

1. Research Question

Background on referral-based job search at labor market entry

- most empirical studies indicate that the access to better network resources and referrals by strong ties are beneficial for labor market entry (e.g. Hällsten et al. 2017, Kramarz/Nordström Skans 2014, Roth 2018, Verhaeghe et al. 2015)

Previous research

- social networks as important resource contributing to labor market SUCCESS (Bourdieu 1977; Lin 2001)
- in youth labor markets strong ties and their network resources are decisive (Granovetter 1995; Kramarz/Nordström Skans 2014, Roth 2014a)
- the uneven use of informal search methods across school leavers is discussed but not comprehensively analyzed in the school-to-work literature (Hoenig 2019; O’Regan/Quigley 1993; Roth 2014b)

Why do young people select into the use of referrals by strong ties?

2. Theoretical Background

The use of referrals by strong ties should depend on different factors:

- strong ties’ access to relevant network resources (Marsden/Gorman 2001; Lin 2001)
- employers referral-based recruitment behavior (Marsden/Gorman 2001, Topa 2011)
- the opportunity structure of young people (Roth 2014b, Holtmann et al. 2017)

We aim at a better understanding of the circumstances in which referrals by strong ties are important

Main idea

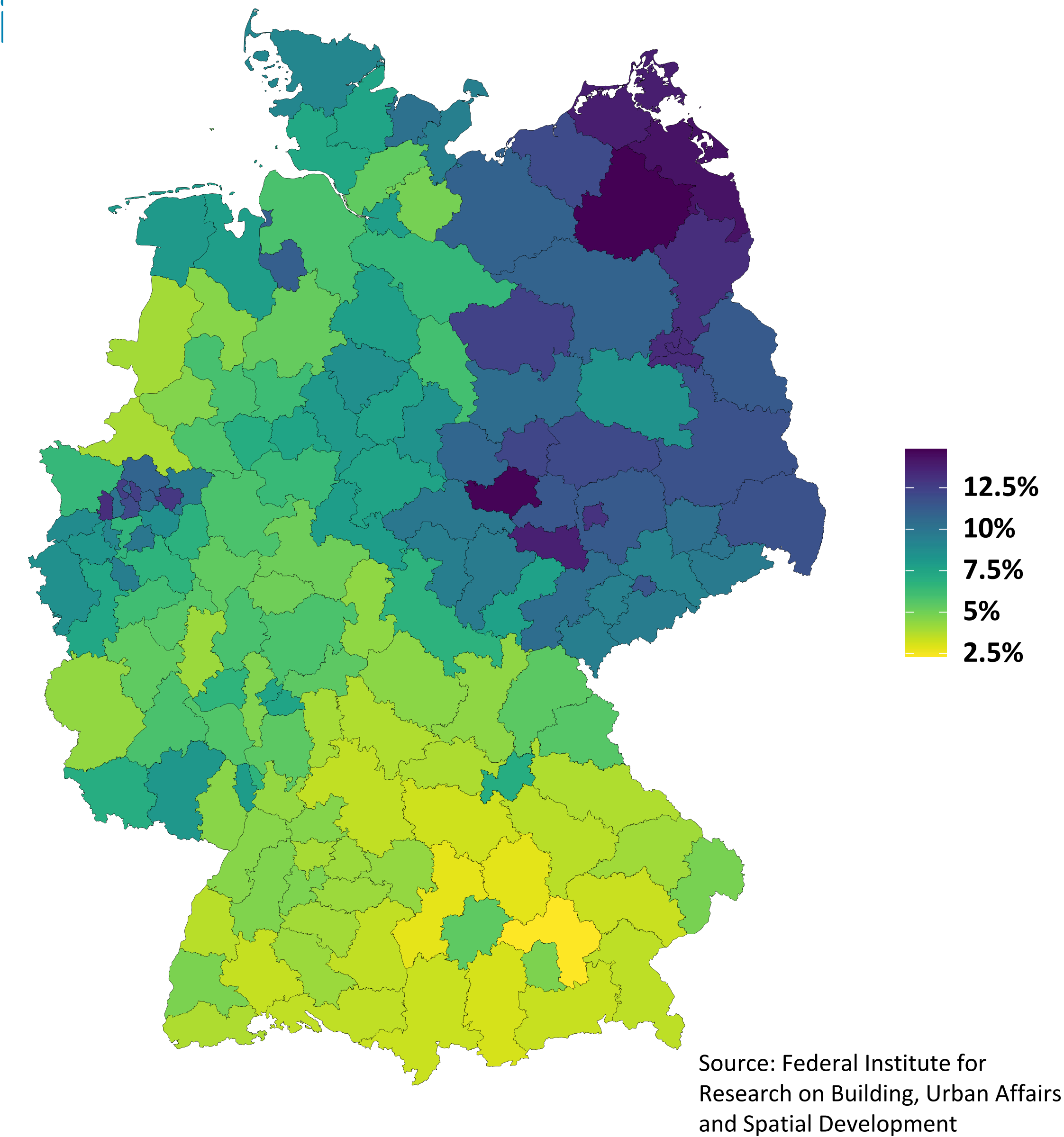
Referrals by strong ties are especially relevant for compensating poor opportunities due to:

- 1) poor labor market conditions
- 2) a low level of education

H1: Students are more likely to rely on referrals by strong ties if they are embedded in contexts with poorer regional labor market conditions.

H2: Students who expect to attain no or a lower secondary school-leaving certificate are more likely to use referrals by strong ties than students expecting an intermediate one.

3. Regional Unemployment Rate across Employment Agency Districts



4. Analytical Strategy

Multilevel mixed-effects linear regressions (LPM)
Individuals (level 1) are nested in employment agency districts (level 2)

$$Y_{ij} = \gamma_{00} + U_{0j} + (\gamma_{10} + U_{1j}) X_{ij} + R_{ij}$$

with $\beta_{0j} = \gamma_{00} + U_{0j}$ as random intercept and $\beta_{1j} = \gamma_{10} + U_{1j}$ as random slope for each agency district j

We model the likelihood to **use referrals by strong ties** as a function of

- the **regional unemployment rate** (H1)
- the **expected level of education** (H2)
- individual and regional covariates
- cluster mean of expected level of education
- fixed effects for the occupation young people initially applied for

We additionally scrutinize if the relationships in H1 and H2 also occur when we restrict our sample to apprenticeship seekers who found a training position

Non-college-bound students cannot select themselves into different regions

5. Data

Multiply imputed data with MICE to deal with item nonresponse bias

Individual data

- **data source:** National Educational Panel Study, Starting Cohort 4
- **sample:** 3820 school leavers at the end of 9th or 10th grade
- **dependent variable** is the use of referrals by strong ties: “Did your parents personally advocated that you get your current/a apprenticeship position”; binary coded (1= yes; 0 = no)
- **covariates:** sociodemographic characteristics, average grade of Math and German, noncognitive characteristics, parental network resources, parental qualification, parental labor market attachment, ISEI of parents highest job, two-parent family indicator

Regional data

- **covariates:** type of federal state (city/non-city state), regional German divide (east/west)

6. Results

Table 1 Who used referrals by strong ties during apprenticeship search?				Table 2 Who of the successful apprenticeship seekers benefited from a strong tie’s referral?	
	M 1	M 2	M 3		M 4
Regional unemployment rate (z-std.)	0.024*** (0.008)	0.034*** (0.011)	0.031*** (0.012)	Regional unemployment rate (z-std.)	0.036*** (0.016)
Expected level of education (ref.: no/low ctf.)	-0.054** (0.022)	-0.063*** (0.023)	-0.061** (0.024)	Expected level of education (ref.: no/low ctf.)	-0.056* (0.033)
Intermediate school-leaving certificate				Intermediate school-leaving certificate	
Cluster mean of expected level of education	✓	✓	✓	Cluster mean of expected level of education	✓
Sociodemographic characteristics	✓	✓	✓	Sociodemographic characteristics	✓
Individual covariates		✓	✓	Individual covariates	✓
Regional covariates		✓	✓	Regional covariates	✓
Fixed effects for the applied occupation			✓	Fixed effects for the applied occupation	✓
Constant	0.557*** (0.031)	0.446*** (0.044)	0.713*** (0.098)	Constant	0.73*** (0.128)
Random intercept (standard deviation)	0.054	0.055	0.065	Random intercept (standard deviation)	0.066
Random slope (standard deviation)	0.096	0.097	0.107	Random slope (standard deviation)	0.117
Correlation: intercept/random slope	-1	-1	-1	Correlation: intercept/random slope	-1
N	3820	3820	3820	N	2110
Number of clusters	161	161	161	Number of clusters	155

Standard errors in parantheses; *** p<0.01, ** p<0.05; p*<0.10

Standard errors in parantheses; *** p<0.01, ** p<0.05; p*<0.10

- Relying on referrals by strong ties is a very common search strategy in the German apprenticeship market
- When apprenticeship seekers face poor opportunities, they rely considerably more on referrals by strong ties to improve otherwise low apprenticeship market chances.
- Accordingly, if we only focus on the sub-group of successful apprenticeship seekers, apprenticeship seekers with lower opportunities benefited markedly more from referrals by strong ties

7. Conclusions

Young people strategically adapt their apprenticeship search methods to the given opportunity structure

Parental network resources are consequential for the labor market entry, especially in cases of otherwise poor opportunities. This finding has important implications for social inequality and social mobility

**Young people's job search strategies in the German apprenticeship market:
Who relies on referrals by strong ties and why?**

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For young people, informal search methods based on the support of social contacts are shown to be beneficial for finding the first job (e.g. Kramarz/Nordströms Skans 2014; Roth 2018). However, at the stage of labor market entry, we know little on who actually relies on informal search methods and under what conditions. In the analysis, we aim at a better understanding of the circumstances in which first job seekers (or their parents) choose referrals by strong ties as a particularly effective means to support school-to-work transitions. We investigate this research gap for non-college-bound school leavers in Germany whose entry into the labor market typically starts via apprenticeships. Against this backdrop, we ask the following research question: *Why do young people select into the use of referrals by strong ties?*

A standard prediction of Lin's (2001) theory regarding labor market social capital is that the use of social contacts depends on who has access to relevant network resources. Throughout the analysis we look beyond this common argument and derive further reasons which potentially explain the usage of referrals by strong ties as an important informal search strategy. Several studies argue that young people frequently rely on informal search methods if they have or anticipate difficulties during school-to-work transitions (e.g. Kramarz/Nordström Skans 2014; Holtmann et al. 2017). Alternatively, differences in the use of referrals by strong ties might be triggered by employers' engagement in referral-based recruitment procedures. Since employers' recruitment behavior determines the opportunities of referral use and is also linked to the recruitment for specific types of jobs or occupations (Topa 2011), differences in job seekers' referral use might predominantly depend on patterns of referral-based recruitment behavior.

Our results are based on data from Starting Cohort 4 of the National Educational Panel Study, which we supplement with regional labor market indicators. Applying hierarchical linear models, we show that young people strategically adapt their apprenticeship search methods to

the given opportunity structure and use referrals by strong ties to improve otherwise low application chances. Thus, parental network resources are consequential for labor market entry, especially in case of otherwise poor opportunities.

References

- Holtmann, Anne Christine, Laura Menze, und Heike Solga. 2017. Persistent disadvantages or new opportunities? The role of agency and structural constraints for low-achieving adolescents' school-to-work transitions. *Journal of youth and adolescence* 46:2091-2113.
- Kramarz, Francis, und Oskar Nordström Skans. 2014. When Strong Ties are Strong: Networks and Youth Labour Market Entry. *Review of Economic Studies* 81:1164-1200.
- Lin, Nan. 2001. *Social Capital: A Theory of Social Structure and Action*. New York: Cambridge University Press.
- Roth, Tobias. 2018. The influence of parents' social capital on their children's transition to vocational training in Germany. *Social Networks* 55:74-85.
- Topa, Giorgio. 2011. Labor markets and referrals. In *Handbook of social economics*, Hrsg. Jess Benhabib, Alberto Bisin und Matthew O. Jackson, 1193-12211. North-Holland: Amsterdam.