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Foreign Education, Gender Legal Rights, and Economic Freedom

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addition, equal access to legal and financial institutions may also encourage the further acquisition of human capital for women, increasing economic growth in the future (Grier, 2023).

In fact, foreign education has long been explicitly promoted by m(on)-14294.75 24 13.75 reW* oun03(br

2

$$\overline{\qquad\qquad}_{2} \equiv \sum \frac{\qquad}{\sum} \times \qquad\qquad _{2} \quad (3)$$

where $\qquad\qquad _{2}$ is the difference between adjusted and unadjusted EFW area 2 at destination countries, and $\qquad$ is the number of students from country $\quad$ to country $\quad$ in year $\quad$. By construction, these indices lie between 0 and 2.647. To avoid problems of a small sample, this variable is used only if there are at least ten students abroad.

The basic specification is as follows:

$$_{2} = \qquad\qquad _{2\ -5} + \text{students abroad}_{-5} + + \overline{\qquad\qquad\qquad\qquad}$$

(students

$\overline{\text{abroad}}$

and Bover (1995) and Blundell and Bond (1998).[9] The SYS-GMM estimator uses both lagged levels and lagged differences to estimate the coefficients, with the assumption that the first-differenced instrumental variables are not correlated with the unobserved fixed effects in the model. We use SYS-GMM as opposed to the difference GMM estimator (Arellano & Bond, 1991).

described in Card (2007, 2001), we use internal instruments.[10] We treat Students abroad, economic freedom area 2 in hosting countries, and all other control variables excluding time fixed effects, as predetermined and are instrumented for using their own lags in level and difference.[11]

III. Results

The results of the baseline regressions are reported in columns 1 through 3 and column 9 in **tables 2** and **3**. **Table 2** reports the results of our regressions with 5-year lag; **table** 3 reports the results of the regressions with 10-year lag. As expected, gender legal rights disparity as it is reflected in the difference between the unadjusted and adjusted-for-GDI EFW scores for area 2 is persistent through time; the coefficient on past differences in EFW scores for area 2 ranges between 0.884 in pooled OLS and 0.592 for the fixed effects with the lagged dependent variable with the unbiased SYS-GMM estimator (0.592) within this range.[12]

Our results are not consistent across the board and depend largely on how much gender legal rights disparity is affecting women at destination countries and how many foreign students are exposed to that institutional environment when studying abroad. On the one hand, total effect of average difference between adjusted and unadjusted-for-GDI EFW scores at destination countries is positive and statistically significant at least at 5 percent in our baseline SYS-GMM and baseline fixed-effects regression without lagged dependent variable. When a

[9] We also run fixed effects regressions without the lagged dependent variable. Since fixed effects control for any time-invariant unobserved heterogeneity between the countries which, among other things, includes the initial level of difference between adjusted and unadjusted economic freedom area 2 running fixed effects regressions without the lagged dependent variable should eliminate the Nickell bias.

[10] The main reason for using the internal ins
is this: an important assumption behind the shift-share instrument is that the size of the past settlement of immigrants from an origin country is the sole determinant of migration to a specific state by immigrants from the same origin country. However, given that the past location of immigrants across destinations is likely correlated with past institutions, which themselves tend to be persistent and correlated over time, the exclusion restriction of the shift-share instrument such as the one developed by Card (2007) becomes invalid.

[11] Following Roodman (2009) , we limit the number of lags to keep the number of instruments below the number of groups, doing so avoid biasing the GMM estimation results and weakening

[12] In **table 3**, the range is between 0.810 (pooled OLS) and 0.316 (fixed effects with lagged dependent variable) with an unbiased SYS-GMM estimator at 0.697.

country sends less than two-thirds of a percent of students to study abroad, the effect of the difference between adjusted-for-GDI and unadjusted EFW scores is 0.154, meaning that when a country sends fewer than two-thirds of a percent of students to study abroad, the difference between adjusted for GDI and unadjusted EFW scores increases by 0.154 (almost two-thirds of a standard deviation). However, countries for which the share of students they send abroad is greater than two-thirds of a percent, the total effect, -0.108, is negative and statistically significant at 5 percent level.[13]

Our results for the total effect of students abroad also indicate that

allow to control for global trends. However, country-specific-time-varying trends could be at play as well.

To address the issue of possible spurious correlation, we replicate the basic regressions (column 3 in table 2 and table 3) adding third possible factors:

(1)

(Marshall & Gurr, 2018) revised combined polity score, *polity2*;[16]

(2) Educational attainment, that is, the average years of total schooling, age 15+ from the Barro-Lee dataset, which we obtained through the

Statistics;

(3) tertiary enrollment as the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the level of education shown from the World

World Development Indicators (WDI);

(4) natural log of real GDP per capita, which we obta-6( )-1 0 0d thr( )21(t)7ETQq0.00000912 0 612 792

The first specification attempts to control for country fixed effects by taking first differences. The second specification also controls for country-specific trends

scores decreases. Similarly, over the long run, we observe that countries, which send an increasing number of students to countries that experienced over that same period a large decrease in the average difference between unadjusted and adjusted EFW scores for area 2, experience a decrease

education might be a channel through which gender legal rights disparity could be reduced leading to women better able to capture the benefits of increasing economic freedom.

VI. Works Cited

Antman, F. M. (2011). International Migration and Gender Discrimination among Children Left

Table 1 Descriptive Statistics

Variables	(1) N	(2) Mean	(3) S.D.	(4) Min	(5) Max
Percentage of population studying abroad	1,804	0.00111	0.00203	0	0.0232
Difference between adjusted and unadjusted EFW area 2	1,377	0.512	0.518	0	2.647
Average difference b/w adjusted-unadjusted EFW area 2 at destination countries	1,677	0.300	0.299	0	1.694
Barro-Lee: Average years of total schooling, age 15+, total	1,251	6.392	3.056	0.0600	13.18
School enrollment, tertiary (% gross)	1,131	0.265	0.256	0	1.509

Table 2 Foreign education and difference between unadjusted and GDI-adjusted EFW scores for area 2: levels (5-year lag)

Lagged variables (5-year lag)	(1) Pooled OLS	(2) Fixed effects OLS	(3) System GMM	(4) System GMM	(5) System GMM	(6) System GMM	(7) System GMM	(8) System GMM	(9) Fixed effects OLS	(10) Fixed effects OLS
Difference between adjusted and unadjusted EFW area 2										

Total effect of students abroad at SD	1.561 (2.808)	-6.892 (6.274)	4.399 (5.432)	16.77** (8.484)	10.82 (7.427)	8.113 (6.253)	9.487** (4.107)	8.784** (3.632)	-30.25** (11.77)	-36.87** (18.35)
Total effect of difference b/w adjusted-unadjusted EFW area 2 at destination countries at max	0.0596 (0.375)	-0.535*** (0.167)	0.136 (0.432)	0.155 (0.399)	1.000 (0.672)	0.0597 (0.474)	0.190 (0.358)	0.528* (0.292)	-0.886*** (0.330)	-1.221*** (0.426)
Total effect of students abroad at min	1.715 (2.772)	0.245 (6.354)	4.632 (5.228)	14.70** (7.144)	0.317 (3.720)	8.915 (5.454)	7.718 (5.020)	2.272 (3.486)	-17.40 (11.79)	-19.87 (16.82)
Total effect of students abroad at max	0.928 (21.10)	-36.36*** (11.00)	3.441 (25.56)	25.32 (25.21)	54.17 (41.10)	4.800 (28.29)	16.79 (19.77)	35.68** (16.83)	-83.32*** (21.92)	-

Table 3 Foreign education and difference between unadjusted and GDI-adjusted EFW scores for area 2: levels (10-year lag)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Lagged variables (10-year lag)	Pooled OLS	Fixed effects OLS	System GMM	System GMM	System GMM	System GMM	System GMM	System GMM	Fixed effects OLS	Fixed effects OLS
Difference between adjusted and unadjusted EFW area 2	0.810***	0.316***	0.697***	0.656***	0.644***	0.689***	0.604***	0.719***		
	(0.0393)	(0.0560)	(0.0777)	(0.0743)	(0.0990)	(0.0802)	(0.0642)	(0.0814)		
Percentage of population studying abroad	4.205	6.559	1.861	23.10**	1.582	10.20				
	(4.225)	(8.105)	(6.516)	(9.912)	(3.804)					

Table 5 Foreign education and difference between unadjusted and GDI-adjusted EFW scores for area 2: long-run differences

Variables	(1) OLS (50 years)	(2) OLS (50 years)	(3) OLS (50 years)	(4) OLS (50 years)	(5) OLS (40 years)	(6) OLS (40 years)	(7) OLS (40 years)	(8) OLS (40 years)	(9) OLS (40 years)
Fifty-year change in students abroad	14.66	10.34	5.197	1.820					
	(24.00)	(24.20)	(21.73)	(22.20)					
Fifty-year difference b/w unadjusted & adjusted EFW_A2 at destination countries (D50diffefw_a2dc)	0.260*	0.217	0.229	0.201					
	(0.149)	(0.173)	(0.152)	(0.178)					
Fifty-year change in students abroad x D50diffefw_a2dc	62.34***	61.01***	57.81***	55.54***					
	(20.90)	(20.09)	(17.29)	(17.23)					
Fifty-year change in real GDP per capita		0.0228		0.00419					
		(0.0692)		(0.0726)					

APPENDIX

Table 2A Foreign education & difference between unadjusted and GDI-adjusted EFW scores for area 2: 5-year lag with two-

Total effect of students abroad at	1.561	-6.892	-10.13*	-6.299	-17.37***	-14.39*	-13.56	-10.06	-30.25**
SD	(2.808)	(6.274)	(5.225)	(10.50)	(6.293)	(8.269)	(8.835)	(8.153)	(11.77)

Table 3A Foreign education & difference between unadjusted & GDI-adjusted EFW scores for area 2: 10-year lag with two-step difference GMM

Lagged variables (10-year lag)	(1) Pooled OLS	(2) Fixed effects OLS	(3) System GMM	(4) System GMM	(5) System GMM	(6) System GMM	(7) System GMM	(8) System GMM	(9) Fixed effects OLS	(10) Fixed effects OLS
Difference between adjusted and unadjusted EFW area 2	0.810***	0.316***	0.560***	0.479***	0.236**	0.515***	0.524***	0.218*		
	(0.0393)	(0.0560)	(0.126)	(0.0929)	(0.103)	(0.0978)	(0.118)	(0.113)		
Percentage of population studying abroad	4.205	6.559	5.048	13.28	-1.153	8.578	4.073	7.339	-9.494	-13.86
	(4.225)	(8.105)	(10.73)	(13.97)	(6.038)	(13.88)	(12.82)	(9.822)	(11.75)	(13.25)
Average difference b/w adjusted-unadjusted EFW area 2 at destination countries	0.104**	0.109**	0.0513	0.112	0.183**	0.0281	-0.00332	0.0743	0.176***	0.216***
	(0.0470)	(0.0451)	(0.0549)	(0.0775)	(0.0733)	(0.0804)	(0.0736)	(0.0937)	(0.0581)	(0.0692)
Percentage of population studying abroad x Average difference b/w adjusted-unadjusted EFW area 2 at destination countries	10.91	-27.50***	-16.03	-42.12*	-30.71***	-25.79	-13.54	-29.55	-40.68***	-54.11***
	(24.43)	(9.567)	(12.66)	(22.09)	(11.66)	(16.41)	(13.33)	(23.31)	(12.95)	(18.28)
Barro-Lee: Average years of total schooling, age 15+, total				-0.0712				0.0362		-0.0735
				(0.0595)				(0.0424)		(0.0507)
School enrollment, tertiary (% gross)					0.0127			0.0992		0.115
					(0.135)			(0.138)		(0.126)