The Intergenerational Persistence of Poverty in High-Income Countries

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Background

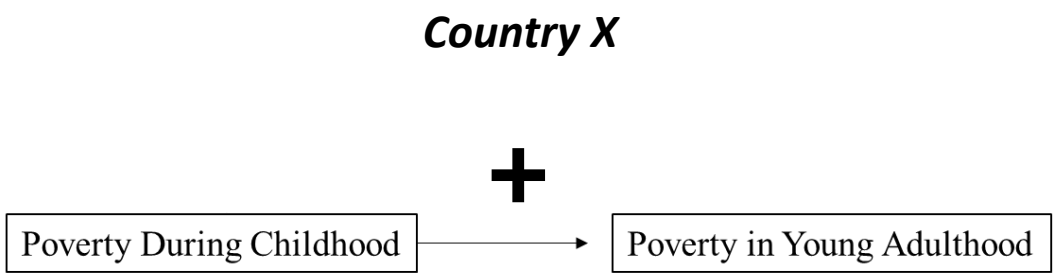
Intergenerational Poverty:

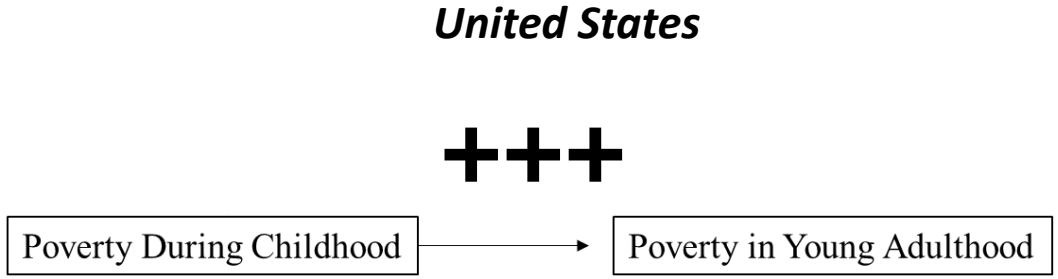
- Children growing up in poverty are more likely than children who do not grow up in poverty to experience poverty in adulthood.

Background

Intergenerational Poverty:

- But point estimates from prior studies suggest that **the consequences of low family income during childhood** are stronger in some countries relative to others
- **United States**, in particular: strong poverty persistence and strong intergenerational income and earnings elasticities (Corak, Torche, Gregg, Chetty, etc.)





Background

Intergenerational <u>Mobility</u>

- Downward and upward mobility

- Status attainment
- Occupations and occupational prestige
- Social class
- Adult **Earnings**
  - "Do Poor Children Become Poor Adults?" (Corak)
  - "The Role of Education for Intergenerational Income Mobility: A comparison of the United States, Great Britain, and Sweden" (Gregg et al., 2017)

vs. **<u>Poverty</u>:**

- Upward mobility from state of deprivation

- Household **income**
  - Including all taxes and transfers!

- Conceptual focus on adequate consumption power to maintain a decent livelihood

Research Questions

1. How do high-income countries compare with respect to the intergenerational persistence of poverty?

2. What explains differential rates of the intergenerational persistence of poverty across high income countries?

    - This study: United States, United Kingdom, Denmark, Switzerland, Germany, Australia

Background

Perspectives on the Intergenerational Persistence of Poverty:

1. Family Resources & Child Investment
2. Family Quality, Structure, and Characteristics
3. Place Effects
4. Mediation Effects: Benchmark Access
5. Mediation Effects: Market Rewards Packages
6. Tax/Transfer Insurance Effects
7. Residual Poverty Penalty

Goal of this paper: Adjudicate competing perspectives to explain intergenerational poverty in the US vs. other high-income countries

Background

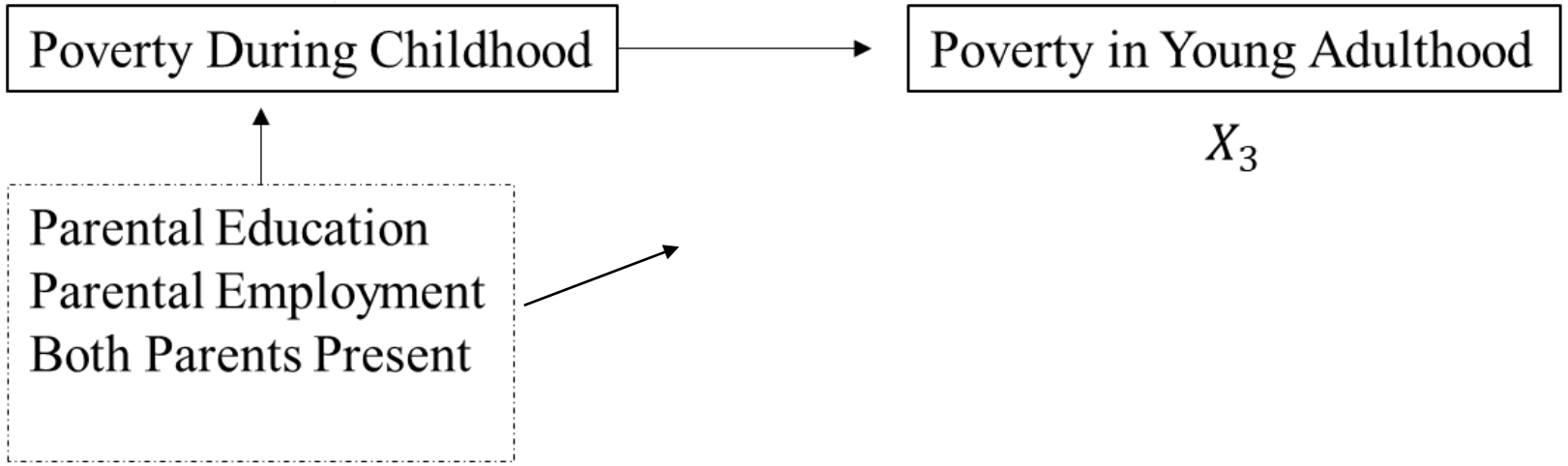
Perspectives on the Intergenerational Persistence of Poverty:

1. Family Resources & Child Investment
   - Family income matters for child development
     - **Investments:** greater consumption power improves opportunities for child enrichment and to improve later-life outcomes (Greg Duncan, Cooper and Stewart, …)
     - **Stress:** lower income and associated family stress impacts child well-being and development (McLoyd…)
   - Causal evidence of positive tax/transfer effects for later-life employment and education outcomes (Hoynes, Bastian and Michelmore, Dahl and Lockner, …)

Background

Perspectives on the Intergenerational Persistence of Poverty:

2. Family Quality, Structure, and Characteristics
   - But is it really the **income** that matters? Or **other family characteristics** associated with lower income?
     - Susan Mayer (1998): family characteristics, not income, matter more for child's future outcomes
   - Parental employment, presence of both parents, parental education, ...



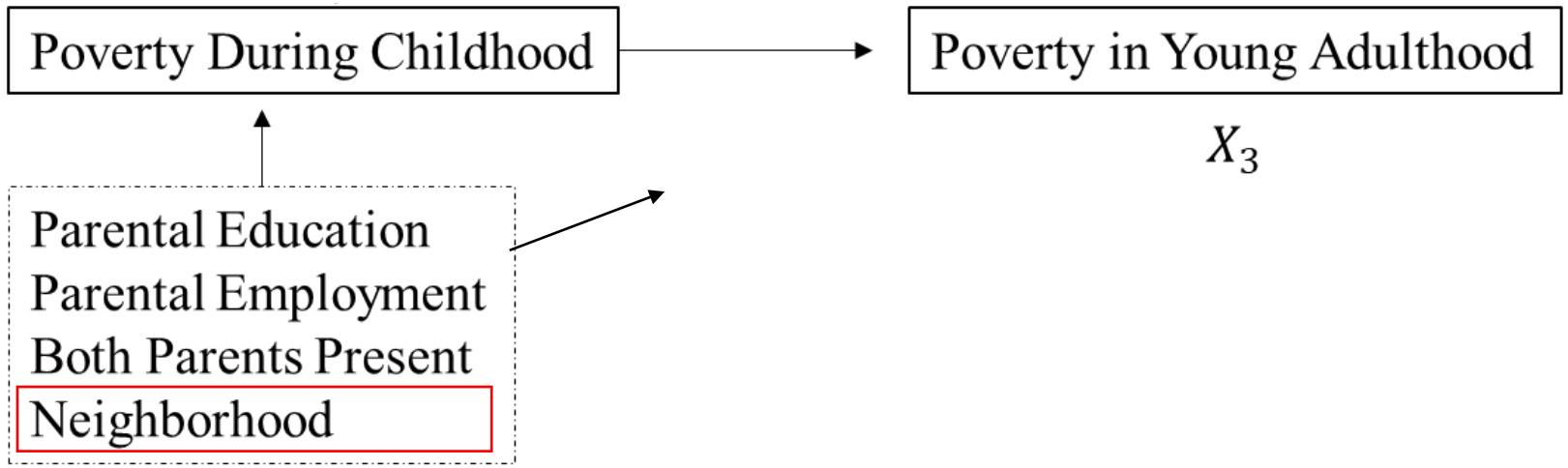
Background

Perspectives on the Intergenerational Persistence of Poverty:

3. Place Effects

- Or, is it **where you grow** up that matters more for later-life opportunity?
- In the US especially: strong focus on **place effects** as pathway linking childhood and adult opportunity (Sharkey, Chetty, Jencks, Wilson…)
- Disadvantaged neighbourhood: direct AND contextual effects on well-being and opportunity

This study: restricted-access PSID with place identifiers for US sample

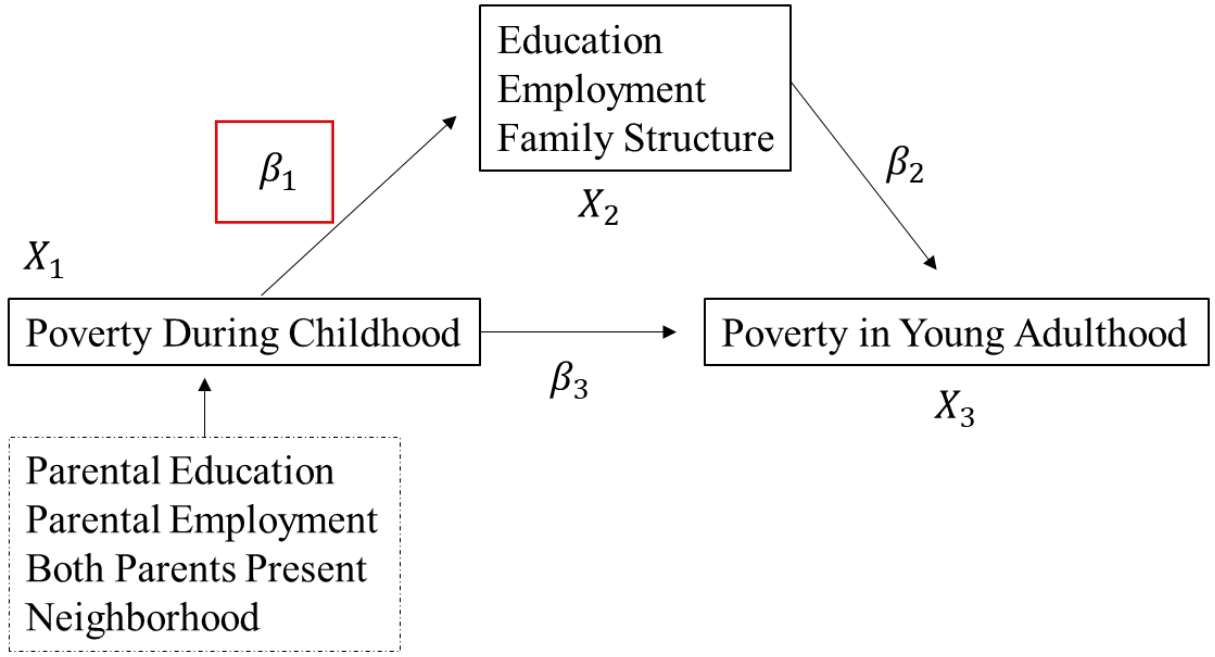


Background

Perspectives on the Intergenerational Persistence of Poverty:

4. Mediation Effects: **Benchmark Attainment**

- Childhood poverty → adult poverty link may **largely be mediated through benchmarks** associated with greater economic success in adulthood
- Central focus of stratification and mobility literatures: **educational attainment** as the central mechanism driving intergenerational mobility (Torche, Breen, Gregg, …)
- **Beyond education**: employment, health, family structure, …

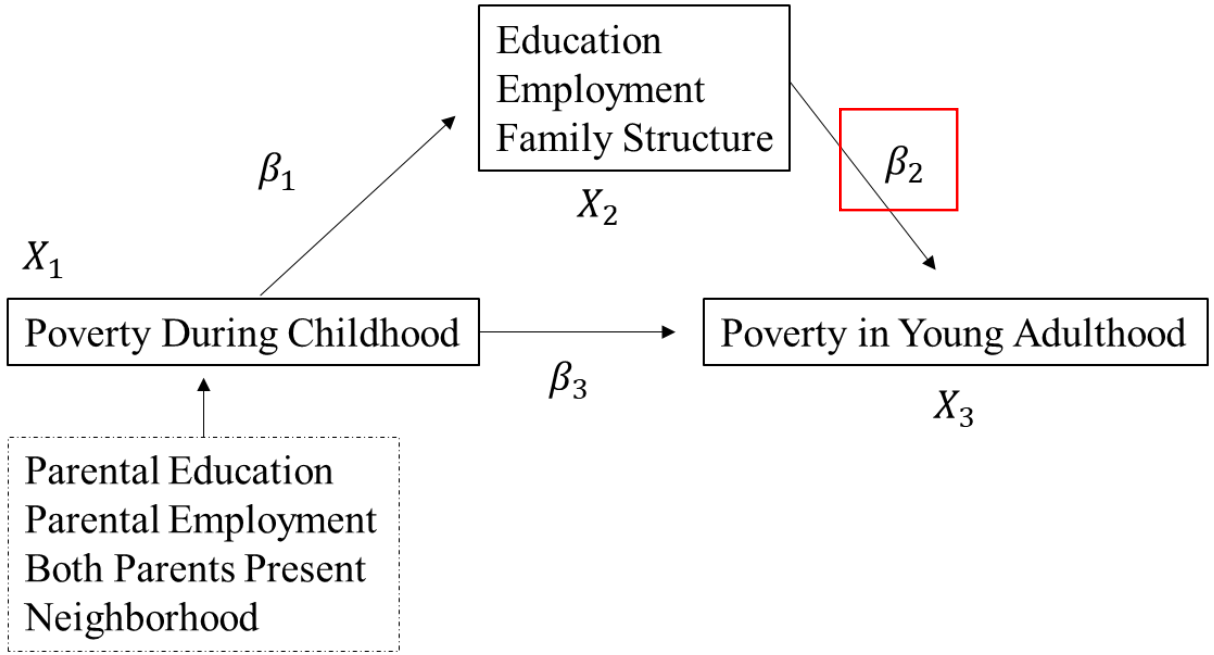


Background

Perspectives on the Intergenerational Persistence of Poverty:

5. Mediation Effects: **Market Rewards Packages**

- Differential sorting into benchmarks **only matters if** benchmarks lead to 'better adult outcomes
- "Market rewards packages" – **earnings** or **pre-tax/transfer** gains associated with attainment of given benchmark
  - (Past literature: a given status, occupation, class…)
- Sorting into education + greater market rewards associated with higher education may fully explain childhood poverty → adult poverty relationship

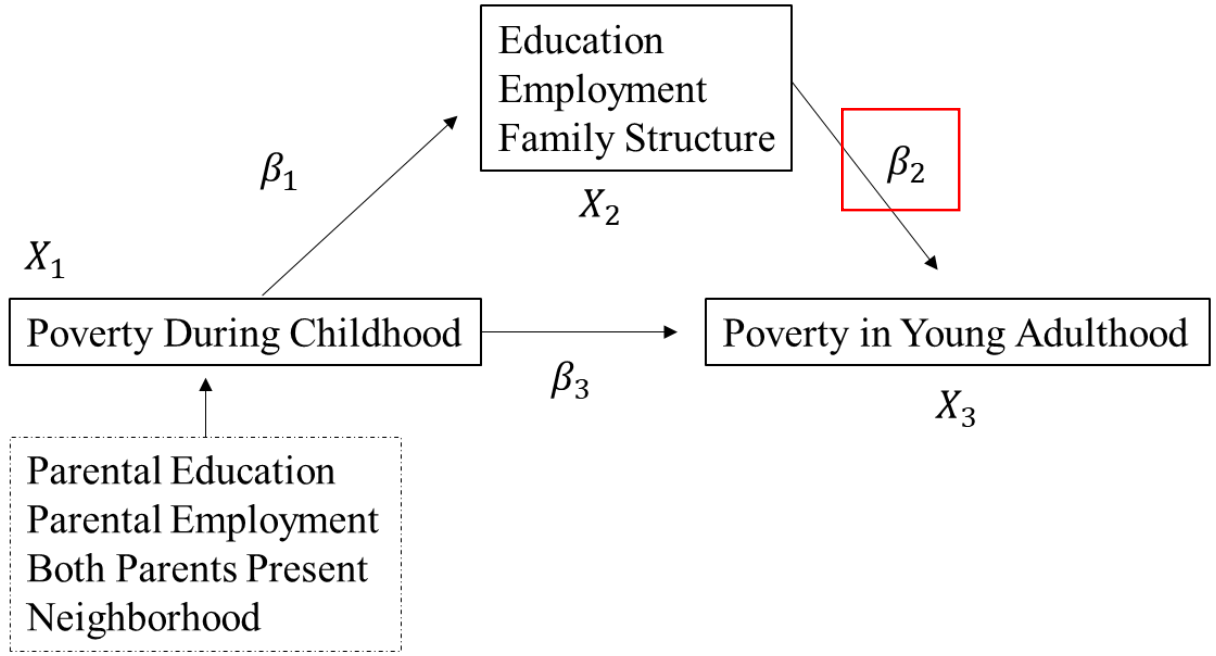


Background

Perspectives on the Intergenerational Persistence of Poverty:

6. Tax/Transfer Insurance Effects

- **Beyond market earnings**:
  - Taxes and transfers strongly reduce point-in-time poverty rates (Brady, Parolin, Gornick, Esping-Andersen, etc.)
  - Potentially strong 'insurance effects' for adults who fail to meet a benchmark
  - Relative to pre-tax/transfer rewards: taxes and transfers **reduce the relative gain** associated with meeting a certain benchmark

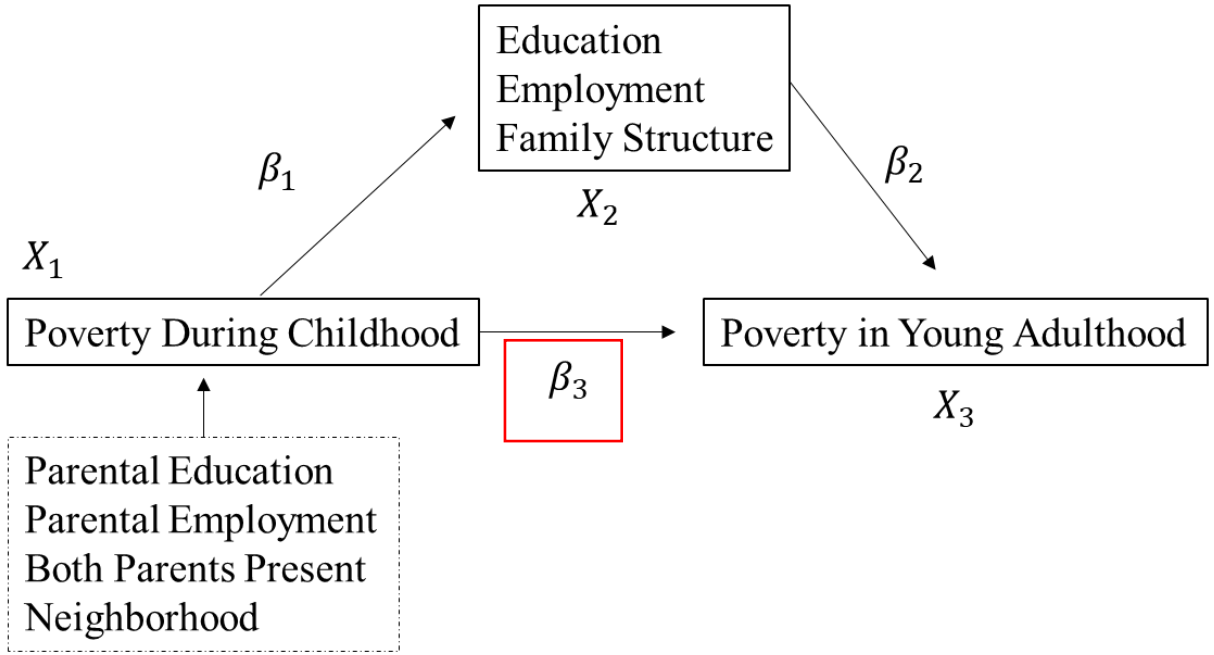


Background

Perspectives on the Intergenerational Persistence of Poverty:

7. Residual Poverty Penalty

- **Remaining relationship** between childhood poverty and adult poverty after accounting for mediators and family background
- "Unexplained" → this "direct effect" must generally be channeled through alternative, unobserved pathways
- Not necessarily **omitted variable bias**: can also be that variation in unexplained share across countries reflects real differences in the 'cruelness and consequence' of poverty



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Perspectives on the Intergenerational Persistence of Poverty:

1. Family Resources & Child Investment
2. Family Quality, Structure, and Characteristics
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7. Residual Poverty Penalty

Family Background

Mediators

Taxes/Transfers

Residual

Goal: Adjudicate these competing perspectives to explain intergenerational poverty in the US vs. other high-income countries

Data & Methods

Data

- Harmonized, cross-national panel files (CNEF) + Danish Register Data

Table 1: Overview of samples and data sources

Country	Data Sources	Years in Which Young Adults are Observed	N
United States	Panel Study of Income Dynamics	1982-2019	9,123
Australia	Household Income Dynamics	2013-2020	1,557
Denmark	Statistics Denmark Register Data	1980-2019	1,808,097
Germany	Socio-Economic Panel	1996-2016	2,148
Switzerland	Swiss Household Panel	2012-2019	530
United Kingdom	British Household Panel Survey & UK Household Longitudinal Study	2003-2017	781

Notes: Young adults are designated as those between ages 25 and 35.

Sample Restrictions:

- Each respondent observed at least 5 years during childhood (age 0-17)
- Each respondent only observed once in closest observed age to 35 (but at least 25)

USA Only:

- Restricted-access PSID with geographic identifiers
- Data on race/ethnicity of respondent

Data

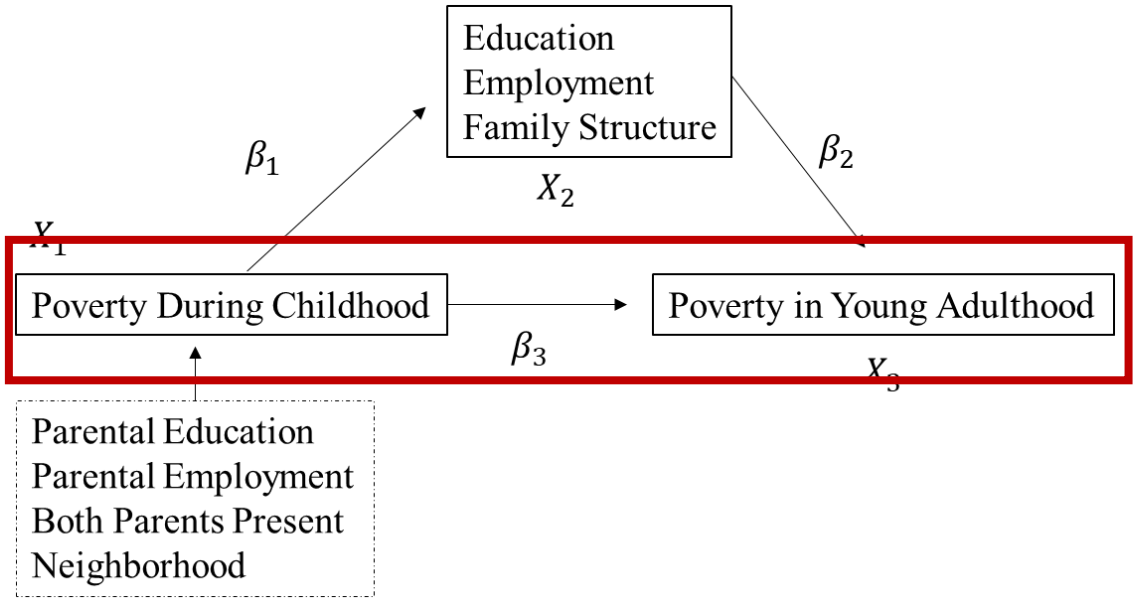
Measuring Poverty:

Post-tax/transfer income: all taxes and transfers included; income calculated at household level

Percent-of-median poverty measures: poverty threshold set at 50% of national annual equivalized median income

Exposure to poverty during childhood: mean poverty rate from 0-17

Poverty during early adulthood: mean poverty rate from age 25-35



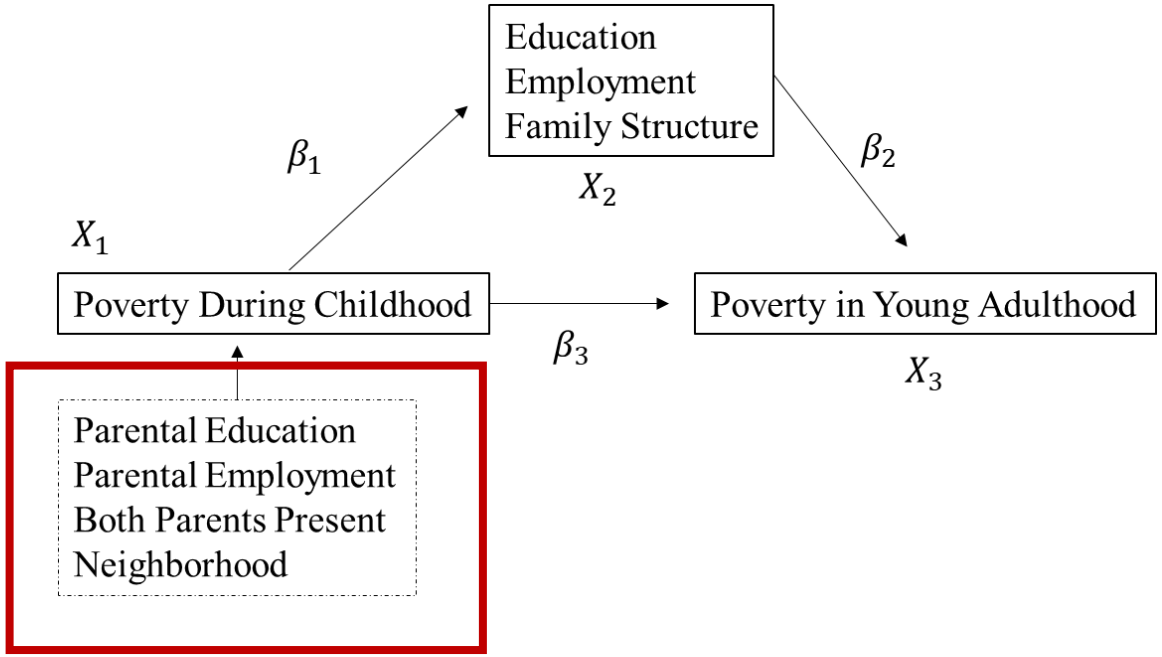
Data

Family Background:

- Share of childhood in home with no [mother / father] present
- Share of childhood in single-parent home
- Age of mother at birth
- Mean maternal employment rate
- Highest educational attainment of mother
- Average number of children in home during childhood

For US:

- Place: state and county in which the adult spent childhood



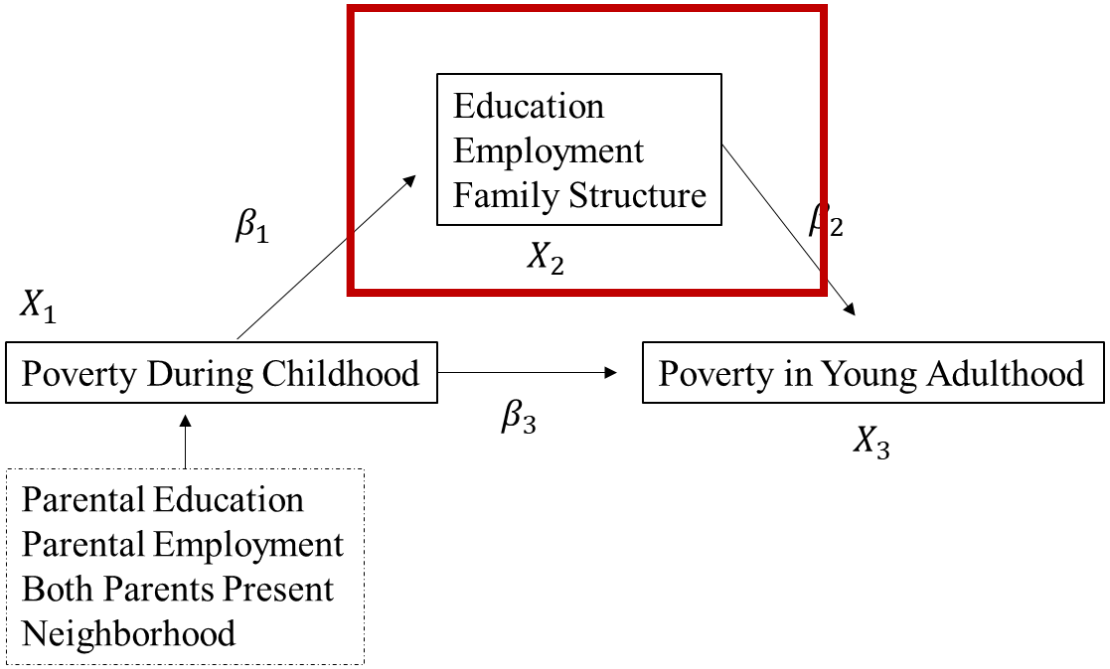
Data

Mediators of Interest:

Education:
- High school degree (or equivalent)
- More than a high school degree

Employment:
- Employed
- Working more than 30 hours per week

Family Structure:
- Whether a single parent with children present in home



Methods

- Base model of intergenerational poverty (OLS estimates)

$$Pov_{Post} = \beta_1 ChPov + e \qquad (1a)$$

which we will ‘decompose’ into…

$$\beta_1 = IGPov = F + M + T + R \qquad (1b)$$

Family Background +
Mediators +
Transfers +
Residual Penalty

Methods

$$Pov_{Pre} = \partial_1 ChPov + \partial_2 Fam + e \quad (2b)$$

$$F = \rho_1 - \partial_1 \quad (2c)$$

Family Background =

Share of childhood poverty to **pre-tax/transfer** adult poverty mediated by family background characteristics

Methods

$$Pov_{Pre} = \gamma_1 ChPov + \gamma_2 Fam + \gamma_3 Med + e \quad (3a)$$

$$M = \partial_1 - \gamma_1 \quad (3b)$$

Mediators, which is further decomposable into:

Benchmark Access Effects

$$Benchmark = \omega_1 ChPov + \omega_2 Fam + e \quad (A1)$$

X

Benchmark Reward Effects

$$Pov_{Pre} = \gamma_1 ChPov + \gamma_2 Fam + \gamma_3 Benchmark + e \quad (A2)$$

$$M = (\omega_1 * \gamma_3)_k \text{ if k=1}$$

Methods

$$Pov_{Post} = \theta_1 ChPov + \theta_2 Fam + \theta_3 Med + e \quad (4a)$$

$$T = (\gamma_1 - \theta_1) + (\beta_1 - \rho_1) \quad (4b)$$

Transfers

$$R = \theta_1 \quad (4c)$$

Residual Penalty

Methods

Component	Parameter	Description
Intergenerational persistence of poverty (*IGPov*)	β_1	The association of childhood poverty with adult poverty, equivalent to the sum of *F*, *M*, *T*, and *R*
Family background (F)	$\rho_1 - \partial_1$	The influence of the following indicators on *IGPov*: Share of childhood in home with no [mother / father] present; share of childhood in single-parent home; age of mother at birth; mean maternal employment rate during childhood; highest educational attainment of mother; average number of children in home during childhood
Mediating benchmarks (M)	$\partial_1 - \gamma_1$	The influence of the following indicators, observed in young adulthood, on *IGPov*, conditional on *F*: has high school degree; has more than high school degree; is employed; is employed and works more than 30 hours per week; is a single parent with children present in home; self-reported health
Tax and transfer insurance (T)	$(\gamma_1 - \theta_1) + (\beta_1 - \rho_1)$	The effect of taxes and transfers in influencing *IGPov*
Residual (R)	θ_1	The persistent association of childhood poverty with young adult poverty that is not channeled through *F* or *M* and is not offset by *T*

Findings

Research Questions

1. How do high-income countries compare with respect to the intergenerational persistence of poverty?

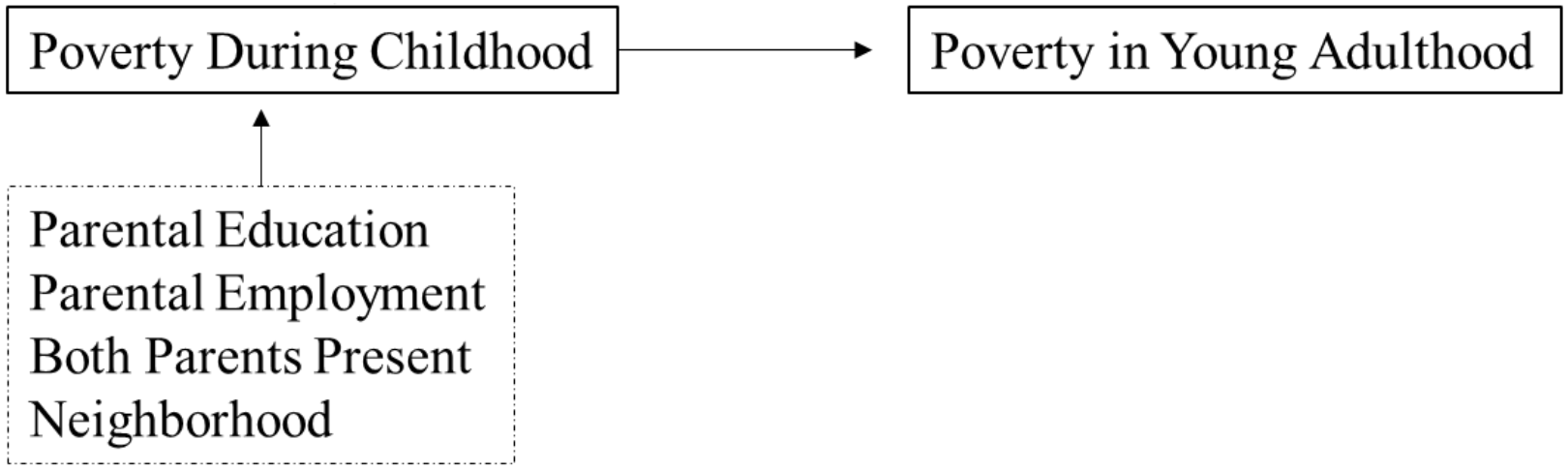


Table 1: Unconditional association of childhood poverty with young adult poverty by country

Country	(1) Association of Childhood Poverty and Adult Poverty	(2) Young Adult Poverty Rate	(3) Mean Exposure to Childhood Poverty	(4) Adult Poverty Rate if No Childhood Poverty
United States	0.43	17.9%	18.6%	9.9%
Australia	0.21	9.2%	10.3%	7.0%
Denmark	0.15	13.0%	6.6%	12.0%
Germany	0.16	9.2%	4.3%	8.5%
Switzerland	0.29	12.4%	8.7%	9.9%
United Kingdom	0.16	11.3%	15.3%	8.9%

Note: We restrict our Germany sample to individuals who spent all of their childhoods in West Germany. Poverty is defined as having a post-tax/transfer income below 50% of the national median equivalized household income. See Table 1 for sample details. Results are robust to limiting the U.S. sample to 2000 onward to match approximate starting point of other countries' samples.

1. The **unconditional association of childhood poverty with adult poverty** is much stronger for the U.S.

2. This is not systematically related to higher exposure to childhood poverty.

Research Questions

2. What explains differential rates of the intergenerational persistence of poverty across high-income countries?

1. Family Resources & Child Investment
2. Family Quality, Structure, and Characteristics
3. Place Effects
4. Mediation Effects: Benchmark Access
5. Mediation Effects: Market Rewards Packages
6. Mediation Effects: Tax/Transfer Insurance Effects
7. Unexplained Persistent Poverty Effects

Family Background

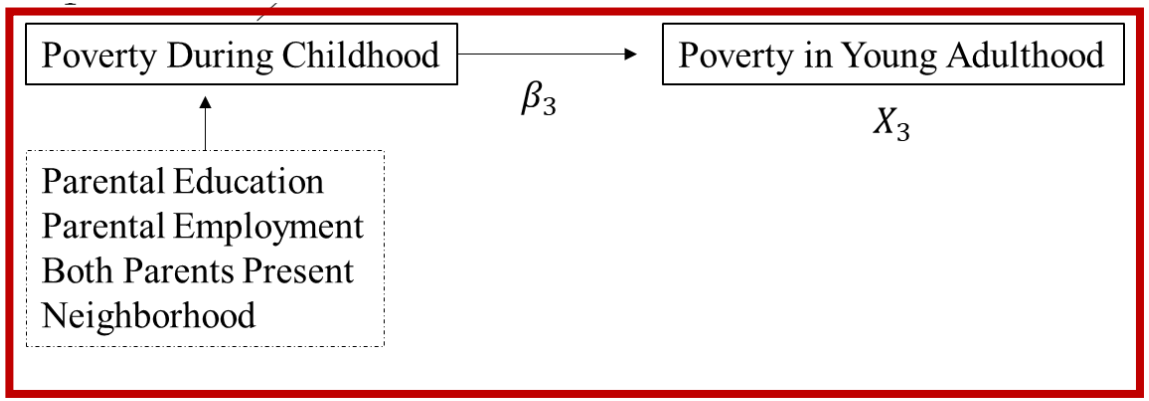


Table 2: Conditional association of childhood poverty with young adult poverty by country

	M1: Pre-Tax/Transfer Adult Poverty	M2: Pre-Tax/Transfer Adult Poverty, + Family Background	*F*
United States (n=9,123)			
Child Poverty	0.45***	0.36***	0.09
	(0.01)	(0.01)	
Australia (n=1,557)			
Child Poverty	0.50***	0.32***	0.18
	(0.04)	(0.05)	
Denmark (n=1,808,097)			
	0.26***	0.05***	0.21
	(0.00)	(0.00)	
Germany (n=1,642)			
Child Poverty	0.24***	0.23***	0.01
	(0.06)	(0.07)	
Switzerland (n=600)			
Child Poverty	0.26***	0.25***	0.01
	(0.05)	(0.05)	
United Kingdom (n=781)			
Child Poverty	0.50***	0.38***	0.12
	(0.05)	(0.07)	
Gender, Age, and Year Effects	X	X	
Family Background Controls		X	

Note: Models run separately for each country. "Family background controls" include mother's age at birth, mean number of children in household during childhood, share of childhood in single-parent household, share of childhood with no adult woman in household, share of childhood with no adult man in household, educational attainment of mother, and mother's mean employment rate during childhood.

Note: Pre-Tax/Transfer Adult Poverty

F = Family Background

- Stronger role in Denmark and Australia
- Weaker role in Germany and Switzerland
- U.S., UK in the middle.

Research Questions

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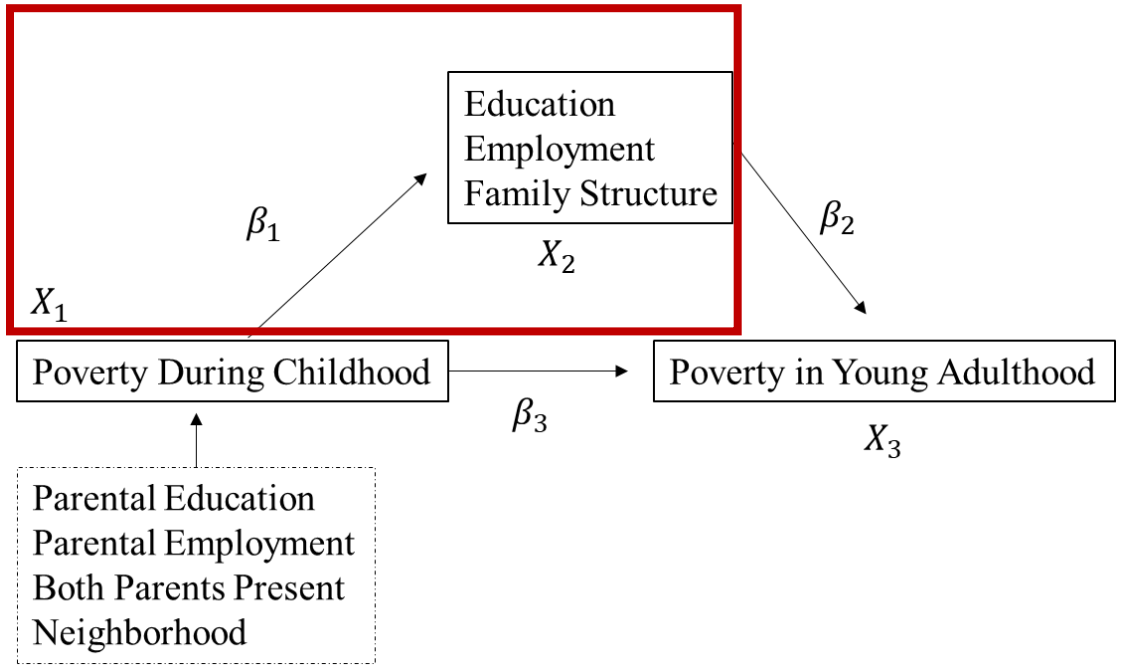
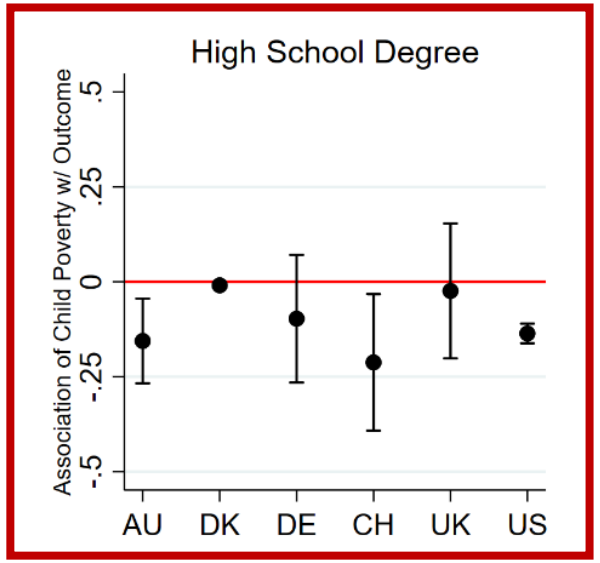


Figure 1: Benchmark Access: Association of childhood poverty with young adult benchmarks

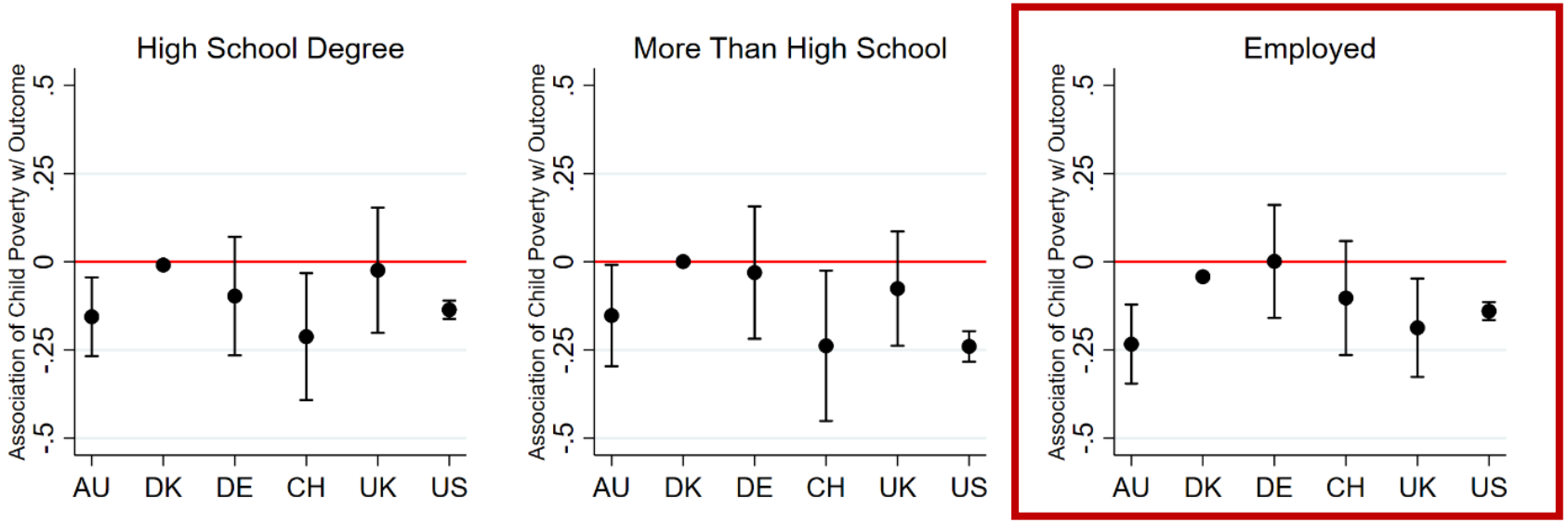


Greater exposure to childhood poverty:

1. Reduced likelihood of completing high school (or equivalent)

2. Not any stronger in US compared to AU, DE, CH

Figure 1: Benchmark Access: Association of childhood poverty with young adult benchmarks

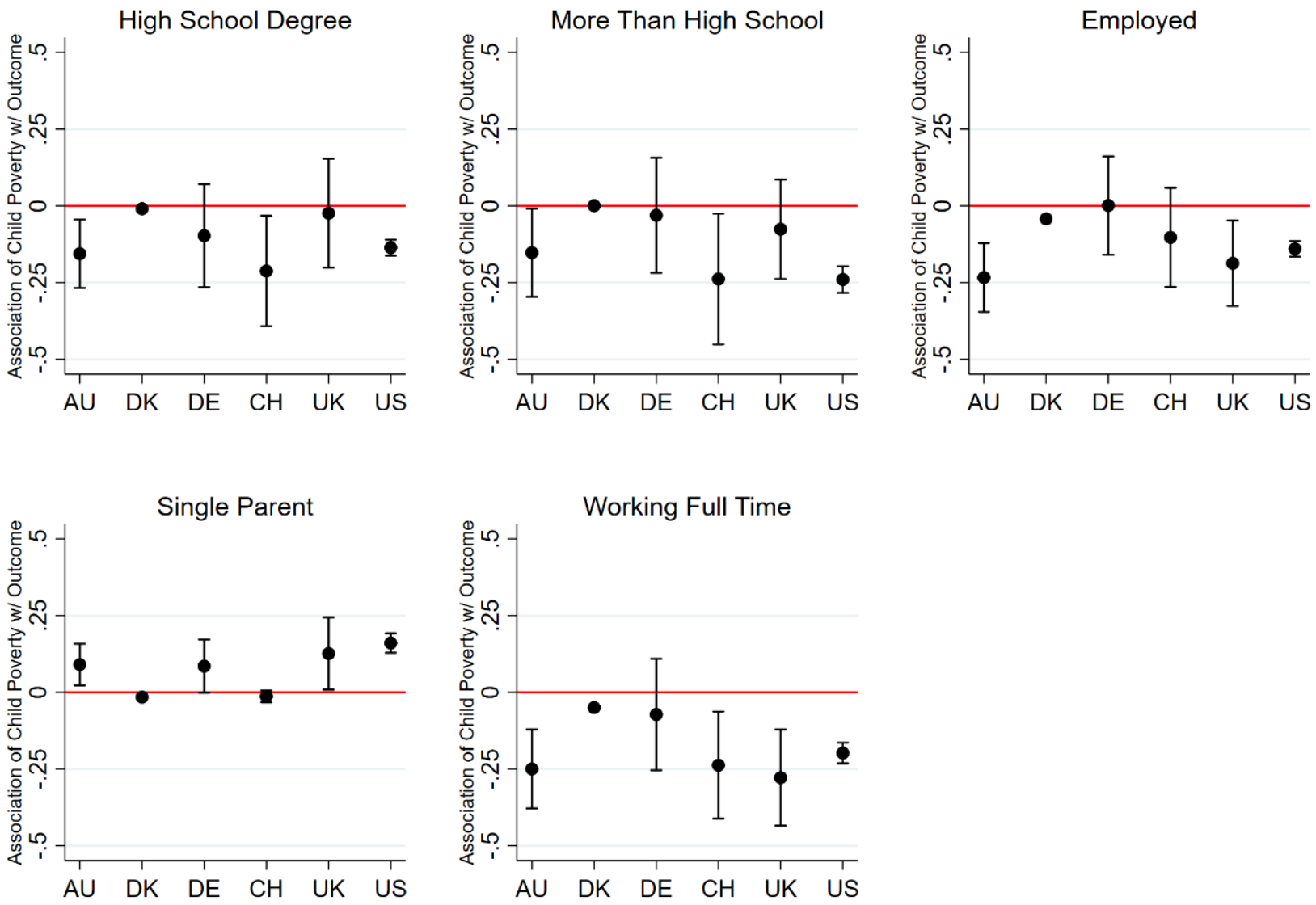


Greater exposure to childhood poverty:

1. Reduced likelihood of being employed in adulthood

2. Not any stronger in US compared to UK, CH, AU

Figure 1: Benchmark Access: Association of childhood poverty with young adult benchmarks



Research Questions

2. What explains differential rates of the intergenerational persistence of poverty across high-income countries?

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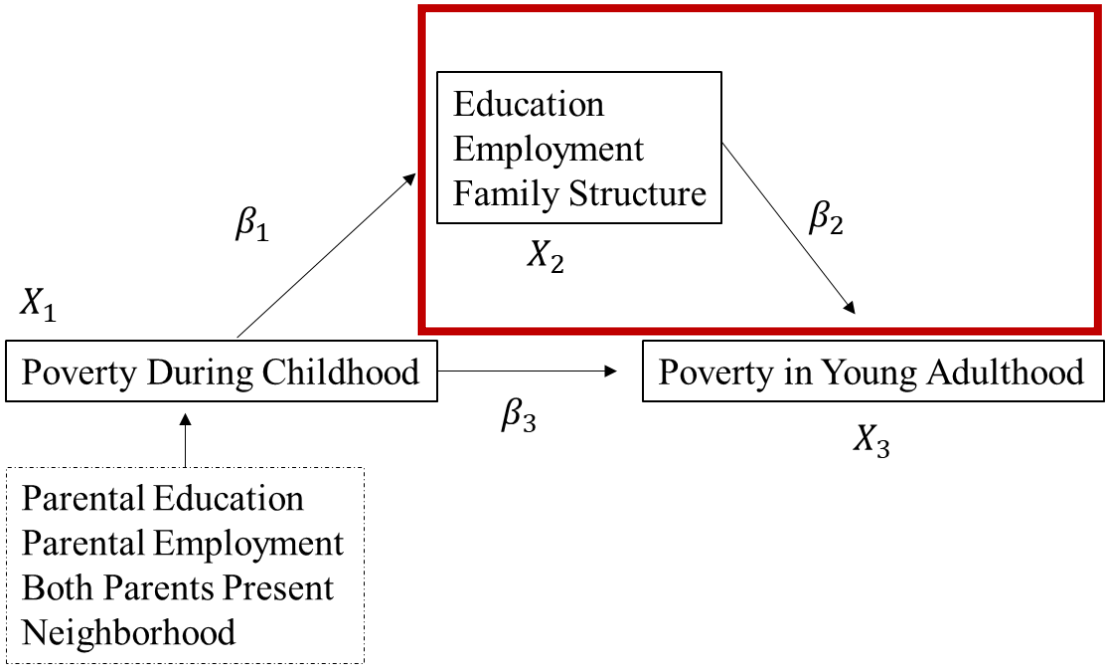
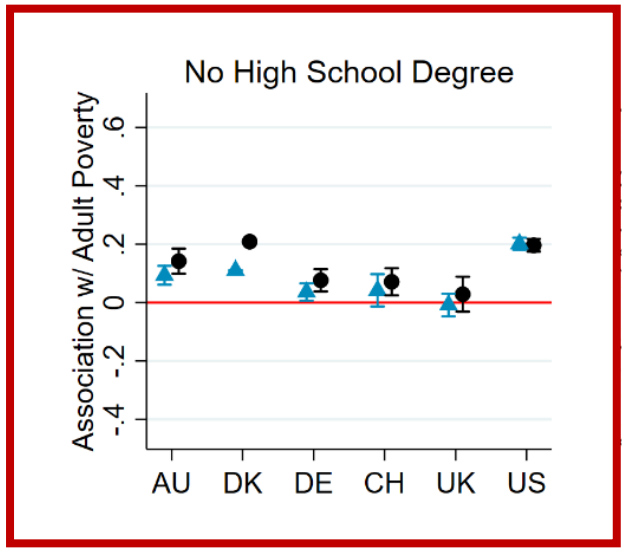


Figure 2: Association of lack of benchmark attainment with poverty in adulthood

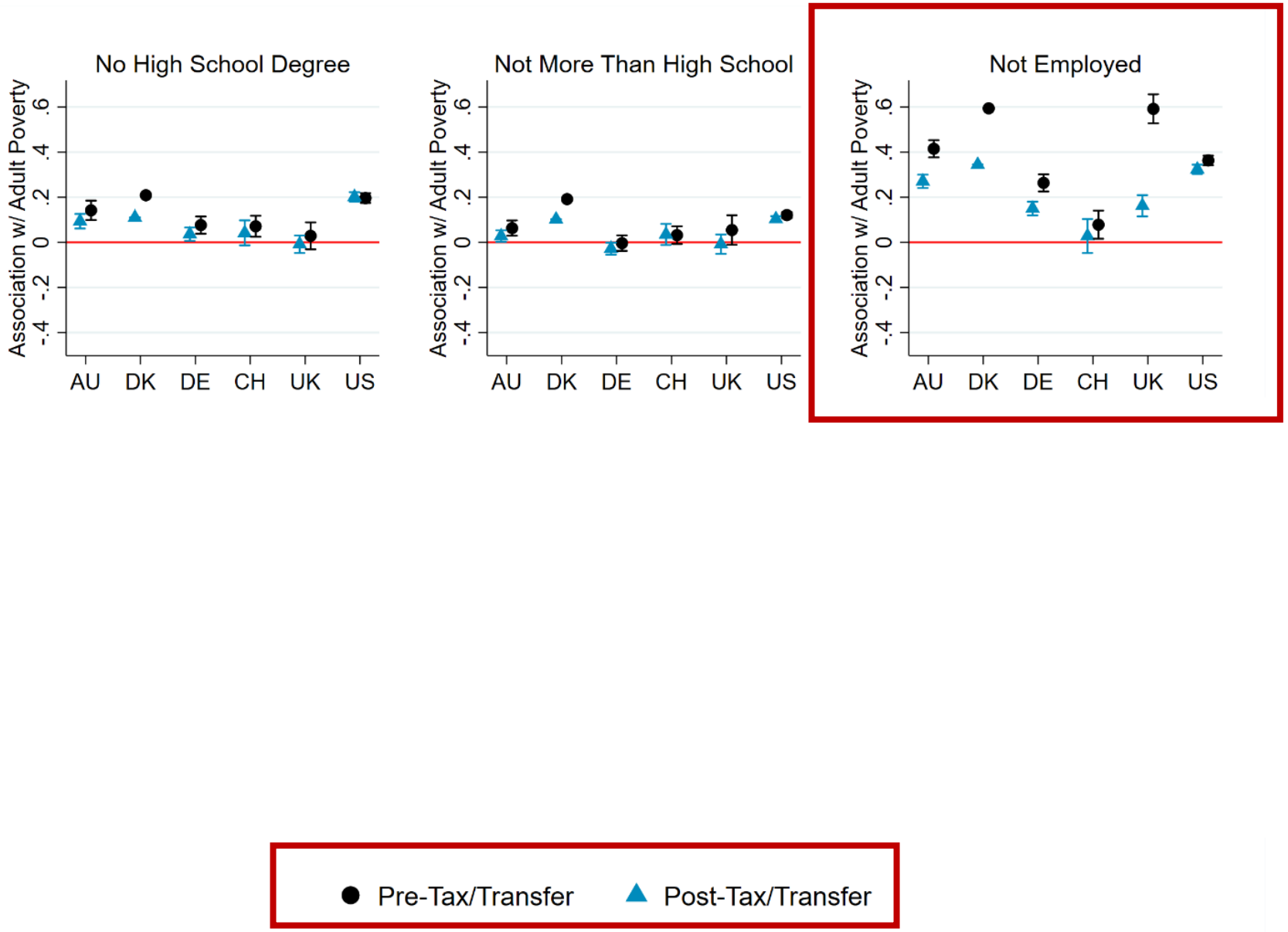


Not achieving the given benchmark:

1. Much higher likelihood of poverty in the US (2-3x rate of UK, CH, DE)

2. Taxes/transfers do more to reduce poverty penalty in non-US countries

Figure 2: Association of lack of benchmark attainment with poverty in adulthood



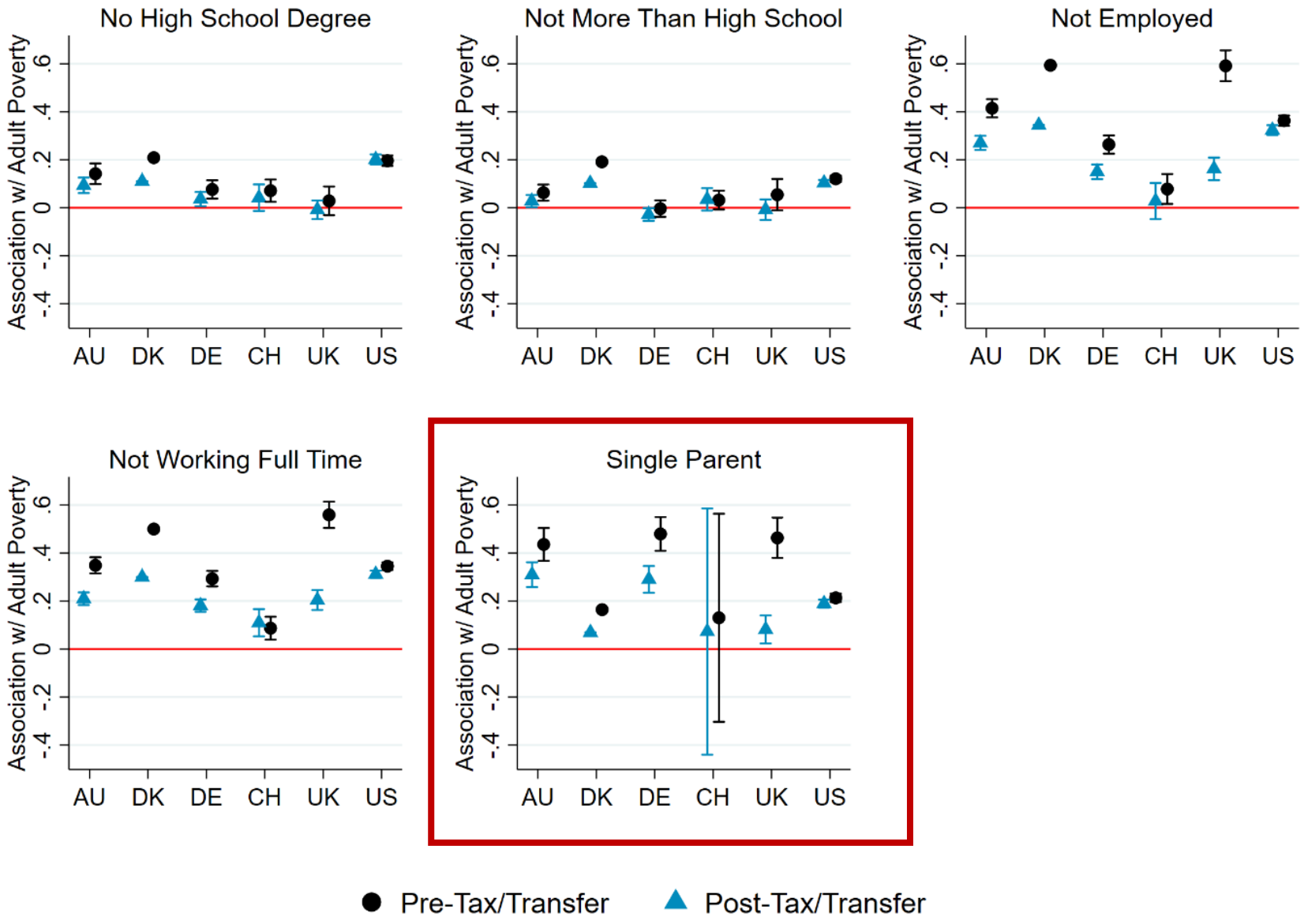
Not achieving the given benchmark:

1. Much higher likelihood of poverty in the US **when taxes/transfers included**

2. Market rewards of employment before taxes/transfers comparable in US, UK, AU

3. Taxes/transfers do more to reduce poverty penalty in non-US countries

Figure 2: Association of lack of benchmark attainment with poverty in adulthood



Not achieving the given benchmark:

1. Single parenthood penalty not stronger in the US relative to other countries examined

Research Questions

2. What explains differential rates of the intergenerational persistence of poverty in the US versus other high-income countries?

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6. Mediation Effects: Tax/Transfer Insurance Effects
7. Residual Poverty Penalty

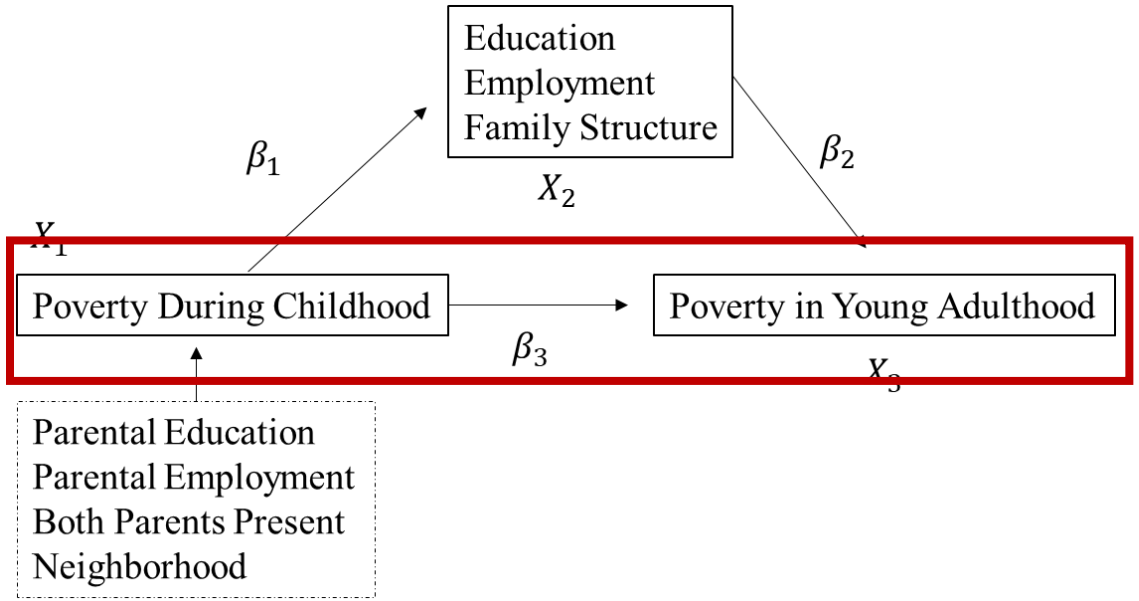
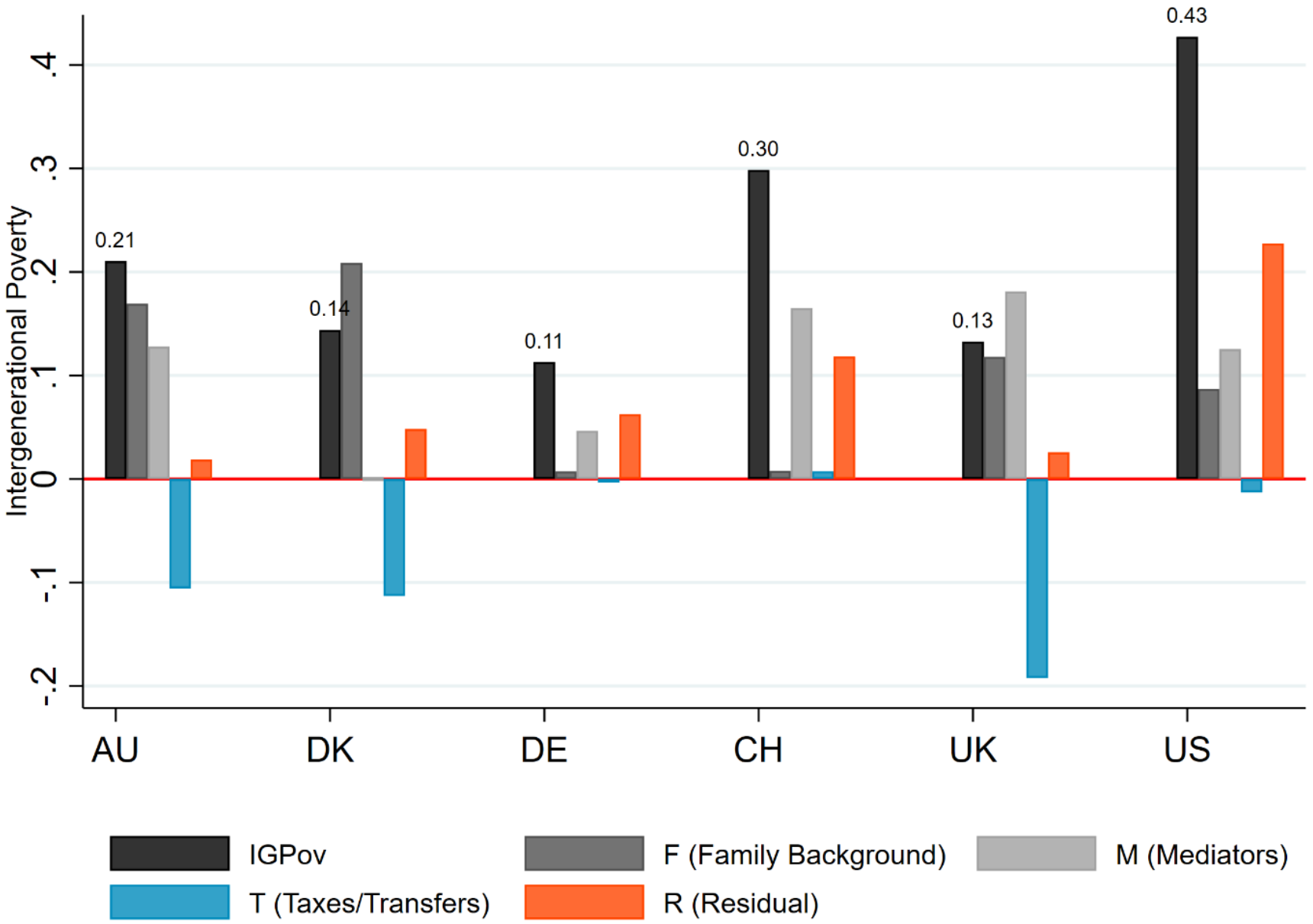


Figure: Share of intergenerational poverty explained by each factor



What explains intergenerational poverty persistence?

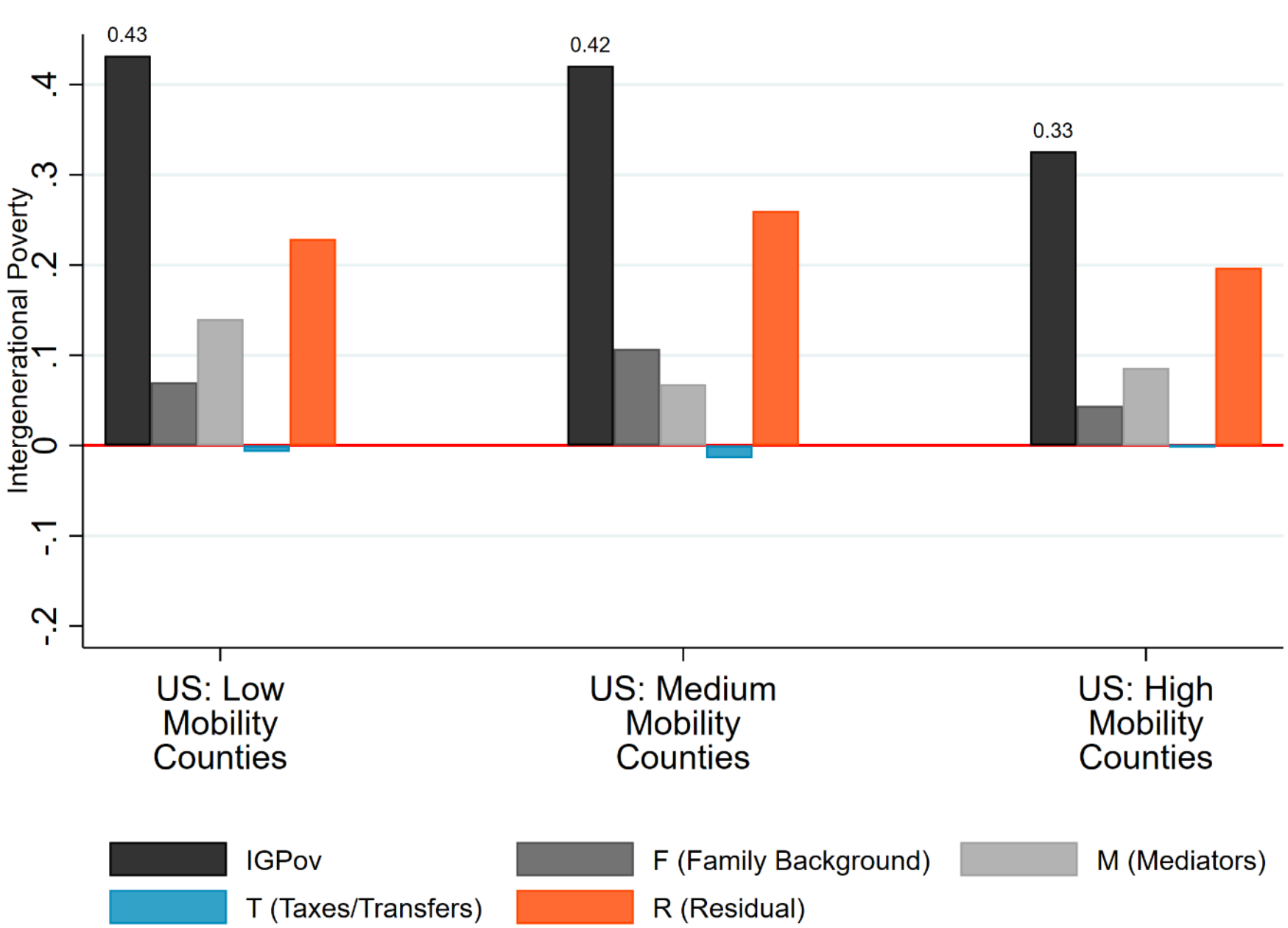
US: weak tax/transfer insurance, largely unexplained

AU, DK, UK: large tax/transfer insurance effects

DE/CH: Weaker tax/transfer effects and family background effects, more influence of mediators

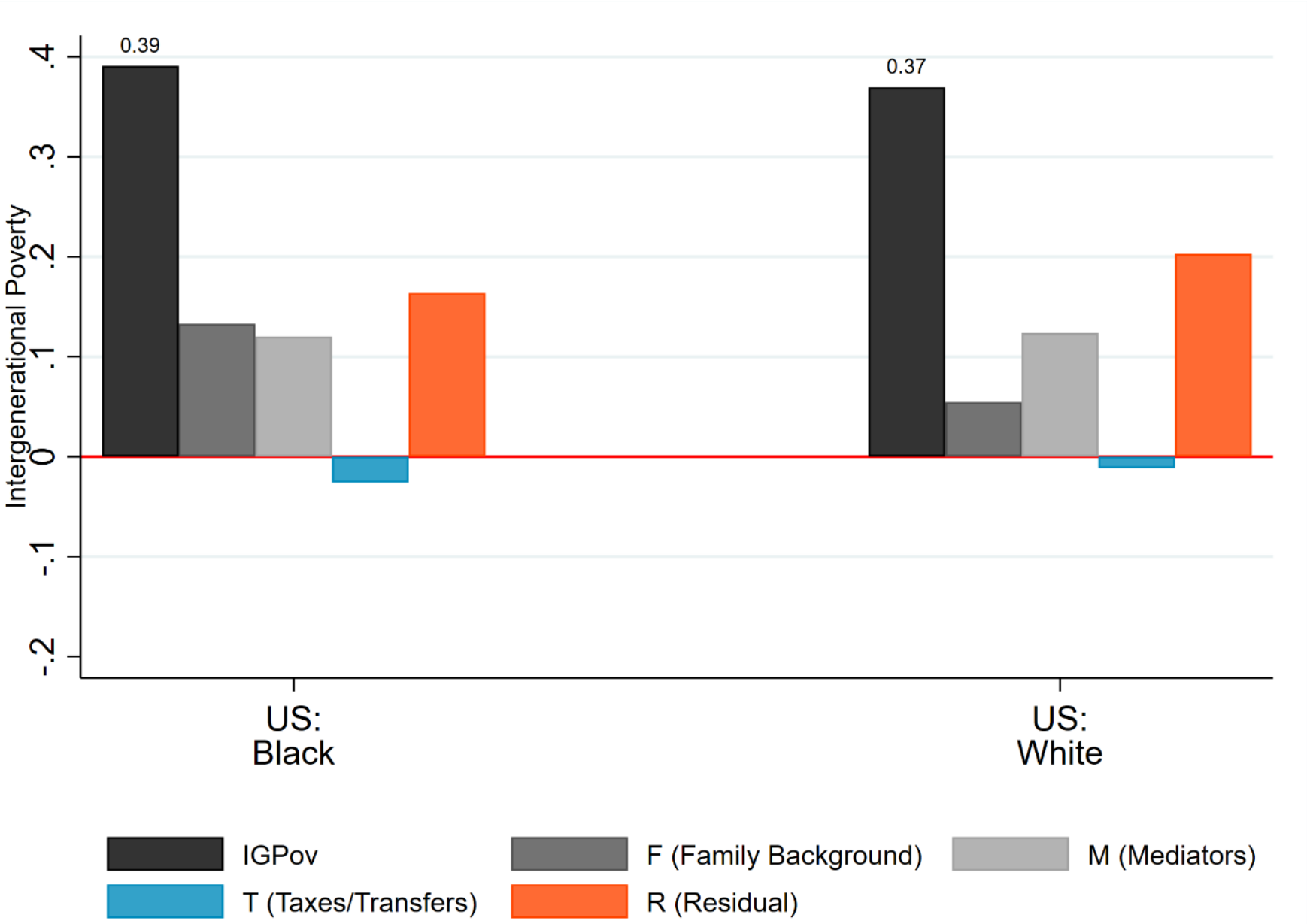
What about place or race/ethnicity?

Figure: Share of intergenerational poverty explained by each factor



Even in Chetty et al.'s "high mobility" neighbourhoods in the U.S.: poverty persistence larger than in other countries.

Figure: Share of intergenerational poverty explained by each factor



Comparable patterns for White and Black individuals in the U.S.

To be clear: Black individuals still exposed to childhood poverty at 3-4x the rate as White individuals

Conclusions

Conclusions

1. **How does the US compare to other high-income countries with respect to the international persistence of poverty? Why**

- Stronger intergenerational persistence of poverty in the US
  - Unconditional association is twice as strong as in Australia, 3x as strong as in UK
- The higher persistence in the US is **not** primarily channeled through
  - Family background effects (being raised by a single parents, (un)employed parents, highly or lowly educated parents matters less than in UK, AUS)
  - Place effects: the state and county where an adult grew up
  - Differential attainment of education (or other benchmarks)
  - Differential market rewards packages attached to benchmarks
- The higher persistence in the US **is** primarily channeled through:
  - Tax/transfer insurance effects reducing adult poverty among those with lower employment, education
  - Stronger ‘unexplained’ poverty persistence effects

Conclusions

2. Implications for Mobility Studies

- Intergenerational poverty not necessarily = intergenerational mobility
  - From welfare perspective, arguably more important to study than IGEs
- Income definition matters – conceptually and empirically
  - Taxes and transfers affect household well-being and consumption power
  - Including taxes/transfers affects cross-national variation in intergenerational persistence of poverty
  - Prior studies focused on “intergenerational poverty” generally focus on pre-tax/transfer income or earnings (Gregg, Corak, …)
- In all countries, income and poverty status matter beyond observable family characteristics
- Strong US focus on ‘neighbourhood effects’ seems to matter little in explaining US variation vs. other high-income countries

Conclusions

3. Limitations / Next Steps

- Unobserved family background characteristics
- Explaining the ‘unexplained’ persistence in US
- Direct comparison to IGEs
- Some harmonization challenges to resolve:
  - UK education categories
- What else is missing / unclear / unconvincing?

Comments and Questions:

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