

# **One Track Mind**

## Secondary Effects in School Choice and Social Capital in a Stratified System

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# SES disparities in educational decisions

- Large sociological literature on **secondary effects of social origin**<sup>1</sup>
  - *Conditional on educational performance*, higher SES students are more likely to choose demanding/prestigious educational pathways
- These SES disparities **matter** for educational and labor market outcomes<sup>2</sup>
- Prior research focuses on **continuation decisions** or **track choice**
  - ↑ in stratified systems, ↓ with standardized track allocation methods

1. Boudon, 1974; Jackson, 2013; Tieben et al., 2010.

2. Birkelund and Van de Werfhorst, 2022; Borghans et al., 2019; Oosterbeek et al., 2023.

# SES disparities in school choice

- Tracking often coexists with other (horizontal) differentiation<sup>1</sup>
- If direct influence on track placement is limited, (advantaged) parents may seek **alternative ways** to shape children's education<sup>2</sup>

→ School choice can provide such an avenue

1. track offer (*single- vs. multi-track schools*)
2. ability grouping (*single- vs. multi-track classes*)

School choice is rarely studied from this perspective (with exceptions<sup>3</sup>)

1. Domina et al., 2019; Triventi et al., 2020.

2. Dumont et al., 2019.

3. Van de Werfhorst, 2021; Van Elk et al., 2011.

# Social capital and school choice

- **Contextual factors** in educational decision-making
  - Diversity options in stratified system → network-embedded resources may provide valuable and consequential input
- Growing literature on (social capital in) peer networks and educational decisions<sup>1</sup>
  - Yet focused on *later* decisions & often lacking network data
- Potential differential impact of social capital<sup>2</sup>
  - Multiplication ↔ compensation

1. Choi et al., 2008; Fletcher, 2012, 2015; Lenkewitz and Wittek, 2023; Rosenqvist and Brandén, 2024; Rubineau et al., 2024; Smith, 2023; Zölitz and Feld, 2021.

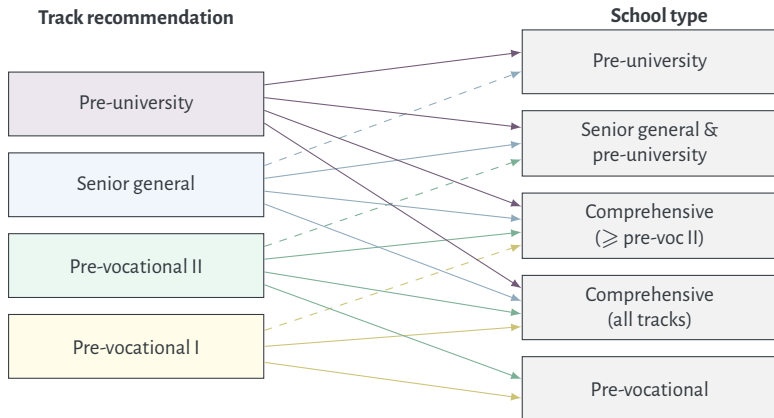
2. Chetty et al., 2022; DiMaggio and Garip, 2012; Horvat et al., 2003.

# Research aims

1. Examine SES disparities in secondary school choice
2. Assess the relation between the social capital in students' primary school networks and socially selective school choices

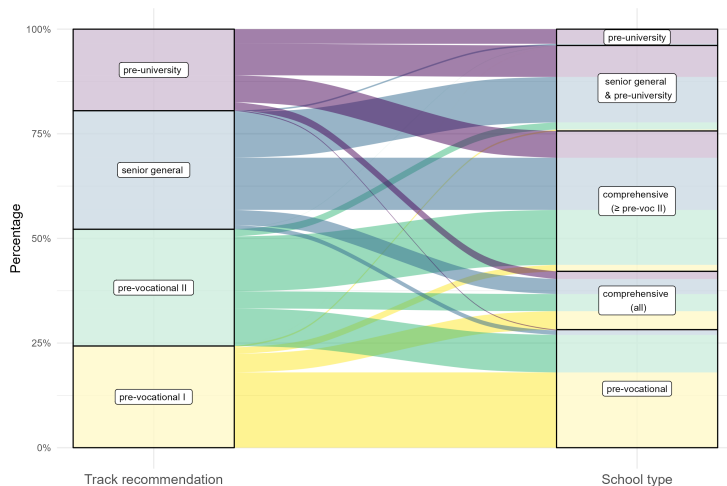
*For this, I use network data, register data on school enrollment and SES, and web data on school characteristics*

# The Dutch case – a “stylized” example



All school types (except for pre-university) can offer homogeneous (single-track) or heterogeneous (multi-track) classes

# These scenarios aren't just hypothetical



NCO 2019/20-2020/21.  $N = 328, 353$ .

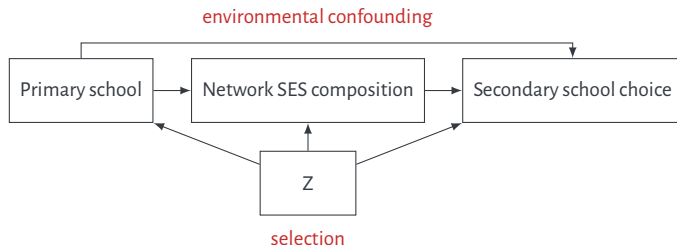
# Data & measures

- Register data (NCO, '19/20, '20/21)
  - School enrollment, parental education, schools' track offer, controls
- Web data on a school's ability grouping practices (*not in registers*)
- Classroom network data (PRIMS, '19/20, '20/21)
  - Representative sample of schools; classes with  $\geq 65\%$  response
  - Share high-SES ties in friendship, collaboration, parental networks

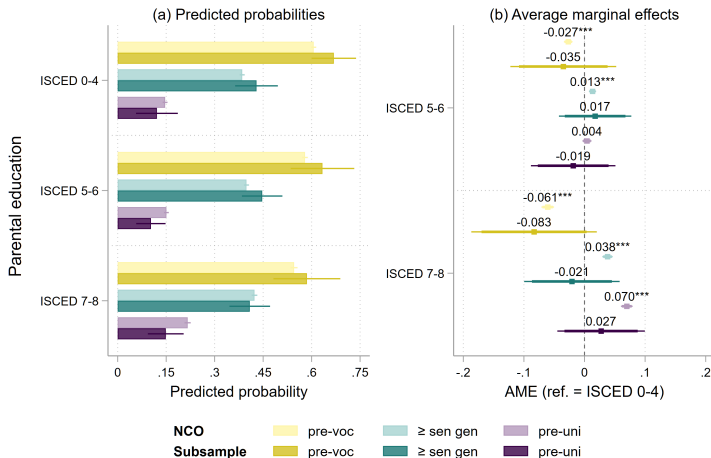


# Analytical strategy

1. LPMs of school type on SES, subsamples based on **eligibility**  
Samples
  - All students transitioning to secondary school ( $N = 328,353$ )
  - **Subsample of PRIMS students with network data ( $N = 1,326$ )**
2. LPMs of school type on  $(SES \times)$  social capital with school FEs
  - ✓ Selection into primary schools & environmental confounding
  - ✗ Selection into school-based networks (SES homophily<sup>3</sup>)

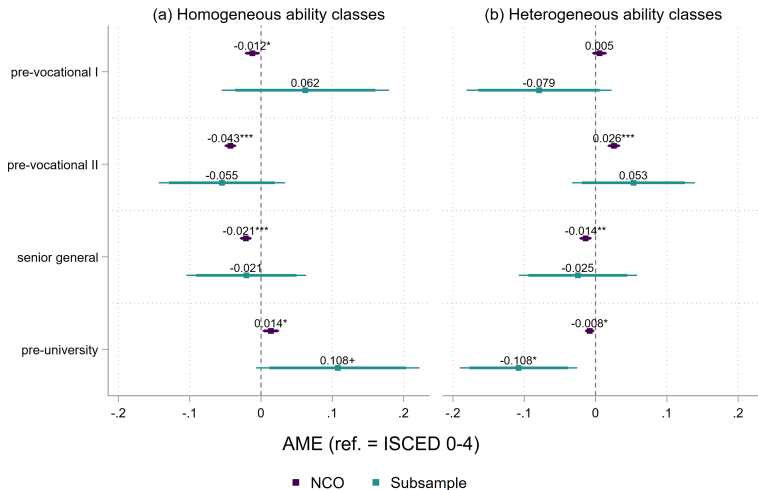


# SES disparities in school choice, track offer



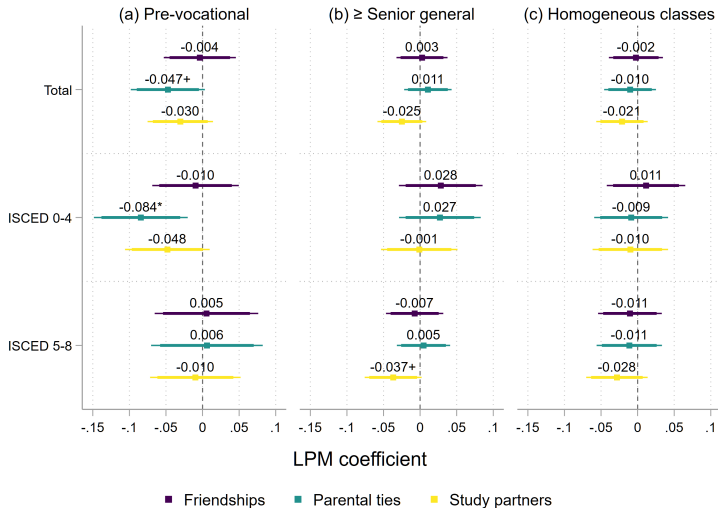
Source: NCO, PRIMS, VOBAP. Note: Controlled for cohort, track rec, gender, minority background, age, and minimum home-school distance to school type.

# SES disparities in school choice, ability grouping



Source: NCO, PRIMS, VOBAP. Note: Controlled for cohort, track rec, gender, min. background, age.

# Social capital and school choice



Source: NCO, PRIMS, VOBAP. Note: Controlled for cohort, track rec, gender, min. background, minimum home-school distance to school type, and out-degree.

# Discussion

- Stratification in secondary school choice<sup>1</sup>
  - Higher SES families avoid pre-vocational schools, and opt for pre-university schools or those with mixed ability classes at intermediate performance levels
  - Effectiveness current desegregation policies (affecting a subset of schools) may be limited
- Limited evidence for social capital → school choice (cf.<sup>2</sup>)
  - Indications of compensatory role (parental) networks<sup>3</sup>
  - Peers guide students to *specific* schools rather than school *type* through social capital mechanisms
  - Offsetting effects normative conformity vs. social contrast<sup>4</sup>

1. Van de Werfhorst, 2021; Van Elk et al., 2011.

2. Cherng et al., 2013; Lenkewitz and Wittek, 2023; McDermott et al., 2022.

3. Chung, 2020; Lenkewitz and Wittek, 2023; Smith, 2023; Zwier et al., 2023.

4. Borgen et al., 2023; Jonsson and Mood, 2008; Rosenqvist, 2018.

# Limitations

- School features could not be studied simultaneously
  - Findings ability grouping may partly reflect variations in prevalent class types across schools with different track offerings
- Role network sorting in analysis social capital and school choice
- Relatively small samples → potential power issues

# Thank you!

Questions, comments, suggestions?



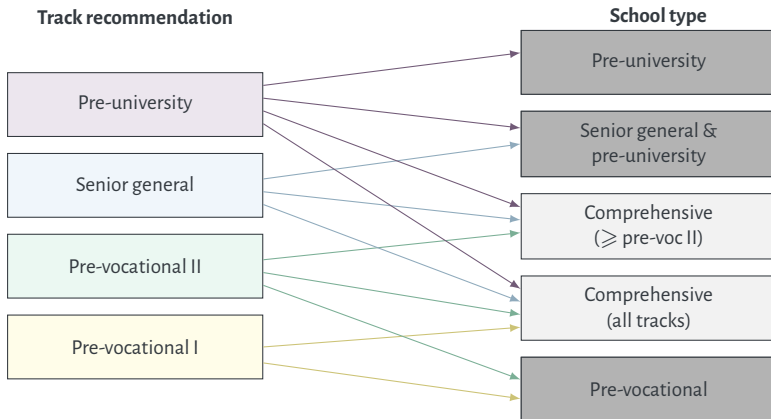
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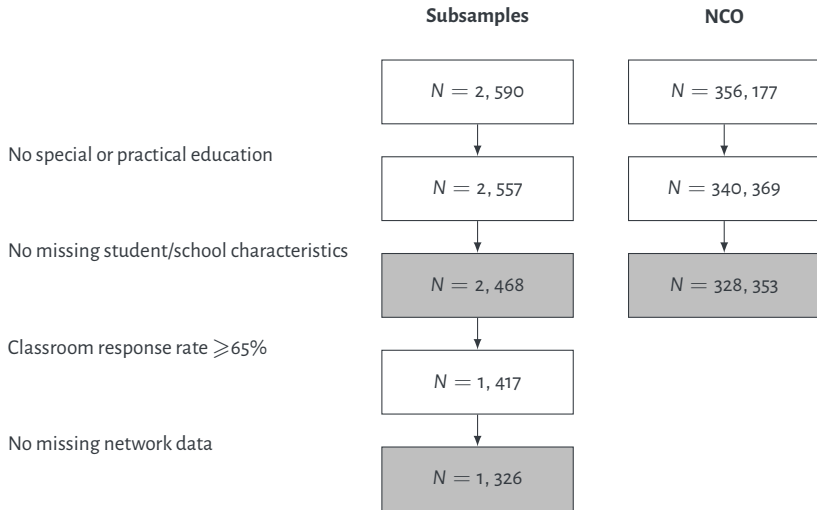


Table: Sample descriptives.

	NCO	PRIMS	PRIMS ( $\geq$ 65% response)
Equivalized household income	35534.4	35238.8	35823.2
Gender ( <i>female</i> = 1)	50.3%	51.9%	50.6%
Minority background ( <i>yes</i> = 1)	17.7%	11.9%	11.2%
Track recommendation [1-9]	6.0	6.2	6.1
<i>Parental education</i>			
ISCED 0-4	50.4%	48.1%	48.7%
ISCED 5-6	27.5%	30.6%	30.2%
ISCED 7-8	22.1%	21.3%	21.1%
<i>School type: track offering</i>			
Pre-vocational	28.2%	28.9%	29.6%
Comprehensive (all)	13.9%	7.9%	8.1%
Comprehensive ( $\geq$ pre-voc II)	33.5%	35.9%	37.8%
Senior general & pre-university	20.4%	24.4%	21.4%
Pre-university	3.9%	2.9%	3.1%
<i>School type: ability grouping</i>			
Both	29.9%	30.0%	30.2%
Heterogeneous classrooms	33.8%	34.4%	36.8%
Homogeneous classrooms	36.2%	35.5%	33.0%
<i>Urbanization degree</i>			
Very strongly urban	22.8%	20.2%	20.1%
Strongly urban	31.3%	30.3%	26.1%
Moderately urban	16.0%	16.6%	16.7%
Hardly urban	22.3%	26.8%	28.4%
Not urban	7.6%	6.0%	8.7%
N	328,353	2,468	1,326

Table: Descriptive statistics by parental education.

	NCO			PRIMS-NCO		
	ISCED 0-4	ISCED 5-6	ISCED 7-8	ISCED 0-4	ISCED 5-6	ISCED 7-8
<i>Track recommendation</i>						
Pre-vocational I	36.5%	16.0%	6.7%	35.4%	13.0%	7.1%
Pre-vocational II	31.5%	28.7%	18.6%	33.5%	27.5%	20.4%
Senior general	22.6%	33.8%	34.6%	21.0%	33.8%	33.9%
Pre-university	9.4%	21.4%	40.0%	10.1%	25.8%	38.6%
<i>School type: track offering</i>						
Pre-vocational	39.3%	21.7%	10.9%	41.0%	23.2%	12.2%
Comprehensive (all)	15.9%	14.0%	9.2%	9.0%	8.5%	5.7%
Comprehensive ( $\geq$ pre-voc II)	29.2%	37.7%	38.3%	31.7%	37.8%	51.8%
Senior general & pre-university	14.0%	23.2%	31.7%	16.7%	27.5%	23.6%
Pre-university	1.5%	3.4%	9.8%	1.5%	3.0%	6.8%
<i>School type: ability grouping</i>						
Both	24.4%	32.7%	38.4%	23.5%	35.2%	37.9%
Heterogeneous classrooms	37.1%	33.3%	27.5%	41.1%	37.4%	26.6%
Homogeneous classrooms	38.5%	34.0%	34.1%	35.4%	27.3%	35.5%
<i>Network resources</i>						
% high-SES friends				0.16 (0.23)	0.20 (0.27)	0.35 (0.32)
% high-SES parental ties				0.13 (0.22)	0.19 (0.26)	0.38 (0.33)
% high-SES study partners				0.17 (0.25)	0.22 (0.28)	0.39 (0.35)
Access high-SES friend				46.1%	48.5%	66.1%
Access high-SES parents				36.5%	46.8%	70.4%
Access high-SES study partner				45.5%	50.5%	70.0%
N	165,470	90,442	72,441	646	400	280

Figure: Associations among network layers and social capital measures

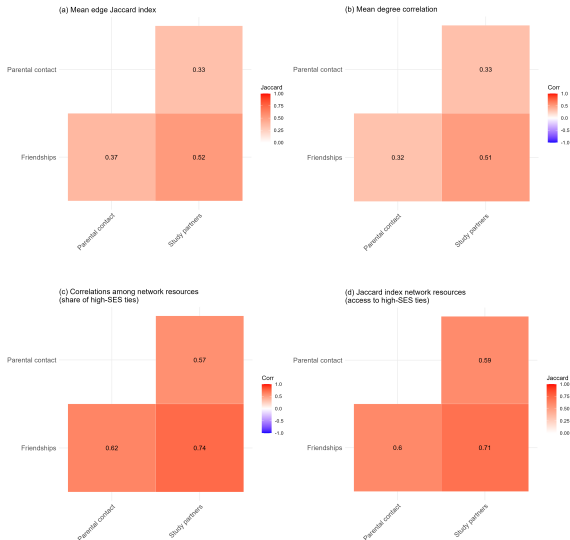


Figure: Overall and within-school variation social capital measures

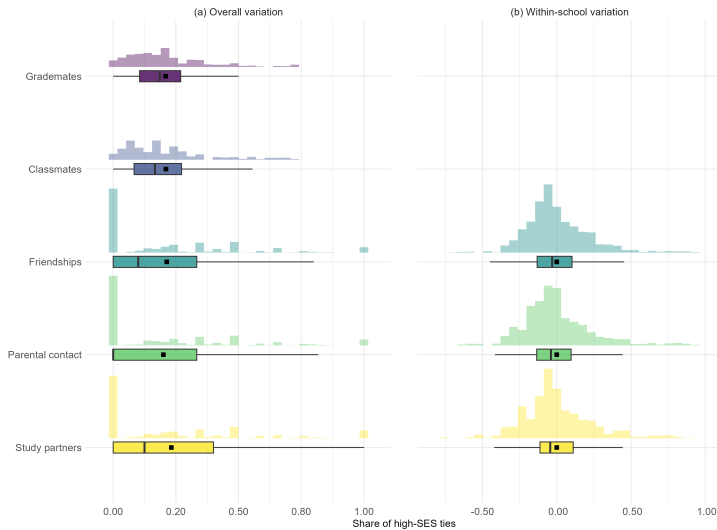


Table: Choice set descriptives.

	Pre-vocational		Comp. (all tracks)		Comp. ( $\geq$ pre-voc II)		Sen gen & pre-university		Pre-university	
	$P_{access}$	$M_{dis}$	$P_{access}$	$M_{dis}$	$P_{access}$	$M_{dis}$	$P_{access}$	$M_{dis}$	$P_{access}$	$M_{dis}$
<i>NCO</i>										
ISCED 0-4	0.98	3.24	0.66	9.27	0.91	5.09	0.90	5.60	<b>0.62</b>	13.06
ISCED 5-6	0.98	3.39	0.66	9.47	0.92	4.89	0.90	5.58	<b>0.62</b>	13.11
ISCED 7-8	0.98	3.02	0.68	8.56	0.96	3.67	0.93	4.40	<b>0.74</b>	9.52
Total	0.98	3.25	0.66	9.17	0.93	4.66	0.91	5.22	<b>0.68</b>	11.47
<i>PRIMS-NCO</i>										
ISCED 0-4	1.00	2.95	0.60	10.90	0.87	5.90	0.91	5.39	<b>0.41</b>	16.51
ISCED 5-6	0.99	3.10	0.62	10.92	0.89	5.53	0.91	5.12	<b>0.38</b>	18.60
ISCED 7-8	1.00	3.13	0.66	9.58	0.94	3.66	0.87	4.91	<b>0.52</b>	13.83
Total	1.00	3.01	0.62	10.62	0.90	5.24	0.90	5.16	<b>0.44</b>	16.20

Figure: Robustness check household income

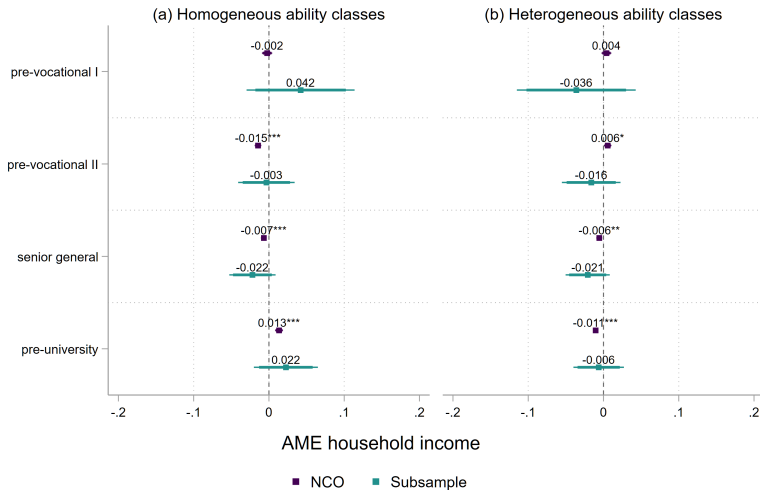


Figure: Robustness checks binary network resources indicator

