

Transport Infrastructure and Economic Opportunity

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Location matters for social mobility

- Growing body of evidence shows that where children grow up has substantial causal effects on their prospects for upward income mobility.

[Case and Katz 1991; Massey and Denton 1993; Cutler and Glaeser 1997; Sampson et al. 2002; Chetty, Hendren and Katz 2016; Chyn 2018; Deutscher 2018; Laliberté 2018 building on Wilson 1987]

- Transport infrastructure has the potential to play an important role on the economic opportunity of individuals
 - Lower-income populations tend to suffer from restricted transport options (e.g. Chetty and Hendren 2018; Chetty et al. 2014)
 - In the long-run, this has the potential to break the link between parents' economic status and their children's outcomes, that is, to increase social mobility.

Train to Opportunity?

Can transport infrastructure break the link between parents and their children's economic status?

- Exploit census records and the expansion of the railroad in 19th Century England and Wales
- Estimate the causal effect of having better access to the railroad network on intergenerational mobility



Railroad Network



Historical Records

England 1851 Census

Parish or Township of <i>Bedwin</i>		Ecclesiastical District of		City or Borough of		Town of		Village of	
Name of Street, Place, or Road, and Name or No. of House	Name and Surname of each Person who abode in the house, on the Night of the 30th March, 1851	Relation to Head of Family	Condition	Age of		Rank, Profession, or Occupation	Where Born		What Part of the Year
				Male	Female				
14 <i>Hyamble Road</i>	<i>Jamess</i>	Head	Mar	70		<i>Agricultural Labourer</i>	<i>Bedwin</i>	<i>Wilt</i>	
	<i>Ann</i>	Wife	Mar	40		<i>House Keeper</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Samuel</i>	Son	Un	30		<i>Miner</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Elizabeth</i>	Head	Mar	44		<i>House Keeper</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Joseph</i>	Son	Un	11		<i>Scholar</i>	<i>Wilt</i>	<i>Wilt</i>	
16 <i>Hyamble Road</i>	<i>Samuel</i>	Son	Un	4		<i>Scholar</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Alexander</i>	Head	Mar	23		<i>Blacksmith</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Mary</i>	Wife	Mar	20		<i>Wife</i>	<i>Wilt</i>	<i>Wilt</i>	
17 <i>Hyamble Road</i>	<i>Alexander</i>	Son	Un	9			<i>Wilt</i>	<i>Wilt</i>	
	<i>John</i>	Son	Un	9			<i>Wilt</i>	<i>Wilt</i>	
	<i>Elizabeth</i>	Son	Un	9			<i>Wilt</i>	<i>Wilt</i>	
	<i>Samuel</i>	Son	Un	9			<i>Wilt</i>	<i>Wilt</i>	
18 <i>Hyamble Road</i>	<i>Samuel</i>	Head	Mar	35		<i>Team Labourer</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>Elizabeth</i>	Wife	Mar	28		<i>Wife</i>	<i>Wilt</i>	<i>Wilt</i>	
	<i>John</i>	Son	Un	6			<i>Wilt</i>	<i>Wilt</i>	
	<i>Mary</i>	Son	Un	4			<i>Wilt</i>	<i>Wilt</i>	
Total of Persons				7	10				

Street address

Name

Relationship to head of household

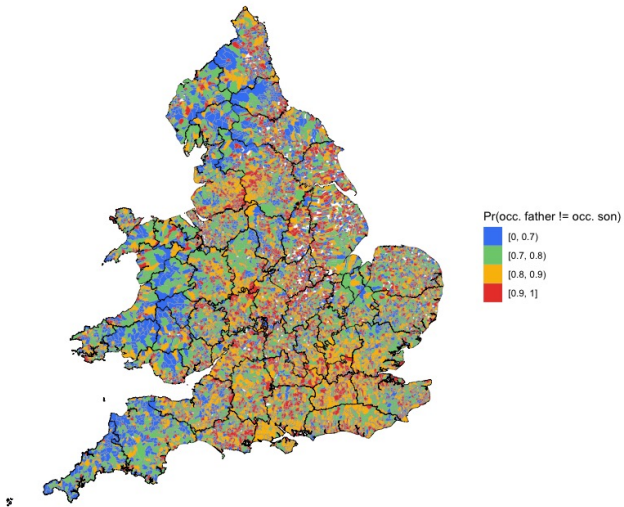
Marital status

Occupation

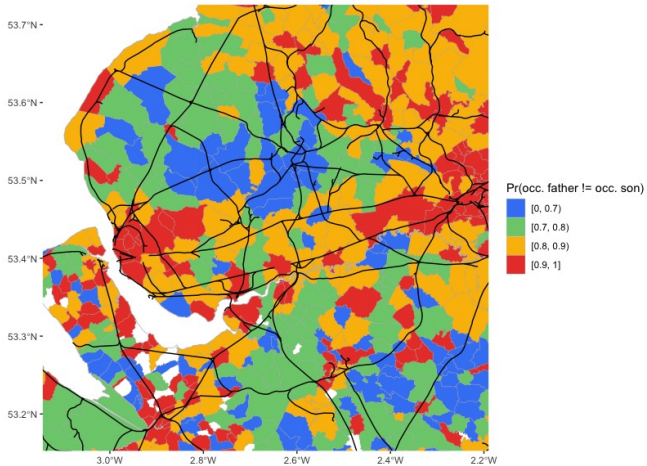
Birthplace

Age male/female

Spatial Pattern of Social Mobility



Spatial Pattern of Social Mobility



Three Main Findings

1. Better access to the railroad network led to significant changes in social mobility patterns
 - Sons who grew up approx. 5km closer to the train station were 6pp more likely to work in a different occupation than their father and 5pp more likely to be upward mobile
2. Better access did not benefit everyone equally
 - It benefitted families at the top and bottom of the occupational ranking
3. The majority of the effect is driven by changes in local labor market opportunities
 - Better connected sons were significantly more likely to work in new industries and in occupations requiring literacy and skills