Hertie School

Attitudes on Urban Mobility Policies

Results from a Survey in Berlin

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#MobilityTransition
#Berlin

Urban mobility policies and the discussion around them have gained traction in many European cities, including Berlin. This policy brief presents survey evidence examining the preferences of citizens of Berlin city on mobility policy changes. The survey covers the expansion of bike infrastructure, the creation of traffic-calmed neighborhoods (Kiezblocks akin to Barcelona's superblocks), the implementation of a 30km/h speed limit on main roads, increased parking fees, and introduction of congestion charges. The results indicate majority support for more cycle paths and a further roll out of Kiezblocks. In contrast, only a third of respondents support an increase in parking fees and the introduction of a congestion charge. Support and opposition is strongly correlated with education, political attitudes and car (vs bike) ownership.

1   Background

Urban mobility policy has become an increasingly salient policy issue in a number of European cities. Reports about "mobility change" from a car-dominated urban transport infrastructure to one that prioritizes cycling and public transport and offers more public space to pedestrians and for leisure activities repeatedly feature in (social) media. With the increasing salience of climate change mitigation policies, such a mobility change has received another push. While Germany has long been a laggard in mobility change policies, several German cities have committed towards such a policy in the last decade.

At the same time, implementing mobility change policies has proven to be more challenging than expected. One reason for slow implementation is that any infrastructure policies require planning - and administrative capacities for planning are scarce in many cities. Another reason is that mobility change remains a heavily contested policy issue.

The political challenge of mobility change results from its inherently redistributive nature: limited urban space needs to be reallocated, i.e., more bike lanes mean fewer car lanes and less space for parking; a congestion charge imposes costs on individual car traffic and generates revenues for investing in other transport infrastructure. In the public discourse, the conflictual nature is further amplified by a center-suburban dimension: while supporters of bike-friendly infrastructure are typically concentrated in the city centers, the opponents are stronger in suburban neighborhoods.

Mobility change policy was an important issue in the campaign for the 2023 election in Berlin. The ensuing public debate about the re-orientation of mobility policy in the city of Berlin - slowing down the expansion of bike lanes - often refers to the preferences of the public with regard to various measures of mobility change policy. The survey results presented in this policy brief aim at informing the public debate with evidence regarding the preferences of Berliners regarding different measures of mobility change policies. Which measures find how much - or how little - support? How does support differ across different socio-economic groups or residents from different districts within the city?

2 Survey

In cooperation with Bilendi, a professional online survey panel provider, we surveyed a sample of 1,500 people. We focussed on individuals with a main place of residence in Berlin with an age of at least 16 years. (Hence, our data do not speak to the attitudes of commuters from, e.g., Brandenburg.) The sample was stratified according to gender and age groups, to mirror the age distribution among Berlin's residents. The results below further include sample weights that assure a perfect match between the gender-specific age distribution in our sample and in Berlin's 2022 population[1].

The survey covered a set of socio-economic and demographic characteristics but also asked about vehicle ownership, public transport tickets, the place of residence (at the zip code level) and modes of commuting.

The core of the survey aimed at eliciting attitudes towards urban mobility policy, covering five specific areas:

- Berlin's bike infrastructure,
- the expansion of "*Kiezblocks*",
- 30km/ speed limits,
- a congestion charge,
- higher parking fees.

In each of the areas, we asked one or two questions. The detailed questions are further discussed below. In addition to discussing responses area by area and question by question, we will also use the responses to compute an overall support score, which summarizes respondents' attitudes over all these areas.

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[1] In line with our sample design, the "raw" response rates are very similar to the population weighted results. Population statistics are obtained from Amt für Statistik Berlin-Brandenburg (2023), Statistischer Bericht A I 3 – j / 22: Bevölkerung in Berlin 2022.

The survey was implemented in the third and fourth week of June 2022. After clearing the data and eliminating incomplete responses, our final sample consists of 1,386 individuals. The average respondent took almost 25 minutes to complete the survey.

3 Results

3.1 Bike Infrastructure

The first important finding of the survey is that a majority of 56% of respondents approve of the expansion of protected cycle paths; 22% of respondents strongly support the expansion. Note that "protected cycle paths" refers mostly to bike lanes that require a reallocation of space on the road, i.e. either one car lane or parking space has to be cut. The results also show that a non-trivial share of respondents disapproves of the expansion – 17% disapprove and 12% strongly disapprove. 15% take a neutral stance.

**Figure 1 - Expansion of protected cycle paths**

In Berlin, more protected cycle paths are planned to be constructed along main roads. What is your position regarding these plans? (N=1,386)
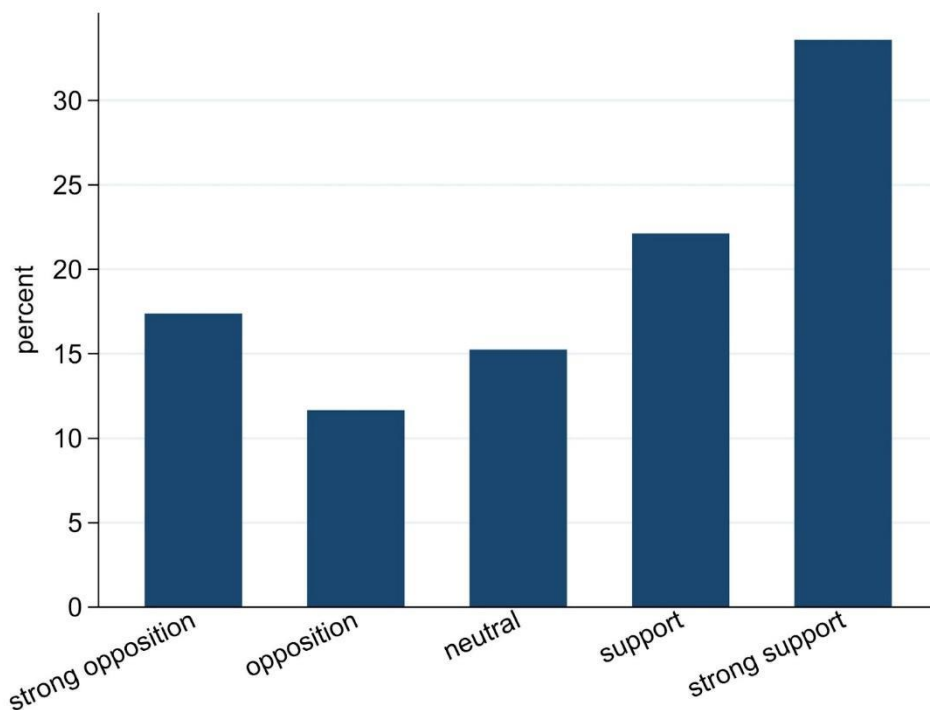
The expansion of protected cycle paths was a cornerstone of Berlin's *Mobilitätsgesetz* (mobility change law) from June 2018, which formulated ambitious goals. We thus asked respondents how they would perceive the expansion achieved so far. The responses reveal a critical assessment of progress made. 45% of respondents find the infrastructure expansion achieved inadequate (with 12% stating that the progress is totally inadequate). 20% find it adequate and 13% state that the expansion of cycling infrastructure expansion went too far. The remaining respondents were undecided or neutral.

Figure 2 - Cycling Infrastructure

The Berlin Mobility Act of 2018 formulated ambitious goals for the expansion of protected cycle paths and cycle expressways. How do you rate the expansion of the bicycle infrastructure so far? (N=1,386)
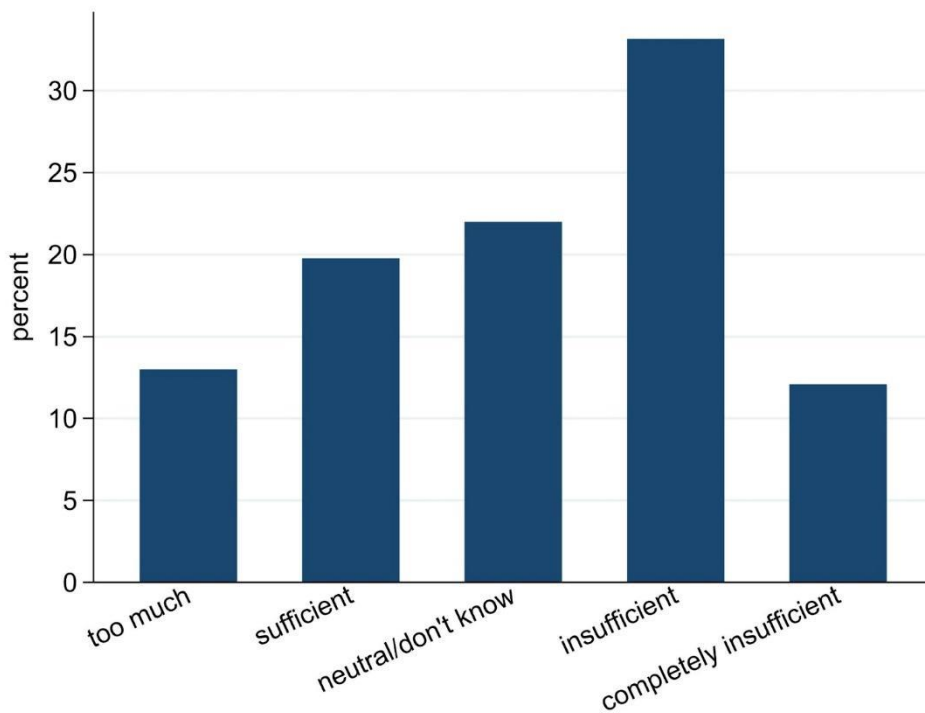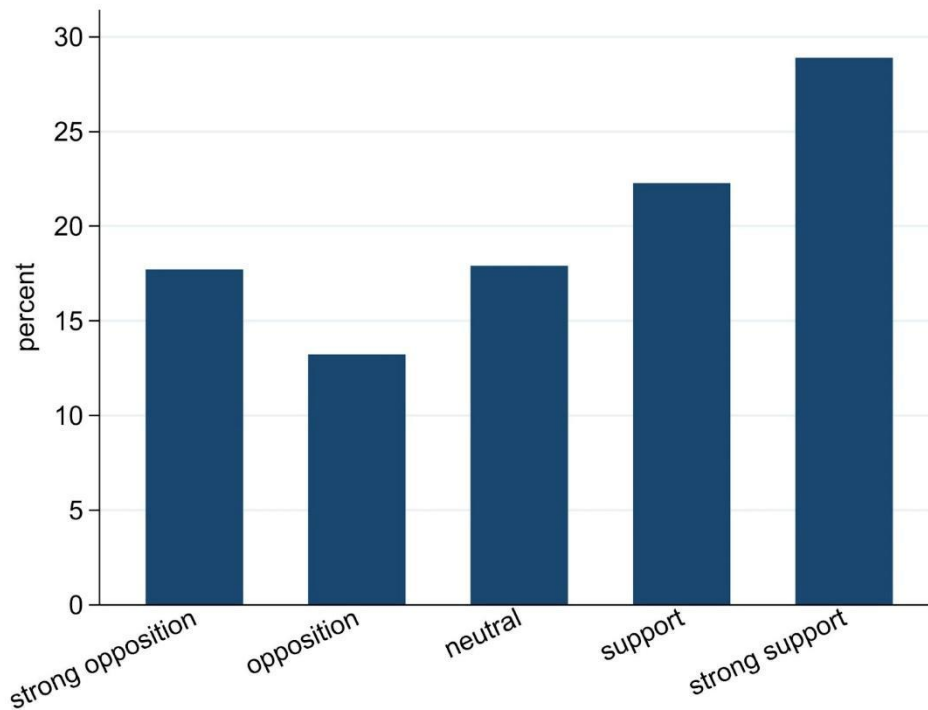
3.2   Kiezblock

The concept of Superblocks has been popularized by the city of Barcelona. The idea is to limit drive-through traffic in individual neighborhoods and to transform space for cars (including parking space) into pedestrian and green space. The concept has been adapted in Berlin under the name of *Kiezblock* (loosely: neighborhood block). The survey reveals a high level of support for the creation of more Kiezblocks. In total, 51% support the measure (with 29% strongly supporting it). 18% indicate to be neutral on the topic. 31% disapprove of the measure (among which 18% indicate strong disapproval). The responses thus again indicate a significant level of polarization.

Figure 3 - Kiezblocks

In Berlin, further local, traffic-calmed zones - so-called Kiezblocks - are to be created. Kiezblocks greatly reduce through traffic in residential areas by simple infrastructure measures ('bollards'). What is your position regarding these plans? (N=1,386.)

A follow-up question asked about respondents' support for having a Kiezblock in their own borough (rather than about the general expansions of Kiezblocks across the city). Interestingly, we observe a slightly lower rate of support, 44%, for a "local" Kiezblock. The result suggests that some respondents display a NIMBY (Not-In-My-   BackYard) attitude: 10% of respondents approve of more Kiezblocks for the city but not for their own borough. A closer look at the data shows, however, that this group predominantly takes a "neutral" position on a local Kiezblock. This might reflect that respondents acknowledge difficulties in establishing a traffic-calmed zone in their local vicinity (e.g., along a main road).

Figure 4 - Kiezblock in the own neighborhood

Would you support the implementation of a Kiezblock in your neighborhood? (N=1,386.)
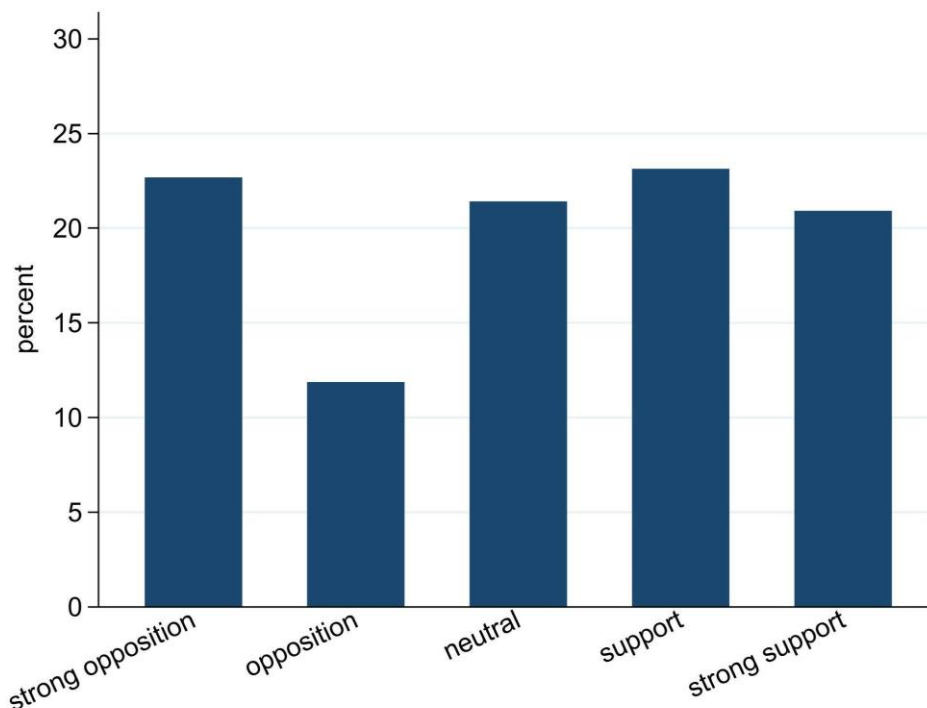
3.3 30km/h Speed Limit

Attitudes on a possible expansion of a 30km/h speed limit on main roads turn out to be the most polarized. 42% oppose this proposal and 43% approve it. Among respondents with at least one car in their household, 50% oppose the idea, but still 36% support it. Among respondents without a car, only 26% oppose whereas 56% approve of an expansion of the 30km/h speed limit.

Figure 5 - 30km/h Speed Limit

A speed limit of 30 km/h is to be introduced on other main roads in Berlin. What do you think about a 30 km/h speed limit on Berlin's main roads? (N=1,386)
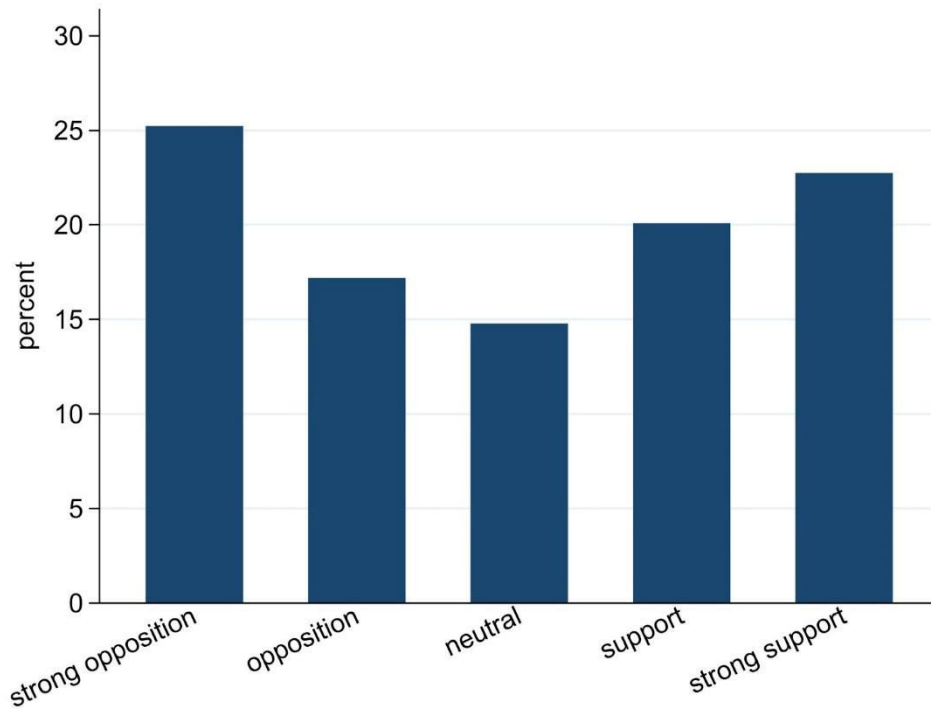
3.4   Parking Fees

Berlin's previous city government discussed several proposals to increase parking fees, both for residents' parking permits as well as for short-term parking. The background of these proposals is the observation that Berlin's parking fees (which remained, in
nominal terms, unchanged for the past two decades) are very low from an international perspective. A parking permit for residents, for instance, costs only 20€ for two years. The measure finds overall comparatively limited support – the rate of 33% of approval (among them 19% strong approval) is among the lowest of all measures covered in the survey. 46% disapprove (28% strongly disapprove) of the plan.

Figure 6 - Residents' parking fees

Residents' parking fees are to be increased to €120 per year in Berlin. What is your opinion on the increase of residents' parking fees? (N=1,386)
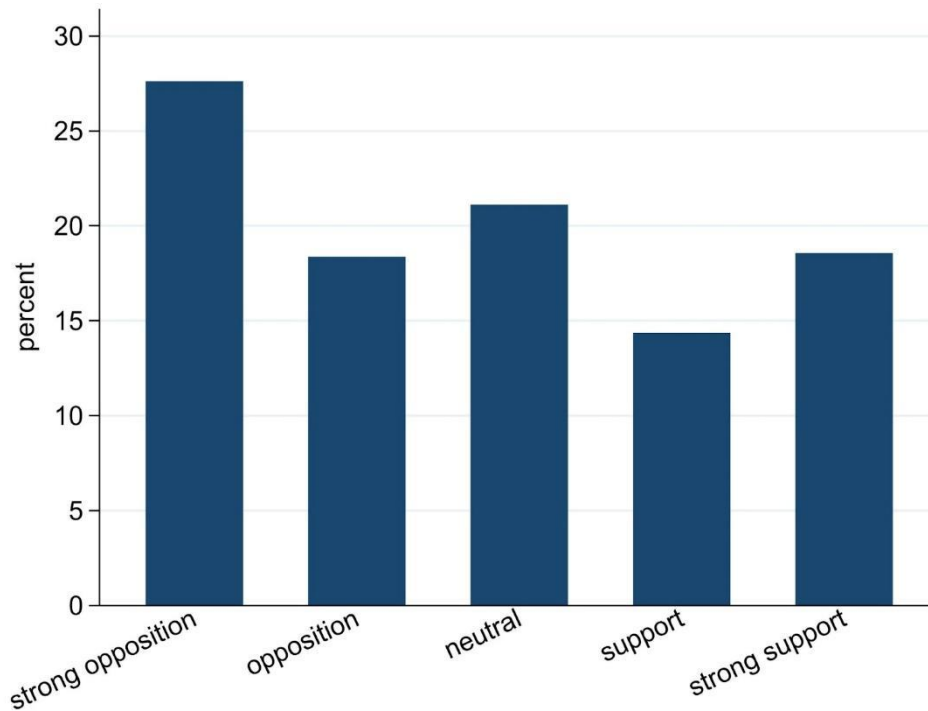
We also covered attitudes about an increase in the general parking fees - the first increase after 18 years. The responses are very similar to those reported above.
Only 34% approve of this increase; 49% disapprove and 17% take a neutral position.

Figure 6 - General parking fees

Short-term parking fees in Berlin will be increased by one euro to €2, €3 or €4 per hour, depending on the district. What is your opinion on this step? (N=1,386)
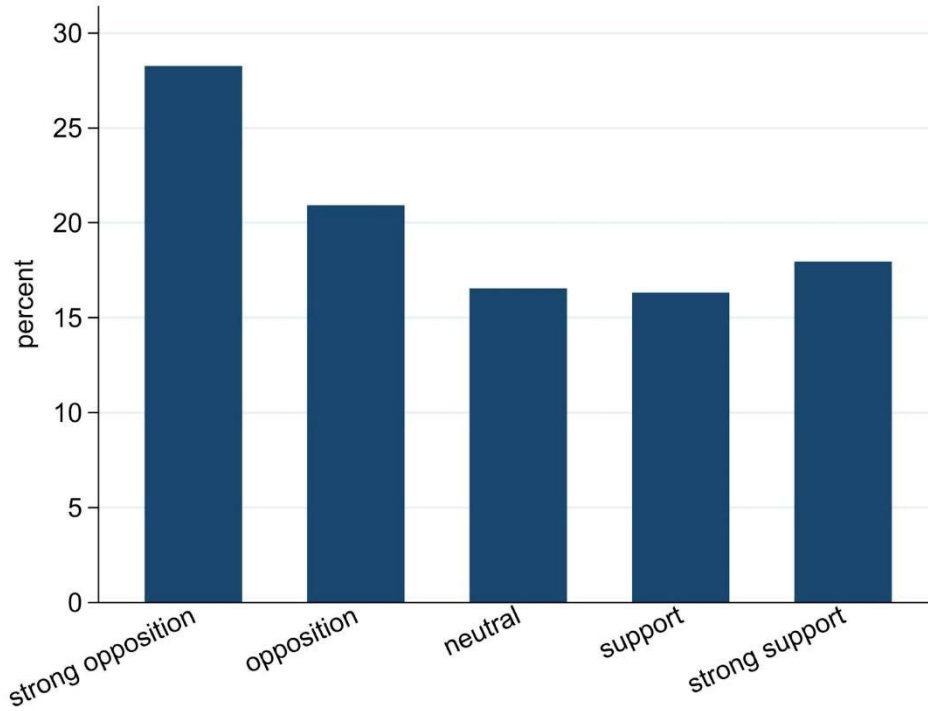
3.5   Congestion Charge

Finally, we exposed our survey respondents to the idea of a congestion charge. More specifically, we described a model with a daily fee for entering the inner-city ring. The survey randomly communicated prices of 5.00€, 7.50€ and 10.00€. As we did not obtain statistically or quantitatively different responses for different price levels, we pool responses below.

With an approval rate of 36%, a congestion charge seems slightly more popular than increasing parking fees. Yet, the rate of strong disapproval is strikingly high: 31% of respondents display a strong preference against it, further 17% disapprove.

Figure 8 - Congestion Charge

Berlin discusses the introduction of a congestion charge. On weekdays, motor vehicles would have to pay a fee of 5€ per day to travel within the S-Bahn ring. (Special regulations would apply to residents within the ring.) What is your opinion of the introduction of such a congestion charge? (N=1,386)
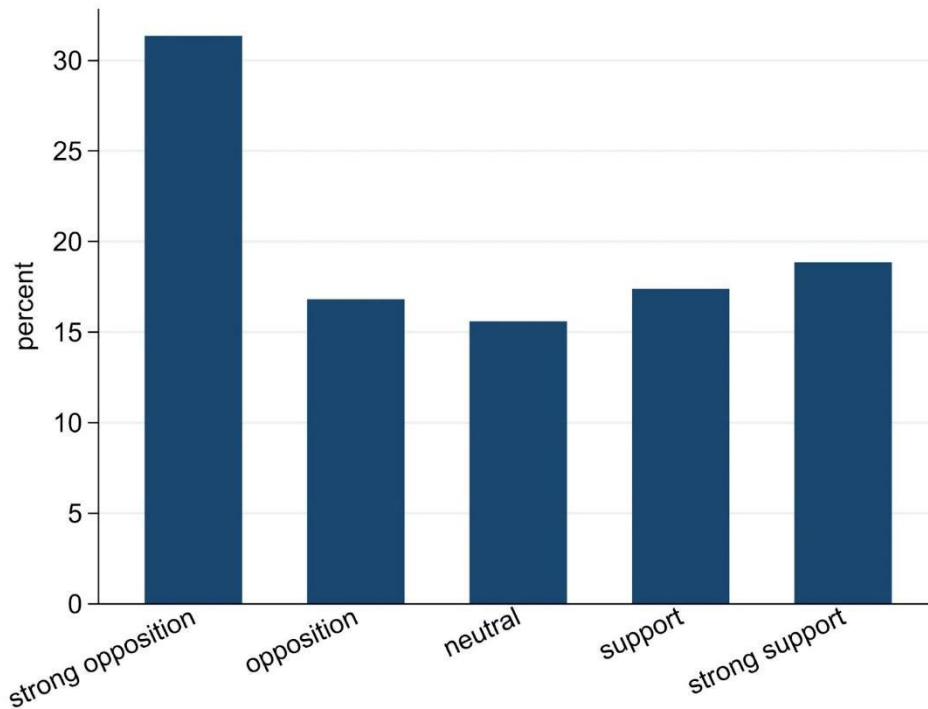
4 Comparison of Support

Overall, the results indicate that a majority supports expanding cycling infrastructure and traffic-calmed zones (Kiezblocks) in Berlin. Unsurprisingly, the introduction or increase of fees (parking fees or a congestion charge) get the least support.

Figure 9 - Support Ranking
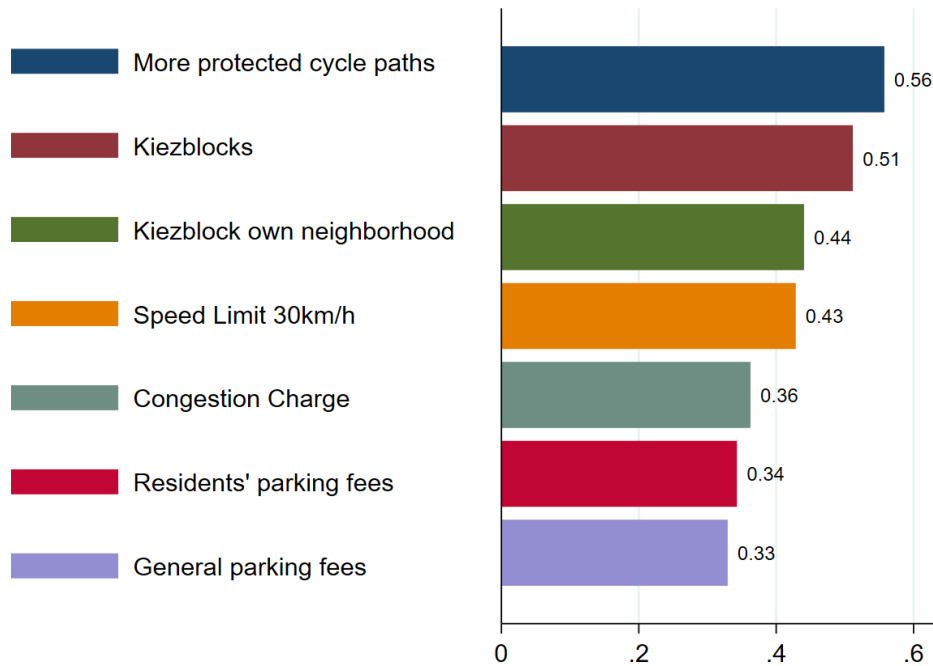
The unpopularity of fines and fees is in line with evidence from other cities. It is worth reminding, however, that price-based policies typically achieve behavioral changes
(e.g., more available parking space, fewer traffic jams) which often increases their popularity ex-post. The most famous example is Stockholm's Congestion Charge, which substantially gained in popularity after its introduction in an initial trial period in 2006[2]. In a referendum, the Congestion Charge gained majority support and was permanently (re-)introduced in 2007.

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[2] Compare, e.g., Eliasson, Jonas (2008), Lessons from the Stockholm congestion charging trial, *Transport Policy* Vol. 15(6), p. 395-404. https://doi.org/10.1016/j.tranpol.2008.12.004.

5 Mobility Change Score

Based on the responses to the different survey questions covered in Figures 1 to 8 we created domain specific support scores (i.e., support for more bike infrastructure, Kiezblocks, Speed Limit 30, a congestion charge and higher parking fees) as well as an overall Mobility Change score. The latter score summarizes respondents' inclination to support (or oppose) these policy measures. Details on the computation of these scores are provided in the Appendix.

The variation of the Mobility Change score across different parts (*lebensweltlich orientierte Räume*) of the city is illustrated in the map below (see Figure 10). In line with widespread beliefs, there is, in general, higher support in inner city districts. Yet, we also observe high levels of support in several outer districts.

**Figure 10 - Mobility Change Score across Berlin**
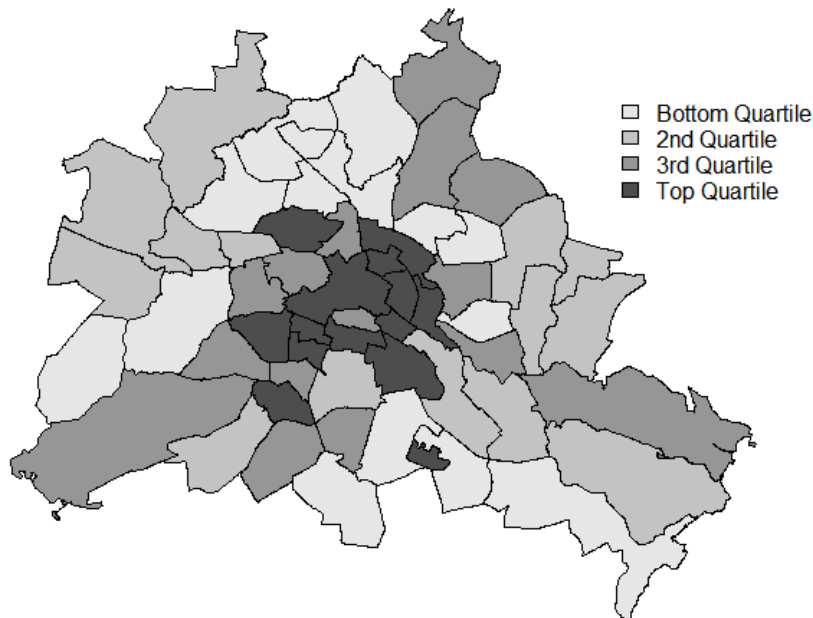
The pattern illustrated in Figure 10 (as well as the domain specific scores illustrated in Figure A3) is broadly consistent with voting results in Berlin, which show a divide between a "progressive" inner city and more "conservative" voters in outer districts. It is important to note, however, that these (relatively large) differences can be fully explained by respondents' differences in education, car ownership rates and general political preferences. Once we account for these characteristics, there are no detectable differences across different places of residence (see Figure A1)

Further results for the overall support score are the following:

- Considering socio-demographic variables, we find very little variation in the overall score across gender and income.

- There is modest variation across different household types (families with children display a much higher score) and age groups (with higher support among those below 50; and the highest score values for the age group 30-40; see Figure A2.).

- More pronounced differences in the score are observed between respondents with different education levels (support strongly increases with higher education, see Figure A2) and different political preferences. The latter point is documented in Figure 11.

- It is worth noting that the differences in the support score between voters of different parties are fairly stable in a multivariate analysis that accounts for other characteristics (see Figure A.1).

- The index is strongly correlated with car or bicycle ownership in a household: car households have a significantly lower index value and bicycle owners have a significantly higher index value.

Figure 11 - Mobility Change Score by respondents' voting preferences
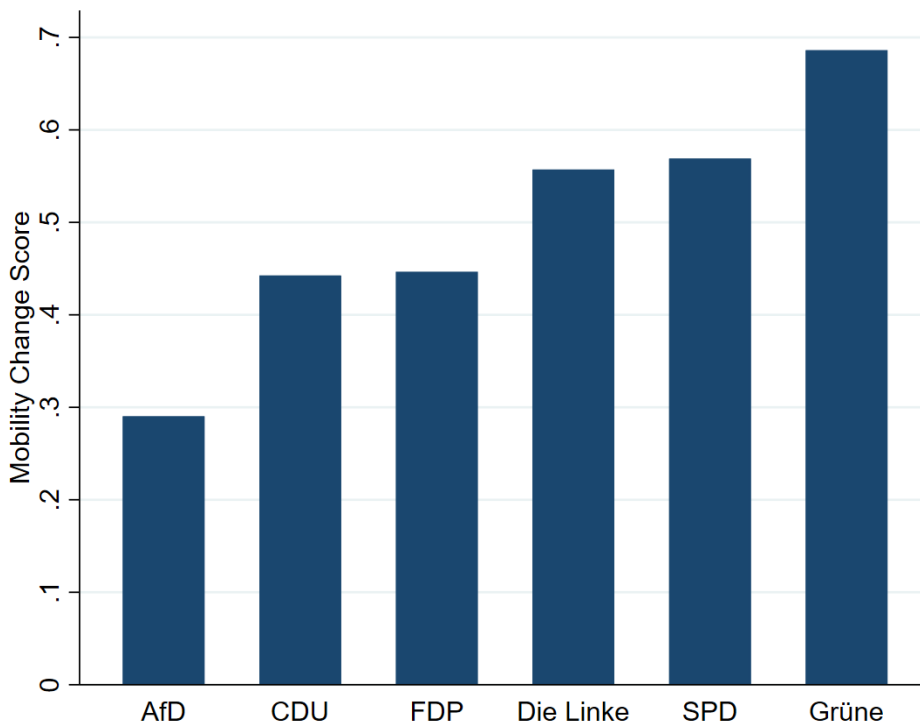
6 Summary

What are the key results of our survey on mobility change policy in Berlin?

- A majority of respondents are in favor of a further expansion of the cycling infrastructure.
- The transformation of neighborhoods into traffic-calmed areas – so called Kiezblocks – are a highly popular measure of mobility change policy.
- Price-based policy interventions receive the lowest support in our survey. This applies to (increases of) parking fees as well as the introduction of a congestion charge.
- Across all mobility change policy measures, polarization is high or very high, with consistently high shares of respondents strictly opposing the policy measures.

What drives support and opposition to mobility change policy?

- Our findings suggest that key dimensions of divisions are the level of education, car ownership, and political orientation (left/right).
- These dimensions are correlated with residence inside the inner-city vs the outer areas – but they are not the same.

Which practical conclusions can be derived from these findings?

- Policymakers should make an effort to overcome polarization. One key lever is to explain better the purposes and aims of a policy measure.
- For instance, price-based policies – such as higher parking fees or a congestion charge – typically achieve behavioral change and yield beneficial outcomes (such as more available parking space, less traffic) that are typically not anticipated. These benefits need to be explained to the citizens. The unpopularity of price-based interventions presumably reflects a lack of understanding about these beneficial outcomes.
- A similar point can be made for a 30km/h speed limit, which improves traffic safety (in particular, for pedestrians and cyclists), reduces noise and other emissions, but entails only a limited loss in travel time for car drivers.
- Explaining both the aims of a policy and their positive impact could thus help to increase support for the various measures of mobility change policy and reduce polarization[3].

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[3] As part of this survey, we used experimental variation to generate causal evidence in support of this interpretation. The experimental results are beyond this policy brief.

7 APPENDIX

7.1 Computation of the Mobility Change Score

Based on the responses summarized in Figures 1 to 8, we computed a Mobility Change score. For each question, we first transformed the 5-point Likert scale into variables with values of 0, 0.25, 0.5, 0.75 and 1; higher values measure a strong support (or, in case of the questions on the bike infrastructure, stronger demands) for a policy measure.

The survey covered five policy domains: Bike infrastructure, Kiezblock, Speed Limit, Congestion Charge and Parking Fees. Within the domains covered by two questions, we computed (equally weighted) averages from the responses (e.g., for residential and general parking fees). This yields five domain specific scores (distributed between zero and unity). The overall Mobility Change score then simply takes the (equally weighted) average of these five variables.

$$I = \frac{I(Bike\ Infrastructure) + I(Kiezblock) + I(Tempo30) + I(Congestion\ Charges) + I(Parking\ Fees)}{5}$$

with, e.g.,

$$I(Parking\ Fee) = \frac{Q(Residential\ Parking\ Fees) + Q\ (General\ Parking\ Fees)}{2}.$$

In multivariate regression analyses (underlying the results presented in Figures A.1 and A2), the scores, which all are all distributed between zero and unity, were mean-centered and standardized such that regression coefficients can be interpreted in terms of standard-deviation changes in the underlying score.
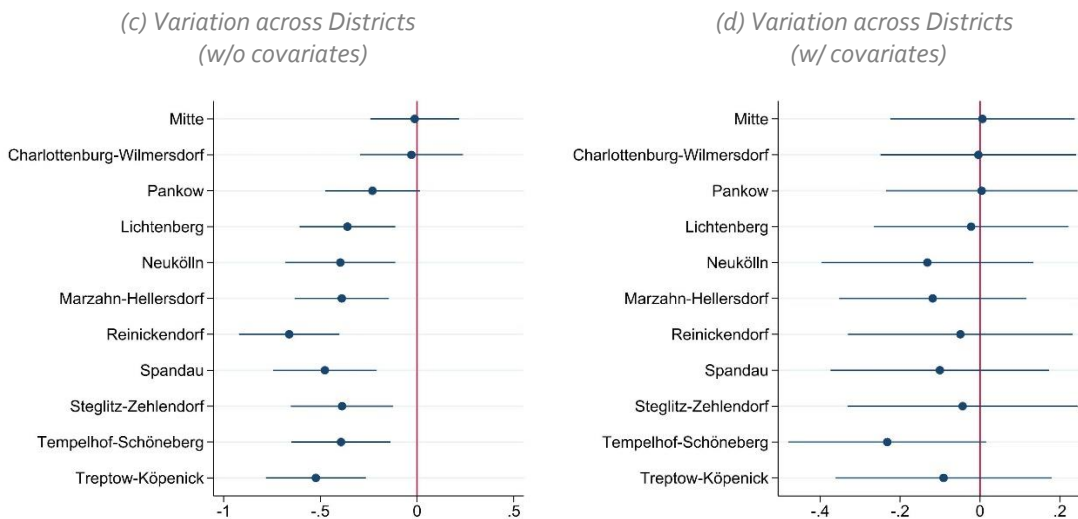
7.2   Complementary Figures

Figure A.1 – Correlations with the Mobility Change Score

The figure illustrates coefficients from multivariate regression analyses that use the (mean zero) standardized support score as a dependent variable. We present coefficients from models without any further controls as well as coefficients from models with a rich set of covariates.
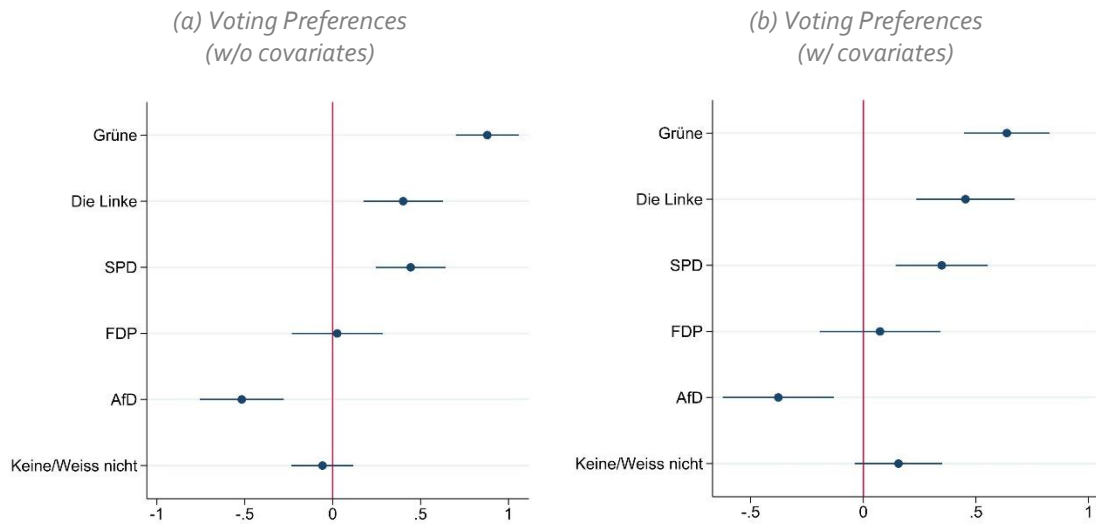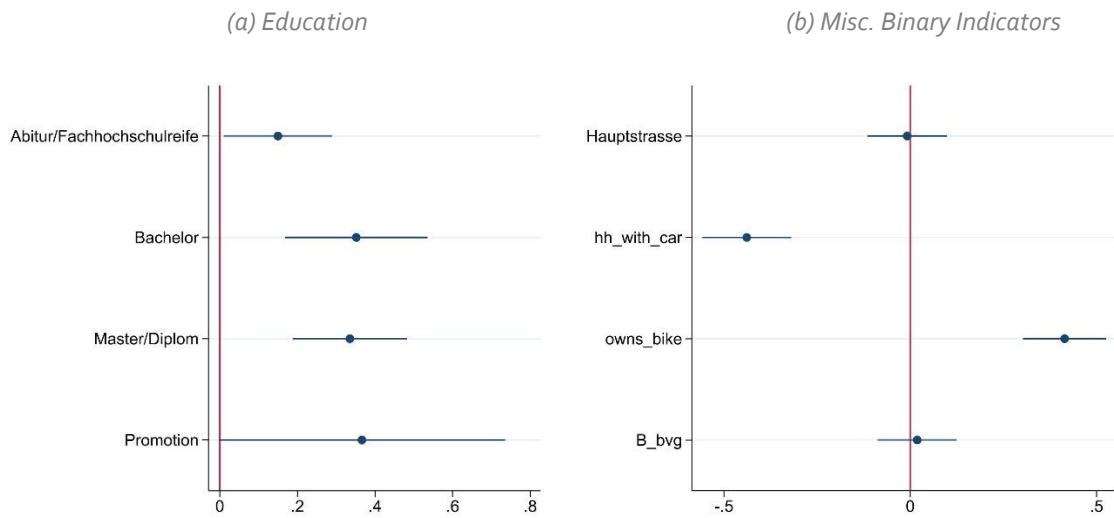

The reference category is the CDU; positive coefficients thus indicate a stronger support, negative coefficients a weaker support than the average respondent with a CDU voting preference.

The reference category is Friedrichshain-Kreuzberg; negative coefficients thus indicate a weaker support than the average respondent from Friedrichshain-Kreuzberg.

Figure A.2 - Correlations with Support Score

Figure A.2 illustrates coefficients from multivariate regression analyses that use the (mean zero) standardized support score as a dependent variable. All coefficients are from models with a rich set of covariates.

(a) Education

(b) Misc. Binary Indicators

In the left panel a, the reference categories are respondents with the highest education below Abitur. Panel b presents coefficients from binary variables indicating whether a respondent lives along a main road (*Hauptstrasse*), whether someone within the respondent's household owns a car, and/or a bike, and whether the respondent holds a monthly public transport (BVG) ticket.

(c) Age Groups

(d) Family Status
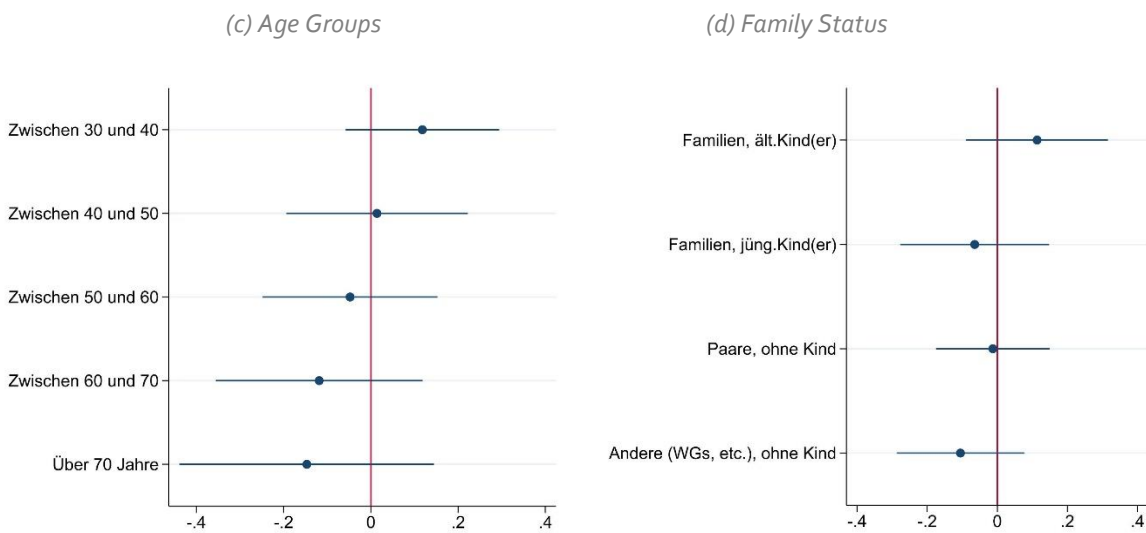
The reference categories are respondents with age 16-29 (panel c) and single households (panel d). Positive coefficients indicate a stronger support, negative coefficients a weaker support as compared to the reference group.

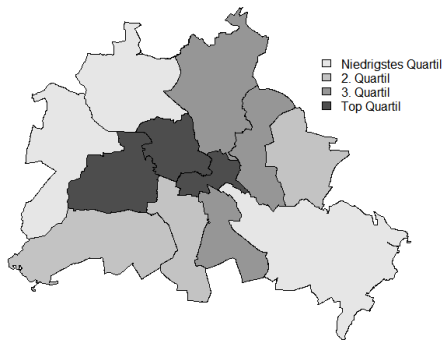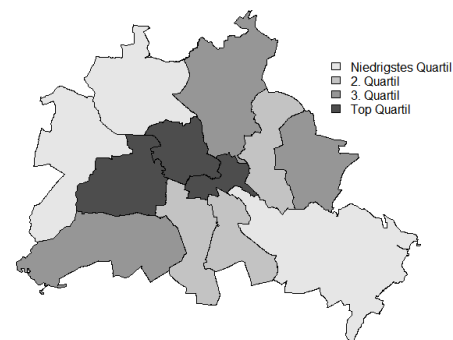**Figure A.3 - District Level Support Score by Domain**
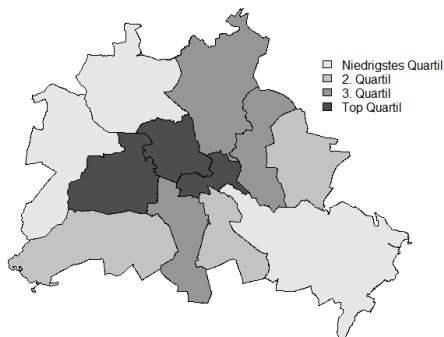
(a) Bike Infrastructure
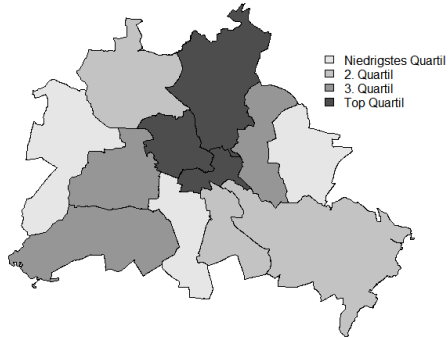
(b) Kiezblock
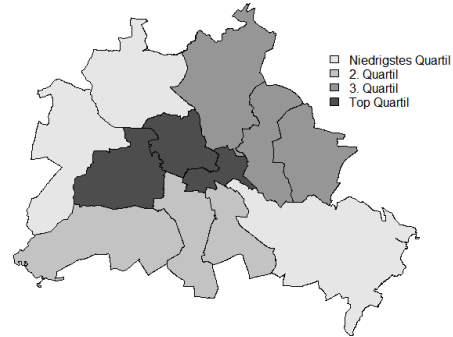
(c) Parking Fees

(d) Congestion Charge

(e) Speed Limit 30km/h

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