four regressions.**
- **That is, the generosity of the welfare state adversely affects the skill composition of migrants in the free migration regime.**
- **The magnitude of the coefficient is even higher in the IV regressions than the OLS regressions.**

Empirical Evidence: Results

- **The second null hypothesis is that $\Delta\beta_3 > 0$ (benefits per capita $\times R$).**
- **It indicates the considerations of the host country's voters in policy controlled migration regimes.**
- **Indeed, the coefficient is positive and significant in all four regressions.**
- **That is, the effect of the generosity of the welfare state on the skill composition of migrants is more pronounced in the policy-controlled migration regime.**
- **The magnitude of the coefficient is even higher in the IV regressions than the OLS regressions.**

Empirical Evidence: Results

- **Control variables: the effect of low (high) skilled migration stock rate in 1990 on the skill-composition of migration in 2000 is negative (positive) and significant, in the free migration regime.**
- **An interpretation of this result is that in the free-migration regime there is an inertia over time for each skilled group of migrants.**
- **More unskilled migrants bring about further waves of unskilled migrants; and similarly, more skilled migrants bring about further waves of skilled migrants.**

Empirical Evidence: Results

- In the policy-controlled migration regime, however, lower skill composition of immigrants in the past, encourages higher skill composition in the future.
- Plausibly, having initially (i.e., in 1990) a large stock of unskilled migrants, which poses a fiscal burden on the welfare state, induces its voters to opt for more skilled migrants in order to ease the burden.
- This explanation is supported in columns 2 and 4, where we account for the quantity of high-low skilled voters ratio, in the host countries.
- One can see that as this ratio is higher, the skill composition of immigrants is lower.
- Clearly, this outcome is also in line with our model, wherein $\sigma^s < \sigma^u$.

Empirical Evidence: Robustness

Dependent Variable: Medium-Low Difference in Migration Stock Shares at 2000				
	OLS	OLS	IV	IV
benefits per capita (host country)	-0.215 (0.082)***	-0.126 (0.082)	-0.173 (0.065)***	-0.152 (0.068)**
benefits per capita (host country) X R	0.198 (0.082)**	0.113 (0.083)	0.156 (0.065)**	0.139 (0.068)**
migration stock share in 1990 - low skilled	-0.668 (0.139)***	-0.666 (0.133)***	-0.670 (0.139)***	-0.665 (0.132)***
migration stock share in 1990 - low skilled X R	0.130 (0.224)	0.133 (0.221)	0.132 (0.224)	0.132 (0.221)
migration stock share in 1990 - medium skilled	0.890 (0.159)***	0.895 (0.152)***	0.892 (0.159)***	0.894 (0.151)***
migration stock share in 1990 - medium skilled X R	0.293 (0.402)	0.286 (0.401)	0.290 (0.402)	0.287 (0.401)
medium-low labor ratio in 1990 (host country)		-0.065 (0.056)		-0.065 (0.056)
medium-low labor ratio in 1990 (host country) X F		-1.663 (0.485)***		-1.614 (0.485)***
Observations	400	400	400	400
R-squared	0.727	0.746	0.726	0.746
Migration into 16 European countries, from 26 developed countries (inclusive of the 16 host countries, among which free migration is allowed);				
F (R) is a dummy variable for the 16 (10) source countries whose migration into the 16 host countries is (not) free				
IV: legal origin of the host country (English, Scandinavian, German-French)				
Robust standard errors in parentheses				

41 * significant at 10%; ** significant at 5%; *** significant at 1%

Dependent Variable: High-Low Difference in Migration Stock Shares at 2000				
	OLS	OLS	IV	IV
benefits per capita (host country)	-0.138 (0.068)**	-0.147 (0.070)**	-0.279 (0.122)**	-0.320 (0.133)**
benefits per capita (host country) X R	0.159 (0.072)**	0.167 (0.074)**	0.301 (0.123)**	0.340 (0.134)**
migration stock share in 1990 - low skilled	-0.750 (0.096)***	-0.751 (0.095)***	-0.742 (0.098)***	-0.741 (0.097)***
migration stock share in 1990 - low skilled X R	1.710 (0.166)***	1.711 (0.165)***	1.702 (0.167)***	1.701 (0.166)***
migration stock share in 1990 - high skilled	1.076 (0.128)***	1.081 (0.123)***	1.063 (0.130)***	1.065 (0.127)***
migration stock share in 1990 - high skilled X R	-0.731 (0.130)***	-0.736 (0.126)***	-0.718 (0.133)***	-0.720 (0.129)***
high-low labor ratio in 1990 (host country)		-0.342 (0.199)*		-0.342 (0.199)*
high-low labor ratio in 1990 (host country) X F		-0.852 (0.874)		-0.962 (0.896)
common language	-0.061 (0.048)	-0.076 (0.054)	-0.039 (0.049)	-0.051 (0.052)
common language X R	0.027 (0.059)	0.049 (0.064)	0.005 (0.058)	0.024 (0.061)
log distance	0.044 (0.034)	0.035 (0.031)	0.055 (0.036)	0.048 (0.033)
log distance X R	0.014 (0.039)	0.023 (0.037)	0.003 (0.041)	0.010 (0.039)
GDP per capita (host country)	0.029 (0.074)	0.188 (0.129)	0.178 (0.128)	0.385 (0.205)*
GDP per capita (host country) X R	-0.097 (0.080)	-0.208 (0.136)	-0.247 (0.130)*	-0.405 (0.207)*
GDP per capita (source country)	-0.062 (0.084)	-0.070 (0.085)	-0.051 (0.082)	-0.057 (0.084)
GDP per capita (source country) X R	0.031 (0.084)	0.038 (0.086)	0.020 (0.083)	0.026 (0.085)
Observations	400	400	400	400
R-squared	0.863	0.865	0.860	0.861

Migration into 16 European countries, from 26 developed countries (inclusive of the 16 host countries, among which free migration is allowed);
F (R) is a dummy variable for the 16 (10) source countries whose migration into the 16 host countries is (not) free
IV: legal origin of the host country (English, Scandinavian, German-French)
Robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Dependent Variable: (log) ratio of stock of migrants in 2000: 13 plus education level and 9 minus education level

1. Explantaory variables : a. benefits per capita in EU b. Difference in benefits per capita in EU and non-EU (to capture the difference in the effects of free and policy controlled migration); average 1974-90 (Razin-Sadka-Swagell Source)

```
. reg ps_h_l2000_new lh1990 res_lh1990 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990high_new res_ps_mig1990high_new restrict if home==1, robust cluster(pcode)
```

```
Linear regression                               Number of obs =      400
                                                F( 7, 278) =    160.85
                                                Prob > F       =    0.0000
                                                R-squared     =    0.8568
                                                Root MSE     =    .21
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh1990_ben-2	-.1389228	.0493139	-2.82	0.005	-.2359989	-.0418467
res_lh1990	.1353482	.0542305	2.50	0.013	.0285936	.2421028
ps-90low_new	-.7546948	.0972719	-7.76	0.000	-.9461778	-.5632118
res_ps-w_new	1.673494	.1847021	9.06	0.000	1.309901	2.037086
p-90high_new	1.076413	.1312471	8.20	0.000	.8180491	1.334778
res_ps-h_new	-.7289803	.1342528	-5.43	0.000	-.9932615	-.464699
restrict	-1.087062	.4301121	-2.53	0.012	-1.933752	-.2403713
_cons	1.089448	.3899549	2.79	0.006	.3218082	1.857087

2. Dependent Variable: (log) ratio of stock of migrants in 2000: 13 plus education level and 9 minus education level—OECD source

Explantaory variables : a. benefits per capita in EU b. Difference in benefits per capita in EU and non-EU (to capture the difference in the effects of free and policy controlled migration); average over the periods ,00-1980 ,95-1980 ,90-1980 ,85-1980 05-1980 (OECD source)

```
. reg ps_h_l2000_new lh_benefits80_85 res_lh_benefits80_85 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990hi_gh_new res_ps_mig1990hi_gh_new restrict, robust cluster(pcode)
```

```
Linear regression      Number of obs =      400
                      F( 7, 278) =      159.12
                      Prob > F      =      0.0000
                      R-squared      =      0.8533
                      Root MSE     =      .21255
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
lh_benefits85	-.0539971	.0238673	-2.26	0.024	-.1009807 -.0070135
res_lh_benefits85	.0255959	.0251185	1.02	0.309	-.0238508 .0750426
ps-90low_new	-.7623919	.0976824	-7.80	0.000	-.954683 -.5701008
res_ps-w_new	1.684611	.18607	9.05	0.000	1.318326 2.050896
p-90hi_gh_new	1.088149	.1315438	8.27	0.000	.829201 1.347098
res_ps-h_new	-.7410856	.1344708	-5.51	0.000	-1.005796 -.4763752
restrict	-.2195206	.1956514	-1.12	0.263	-.6046669 .1656257
_cons	.4241103	.1856042	2.29	0.023	.058742 .7894785

```
. reg ps_h_l2000_new lh_benefits80_90 res_lh_benefits80_90 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990hi_gh_new res_ps_mig1990hi_gh_new restrict, robust cluster(pcode)
```

```
Linear regression      Number of obs =      400
                      F( 7, 278) =      158.43
                      Prob > F      =      0.0000
                      R-squared      =      0.8532
                      Root MSE     =      .21263
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
lh_benefits90	-.0534065	.0234581	-2.28	0.024	-.0995847 -.0072284
res_lh_benefits90	.029073	.0246142	1.18	0.239	-.0193809 .0775269
ps-90low_new	-.7623861	.0976489	-7.81	0.000	-.9546113 -.5701608
res_ps-w_new	1.683387	.1863429	9.03	0.000	1.316564 2.050209
p-90hi_gh_new	1.087979	.1315639	8.27	0.000	.8289912 1.346967
res_ps-h_new	-.7408237	.1344998	-5.51	0.000	-1.005591 -.4760564
restrict	-.2505373	.1947802	-1.29	0.199	-.6339688 .1328941
_cons	.4244604	.1852918	2.29	0.023	.0597073 .7892136

```
. reg ps_h_l2000_new lh_benefits80_95 res_lh_benefits80_95 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990hi_gh_new res_ps_mig1990hi_gh_new restrict, robust cluster(pcode)
```

```
Linear regression      Number of obs =      400
                      F( 7, 278) =      158.97
                      Prob > F      =      0.0000
                      R-squared      =      0.8533
                      Root MSE     =      .21253
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
lh_benefits95	-.0586189	.0252541	-2.32	0.021	-.1083324 -.0089055
res_lh_benefits95	.0344604	.0264475	1.30	0.194	-.0176025 .0865232
ps-90low_new	-.7623753	.0976586	-7.81	0.000	-.9546196 -.5701311
res_ps-w_new	1.682835	.1864236	9.03	0.000	1.315854 2.049816
p-90hi_gh_new	1.08795	.1315428	8.27	0.000	.8290039 1.346897
res_ps-h_new	-.7407991	.1344836	-5.51	0.000	-1.005535 -.4760636
restrict	-.2970753	.2119169	-1.40	0.162	-.7142408 .1200903
_cons	.4711901	.2019889	2.33	0.020	.073568 .8688122

```
. reg ps_h_l2000_new lh_benefits80_00 res_lh_benefits80_00 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990hi_gh_new res_ps_mig1990hi_gh_new restrict, robust cluster(pcode)
```

```
Linear regression      Number of obs =      400
                      F( 7, 278) =      159.27
                      Prob > F      =      0.0000
                      R-squared      =      0.8534
                      Root MSE     =      .21249
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
lh_benefits00	-.0612962	.026197	-2.34	0.020	-.1128658 -.0097266
res_lh_benefits00	.0371517	.0273845	1.36	0.176	-.0167557 .091059
ps-90low_new	-.7623856	.097667	-7.81	0.000	-.9546464 -.5701248
res_ps-w_new	1.682666	.1864587	9.02	0.000	1.315615 2.049716
p-90hi_gh_new	1.087968	.1315305	8.27	0.000	.8290456 1.34689
res_ps-h_new	-.7408103	.134473	-5.51	0.000	-1.005525 -.4760957
restrict	-.3207636	.2207589	-1.45	0.147	-.7553351 .1138078
_cons	.4956811	.2108202	2.35	0.019	.0806744 .9106878

```
. reg ps_h_l2000_new lh_benefits80_05 res_lh_benefits80_05 ps_mig1990low_new res_ps_mig1990low_new ps_mig1990hi_gh_new res_ps_mig1990hi_gh_new restrict, robust cluster(pcode)
```

```
Linear regression      Number of obs =      400
                      F( 7, 278) =      160.11
                      Prob > F      =      0.0000
                      R-squared      =      0.8536
                      Root MSE     =      .21234
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]
lh_benefits05	-.0778797	.0321946	-2.42	0.016	-.1412558 -.0145036
res_lh_benefits05	.0551103	.033437	1.65	0.100	-.0107117 .1209323
ps-90low_new	-.762357	.0976628	-7.81	0.000	-.9546095 -.5701045
res_ps-w_new	1.681751	.1866324	9.01	0.000	1.314358 2.049143
p-90hi_gh_new	1.087873	.1314951	8.27	0.000	.8290204 1.346726
res_ps-h_new	-.7406364	.1344457	-5.51	0.000	-1.005297 -.4759755
restrict	-.4792019	.2772655	-1.73	0.085	-1.025008 .0666047
_cons	.6464245	.2665425	2.43	0.016	.1217265 1.171122

3. Replacing overall benefits by pension benefits

```
. reg ps_h_l 2000_new l hben_ol dage80_00 res_l hben_ol dage80_00 ps_mi g1990l ow_new res_ps_mi g1990l ow_new ps_mi g1990hi gh_new res_ps_mi g1990hi gh_new restrict , robust cluster(pcode)
```

```
Linear regression                               Number of obs =      400
                                                F( 7, 278) =    165.48
                                                Prob > F       =    0.0000
                                                R-squared     =    0.8559
                                                Root MSE     =    .21065
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l hben_ol _00	-.1092135	.0399974	-2.73	0.007	-.1879498	-.0304772
res_-ge80_00	.0957586	.0419166	2.28	0.023	.0132443	.1782729
ps-90l ow_new	-.7627447	.0973168	-7.84	0.000	-.9543162	-.5711733
res_ps-w_new	1.680238	.1864358	9.01	0.000	1.313233	2.047243
p-90hi gh_new	1.088281	.1306032	8.33	0.000	.8311839	1.345378
res_ps-h_new	-.7409493	.1335955	-5.55	0.000	-1.003937	-.477962
restrict	-.7090686	.3002756	-2.36	0.019	-1.300171	-.1179659
_cons	.7811799	.2856289	2.73	0.007	.2189097	1.34345

4. Replacing benefits per capita by log(host_rgdpwok1990*(host1990_itax-host_defence))

```
. reg ps_h_l 2000_new l ben_h res_l ben_h ps_mi g1990l ow_new res_ps_mi g1990l ow_new ps_mi g1990hi gh_new res_ps_mi g1990hi gh_new restrict if home~=1, robust cluster(pcode)
```

```
Linear regression                               Number of obs =      400
                                                F( 7, 278) =    162.12
                                                Prob > F       =    0.0000
                                                R-squared     =    0.8554
                                                Root MSE     =    .21107
```

(Std. Err. adjusted for 279 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l ben_h	-.1266342	.0492545	-2.57	0.011	-.2235934	-.0296751
res_l ben_h	.1024591	.0555011	1.85	0.066	-.0067966	.2117148
ps-90l ow_new	-.7594878	.0977709	-7.77	0.000	-.9519532	-.5670225
res_ps-w_new	1.673992	.1856712	9.02	0.000	1.308492	2.039492
p-90hi gh_new	1.083124	.1316526	8.23	0.000	.8239613	1.342287
res_ps-h_new	-.736286	.1346911	-5.47	0.000	-1.00143	-.471142
restrict	-1.451321	.7772601	-1.87	0.063	-2.981384	.0787421
_cons	1.765311	.6887517	2.56	0.011	.4094803	3.121143

Instrumental variables (2SLS) regression

Number of obs = 160
 F(3, 158) = 340.61
 Prob > F = 0.0000
 R-squared = 0.9456
 Root MSE = .09947

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	.0494697	.0325655	1.52	0.131	-.0148501	.1137895
ps-90l ow_new	.9181828	.1613222	5.69	0.000	.5995567	1.236809
p-90hi gh_new	.3482951	.0282728	12.32	0.000	.2924537	.4041365
_cons	-.432675	.271584	-1.59	0.113	-.9690784	.1037284

Instrumented: lh_benefi ts80_90
 Instruments: ps_mig1990l ow_new ps_mig1990hi gh_new h_english h_ger_fre h_scandinavian

OLS (benefits 1980-1990), Free migration, with h/s endowments skill ratio

Linear regression

Number of obs = 240
 F(4, 119) = 27.95
 Prob > F = 0.0000
 R-squared = 0.8233
 Root MSE = .26352

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.0515731	.0228158	-2.26	0.026	-.0967507	-.0063955
ps-90l ow_new	-.7624206	.0977465	-7.80	0.000	-.9559684	-.5688728
p-90hi gh_new	1.088067	.1316579	8.26	0.000	.8273715	1.348763
hs_domesti ~w	.0022363	.0018415	1.21	0.227	-.00141	.0058826
_cons	.4082524	.1798244	2.27	0.025	.0521822	.7643226

IV (benefits 1980-1990), Free migration, with h/s endowments skill ratio

Instrumental variables (2SLS) regression

Number of obs = 240
 F(4, 119) = 23.20
 Prob > F = 0.0000
 R-squared = 0.8162
 Root MSE = .26874

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.1755614	.0807462	-2.17	0.032	-.335447	-.0156758
ps-90l ow_new	-.7570986	.0966271	-7.84	0.000	-.9484299	-.5657672
p-90hi gh_new	1.083243	.1305124	8.30	0.000	.8248156	1.341671
hs_domesti ~w	.0009536	.0025875	0.37	0.713	-.0041698	.0060771
_cons	1.42767	.6662677	2.14	0.034	.108393	2.746946

Instrumented: lh_benefi ts80_90
 Instruments: ps_mig1990l ow_new ps_mig1990hi gh_new hs_domestic_hi gh_low h_english h_ger_fre h_scandinavian

OLS (benefits 1980-1990), Restricted mig., with h/s endowments skill ratio

Linear regression on

Number of obs = 160
 F(4, 158) = 250.84
 Prob > F = 0.0000
 R-squared = 0.9513
 Root MSE = .09441

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l h_benefi -90	-.0228368	.0076164	-3.00	0.003	-.03788	-.0077937
ps-90l ow_new	.9215226	.1591441	5.79	0.000	.6071983	1.235847
p-90hi gh_new	.3473066	.0280801	12.37	0.000	.2918459	.4027674
hs_domesti -w	-.0006979	.0003132	-2.23	0.027	-.0013165	-.0000794
_cons	.16054	.0616896	2.60	0.010	.0386974	.2823826

IV (benefits 1980-1990), Restricted mig., with h/s endowments skill ratio

Instrumental variables (2SLS) regression

Number of obs = 160
 F(4, 158) = 253.87
 Prob > F = 0.0000
 R-squared = 0.9457
 Root MSE = .09974

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l h_benefi -90	.0524009	.0336837	1.56	0.122	-.0141275	.1189293
ps-90l ow_new	.9189717	.1612246	5.70	0.000	.6005382	1.237405
p-90hi gh_new	.3485395	.0283507	12.29	0.000	.2925442	.4045348
hs_domesti -w	-.0010854	.0004752	-2.28	0.024	-.002024	-.0001467
_cons	-.4584486	.2812866	-1.63	0.105	-1.014016	.0971184

Instrumented: l h_benefi ts80_90

Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new hs_domesti c_hi gh_l ow
 h_engl i sh h_ger_fre h_scandi navi an

OLS (labor tax 1974-1990), Free migration, Baseline specification

Linear regression on

Number of obs = 240
 F(3, 119) = 33.62
 Prob > F = 0.0000
 R-squared = 0.8259
 Root MSE = .26102

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
h1990_i tax	-.00626	.003096	-2.02	0.045	-.0123904	-.0001296
ps-90l ow_new	-.7580045	.0977783	-7.75	0.000	-.9516154	-.5643936
p-90hi gh_new	1.08081	.132053	8.18	0.000	.8193321	1.342288
_cons	.2208355	.1143992	1.93	0.056	-.0056863	.4473574

IV (labor tax 1974-1990), Free migration, Baseline specification

Instrumental variables (2SLS) regression

Number of obs = 240
 F(3, 119) = 29.79
 Prob > F = 0.0000
 R-squared = 0.7901
 Root MSE = .28658

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
h1990_i tax	-.0247242	.0091109	-2.71	0.008	-.0427647	-.0066837
ps-90l ow_new	-.738287	.0962658	-7.67	0.000	-.9289028	-.5476711
p-90hi gh_new	1.053548	.129476	8.14	0.000	.7971724	1.309923
_cons	.9145511	.3413206	2.68	0.008	.2387023	1.5904

Instrumented: h1990_i tax

Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_engl i sh h_ger_fre
 h_scandi navi an

OLS (labor tax 1974-1990), Restricted migration, Baseline specification

Linear regression on

Number of obs = 160
 F(3, 158) = 337.93
 Prob > F = 0.0000
 R-squared = 0.9508
 Root MSE = .09464

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
h1990_i tax	-.0010666	.0015131	-0.70	0.482	-.0040552	.0019219
ps-90l ow_new	.9141386	.1575893	5.80	0.000	.6028853	1.225392
p-90hi gh_new	.3467958	.0286125	12.12	0.000	.2902834	.4033082
_cons	.0143145	.0578984	0.25	0.805	-.1000402	.1286691

OLS (labor tax 1974-1990), Restricted migration, Baseline specification

Instrumental variables (2SLS) regression

Number of obs = 160
 F(3, 158) = 357.21
 Prob > F = 0.0000
 R-squared = 0.9391
 Root MSE = .10529

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
h1990_i tax	.0062865	.0047391	1.33	0.187	-.0030736	.0156467
ps-90l ow_new	.9550389	.1524303	6.27	0.000	.653975	1.256103
p-90hi gh_new	.3518658	.0282238	12.47	0.000	.2961212	.4076104
_cons	-.2641414	.1822533	-1.45	0.149	-.6241084	.0958255

Instrumented: h1990_i tax
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_engl ish h_ger_fre h_scandi navi an

OLS (GDPpw*(tax-defence/GDP)), Free migration, Baseline specification

Linear regression on

Number of obs = 225
 F(3, 119) = 38.66
 Prob > F = 0.0000
 R-squared = 0.8308
 Root MSE = .26435

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l ben_h	-.1195454	.0506952	-2.36	0.020	-.219927	-.0191638
ps-90l ow_new	-.7600469	.0996204	-7.63	0.000	-.9573052	-.5627885
p-90hi gh_new	1.08509	.1337504	8.11	0.000	.8202507	1.349929
_cons	1.670427	.7077932	2.36	0.020	.268926	3.071929

IV (GDPpw*(tax-defence/GDP)), Free migration, Baseline specification

Instrumental variables (2SLS) regression

Number of obs = 225
 F(3, 119) = 35.31
 Prob > F = 0.0000
 R-squared = 0.7944
 Root MSE = .29139

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
l ben_h	-.4912884	.1715703	-2.86	0.005	-.8310148	-.151562
ps-90l ow_new	-.7436524	.0991121	-7.50	0.000	-.9399043	-.5474006
p-90hi gh_new	1.063457	.1324419	8.03	0.000	.8012086	1.325705
_cons	6.891344	2.40751	2.86	0.005	2.124233	11.65845

Instrumented: l ben_h
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_engl ish h_ger_fre h_scandi navi an

OLS (GDPpw*(tax-defence/GDP)), Restricted migration, Baseline specification

Linear regression

Number of obs = 150
 F(3, 148) = 341.40
 Prob > F = 0.0000
 R-squared = 0.9511
 Root MSE = .09744

(Std. Err. adjusted for 149 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
_lben_h	-.0262672	.0257971	-1.02	0.310	-.0772454	.024711
ps-90l ow_new	.9160149	.1578863	5.80	0.000	.6040121	1.228018
p-90hi gh_new	.34661	.028414	12.20	0.000	.2904605	.4027596
_cons	.3416501	.363037	0.94	0.348	-.3757554	1.059056

IV (GDPpw*(tax-defence/GDP)), Restricted migration, Baseline specification

Instrumental variables (2SLS) regression

Number of obs = 150
 F(3, 148) = 360.67
 Prob > F = 0.0000
 R-squared = 0.9435
 Root MSE = .10474

(Std. Err. adjusted for 149 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
_lben_h	.0916169	.1079354	0.85	0.397	-.1216766	.3049104
ps-90l ow_new	.9422013	.1533382	6.14	0.000	.6391862	1.245216
p-90hi gh_new	.3500328	.0284653	12.30	0.000	.2937819	.4062836
_cons	-1.3156	1.519877	-0.87	0.388	-4.319062	1.687863

Instrumented: _lben_h
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_engl ish h_ger_fre h_scandi navi an

OLS (benefits 1980-1990), Free migration, with inequality measure – host(q5/q3)

Linear regression

Number of obs = 240
 F(4, 119) = 21.72
 Prob > F = 0.0000
 R-squared = 0.8233
 Root MSE = .26349

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.0495506	.024478	-2.02	0.045	-.0980196	-.0010817
h_q5_3	-.0476072	.0458388	-1.04	0.301	-.1383727	.0431583
ps-90l ow_new	-.7623156	.0978214	-7.79	0.000	-.9560116	-.5686195
p-90hi gh_new	1.088026	.1318109	8.25	0.000	.8270277	1.349025
_cons	.4951584	.1900257	2.61	0.010	.1188886	.8714283

IV (benefits 1980-1990), Free migration, with inequality measure – host(q5/q3)

Instrumental variables (2SLS) regression

Number of obs = 240
 F(4, 119) = 18.73
 Prob > F = 0.0000
 R-squared = 0.8141
 Root MSE = .27026

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.1924908	.0788596	-2.44	0.016	-.3486406	-.0363409
ps-90l ow_new	-.7564086	.0967946	-7.81	0.000	-.9480716	-.5647456
p-90hi gh_new	1.082588	.130653	8.29	0.000	.8238817	1.341294
h_q5_3	.0042695	.053487	0.08	0.937	-.1016401	.1101792
_cons	1.558077	.6064957	2.57	0.011	.3571551	2.758999

Instrumented: lh_benefi ts80_90
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_q5_3 h_engl ish h_ger_fre h_scandi navi an

Alternative IV (benefits averaged in 1980-1990), Free mig., with h/s endowments

skill ratio

Instrumental variables (2SLS) regression

Number of obs = 240
 F(4, 119) = 32.66
 Prob > F = 0.0000
 R-squared = 0.8151
 Root MSE = .26954

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.1848107	.0652233	-2.83	0.005	-.3139593	-.055662
ps~90l ow_new	-.7567015	.0982957	-7.70	0.000	-.9513368	-.5620663
p~90hi gh_new	1.082883	.1318761	8.21	0.000	.8217553	1.344011
hs_domesti ~w	.0008579	.0024447	0.35	0.726	-.0039828	.0056987
_cons	1.503716	.5352382	2.81	0.006	.4438909	2.563541

Instrumented: lh_benefi ts80_90
 Instruments: ps_mig1990l ow_new ps_mig1990hi gh_new hs_domesti c_hi gh_l ow lhben_regional

Alternative IV (benefits averaged in 1980-1990), Free mig., with inequality

measure – host(q5/q3)

Instrumental variables (2SLS) regression

Number of obs = 240
 F(4, 119) = 30.68
 Prob > F = 0.0000
 R-squared = 0.8149
 Root MSE = .26968

(Std. Err. adjusted for 120 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	-.1861112	.0681993	-2.73	0.007	-.3211525	-.0510698
ps~90l ow_new	-.7566723	.0983771	-7.69	0.000	-.9514687	-.5618758
p~90hi gh_new	1.08283	.1320261	8.20	0.000	.8214056	1.344255
h_q5_3	.0019542	.0515411	0.04	0.970	-.1001024	.1040108
_cons	1.510638	.5261138	2.87	0.005	.4688799	2.552396

Instrumented: lh_benefi ts80_90
 Instruments: ps_mig1990l ow_new ps_mig1990hi gh_new h_q5_3 lhben_regional

Alternative IV (benefits averaged in 1980-1990), Res. mig., Baseline specification

Instrumental variables (2SLS) regression

Number of obs = 160
 F(3, 158) = 342.99
 Prob > F = 0.0000
 R-squared = 0.9504
 Root MSE = .09503

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	.0029667	.0240252	0.12	0.902	-.0444853	.0504187
ps~90l ow_new	.9199582	.1599948	5.75	0.000	.6039537	1.235963
p~90hi gh_new	.347577	.0281637	12.34	0.000	.2919512	.4032029
_cons	-.0504608	.1992757	-0.25	0.800	-.4440487	.343127

Instrumented: lh_benefi ts80_90
 Instruments: ps_mig1990l ow_new ps_mig1990hi gh_new lhben_regional

Alternative IV (benefits averaged in 1980-1990), restricted mig., with h/s endowments skill ratio

Instrumental variables (2SLS) regression

Number of obs = 160
 F(4, 158) = 255.91
 Prob > F = 0.0000
 R-squared = 0.9505
 Root MSE = .0952

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	.0056803	.025027	0.23	0.821	-.0437503	.0551109
ps~90l ow_new	.9205557	.1600334	5.75	0.000	.6044749	1.236637
p~90hi gh_new	.3477739	.0282452	12.31	0.000	.291987	.4035609
hs_domesti ~w	-.0008448	.0003597	-2.35	0.020	-.0015552	-.0001344
_cons	-.0740734	.2079898	-0.36	0.722	-.4848724	.3367257

Instrumented: lh_benefi ts80_90
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new hs_domesti c_hi gh_l ow lhben_regi onal

Alternative IV (benefits averaged in 1980-1990), Free mig., with inequality measure – host(q5/q3)

Instrumental variables (2SLS) regression

Number of obs = 160
 F(4, 158) = 257.01
 Prob > F = 0.0000
 R-squared = 0.9504
 Root MSE = .09535

(Std. Err. adjusted for 159 clusters in pcode)

ps_h_l 2000-w	Coef.	Robust Std. Err.	t	P> t	[95% Conf. Interval]	
lh_benefi ~90	.0033467	.0246993	0.14	0.892	-.0454368	.0521301
ps~90l ow_new	.9199186	.1605119	5.73	0.000	.6028928	1.236944
p~90hi gh_new	.3475793	.0282601	12.30	0.000	.2917629	.4033956
h_q5_3	-.0023754	.0157371	-0.15	0.880	-.0334575	.0287068
_cons	-.0484713	.1974685	-0.25	0.806	-.4384898	.3415472

Instrumented: lh_benefi ts80_90
 Instruments: ps_mi g1990l ow_new ps_mi g1990hi gh_new h_q5_3 lhben_regi onal