

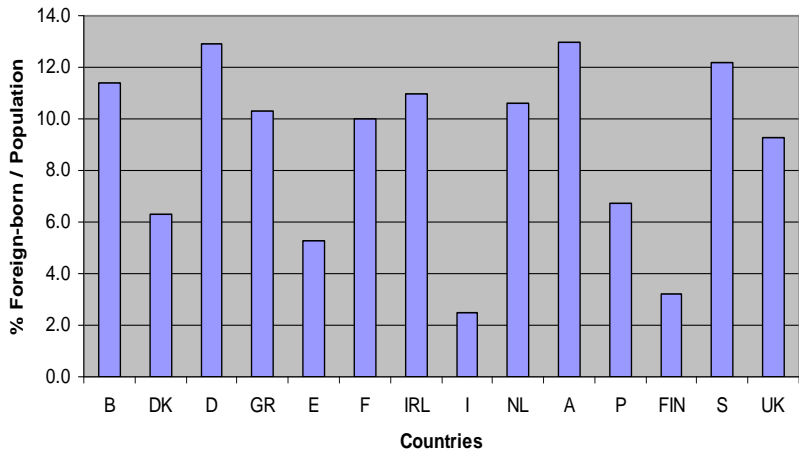
Discrimination of Immigrants or just Attitudes?

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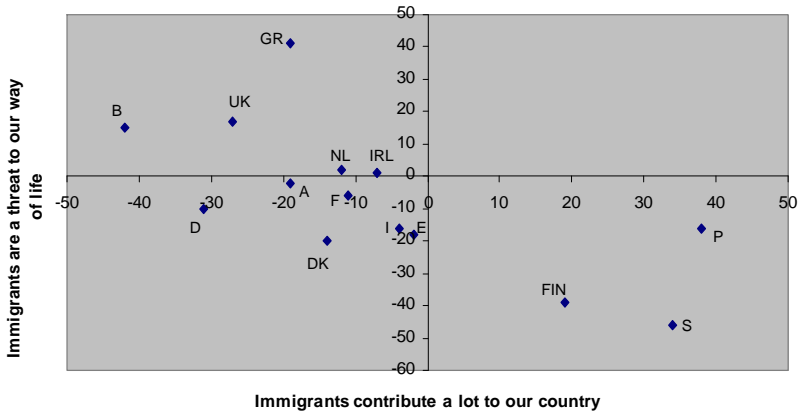
- Immigration to Sweden was insignificant until the Second World War.
- Then the demand for labour increased sharply and workers were recruited from other European countries. There are no reliable opinion polls dealing with people's views on immigration from that time, but they adapted fairly well.
- Since the 1970s, immigration to Sweden has become increasingly restricted to political refugees and their families.
- Many studies have detected the existence of negative attitudes towards immigrants in Sweden since then. Confirmed by the rise in the share of votes for anti-immigration parties since the late 1980s.
- Still, Sweden is one of the countries with the most generous attitudes in Europe.

Foreign-born population



Source: OECD Database, UN migration database (2005)

Attitudes towards Immigrants



Source: Eurobarometer 2004

Outline

- Purpose of the Paper
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Purpose of the paper

- In this paper we analyze the consequences negative attitudes have on immigrants' welfare.
- Even though we recognize that not every native with negative attitudes may discriminate, negative attitudes may be systematically related to discrimination. We will thus be referring to discrimination despite the fact that we can only measure attitudes.
- The purpose of this paper is to exploit the regional variation in negative attitudes towards immigrants to analyze whether the labour market outcomes and the mobility decisions of immigrants are systematically related to such attitudes.

Keeping attitudes exogenous

- We recognize that the placement of immigrants in a region may exacerbate negative attitudes towards them.
- This problem is addressed by considering the data on attitudes measured prior to the refugee settlement policy. For this reason we assume attitudes to be constant in the short run. If we allow attitudes to vary over time, then they may be influenced by the refugees' arrival.
- Almost 60% of the immigrants in Sweden in 2003 arrived in 1985 or later. We will use a measure of negative attitudes that is not directly caused by these last big waves of immigration.

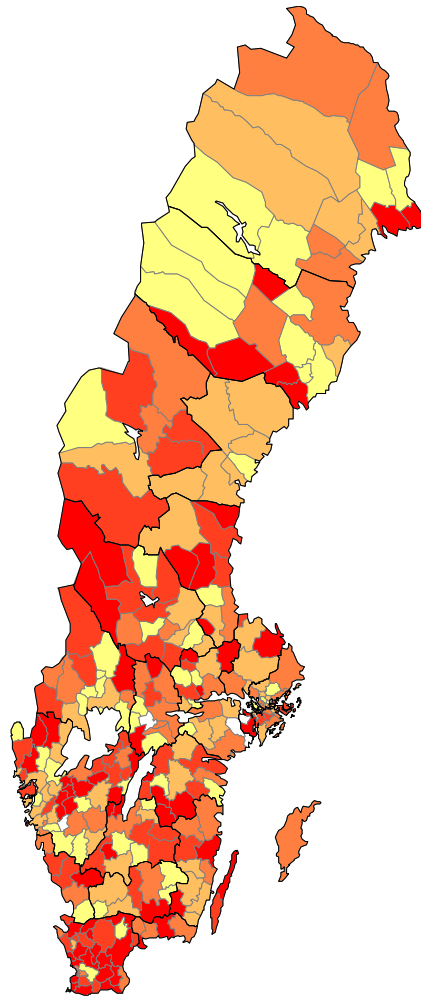
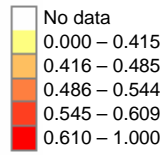
Survey on attitudes

We obtain our measure of attitudes towards immigrants from five surveys on Swedish Opinion collected from 1979 to February 1985 by the Stiftelsen för Opinionsanalyser (SSD 0099, Göteborg University). We add the answers of all surveys to get more observations per municipality, all in all 11539 answers.

We are interested in the question: How important you think less immigration is? The possible answers (frequency in parenthesis) are: (1) very important (25.75%), (2) quite important (23.45%), (3) not very important (11.35%), (4) not important at all (fine now) (17.69%), (5) better with more immigrants (3.13%), (6) hesitant (13.83%), (7) no answer (4.80%).

We construct a measure of negative attitudes by adding (1) and (2) and deducting (5). We normalize this variable to vary between 0 and 1. We can observe in a map of Sweden how attitudes are distributed through the country.

Figure 1
Attitudes 1979-85



Related research

- Theoretic Papers: Search models of the labour market with Becker-style taste discrimination: Borjas and Bronars (1989), Rosén (1997), Flabbi (2004) and Larsen & Waisman (2008).
- Several empirical studies have found lower income and employment rates for immigrants than for comparable natives in Sweden, but they can not tell us if the differences are caused by ethnic discrimination or differences in unobserved characteristics of the two populations: Bevelander and Skyt Nielsen (1999), Arai et al (1999), Duvander (2001) and Arai and Vilhelmsson (2004)
- Rooth (2001) shows that adoptees with dissimilar looks to natives fare worse in the labour market and the difference can not be attributed to characteristics observed by the researcher.
- Åslund & Rooth (2005) look at immigrants' labour market performance in Sweden after the terrorist attacks on September 11, 2001. The attacks caused at least a temporary change of attitudes toward certain minorities, but they find no sign of increased discrimination against them.

- Carlsson and Rooth (2006) performed a field experiment that showed every fourth employer to discriminate against men with Arabic sounding names in the hiring process. Similar field experiments find evidence of discrimination in the selection of job interviews in Australia (Riach and Rich (1991)) and in the USA (Bertrand and Mullainathan (2003)).
- Damm and Rosholm (2005) estimate the effects of location characteristics and the average effect of geographical mobility on the hazard rate into first job of refugee immigrants subjected to the Danish Dispersal Policy 1986-1998. They find that the hazard rate into first job is decreasing in the local population size and the local share of immigrants. Geographical mobility had large positive effects on the hazard rate into first job.
- Åslund (2001) studies internal migration in Sweden. He finds that immigrants are attracted to regions with many immigrants from their own birth countries and in general, better labour market opportunities and many welfare recipients.

Description of the model

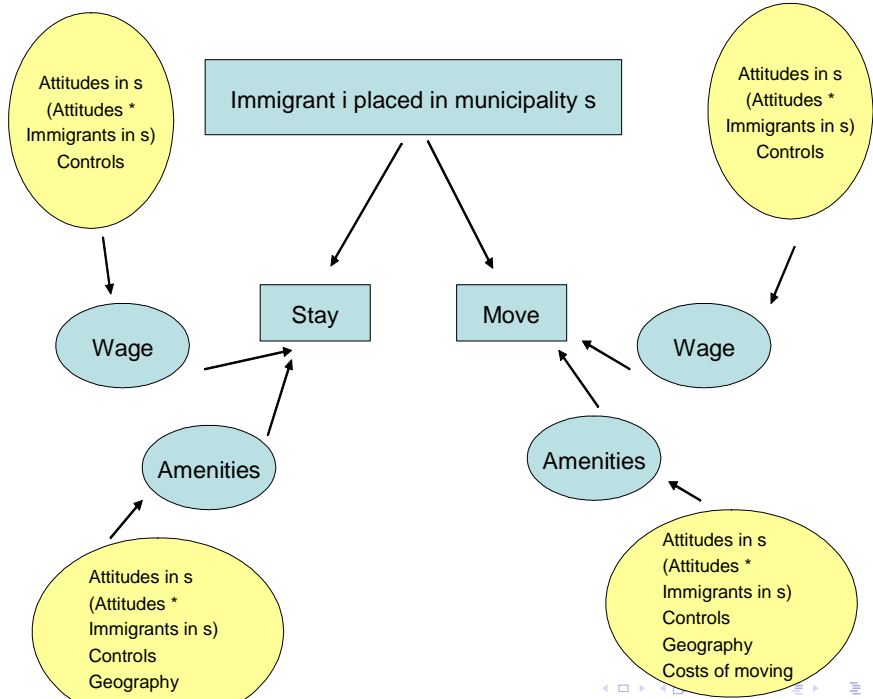
In a simple model we postulate that negative attitudes affect the immigrants' welfare through two channels.

- They affect the immigrants' wages through discrimination in the labour market.
- They also affect the immigrants' amenities, that is, the attractiveness of a geographic location, through discrimination in the housing market, schools, hospitals, treatment in the streets, etc

Graves et al. (1979, 1982, 1989), Clark & Cosgrove (1991), Krupka (2007), etc show evidence that amenities affect people's migration decisions and welfare.

Description of the model

- In a companion theoretical paper, Larsen and Waisman (2008), considering a search-matching framework, show that, in the presence of discrimination, immigrants' wages are negatively affected by discrimination (even if they face a non-discriminatory employer) and by the share of immigrants in the economy.
- Living in a region with many immigrants could also be positive if immigrants form networks that allow members to help each other in the labour market. Both the direct effect and the incentive to form networks may depend on how negative attitudes towards immigrants are in the region.
- Similarly, the effect of attitudes on amenities may vary depending on how many other immigrants live there. In the present study, we take this into account and incorporate a term allowing for an interaction between negative attitudes and the share of immigrants in our wage and amenities equations.
- **Immigrants maximize their welfare by making a location choice in which attitudes play a major role.**



The model

We represent the utility in region j by the following equation

$$U_i^j(d^j) = w_i^j(d^j) + A_i^j(d^j),$$

where w_i^j denotes the wage, A_i^j the amenities and d^j the level of negative attitudes in region j .

Every immigrant maximizes utility by making a location choice. When deciding where to live, he/she considers the level of wages and the quality of life he/she expects to receive in different geographical locations. He/she will move to region k if

$$U_i^k(d^k) > U_i^j(d^j) + C_i,$$

where C_i reflects the immigrant's costs of moving.

The model (cont)

- According to this simple model we expect more immigrants to move into or stay in regions with less negative attitudes.
- If two groups of immigrants are differently affected by attitudes and have similar costs of moving, then we expect a higher frequency of movement in the most affected group.

- The immigrants' geographic sorting is usually based on both observable and unobservable factors, which makes it difficult to study the effect of negative attitudes on their labour market outcomes and mobility decisions.
- To avoid (part of) that problem we concentrate on a group of immigrants for which there is an exogenous source of variation in their first location in Sweden.
- This variation is given by a refugee settlement policy that the government pursued from 1985 to 1994, whereby newly arrived refugees were placed in different regions according to certain well-defined criteria.

Refugee Settlement Policy, quasi-experiment

- The idea: to get a more even distribution of the immigrants and to facilitate integration. There were no restrictions on ex post mobility (lost some activities granted in an introduction program of about 18 months, though).
- An asylum seeker was placed in a refugee center pending a decision from the immigration authorities. There was no interaction between municipal officers and refugees, so the selection was, by definition, made purely on the basis of observed characteristics; language, formal qualifications, and family size seem to have been the main criteria.
- The assignment of municipality was not the immigrants' choice and was independent of unobserved individual characteristics giving a quasi-experimental character to the data, as described by Edin, Fredriksson and Åslund (2003).
- The government settlement policy clearly increased the dispersion of immigrants.
- **Strictest application between 1987-1991. During this period, almost 90% of the refugees were assigned an initial municipality of residence**

- We define three origin groups. B are immigrants from Africa and non developed countries in Asia. G are immigrants from South America or Eastern Europe. We expect group B to be more affected by attitudes than group G as they are ethnically more distant from Swedes and come from less prosperous countries.
- W are immigrants from developed countries. These immigrants are not refugees, they were never placed and we expect them to be much less affected by negative attitudes. We include them as a placebo group.
- With respect to education, we call "well educated" immigrants those who have attained at least high school.

- For movers we know where they have been placed and where they moved. But we can not observe to which municipality an immigrant considered moving, if she decided to stay.
- We define the target municipality of stayers as the average municipality where all immigrants have chosen to live in our sample. In this way, we use the immigrants' own revealed preferences when we determine what the potential target would have been.
- We have tried with other potential targets, for example, an average of the ten most preferred municipalities (as revealed by the immigrants' choices). The results did not change substantially.
- The regressions are performed in a panel data from 1996 to 2003 including only immigrants that arrived from 1987 to 1991.

- The Longitudinal Individual Data Base (LINDA) has income registers and population census data for 300000 individuals annually. Attached to LINDA is a non-overlapping sample of 20% of all immigrants.
- We do not know exactly if the immigrants we observe are refugees, so we concentrate our analysis on those coming from non developed countries that are more likely to have been placed by the government.
- We include in our groups of interest, B and G, immigrants coming from countries outside Western Europe that were not members of the OECD in 1985 and from Turkey. Immigrants from developed countries constitute the group of "white" immigrants, W.

**Table I: Immigrants who arrived from Non-Developed Countries 1987 – 1991
Panel Data 1996 - 2003**

Variable	Obs.	Mean	Std Dev.	Min.	Max.
Individual characteristics					
Log of wages	15746	9.74	0.26	7.60	12.33
Share of Well Educated	15746	0.33	0.47	0.00	1.00
Age	15746	38.20	9.23	18.00	64.00
Women	15746	0.56	0.50	0.00	1.00
Married / Cohabitant	15746	0.64	0.48	0.00	1.00
Years in Sweden	15746	11.40	2.51	5.00	16.00
Characteristics of the municipality where they live					
Negative Attitudes	15725	0.50	0.08	0.17	1.00
Share of Immigrants from ND countries	15734	0.10	0.05	0.01	0.25
Average log of wages	15732	9.88	0.10	9.61	10.38
Average days unemployment	15732	6.27	2.87	1.16	21.04
Market support (share of income originated in the private sector)	15740	53.21	6.94	23.40	69.00
Share of small firms in the economy	15740	27.78	4.65	5.30	43.80
Share of high school educated	15746	21.87	7.52	7.00	42.90
Municipal tax rates	15740	30.66	1.38	26.50	34.28
Latitude	15734	58.56	1.69	55.37	67.85
Average minimum temperature in winter	15734	-4.57	2.28	-20.00	-1.30

**Table II : Group B – Immigrants from Africa and non developed countries in AS
Means for 1996 to 2003**

	Stayers		Movers			
	Placement		Placement		Last location	
	All	Well educated	All	Well educated	All	Well educated
Observations	4451	1185	5032	1915	5032	1915
Average of individual wages	16270	18073	17222	19894	17222	19894
Age	37.20	40.45	37.92	40.10	37.92	40.10
Share of women	0.58	0.54	0.49	0.46	0.49	0.46
Share of married / cohabitants	0.66	0.72	0.61	0.67	0.61	0.67
Years in Sweden	11.42	11.43	11.56	11.64	11.56	11.64
Negative Attitudes	0.504	0.503	0.513	0.515	0.500	0.495
% immigrants ND countries	0.099	0.094	0.056	0.055	0.106	0.103
Av. wages in the municipality	19484	19549	18910	18980	19703	19814
Av. days unemployment (m)	6.27	6.19	6.62	6.69	5.95	5.98
Market support	52.97	51.89	48.40	48.29	54.12	53.56
% small firms in the economy	27.98	27.77	24.39	24.37	28.27	28.28
Share of high school educated	22.07	22.97	16.13	16.54	22.97	23.78
Municipal tax rates	30.72	30.84	31.55	31.59	30.56	0.53
Latitude	58.79	58.80	59.65	59.78	58.74	58.84
Av. Min. Temp. in winter	-4.79	-4.65	-6.66	-6.78	-4.61	-4.67

**Table III : Group G – Immigrants from South America and Eastern Europe
Means for 1996 to 2003**

	Stayers		Movers			
	Placement		Placement		Last location	
	All	Well educated	All	Well educated	All	Well educated
Observations	3734	1125	2524	1043	2524	1043
Average of individual wages	16963	19343	17869	20737	17869	20737
Age	39.28	41.37	38.96	40.40	38.96	40.40
Share of women	0.62	0.69	0.57	0.62	0.57	0.62
Share of married / cohabitants	0.65	0.66	0.64	0.70	0.64	0.70
Years in Sweden	11.19	11.02	11.29	11.17	11.29	11.17
Negative Attitudes	0.509	0.506	0.523	0.516	0.513	0.506
% immigrants ND countries	0.091	0.096	0.068	0.071	0.094	0.090
Av. wages in the municipality	19172	19295	18956	19055	19271	19406
Av. days unemployment (m)	6.67	6.67	6.39	6.27	6.33	6.31
Market support	52.24	52.26	50.57	50.47	53.26	52.57
% small firms in the economy	27.37	27.97	24.88	24.79	27.05	27.00
Share of high school educated	20.89	22.39	16.78	18.01	20.75	21.97
Municipal tax rates	30.73	30.63	31.04	30.94	0.65	30.59
Latitude	58.30	58.26	58.58	58.61	58.20	58.38
Av. Min. Temp. in winter	-4.41	-4.33	-5.16	-5.21	-4.35	-4.61

**Table IV : Immigrants from Developed Countries (OECD countries in 1985 except Turkey)
Means for 1996 to 2003**

	Stayers		Movers			
	Placement		Placement		Last location	
	All	Well educated	All	Well educated	All	Well educated
Observations	1489	1068	1254	1019	1254	1019
Average of individual wages	20324	21556	18504	18563	18504	18563
Age	38.97	38.40	39.34	39.76	39.34	39.76
Share of women	0.82	0.93	0.88	0.94	0.88	0.94
Share of married / cohabitants	0.71	0.77	0.73	0.77	0.73	0.77
Years in Sweden	11.17	11.32	12.02	12.27	12.02	12.27
Negative Attitudes	0.598	0.629	0.471	0.458	0.579	0.595
% immigrants ND countries	0.077	0.074	0.078	0.074	0.080	0.078
Av. wages in the municipality	18601	18551	19946	20135	18633	18517
Av. days unemployment (m)	6.81	6.89	5.55	5.31	6.24	6.30
Market support	50.52	49.74	51.78	51.06	52.38	51.79
% small firms in the economy	23.82	22.72	27.22	27.05	22.77	22.06
Share of high school educated	14.87	13.87	24.53	25.63	16.10	15.44
Municipal tax rates	29.99	29.70	30.43	30.47	30.02	29.89
Latitude	56.71	56.11	58.56	58.51	56.95	56.51
Av. Min. Temp. in winter	-2.87	-2.20	-4.79	-4.74	-3.32	-2.92

- Stayers are immigrants that still live in the municipality where they were placed. Movers are immigrants that left their municipality of placement at any period from the arrival to the year studied. Most immigrants moved before 1996, very few during the period 1996 to 2003.
- Stayers constitute 47% of group B and 60% of group G immigrants.
- The stayers were placed in municipalities with less negative attitudes towards immigrants, a higher share of immigrants from non developed countries, higher wages, milder winters and a higher share of high school educated.
- Those who moved chose municipalities with better attitudes, a higher share of immigrants, higher wages, milder winters and a higher share of high school educated.

- Well educated immigrants (those who have attained at least high school) chose to move to a higher extent than less educated immigrants.
- The "white" immigrants were never placed, they chose themselves where to live from arrival and 62% stayed at that first location. Those who moved chose municipalities with worse negative attitudes towards immigrants, lower wages and a smaller share of high school educated and milder winters.

- The location choices of the immigrants revealed by the means are consistent with our theory.
- The average group B and G mover chose to move towards better attitudes. Those who decided to stay had been placed in municipalities with better attitudes.
- Group B immigrants (ethnically more distant from Swedes and coming from less prosperous countries) moved to a higher extent than group G immigrants and both groups moved more than group W immigrants.
- But this is just a comparison of means, we need a deeper analysis of the data to measure the effect of negative attitudes.

- We estimate the likelihood that an immigrant stays or moves given the wages, the characteristics of the municipalities (in particular attitudes) and the individual characteristics. In doing so, we need to estimate a wage equation in each alternative location. We assume initially that the residuals in the wage equations for stayers and movers are independent of each other. But high ability immigrants that have positive residuals at placement are likely to have positive residuals after moving as well.
- We can actually test if this is the case by looking at the small group of immigrants that moved from the placement during 1996-2003 and for which we can observe wages in both the municipality of placement and the municipality of their final location. The correlation turns to be positive and high (0.76). In the paper we present results where residuals are assumed to be independent, as well as results where we have incorporated the estimated correlation among residuals.

Identification

- We include several covariates and controls, so that the differences in the wages and amenities are not determined by differences in the labour market opportunities or geographical characteristics of the regions themselves. Controlling by fixed effects at the individual level does not help because we have very few individuals that moved during the period in our sample.
- Identification fails if some other factor determines both the level of attitudes and the differences in wages and amenities in the region, through its effect on the residual terms. To check whether this is the case, we include in our analysis a third group, immigrants from developed countries, that we expect not to be affected by attitudes.
- The idea is that if our estimation of the effect of attitudes on wages and amenities is the result of some other factor that deteriorates wages, then we should estimate the same effect on this placebo group

- We have assumed in the model that the effect of negative attitudes on wages is the same for stayers and movers. We have tried an alternative specification, separating the effect of the variables of interest on the wages of stayers and movers. The effects of negative attitudes are somewhat stronger for movers than for stayers, but the coefficients are not very different for the two groups, so we have chosen this specification to make the presentation simpler.

Table V : Effect of Attitudes on Wages and Amenities

Effects on:	Africa and Asia		S. America and E. Europe		Developed countries			
	Wages	Amenities	Wages	Amenities	Wages	Amenities		
Negative Attitudes	-0.03	*	-0.26	0.19	**	-0.18	-0.15	0.19
	0.10		0.14	0.12		0.08	0.30	0.23
Neg. Attitudes * well educated	*	-0.33	0.13	**	-0.71	0.10	0.69	0.12
		0.20	0.12		0.33	0.13	0.80	0.35
% immigrants		0.17	*	0.91	0.43	0.10	-1.27	-0.58
		0.64	0.49	0.89	0.17	2.67	0.77	
% immigrants * well educated		-1.77	-0.41	**	-4.91	-0.42	1.02	-0.56
		1.26	0.22	2.27	0.29	5.85	0.62	
Neg. Attitudes * % immigrants		0.06	***	-3.80	-1.18	-0.02	1.87	3.29
		1.11	1.37	1.51	1.15	4.29	3.01	
Neg. Att * % immig. * well educated		3.24	1.46	**	8.92	-0.93	-0.83	-9.11
		2.16	1.25	3.83	1.63	9.94	6.51	
Individual controls		yes			yes		yes	
Regional and year fixed effects		yes			yes		yes	
Municipal covariates		yes			yes		yes	
Observations		9452			6252		2739	

For amenities, the explanatory variables are defined as the differences in values between placement and target municipality. We assume in this table that the residual of the wage equations at placement and target municipalities are positively correlated (0.75). Standard errors clustered at the municipal level displayed under the coefficients. Individual controls are age, age squared, gender, civil state and years in Sweden. Regional fixed effects at the labour market area level. Municipal covariates are the average wage level, average days of unemployment, market support (% of income originated in the private sector), % small firms, % high school educated, municipal tax rates, latitude, average minimum temperature in winter and the number of immigrants that came from the same ND country during 87 - 91. * significant at 10% : ** significant at 5% and *** significant at the 1% level.

Results for Wages

- If attitudes improved from the average level (0.5) to the most positive level (0), this would increase well educated group B immigrants' wages by $0.5 \cdot 0.33 \cdot 100\% = 16.5\%$.
- For group G immigrants we also would get a wage increase if the immigrants live in municipalities with a low number of immigrants. However, the more and more immigrants, the smaller the value becomes and at very high fractions of immigrants, it changes sign (at 8 percents of immigrants). For the majority of immigrants the impact is positive.
- Negative attitudes have no effect at all on the wages of immigrants coming from developed countries, our placebo group W.

- The explanatory variables represent, for each individual, the difference in the characteristics of the municipality of placement and the target municipality.
- The individual controls represent the cost of moving in the location decision.
- There are additional controls, the "geographical variables", that are assumed to affect the location decision, but not the wage of the immigrants. In the literature on amenities it is common to hypothesize that people prefer moderate climates.

- All immigrants from non developed countries prefer to live in municipalities where attitudes towards them are less negative
- If attitudes became less negative and changed from their average level to the most positive level, this would increase the quality of life or amenities of immigrants from Africa and Asia living in an average municipality by an equivalent to almost one third of their wages.
- The effect of such a change in attitudes on the amenities of immigrants from South America and Eastern Europe is equivalent to an increase of almost one tenth of their wages.
- More negative attitudes reduce the quality of life in a region for both group B and group G immigrants. Immigrants in the placebo group W are not affected by the difference in negative attitudes in their location decision.

- Alternative Specification: Different controls, different correlation of error terms, Heckman-style selection bias correction
- Alternative Sample: 1985 to 1994, that is, the whole official period of application of the refugee settlement policy.

Conclusions

- We find that attitudes towards immigrants matter; they affect both labour market outcomes and location decisions.
- If attitudes improved from their average level to the most positive level, this would increase these immigrants' wages.
- Immigrants from non developed countries prefer to live in municipalities where attitudes towards them are less negative.
- Immigrants from developed countries are not affected by attitudes, neither their wages nor location decision are affected.