

# College education wealth premiums in high-income countries

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# Existing research

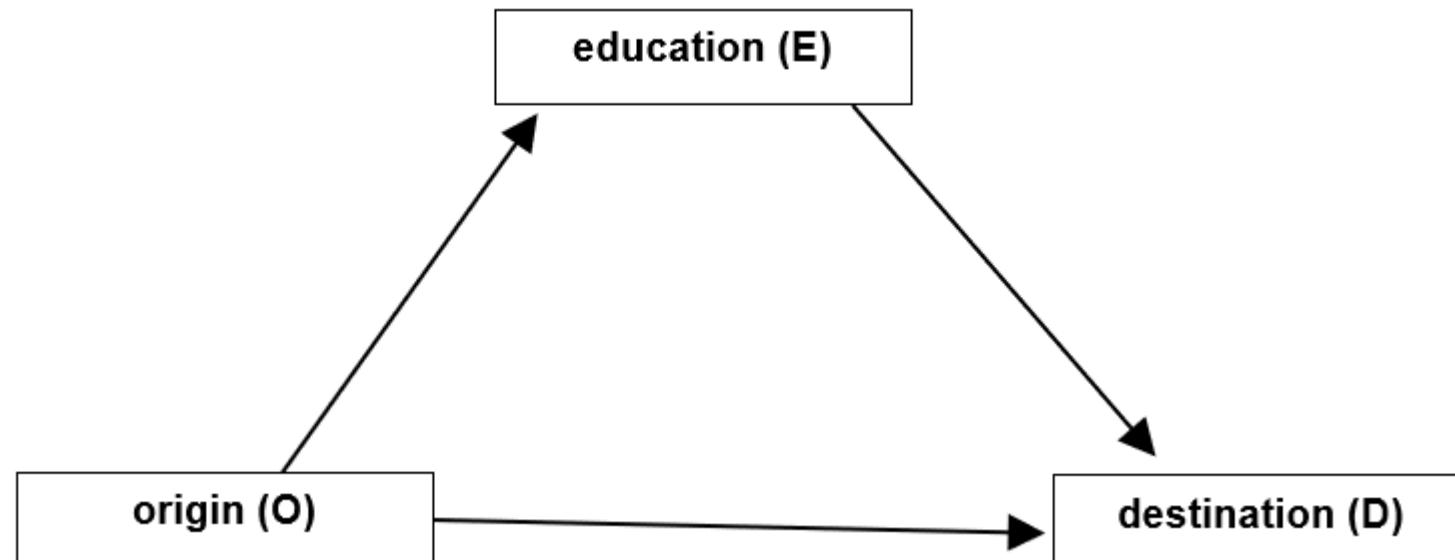
- Wealth inequality increased in recent years (Saez & Zucman 2016)
- Intergenerational transmission of wealth
  - Total effect: intergenerational wealth elasticity (Charles & Hurst 2003)
  - Direct effect: transfers/gifts, inheritance (Adermon 2018)
- Parental wealth gaps in educational attainment
  - Early educational trajectories (Dräger 2022, Hällsten & Thaning 2021)
  - Higher education (Hotz 2018, Pfeffer 2018)
- Role of education in intergen. transmission understudied:
  - Effect of (higher) education on wealth
  - Mediating role of education in intergenerational transmission
  - Cross-nationally

# Research questions

- (1) What is the association between educational attainment and financial assets?
- (2) How does educational attainment mediate the relationship between inheritance / gifts and financial assets?
- (3) What is the financial assets premium of a BA (over HS)?
- How do these patterns vary across 9 high-income countries?
  - US, Canada, UK, Spain, Austria, Greece, Norway, Estonia, Slovakia

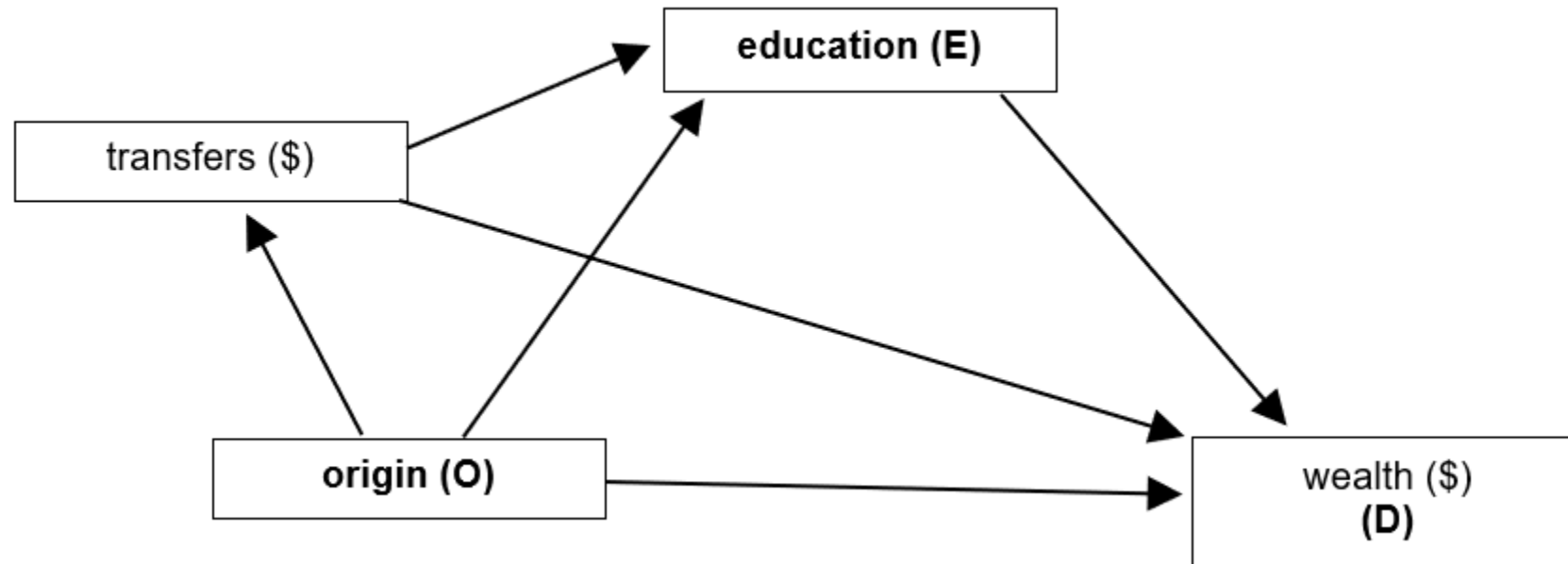
# Breaking down the “total effect” of intergenerational wealth transmission (1)

- Origin-Education-Destination (OED) framework (Blau & Duncan 1967)

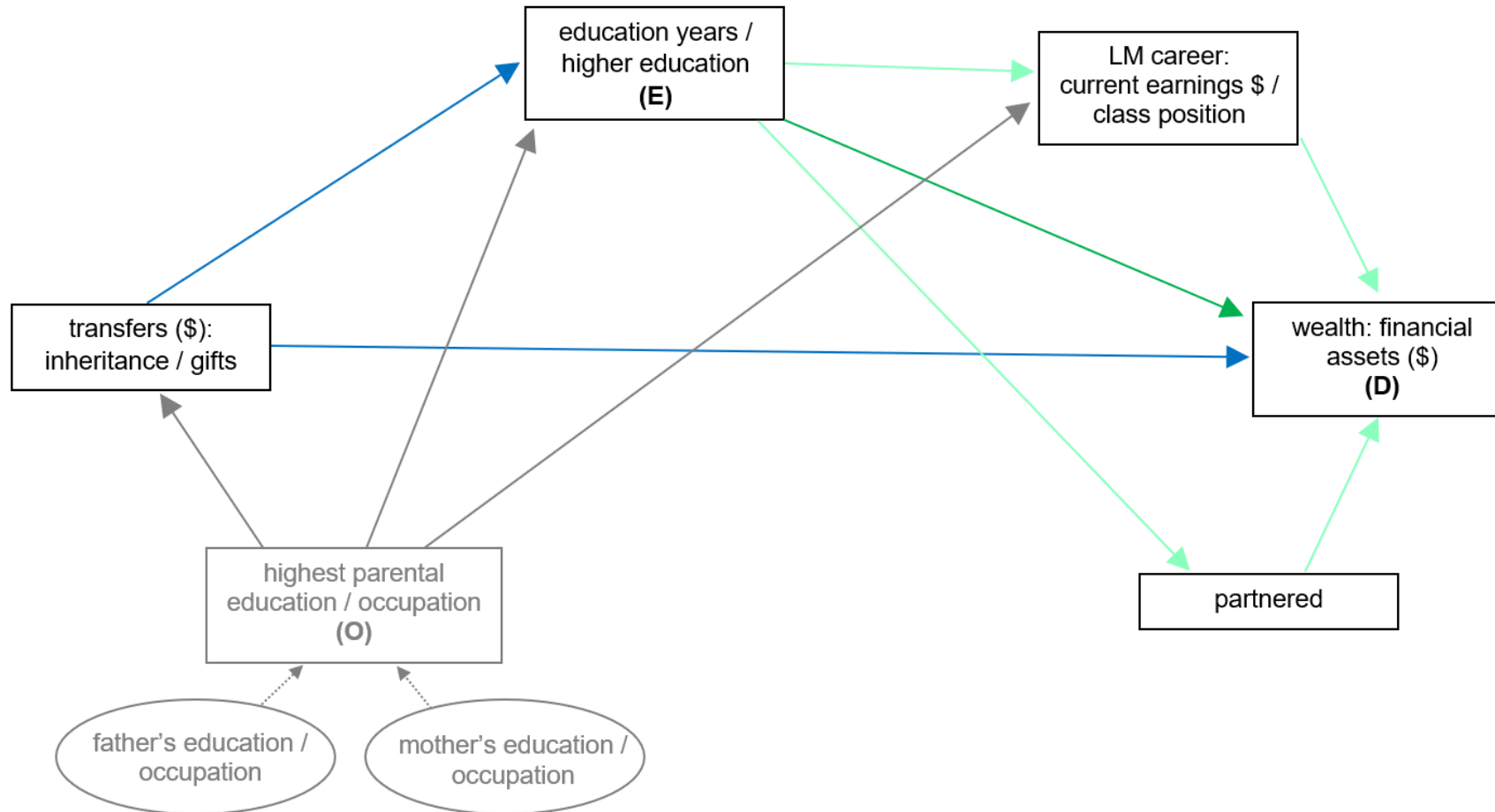


# Breaking down the “total effect” of intergenerational wealth transmission (2)

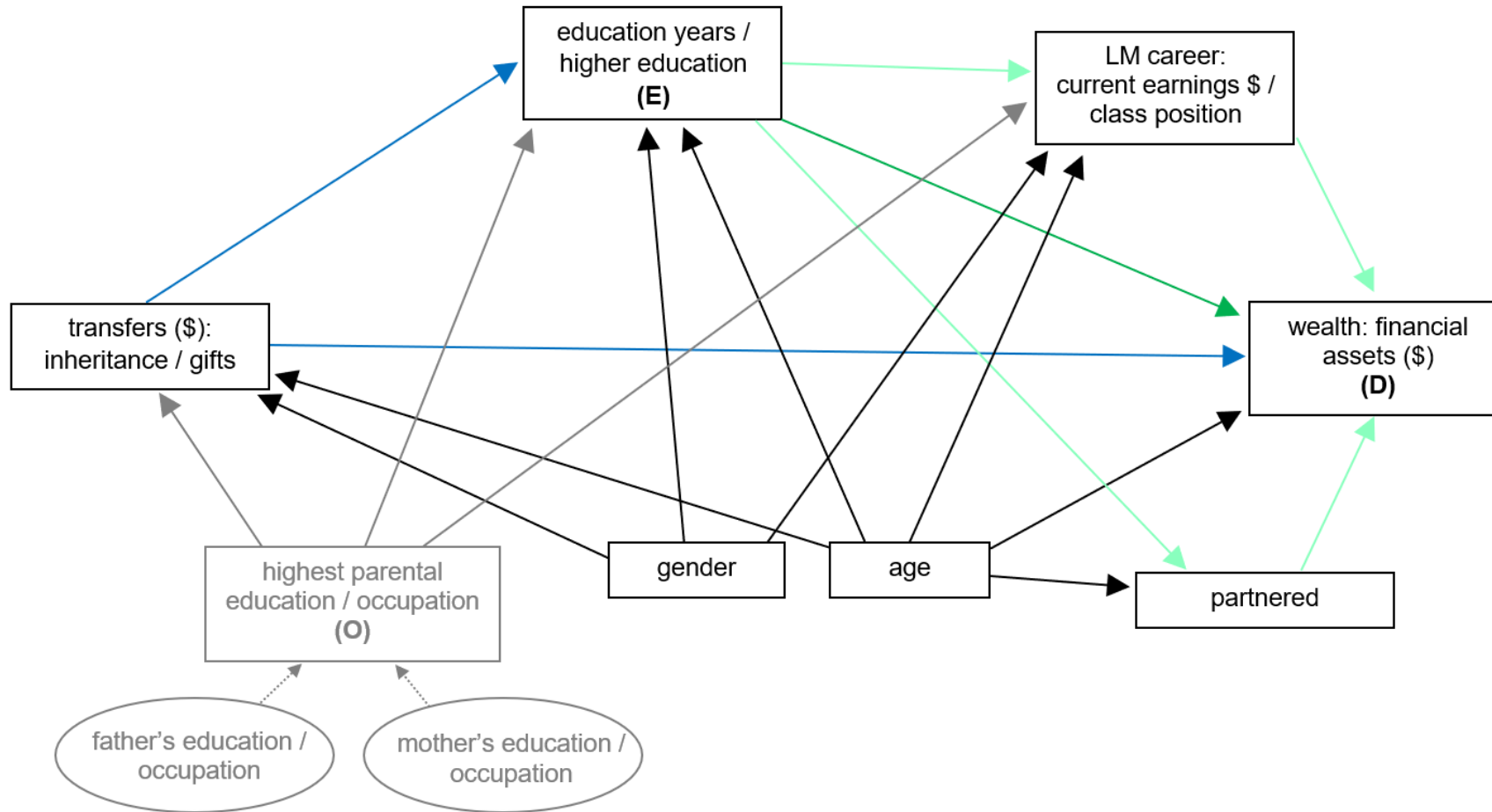
- OED framework → wealth (see Hällsten & Thaning 2021)



# Empirical model



# Empirical model



# Data: Luxembourg Wealth Study

- Wave XI (2018-2020), ages 25-64 (not enrolled), countries:
  - US, Canada, UK, Spain, Austria, Greece, Norway, Estonia, Slovakia
- Dependent variable = logged HH **financial assets**
  - Deposit accounts/cash, financial investments (e.g., bonds/stocks) etc.
- Independent variables
  - Education: years of education, credential(s) identifying HS & BA
  - Inheritance / gifts (logged)
- Control variables
  - Gender (binary), age (cont.), partnered (binary)
  - Parental origin: highest education years (US/UK), higher/managerial (ES)



# Methods

- Path Analysis using a Structural Equation Model (**SEM**)
  - Variables are binary or continuous
  - Q1: What is the association between educational attainment and financial assets?
  - Q2: How does educational attainment mediate the relationship between inheritance / gifts and financial assets?
- Generalized Structural Equation Model (**GSEM**)
  - Variables can be nominal and ordinal, but no partial correlations
  - Q3: What is the financial assets premium of a BA?

# Descriptive: any gift or inheritance

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	<b>study sample</b>	<b>by age group</b>			<b>by education</b>	
	ages 25-64	ages 25-34	ages 35-44	ages 45-64	high school	BA or higher
United States	20.4%	16.2%	15.1%	25.7%	17.6%	22.6%
Canada	23.5%	13.2%	17.1%	32.6%	24.2%	22.0%
United Kingdom	19.5%	23.7%	20.5%	17.0%	17.1%	25.2%
Spain	35.8%	30.3%	26.0%	43.7%	33.9%	40.9%
Greece	34.5%	29.8%	35.1%	35.8%	32.7%	37.8%
Austria	38.9%	31.8%	41.0%	40.5%	37.0%	47.9%
Norway	2.4%	1.6%	1.9%	3.0%	2.3%	3.0%
Estonia	35.2%	31.6%	32.5%	38.8%	35.7%	36.2%
Slovakia	40.2%	33.2%	38.2%	45.1%	40.5%	40.6%

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# Descriptive: Education level and wealth

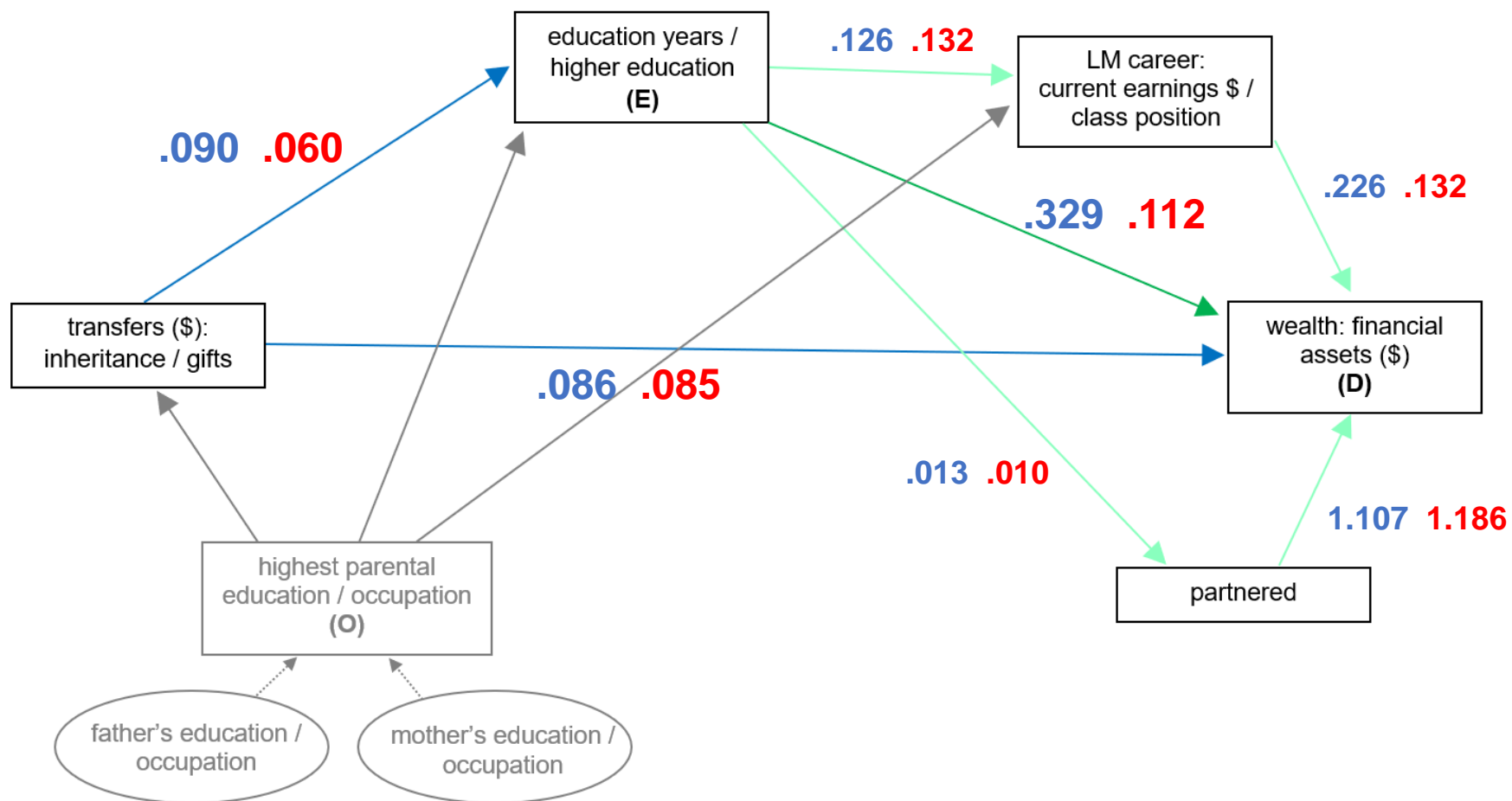
identifying HS and BA  
(country-specific)

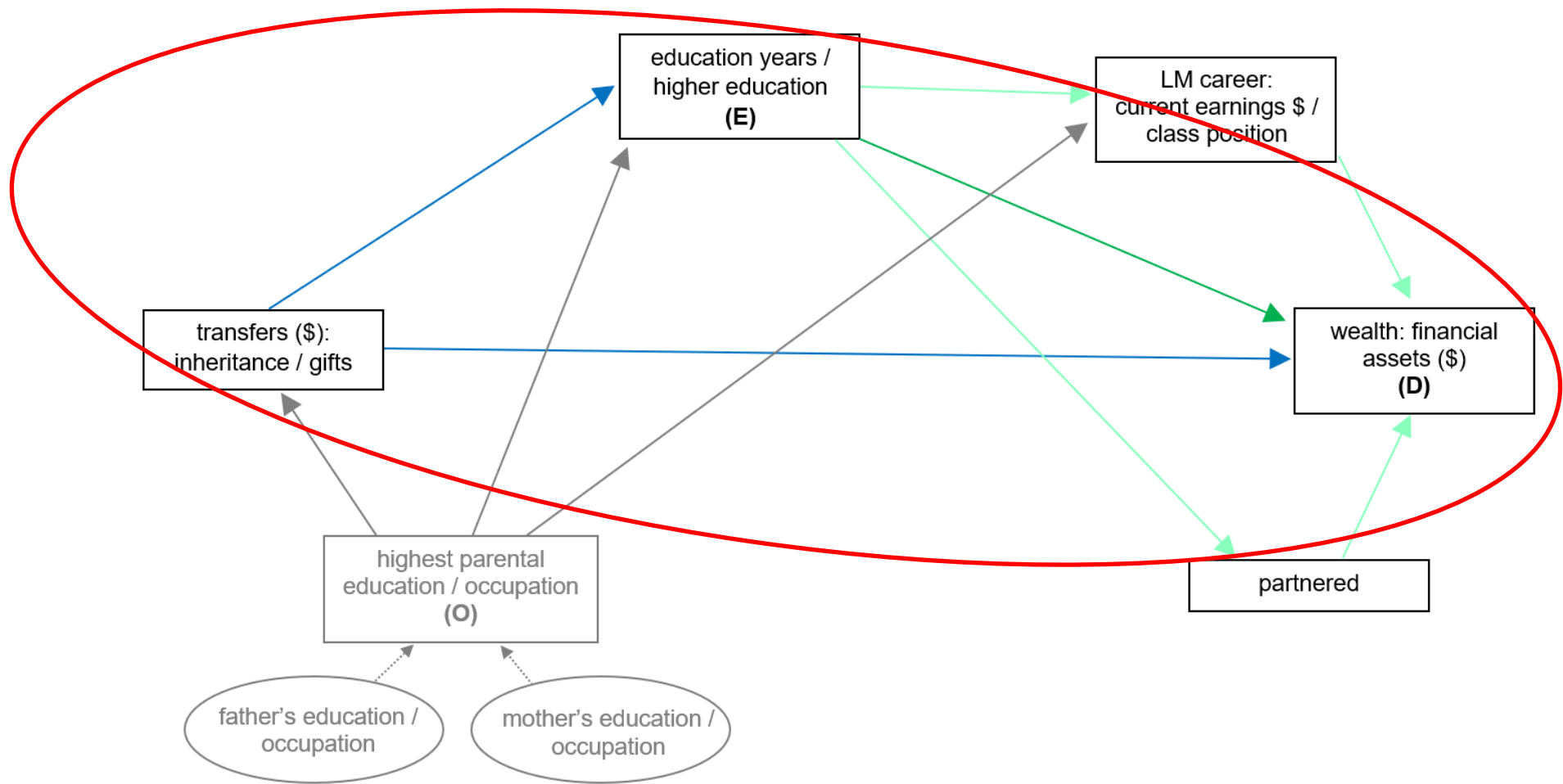
	prop.	financial assets	$\Delta$ to HS only	
			amount	percent
<b>United States (N = 32,285)</b>				
less than (upper-level) HS	.071	\$ 15,142		
HS or equivalent	.322	\$ 38,301		
post-secondary non-tert. / short-cycle tert.	.110	\$ 47,967		
bachelor's or higher	.497	\$ 161,761	\$ 123,459	<u>322.3%</u>
<b>Canada (N = 5,884)</b>				
less than (upper-level) HS	.071	\$ 30,016		
HS or equivalent	.211	\$ 38,189		
post-secondary non-tert. / short-cycle tert.	.304	\$ 47,368		
bachelor's or higher	.414	\$ 88,201	\$ 50,012	<u>131.0%</u>
<b>United Kingdom (N = 16,676)</b>				
less than (upper-level) HS	.063	£ 23,340		
HS or equivalent	.536	£ 40,585		
bachelor's or higher	.401	£ 87,548	\$ 46,964	<u>115.7%</u>
<b>Spain (N = 34,485)</b>				
less than (upper-level) HS	.337	€ 17,152		
HS or equivalent	.171	€ 31,311		
post-secondary non-tert. / short-cycle tert.	.124	€ 34,829		
bachelor's or higher	.368	€ 60,753	\$ 29,442	<u>94.0%</u>
<b>Greece (N = 16,590)</b>				
less than (upper-level) HS	.240	€ 2,391		
HS or equivalent	.494	€ 4,193		
bachelor's or higher	.266	€ 6,546	\$ 2,353	<u>56.1%</u>

cross-national  
differences

Results from path models (SEM, GSEM)

# United States vs. Norway



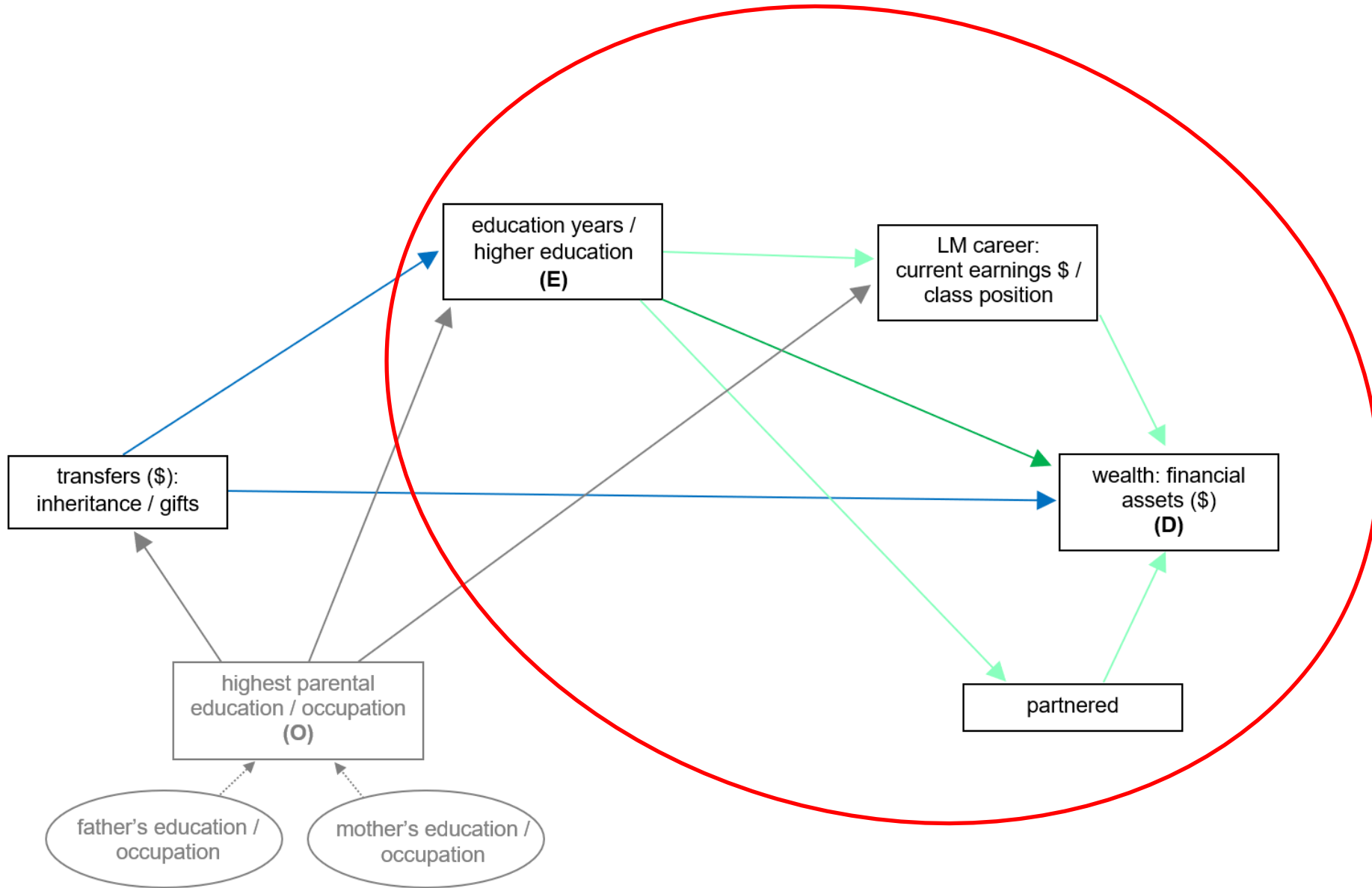


# Effect of inheritance/gifts on financial assets

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	<b>stand.</b>	<b>total</b>	<b>direct</b>	<b>% education pathway</b>
United States	.142	.120	.086	27.8%
Canada	.126	.087	.050	5.8%
United Kingdom	.123	.117	.101	13.1%
Spain	.145	.091	.070	22.8%
Greece	.063	.060	.045	24.2%
Austria	.201	.081	.074	7.8%
Norway	.077	.079	.070	10.8%
Estonia	.093	.057	.057	-0.6%
Slovakia	.039	.020	.020	-1.5%

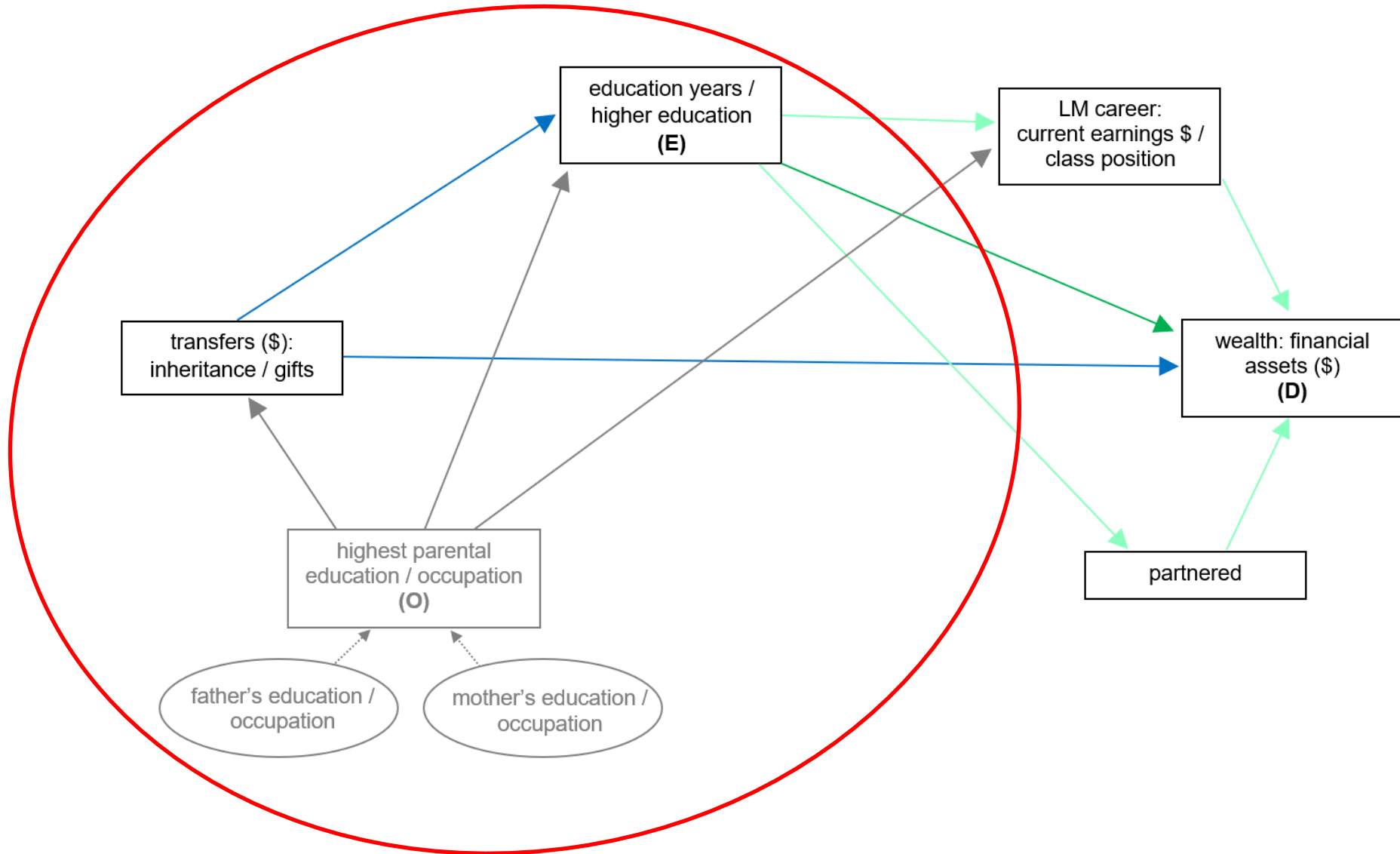
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# Effect of education on financial assets

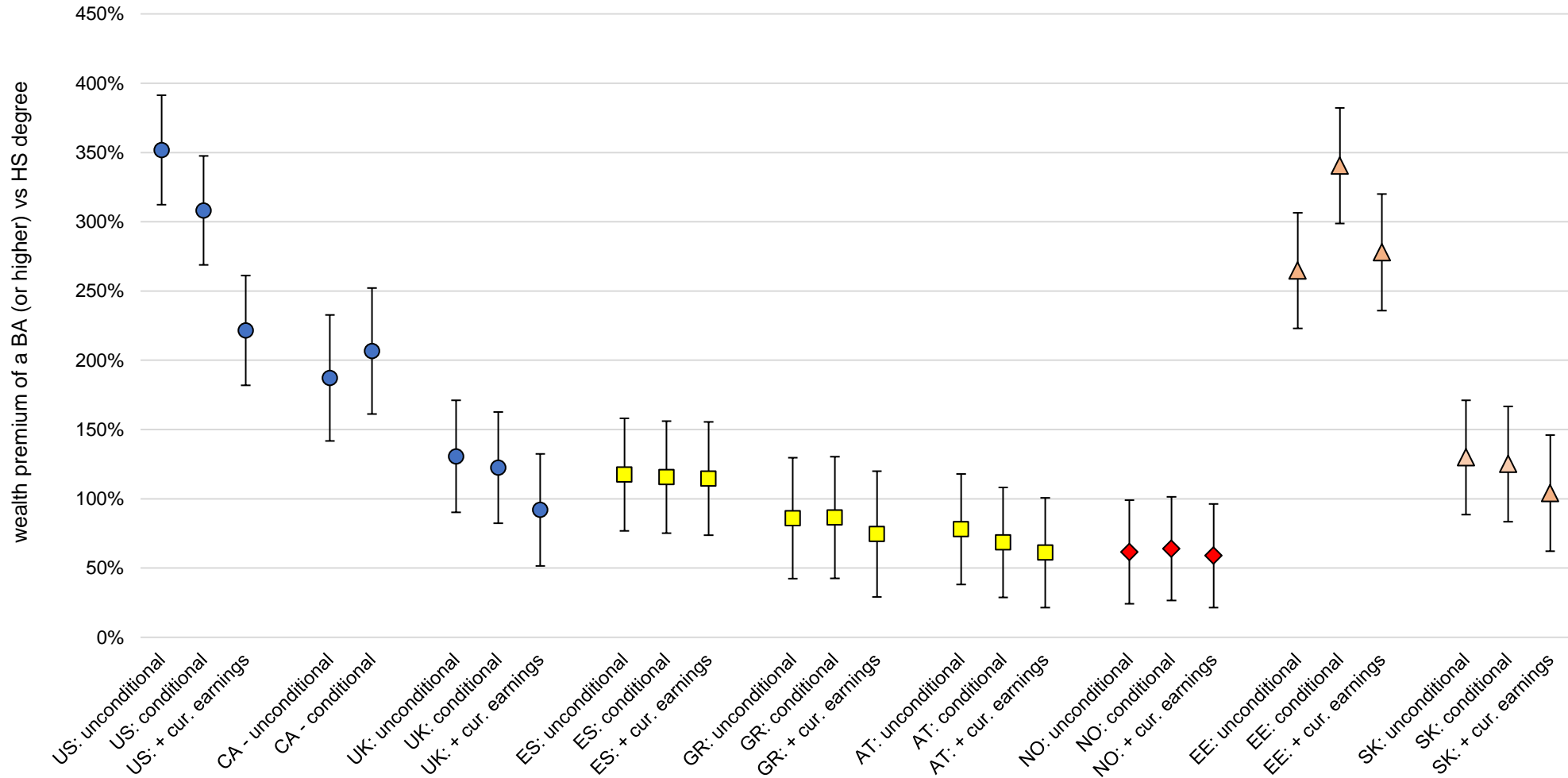
	stand.	total	direct	partial correlations within education → financial assets		
				% direct	% via partnered	% via earnings
United States	.388	.372	.329	88.6%	3.7%	7.6%
Canada	.319	.389	.379	97.4%	2.6%	n.a.
United Kingdom	.225	.263	.219	83.4%	5.1%	11.5%
Spain	.333	.222	.213	95.9%	-0.4%	4.5%
Greece	.178	.257	.218	84.9%	-0.8%	15.9%
Austria	.155	.276	.237	85.9%	4.1%	10.0%
Norway	.198	.141	.112	79.5%	8.1%	12.4%
Estonia	.355	.327	.334	101.9%	-4.9%	3.1%
Slovakia	.222	.198	.196	98.8%	-0.7%	1.9%



# Effect of parental origin on financial assets via inheritance / education

	% via inheritance / gifts pathway	% via education pathway	% via earnings pathway	% involving any education pathway	% involving non-education pathways	within parental origin → inheritance / gifts pathway	
						% via education	% direct
US	11.5%	87.9%	0.1%	90.1%	9.9%	18.5%	81.5%
UK	7.5%	84.4%	8.1%	85.2%	14.8%	9.9%	90.1%
Spain	15.9%	82.3%	1.8%	85.1%	14.9%	17.3%	82.7%

# Financial assets BA (vs HS) premium



# Conclusions

- **Education plays a considerable role in wealth inequality**
  - Direct effect large in US (.388) and CA (.318) but also ES/EE, rest  $\approx .15$
  - Effect of education on wealth is largely direct (80%-90%), with  $\approx 10\%$  via current earnings, except EE/SK ( $\approx 100\%$  direct)
  - BA premium varies between  $\approx 75\text{-}100\%$  to  $\approx 225\text{-}300\%$  (in US/CA/EE)
- **Inheritance/gifts-to-wealth path operates largely via education**
  - Direct effect largest in US/CA/UK ( $\approx .14$ ) and AT (.201)
  - Via education highest in US (28%), also ES (23%) & GR (24%),  $\approx 0\%$  EE/SK
  - In US, 90% (!) of parental origin-to-wealth runs through education, 85% CA/ES

# Thank you!

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# Financial assets BA (vs HS) premium (age)

