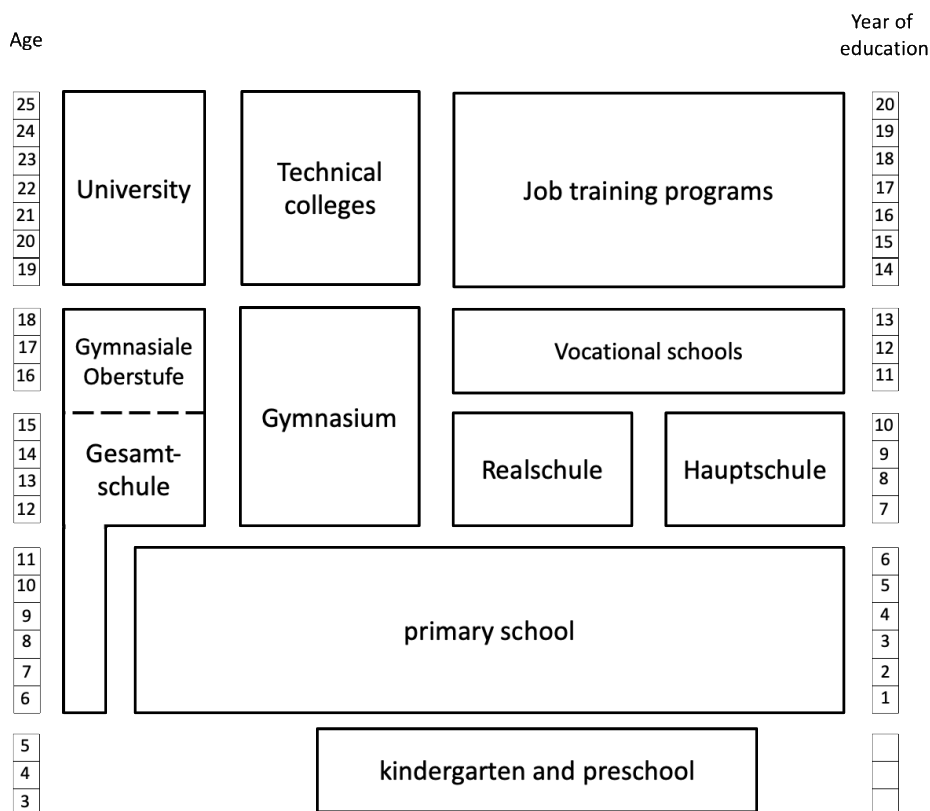


## Supplementary Material

### Supplementary Material S1: Overview of German School Tracks

The first institutions in the German educational system are kindergarten and preschool. Mandatory schooling starts with primary school (“Grundschule”), around the age of six. The main selection occurs very early, in the transition to seventh grade (i.e., at the age of twelve). Students are selected into three main school tracks.<sup>4</sup> The Hauptschule is the lowest educational track<sup>5</sup> (ending after tenth grade) and offers comparatively limited opportunities for graduates on the job market or for further education. Realschule is an intermediate school track that continues until the completion of the intermediate maturity diploma (Mittlerer Schulabschluss) at the end of tenth grade and offers better opportunities to continue in a vocational training program or try to attain the Abitur by entering secondary school II (“Gymnasiale Oberstufe” or “Sek. II”). University-track schools (Gymnasium) continue secondary education until the completion of the general maturity degree (Abitur) at the end of 13th grade. It allows graduates to enter higher education. The necessity to make a conscious, long-term decision regarding what school type to attend seems to be a driving force in reproducing inequalities in education along the lines of socio-economic background and migration background. Thus, transitions within the education system are of special interest to understand how some disadvantaged students achieve educational upward mobility.

“Gesamtschule” is an additional school type that combines the above three tracks. Students attend the same school until tenth grade, but are tracked into different classes in the main subjects, according to their performance. After tenth grade, students who performed well gain entry to Sek. II, while the others take up a vocational training or enter the labor market.



**Figure S5.** Schematic representation of the structure of the German education system. Source: adapted from Cortina et al. 2008.

**Supplementary Material S2: Data set overview**

Alias	Age	Upward mobility	Parents' origin	Highest parental education	No. of siblings	Two-parent HH	Divorce/separated
Elif	34	yes	Turkey	LS	1	yes	no
Dilara	26	yes	Turkey	PS (6 years)	5	yes	no
Eda	35	yes	Turkey	PS (3 years)	6	yes	no
Kiara	28	yes	Turkey	PS (5 years)	1	yes	no
Hülya	25	yes	Turkey	PS (4 years)	2	yes	no
Hati	25	yes	Turkey	LS + voc.	1	yes	no
Ebru	30	yes	Turkey	No schooling	8	yes	no
Umut	33	yes	Turkey	PS (5 years)	1	no	yes
Ekim	24	yes	Turkey	PS + voc.	2	yes	no
Hamit	29	yes	Turkey	PS (5 years)	2	yes	no
Mehdi	27	yes	Turkey	RS	3	yes	yes
Acun	27	yes	Turkey	PS (6 years)	2	yes	no
Adin	24	yes	Turkey	IS + voc.	1	yes	no
Karin	26	yes	Germany	IS + voc.	1	yes	no
Natascha	30	yes	Germany	IS + voc.	0	yes	no
Maria	30	yes	Germany	IS + voc.	0	yes	no
Sabrina	24	yes	Germany	IS + voc.	0	no	yes
Melanie	32	yes	Germany	IS + voc.	0	yes	no
Janina	32	yes	Germany	LS + voc.	1	no	yes
Jakob	30	yes	Germany	IS + voc.	2	yes	yes
Rolf	31	yes	Germany	IS + voc.	0	no	yes
Olaf	30	yes	Germany	IS + voc.	0	no	yes
Jochen	31	yes	Germany	IS + voc.	2	yes	no
Mirko	29	yes	Germany	IS + voc.	0	no	yes
Fritz	29	yes	Germany	IS + voc.	1	yes	no
Balcan	36	no	Turkey	PS (5 years)	5	yes	no
Hüma	38	no	Turkey	8 years	2	yes	no
Gazi	39	no	Turkey	No schooling	1	yes	no
Taifun	25	no	Turkey	8 years	3	yes	no
Canel	38	no	Turkey	PS (5 years)	2	yes	no
Ina	33	no	Germany	IS + voc.	1	yes	no
Jutta	35	no	Germany	LS + voc.	3	yes	no
Mareike	25	no	Germany	IS + voc.	0	yes	no
Thomas	25	no	Germany	IS + voc.	1	yes	no
Markus	31	no	Germany	IS + voc.	0	no	yes
Axel	32	no	Germany	IS + voc.	2	yes	no

Notes: PS = primary school; LS = lower secondary school (*Hauptschule*, prior *Volksschule*); IS = intermediate secondary school (*Realschule*); voc. = vocational training.

### Supplementary Material S3: Reflections on Retrospective Interviewing

Producing valid life course and personal network data through retrospective interviews promises a unique possibility for detailed insights into trajectories of upward mobility as rare events, but this comes with challenges. For instance, issues of validity arise from respondents' recollection of past events because retrospective accounts suffer from a time decay effect. People omit potentially important aspects because they forget events, facts, places, faces, and their temporal sequences. Further, they "telescope" past events, recalling them as more recent than they actually are (Bernard, Killworth, Kronenfeld, & Sailer, 1984, p. 507f). I employed mainly two interviewing techniques to address these challenges. First, I used a blank timeline to assist respondents in their efforts to remember information and situate events in time (see appendix A). This timeline worked as a frame of reference: respondents could fill out as they spoke, marking down main events in their education, work, and residential careers, as well as other important events. They later used this framework to recall more detailed information. Providing such a system of reference has shown to improve the accuracy of respondents' information (Berney & Blane, 1997, p. 1520; Freedman, Thornton, Camburn, Alwin, & Young-DeMarco, 1988, p. 41). Second, I asked respondents about specific episodes of support with a given challenge, rather than general assessments of who supported them how much. Thus, I would ask "Would someone help you when you were stuck with homework, or not?" And: "Could you describe to me how that played out?", rather than: "How much did your siblings help you with homework?" This focus on concrete episodes and detailed accounts increases data accuracy and provides some safeguard against social desirability and recall bias (Bernard et al., 1984, pp. 508, 510; Berney & Blane, 1997, p. 1521; Small & Sukhu, 2016, p. 78; Smilde, 2005, p. 762).

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## Supplementary Material S4: Interview guide

This appendix provides the interview guideline for the study on educational attainment among second-generation and non-immigrant students from low-status families. It was used as a rough guide; the interviews were unstructured in that the respondents were able to guide the conversation based on their interests and recollections.

Questions on family and school were asked separately for the following periods, in order to collect comprehensive data on respondents' educational careers: 0 – 12, 12 – 16, 16 – 20, 20+.

### Warm up

Through this interview I wish to learn about your life story. I'm interested in everything you find important and want to share. There are no wrong answers to any question I may have. You can take as much time as you need and pause to think if you need to. I will listen, interrupt as little as possible, and sometimes ask clarifying questions in case I'm not sure I understood you well.

### Life story

- First, I would like you to tell me about yourself. May be your story, where you're from, how you grew up, and what was important in your life so far. You can talk for as long as you like. Everything that comes to your mind is interesting and important.
- Could you also tell me about your family, who your parents and grandparents are, where they're from, how they grew up, and what was important in their life? Again, you can talk for as long as you like. Everything that comes to your mind is interesting and important.

### Timeline

I would now like to get an overview of the most important events and phases of your life. This will help me to get a first impression, and can help you orient yourself in case I ask you about the specific order of certain events. To do this, I prepared this timeline. You see years at the top, as well as your age in each year. You can tell me which events or phases were important for you, and I'll write them down. If you remember something important later on, we can always come back to this timeline and add more things. As you can see, the timeline includes different topics

- Generally important things
- Living situation: Where, with who, how was it?
- Work: What, how often?
- School: When, what School? When transitions to new grade?

### Across timeline: Family

- Could you describe your home environment? What did things look like, what was a typical like?
- Could you tell me more about your relation to the different members of your family?

mother	– Talked about what?
father	– Saw how often?
siblings	– Did what?
relatives	– Evaluate quality of relation
	– Typical situation
	– Difference boys / girls important?

- Did your parents know where you were when you weren't at home?
- Did you talk about things that mattered to you? How often?

#### Across timeline: School

- What comes to your mind if you think about school back then?

General	– What was it like?
memories	– What was good / bad?
	– Expectations & goals
	– Normal school day

Teachers	– What was it like?
	– Did they help? Put obstacles in your way?
	– Typical scene
	– Was there someone especially important?
	– What did you hope for?

Class	– What was it like?
	– Your role
	– Rules
	– What kind of people
	– Class mates important? Why?
	– Differences boys / girls?

Parents &	– Did they ask you about school?
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school

- Support?
- Expectations?
- Did they ask other people for advice?
- Typical scene
- Differences boys / girls?

Support

- Who?
- With what?
- Examples

Grades

- What grades
- Meet expectations?
- What did parents think
- What did friends think

Homework

- How often did you do them?
- When and where?
- How?
- Did you struggle?

For respondents with high attainment

- Did your relationship to your parents and friends change because of your education?
- Where there conflicts or problems, or was your education no issue?

Wrap up

- How did you like this interview?
- Did I forget something important?
- What would you have asked about?

## Supplementary Material S5: Coding scheme

### Biography

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Age	Up to 12
	12 – 14
	14 – 16
	16 – 18
	18 – 20
	20 plus
Life course characteristics	Transition: PS to Sek. I
	Transition: After Sek. I
	Transition: After Sek. II
	Turning point
	Crisis
Educational & labor market trajectory	Kindergarten
	Preschool
	Primary school
	Lower secondary school: Hauptschule
	Lower secondary school: Realschule
	Lower secondary school: Gesamtschule
	Gymnasium
	Vocational training
	University
	Work

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### Social contexts

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Types	Clubs and associations
	School
	School class
	Neighborhood
	Work
Characteristics	Closure
	Social composition

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### School and education

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Individual	Behavior in class
	Decisions
	Engagement
	Homework and studying
	Performance
	Perception of
Class	Knowledge of
	Composition
	Learning environment
	Norms
	Performance
	Classmates' trajectories
	Conversations: Grades and decisions

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### Family

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Characteristics	Chores
	Learning environment
	Gender differences
	Climate
	Structure
Parenting styles	Control
	Responsiveness
Parenting practices	Concerted cultivation
	Natural growth
Financial situation	Income
	Home owner
	Size of living space

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#### Types of relations

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Family	Parents
	Mother
	Father
	Brother
	Sister
	Extended
Other	Friends
	Peers
	Clique
	Romantic partners
	Teachers
	Adult other

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Characteristics and dynamics of  
social relations

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Description  
Activities  
Challenging norms  
Conversations  
Ethnic contact  
Norms  
Routines  
Expectations  
Intensity  
Trust  
Problems & Conflict  
Selection  
Socialization  
Bridging tie

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Social support

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Instrumental support	Homework and study Information and advice Solving problems Money and material goods
Emotional	Encouragement Confiding Intervening
Dynamics of mobilization	Lack of support Seeking/not seeking Not accepting Reciprocity

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## Encouragement

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Approval for accomplishment	Expressing pride
	Putting faith in abilities or prospects
	Giving praise
Comfort facing setbacks	Solidarizing
	Giving reassurance

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## Support with Academic Efforts

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Available support	Correcting mistakes
	Explaining content
	Showing strategies
Dynamics of activation	Reciprocal support
	Prescribed support
	Initiated by alter
	Initiated by ego

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## Support through Solving Problems

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Conflict with teachers or peers	Mediating
	Intervening
Institutional issues	Bending rules
	Intervening
	Accommodating needs
Work/school balance	Bending rules
	Intervening
	Accommodating needs
Incipient disciplinary sanctions	Bending rules
	Intervening

## Mediating

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### Role Models

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Relevance for education	Educational trajectory
	Strategies or virtues
Presence in respondents' life	Frequency of contact
	Parallels in life circumstances
	Personal conversations

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### Miscellaneous

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Access to cultural capital

Abuse

Discrimination

Drugs

Ethnic identity

Expectations/aspirations

Language

Strategies

Spillover

Code switching

Ethnic community

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