Contextual Effects on Electoral Turnout at a German Municipal Election

Rüdiger Schmitt-Beck

Institute of Political Science
University of Duisburg-Essen - Campus Duisburg
Lotharstrasse 65
D-47057 Duisburg
Phone +49-203-379-2051 (-2049)
Fax +49-203-379-2318
Email: schmitt-beck@uni-duisburg.de
Web: http://politik.uni-duisburg.de/~schmitt-beck

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Introduction

In two respects, this paper explores largely uncharted terrain with regard to German citizens' electoral behavior. First, it is one of the first attempts to shed light on turnout at local elections, a topic that has been almost entirely ignored so far. Second, in doing so, it emphasizes the role of local contexts and electors' social embeddedness for electoral participation, an area that generally has not gained much attention.

German local elections are probably not much different from their counterparts in many other established democracies in that they safely can be characterized as a "blind spot" of electoral research (Schacht 1986, 2). Although the study of voting behavior is a well established subdiscipline of political science in this country, the number of analyses inquiring into the specifics of local electoral behavior is extremely small. Most research deals with general elections. Some attention is also paid to elections of state parliaments. But local voting has for decades been almost entirely neglected. Most existing studies, especially the early ones, are analyses of aggregate data from official sources (e.g., Czarnecki 1992; Eith 1997; Glemser 2000). Due to the nature of such data, they are by necessity restricted to inquiries into the structural underpinnings and correlates of local voting. The role of attitudes cannot be dealt with by using materials collected by municipal statistical offices for administrative purposes. In addition, these analyses are vulnerable to the well-known problem of the ecological fallacy. To study how subjective phenomena like beliefs, opinions and attitudes impinge on citizens' choices at local elections one needs individual-level data generated from surveys. Analyses based on such data are scarce and mostly of more recent date (e.g., Biege et al. 1979; Löffler & Rogg 1985; Schacht 1986; Gabriel et al. 1997; Andersen & Bovermann 2002; Marcinkowski 2001).

While the state of research with regard to the directional component of local voting in Germany appears poor but not neglectable, the picture gets even bleaker when moving one step back to ask what we know about the factors that impinge on citizens' decisions about whether or not to go to the polls at all. In stark contrast to countries like Britain (Miller 1988; Hoffmann-Martinot et al. 1996; Curtice 1999; Rallings & Thrasher 2003), France (Hoffmann-Martinot et al. 1996), or Norway (Bjørklund 2002), German electoral research has so far not come up with any thorough inquiries into the reasons why some people vote at local elections while others do not. Only a small number of studies has at least paid some passing attention to this question (Marcinkowski 2001, 9-13; Bovermann 2002, 120-131; Gabriel 1997, 156-159; Hennig & Völker 1999). There are also a few more general analyses of local political participation that included electoral participation into the range of behaviors studied. Yet, in these analyses it is typically combined with other forms of political activity into more complex indices or typologies of political participation, so that no inferences to the specific background of turnout as such can be made (Gabriel 1983, 1988, 1989; Klingemann & Lass 1995). Hence, it was high time to design a more comprehensive study of turnout at German local elections, and some of its findings are presented in this paper.

In trying to identify some of the factors that are responsible for the decision of electors to go to the polls at a local election, I will use what we know on the backgrounds of turnout at general elections as a heuristic source of hypotheses, adapting these to the local political setting. Yet, this is only a starting point, as the papers primarily seeks to explore a dimension of political behavior that studies of turnout so far generally haven't paid much attention to: the role of local contexts. In recent years, electoral research has moved away from its fixation on the individual and its personal attributes as key explanatory variables for electoral behavior. The old theme, raised in the 1940s and 1950s by the seminal studies of the Columbia school of electoral research (Lazarsfeld et al. 1948; Berelson et al. 1954), that political choices are not solitary acts of atomized individuals which can be fully explained through studying their attitudes, values and ideologies, has resurfaced after decades of neglect. The view has gained ground that "[t]he real electorate is composed of interrelating, interacting, interdependent citizens", while the conventional way of (implicitly) conceiving the electorate as "an aggregate of independent, isolated, atomized individuals" has come to be seen as an artificial construct (Huckfeldt & Sprague 1995, 8-9).

When making up their minds about how to vote electors take into account what they encounter in their social environments. Voting, then, is not only a function of citizens' personal attributes, but also of attributes of their social contexts. Accordingly, properly specified models of electoral behavior should include not only variables measuring personal attributes of individual electors, but also indicators pertaining to properties of the contexts within which they are embedded. Such models, then, would be sensitive not only to individual effects, but also to contextual effects, that is, effects occuring "when characteristis of the local geographical area (i.e. neighborhoods, communities) influence individual behavior" (Books & Prysby 1995: 255).

Numerous studies have convincingly shown that electoral behavior depends not only on the personal attributes of electors themselves, but also on properties of their social environments. Although casting their votes in the isolation of the voting booth, voters do not seem to decide as monades, detached from any social contact and interaction, but as social beings. While still not a mainstream topic, the social embeddedness and interdepence of political behavior has gradually come to be accepted as an important phenomenon, meriting further attention (Carmines & Huckfeldt 1996). To be sure, the contextual paradigm in political behavior is not attempting to replace the prevailing perspective that seeks to explain electoral behavior from voters' personal attributes. There can be no question that political beliefs, attitudes, values and ideologies are important antecedent factors that are not to be neglected when attempting to arrive at comprehensive explanations of how electors cast their votes. However, the dominant perspective seems to miss an important point. How individuals choose at the ballots is not only dependent on the considerations and feelings they carry around in their heads, but also on how their social environments are structured socially and politically.

The remainder of the paper will present findings from a case study of turnout at a recent local election in Germany. As the next sections will show turnout differed hugely between various quarters of the city studied. The districts also vary considerably with regard to many structural

attributes. The core question of my analyses is whether such differences matter for turnout at local elections. Varying turnout rates across districts could be the result of pure compositional effects, simply reflecting different distributions of key individual-level explanatory variables between these regional units. If so, a model emphasizing just individual-level variables would be sufficient to explain turnout. But there is also the possibility of genuine contextual effects, if characteristics of districts impinged on their residents' decisions about whether or not to go to the polls independently of these voters' personal attributes.

Turnout at German local elections in perspective

Let us begin by taking a look at the large picture: how does local electoral participation fit into the general pattern of turnout at elections across the various levels of the political system and over time, in Germany? This can be seen from Figure 1 where the development of local turnout over time is expressed by a trend line, indicating the general development of local turnout on the basis of over a hundred data points that indicate state level average turnout rates of all local elections that took place in Germany since the mid-1940s. This scattered pattern of data points is a consequence of the fact that local elections are governed by state laws and take place at the same time within states, but at different times across states. Therefore, as with turnout at state elections, no single connecting line can be drawn between all these elections, if one wants to identify a general trend.

- Figure 1 -

In the immediate aftermath of WW II, when democratic politics was gradually re-established in the zones of West Germany then occupied by the Western allies, electing local councillors and mayors was the first opportunity for Germans to practice again the right to choose their office-holders that had been denied to them during the dark years of the Nazi regime. Small wonder that they turned out to vote in large numbers. The first local elections that were held shortly after the war reached turnout rates between 75 and almost 95 percent. Yet, after the foundation of the German Federal Republic in 1949 general elections for the national parliament within a decade became the type of elections that constantly stimulated the highest numbers of voters to cast their votes, with turnout rates in the range of 85 to 90 percent until the early 1980s. Local elections then competed with state elections for rank two, on average surpassing them by a few percentage points until the mid 1960s. Since then local electoral participation has continuously ranked third, behind turnout at national and state elections. While turnout varied widely across different local elections, and was sometimes boosted when election dates coincided with general elections, on average it lay in the range of 75 to 80 percent from the 1950s until well into the 1970s. Since 1979, direct elections of the deputies to the European parliament have added yet another level to the German electoral landscape, however, without ever registering turnout rates similar to those for the various elective bodies of national politics, including local elections.

Strikingly, while maintaining this rank order, since the late 1970s turnout has decreased at all levels of the political system. General elections appear least affected from the downward trend. Since the 'unity election' of 1990 -- the first General election of unified Germany, taking place just two months after accession of the new states of the former German Democratic Republic to the Federal Republic of Germany on 3 October, 1990 -- the pattern suggests trendless fluctuation in the range between about 78 and 82 percent, rather than a further decline. In contrast, at state elections the number of abstainers continued to be on the rise, although at a more moderate pace. Yet, at local and European elections turnout decline accelerated dramatically in the mid-1990s. At the 2004 European election no more than 43 percent of German electors found their way to the polls, while the most recent local elections registered turnout rates between 42 and 57 percent, with an average of about 50 percent. The remainder of the paper will focus on one of these elections -- the most recent one in the state of Northrhine-Westphalia. It took place on 26 September, 2004, with an average turnout at state level of 54.5.

Turnout in Duisburg at the 2004 local election

In what follows I will present findings from the first inquiry into the background of local electoral participation in Germany -- a case study from the city of Duisburg in the state of Northrhine-Westphalia, the largest of the German states. Located at the Western fringe of the Ruhr area, Duisburg has about half a million inhabitants. Traditionally dominated by mining and steel-producing industries, for decades the city has been struggling with the structural change harshly imposed on its economy by the decline of the traditional heavy industries. This finds expression in an unusually high unemployment rate of currently more than 14 percent. On 26 September, 2004, along with other Northrhine-Westphalians Duisburg citizens were called to the ballots to elect their local councillors and the mayor. 48.0 percent of them took the opportunity to participate in selecting the city's future political leaders (Table 1). While turnout thus was somewhat higher than at the previous local election in 1999 when it amounted to just 44.2 percent, it remained nonetheless below the state average, as it had been for decades with the exception of the very first local election after WW II in 1946. To elect the new mayor of the city, due to the two-round majority-runoff electoral system applied for this office a second ballot was necessary at which turnout dropped substantially, to just 38.0 percent.

- Table 1 -

At closer inspection it becomes clear that turnout was by no means uniform in all of Duisburg. Rather, it varied considerably between the various districts of the city (Figure 2). Where turnout was highest, almost two out of three citizens went to the polls (64.6 percent). In contrast, in the quarter with the lowest turnout less than half this number was reached (30.4). Of the 46 districts of the city, 16 registered turnout rates below the city total. Almost the same pattern, although at a considerably lower level, emerges for the mayoral runoff election. With just 20.6 percent, the same district ranked lowest, while the district ranking

third at the first round now emerged first, with a turnout of 53.3 percent. The correlation of the district turnout figures between the two rounds is almost unity (Pearson's r = .98).

- Figure 2 -

As can also be seen from Figure 2, similar differences emerged between city districts at each recent election, regardless of its type. Just the levels are different, with the general election 2002 ranking first, the state election 2000 doing only slightly better than the first round of the local election, and the 2004 European election reaching even lower levels of turnout. The turnout profile for the European election closely resembles the district results of the local runoff election, with not much more than one out of five voter taking part in the quarters with the lowest turnout rates. Only in those regional units where turnout rates are generally higher did turnout at the second round of the local election consistently surpass participation rates at the European election. Unsurprisingly, turnout rates between elections at the various levels of the political system are also highly correlated. Pearson's r for turnout at the 2004 local election (first round) and turnout at other elections amounts to .96 (European election 2004 and state election 2000) and .97 (General election 2002), respectively.

Comparing turnout rates at the most recent elections with those of the earliest elections for which comparable data are available[1] makes obvious that these huge differences are the result of a very uneven pattern of turnout decline over the past decades (Figure 3). In the late 1970s turnout was not only on average much higher, but the spread across districts was also far lower. The standard deviation of district turnout rates was 4.8 at the 1979 local election, and almost doubled until 2004 (8.7). At the 1976 general election it was 2.6, as compared to 6.7 at the most recent General election in 2002. For state elections, the variation across districts grew from 4.3 in 1980 to 8.1 in 2000, and for European elections from 3.5 in 1979 to 6.4 in 2004.

- Figure 3 -

Obviously, what once used to be a fairly even landscape of relatively high turnout levels in all districts of the city has been transformed, over the past three decades, into a very unequal pattern. To be sure, turnout has decreased for elections at all levels of the political system in all districts of the city. However, the impression that total participation rates have been diminished considerably at all types of elections is to a substantial degree attributable to a number of districts where this shrinking process of the active electorate was particularly dramatic. Interestingly, although starting from a lower level the magnitude of decline of local electoral participation across the city's regional units is very similar to the that for general elections. Clearly, turnout at both state and European elections decreased much more strongly.

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1 The current district structure of the city was the result of an administrative reform in the mid-1970s, so that there are no comparable data for earlier dates.

Explaining turnout at the 2004 local election in Duisburg

As a consequence of several decades of differentially shrinking electoral participation, the city of Duisburg's residential quarters differ enormously with regard to their levels of electoral activity. In addition, as in all cities, there are also huge differences with regard to social structures and styles of life. The key question of the following analyses is: do these differences matter for turnout at local elections? Concerning the variation in turnout, this is not to be understood in the trivial sense that today's turnout differences are the aggregate expression of today's voters' electoral behavior. The puzzle to be solved is rather whether the huge differences in electoral engagement between regional units within the city that have emerged over the past decades somehow feed back into today's voters' decision-making processes, so that -- all else equal -- voters from electorally active districts behave differently from those living in districts where sizable shares of voters or even majorities abstain. Perhaps a voter from a low-turnout environment has a different likelihood of going to the polls than a person who is residing among many active voters, net of all other factors that are also relevant for electoral participation. Similarly, perhaps differences between districts with regard to their structural composition exert influences on their residents' intensity of participation, irrespective of these persons' individual attributes. In other words, the assumption is to be tested that attributes of the neighborhood citizens reside in exert contextual effects on these persons' decisions to show up at the polls or to stay at home on election day.

Why should we expect such contextual effects? In recent years, numerous studies have convincingly shown that electoral behavior is dependent not only on the personal attributes of electors themselves, but also on properties of their social environments. This general idea has been voiced first by several classics of political sociology, most notably Lazarsfeld and his colleagues in their seminal studies on U.S. Presidential elections of the 1940s (Lazarsfeld et al. 1944; Berelson et al. 1954). Yet, due to both theoretical and methodological developments, in particular the Michigan school's psychological approach with its emphasis on attitudes as principal explanatory factors for electoral behavior, and the establishment of the national survey of individually sampled respondents as the main technique for obtaining social science data, this perspective fell into disregard (Dryzek 1992). However, recent decades have seen a gradual revival of the ideas first developed in the 1940s, and several studies have demonstrated its value for political analysis.

However, most of these studies have only been interested in demonstrating how social contexts influence the direction of the vote. While several competing assumptions have been developed on the direction of such contextual effects (MacAllister et al. 2001), available evidence so far lends most support to the 'assimilation' (Huckfeldt 1986) or 'consensus' hypothesis (MacAllister et al. 2001) which assumes that contextual effects work in the direction of conformity to the prevailing 'climate of opinion' in a given environment, influencing even those who due to the nature of their personal characteristics rather tend to support other parties. For instance, Pickery (2002), in one of the few studies on German voters, demonstrates that at the general election 1994, all parties gained more votes than to be

expected from individual attributes alone from voters living in counties where these parties enjoyed already a high baseline of support. Numerous other studies, especially from the United States and Britain, also suggest that the strength of parties in voters' regional environmens is an important predictor of these voters preferences, net of their own personal attributes.

The pattern of these effects nicely conforms to the well-known biblical phrase: 'Them what has, gets': in regions where parties are already widely supported, the probability is high that they will gain *disproportionally* large shares of votes. In contrast, where they are weak chances are that they will do even worse than to be expected from voters' individual attributes alone (e.g., Miller 1956; Orbell 1970; Fisher 2000; Huckfeldt & Sprague 1995; Huckfeldt 1986; MacKuen & Brown 1987). While studies such as these focus on what Fisher (2000) labelled the 'partisan reinforcement effect' of regional contexts, other research has shown that social-structural attributes of regional units have also consequences for the behavior of their members. Directly or indirectly, aspects like the class composition, unemployment rates, or lifestyle differences between social environments can have measurable consequences for the political choices of those voters embedded in them, again net of their personal attributes (e.g., Pickery 2002; MacAllister et al. 2001; Johnston et al. 2001; Klein & Pötschke 2000).

While it seems thus clear that voters' social environments are important for political choices, less attention has so far been paid to their role for electoral participation. However, in a situation where turnout varies so widely between regional units as in the recent local election in Duisburg it seems worthwhile to inquire whether these differences in levels of electoral activity may also be a relevant source of contextual effects on whether individual voters will participate or abstain at an election. In neighborhoods where non-voting has become the rule rather than the exception citizens that otherwise may tend to vote may come to reassess their inclination and, perhaps, decide to stay at home, just as most other people in her neighborhood anyway do. An important implication of this assumption is that processes of decreasing turnout within certain regions, once they have been set off, may at some point tend to become self-sustaining, if not self-reinforcing, creating an endogenous, spiraling process of further decreasing turnout. A corresponding dynamic can, of course, be also assumed the other way round, that is, with regard to high turnout.

If for some reasons, turnout decline affects various regions differently, as was the case in Duisburg, such a process would, after having gained momentum, create a widening turnout gap between districts, with some of them maintaining relatively high levels of turnout, and others gradually opting out of active participation in electoral politics. Furthermore, it seems conceivable that attributes that are well-known facilitators or inhibitors of electoral participation are important not only as personal attributes but also as contextual attributes, regardless of whether individuals are characterized by them themselves or not. In the following sections I shall explore whether and in what ways local neighborhoods were important for citizens' participation at the recent local election in Duisburg.

Data and the dependent variable

The data of this study come from a representative pre-election CATI survey of the voting age population (i.e., aged 16 and above)[2] at the local election on 26 September, 2004, in Duisburg.[3] In order to be able to explore not only individual but also contextual effects, it was necessary to determine precisely which districts our respondents resided in at the time of the survey.[4] This information could be used to link aggregate data from official statistics to the survey dataset, describing the districts on a number of variables.[5] Given the typical nature and purpose of administrative data collection efforts, these variables are of three kinds: basic demographic information, socio-economic indicators, and election outcomes. The remarks of the introduction about the limitations of data from official statistics therefore fully apply to these data as well. Accordingly, there are restrictions to the kind of analyses that are feasible in this paper.

With n = 1,009 the number of respondents in the survey is not overwhelmingly large, especially in view of the fact that Duisburg has 46 administrative districts, and respondents from all districts were needed. Nonetheless, only one district is entirely missing from the sample, and that is -- ironically, but for a systematic reason -- none other than the one with the lowest turnout at the local election. However, the number of respondents per district varies widely (from 1 to 59), due to the fact that the number of residents in the districts is very different (in 2002 ranging from about 3,300 to about 21,800 inhabitants), and response rates also varied substantially across districts. Strikingly, with r = .51 district response rates are clearly related to turnout at the local election (as well as other elections, of course). On the whole, districts where turnout was low are also underrepresented in the survey. This is a clear indication of the often suspected limitations of survey research for the study of electoral participation. The phenomen of 'overreporting' is well-known from virtually all studies of turnout based on survey data. The proportion of non-voters is always underestimated by survey data. It is debated whether this problem is rather one of invalid survey answers, with non-voters wrongly claiming to be voters, or one of self-selective unit nonresponse, with non-voters being less likely to take part in political surveys. This finding strongly suggests that the latter tells at least a significant part of the story of survey overreporting.

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2 The minimum voting age at local elections in Northrhine-Westphalia is 16 years, while at all other elections one must be at least 18 to be entitled to vote. Although at the local election resident citizens of other EU countries were also entitled to vote, the survey included only German nationals.

3 Fieldwork was conducted between 30 August and 15 september, 2004, by the Social Science Survey Center (SUZ) of the University of Duisburg-Essen under the supervision of Frank Faulbaum and Martin Kleudgen. A maximum of 10 contact attempts at different weekdays and times of the day were conducted before a case was omitted from the active sample. A precise response rate cannot calculated, but its order of magnitude was about 30 percent. The lion's share of unit response is attributable to refusals by households or target persons.

4 Since the survey was conducted by phone this information had to obtained directly from the respondents. This was no trivial undertaking, since administrative districts are not always identical with the regional units that structure people's subjective cognitive maps of their city and their residential area. Yet, by means of an elaborate questioning scheme valid residential information from almost all respondents could be obtained. I am indebted to Thorsten Faas for his support in developing this instrument.

5 I am greatly indebted to German Bensch and Roland Richter of the Office for Statistics, Urban Research and European Affairs of the city of Duisburg for providing me with these data.

While not much can be done against the tendency of non-voters to refuse to take part in political surveys, respondents' disposition to overreport, which may be rooted in social desirability, can be at least partly met by using adequate measurement instruments. The question on which my dependent variable is based was designed to meet the problem of overreporting in two ways. First, the question itself was phrased in such a way that denying to participate in the local election could be considered a non-embarassing response. Second, instead of confronting respondents with thediscrete alternatives of either voting or abstaining, a scale was offered on which respondents could assess the likelihood of their participation in the upcoming election, upon the assumption that such a format would make it easier for prospective non-voters to admit that they might abstain. [6]

- Table 2 -

Table 2 seems to justify this rationale. Only 76.5 percent of our respondents claimed to vote certainly at the local election, while the others chose one of the alternatives which implied that they might, at the end of the day, abstain. In the third column of the table, for the sake of comparison the results of a similar question are displayed which concerns vote intentions for a (hypothetical) general election. Here, more respondents chose the alternative of certain participation, indicating that respondents differentiated between the different types of elections. However, the proportion of respondents chosing one of the qualified alternatives with regard to participation at a general election is much higher than the share of non-voters that is typically registered by the usual type of question with only two alternatives, demanding respondents to unequivocally commit themselves to being either voters or non-voters. In election surveys, such questions usually register not more than about 10 percent abstainers. Hence, it seems that our question made it indeed easier for prospective non-voters not to claim to be voters. The question thus seems to be a sufficiently valid measure of respondents' intention to vote.

Nonetheless, the number of voters is still substantially overestimated (cf. Table 1), further attesting to the fact that sample surveys are inherently deficient when it comes to analysing non-voters, because non-voting is associated with a higher likelihood of unit nonresponse. This is also proven by the second column of Table 2. When contacting prospective respondents interviewers were adviced to try to obtain at least answers to the voting question, if it became clear that target persons were going to refuse to take part in the survey.[7] Altough no claims for any kind of representativity can be made with regard to these data, they nonetheless strongly suggest that non-responders were far less likely than those participating in the survey to go to the polls at the local election.

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6 The question reads: "At elections, many people cast their votes, while other for good reasons do not go to the polls. On 26 September, 2004, there will be a local election here in Duisburg. How about you? Will you certainly go voting, probably go voting, perhaps go voting, probably not go voting, or certainly not go voting?"

7 I am indebted to the staff of the institute that was responsible for fieldwork for coming up with this very good idea.

Who voted and who abstained

To model electoral participation, I dichotomized the dependent variable in such a way that respondents claiming to be certain voters (including those who at the time of the survey had already voted by mail) were distinguished from all those whose answers implied a smaller or larger possibility that they might abstain. My analysis proceeds in several steps. The proceedings of this modelling strategy are displayed , step by step, in Table 3. I begin by trying to develop an optimal model for explaining local electoral participation from individual-level attributes alone. What personal characteristics might account for the likelihood of voters to take part in a local election? While -- as discussed above -- electoral research so far has almost completely neglected this question, a rich body of research into the factors that facilitate or inhibit electoral turnout at general elections may serve as a a heuristic reservoir of hypotheses that can be meaningfully adapted to local elections. Well in line with the basic metatheoretical philosophy of the international mainstream of electoral research for the past five decades, most of these hypotheses seek to explain electoral participation exclusively from personal features characterizing the individuals that exhibit this behavior. The most prominent approaches interpret electoral participation as a function of voters' political involvement, values and norms, personal resources, instrumental considerations or general support for the political system.

- Table 3 -

Model 1 predicts the likelihood of responents to take part in the local election from unequivocally personal attributes. Respondents' age and gender serve as basic control variables. The first block of independent variables includes measures of respondents' *political involvement*, upon the assumption that high inolvement stimulates electoral turnout (Campbell et al. 1960; Kleinhenz 1995). The first is respondents' interest in local politics (which is somewhat lower than their interest in general politics, with 36.8 percent indicating a strong interest in politics generally, but only 33.3 percent with regard to local politics, while 31.3 find it rather uninteresting, as opposed to just 19.5 percent with regard to political in general).[8] The second component of political involvement is the strength of identification with a political party. Another hypothesis assumes that certain *values and norms* are an important prerequisite of voting. Correspondingly, it is tested whether respondents who believe that in a democracy it is a citizen's duty to go to the polls (83.4 percent subscribe to this view), have a higher propability of actually voting at local elections (Rattinger & Krämer 1995; Blais et al. 2000). Third, is is of interest whether respondents' *individual resources* contribute to their propensity to cast a vote at local elections (Rosenstone & Hansen 1993). Individuals with higher levels of formal education, more knowledge of local politics (measured by an index of familiarity with the names of local politicians), and persons with higher levels of internal efficacy with regard to local politics (which, surprisingly, is somewhat lower than internal efficacy concerning national politics, with 51.1 percent agreeing that they understand national political questions, but only 43.7 percent with regard to questions of local politics).

8 Note that all independent variables are coded such that positive values are expected to increase turnout.

Further, the hypothesis is taken into account that non-voting is a function of *political alienation and lack of support for the political system* (Maier 2000). Measures pertaining to different levels of the political system are included. Thus it is tested whether abstenation at local elections is a consequence of dissatisfaction with the functioning of democracy, of distrust in the local council, of low levels of external political efficacy concerning municipal political elites (this is somewhat higher with regard to local politics than with regard to national politics, with 33.5 percent denying that local politicans "only want citizens' votes, but are otherwise uninterested in them", while only 27 percent do so with regard to politicians at the national level), or of the perception that none of the local party organizations has the competence to solve the problems of the city (this view is similarly widespread at the local level as at the national level -- only about 24 percent believe that any of the parties has the capacity to solve the problems posed at the respective level of the political system). The fifth block of independent variables attempts to capture *instrumental* components of local voting. From an instrumental perspective, voting at local elections is seen as an attempt to influence policies of relevance to one's own life. Hence, it makes only sense to vote if voters believe that the outcome of the local election is indeed relevant for their future, and that their own vote is, in turn, important for this outcome (Kühnel & Fuchs 1998; Opp 2001). It is therefore analysed whether voters are more likely to go to the polls if they think that the party that governs the city makes a difference for policy, that local elections are no less important then general elections, and that their own vote makes a difference for the result of the election.

As can be seen from the first column of Table 3, some of these variables are indeed important predictors of turnout at local elections. For instance, older respondents were more likely to go to the polls. However, the various blocks of variables differ substantially in their explanatory power. This becomes obvious not only in the pattern of coefficients that are of sufficient strength to attain statistical significance, but also when the various blocks of independent variables are tested separately (not shown here). As it appears, political involvement plays a very substantial role in stimulating citizens to go to the polls, as does the voting norm and instrumental orientations.

While Model 1 contained only variables that unequivocally concern personal attributes of individual voters, Model 2 additionally includes variables that measure various aspects of respondents' *social integration* (Rosenstone & Hansen1993; Timpone 1998). Thus a relational perspective is added, making a first step beyond the strict focus on individuals and their attitudes, linking them to their social environment. Accordingly, Model 2 also includes an indicator of respondents' generalized trust in other people, as well as measures of the frequency with which they attend church, their membership in trade unions and other voluntary organizations, their feeling of attachment to the city of Duisburg, their employment status, their family status, and whether they own their homes, the idea being that homeownership might create a more stable linkage to one's neighborhood than renting. However, as it turns out, these variables do not contribute significantly to the explanatory power of our model, although some of them (social trust, organization membership, and

attachment to the city) appear important for local turnout when analysed separately (not shown here).

By including measures of respondents' social integration I have already moved beyond a purely individual-centered perspective by adding a relational component. In the next step I add yet another block of independent variables that is more clearly focused on respondents' *embeddedness in social enviroments* and in particular on its *political* character. We have seen above that voters who hold strong voting norms are far less likely than others to stay at home when a local election is due. While this variable indicated an internalized feeling of obligation to take part in elections, we may hypothesize that norms may also operate through the social environment. Independently of one's personal voting norm, one might also be more likely to go voting if one interacts with other people who display such norms. Such interaction would, then, confront voters with external voting norms -- expectations of significant others to go to the polls, regardless of whether or not one has an ingrained inclination to do so that is rooted in personal attributes (Kühnel & Fuchs 1998; Knack 1992; Opp 2001). I therefore add two measures that indicate respondents' perceptions of the likely responses of their primary environments if they abstained from the local election. How would according to respondents' assessment, their family, or the majority of their friends and acquaintances react if they didn't vote? Would they concur with this, would they take issue with them, or would they not care? While the internal voting norm is widespread, the same cannot be said for external voting norms. 38.9 percent believed that their family would not appreciate them not going to the polls, and 28.9 believed this to be the case for their friends and acquaintances. In contrast, 15.6 percent assumed that their family would agree to them abstaining, while 10.1 expected the same from their friends and acquaintances. The third independent variable of this block concerns the neigborhoods respondents lived in: what expectations did they have with regard to turnout at the local election in their residential area? 35.8 percent believed that it would be rather low, 13.9 percent expected it to be high, while the majority (50.3) believed that turnout in their district would be about average. Does it matter for respondents' own likelihood to go voting what turnout they expect for their neighborhood at large?

From Model 3 it can be seen that, clearly, family voting norms are a powerful predictor of local turnout. Regardless of their own personal attributes, in particular their internalized voting norms, persons who expect their families to disapprove of them not turning out to vote are more likely to take part in the election. However, the same cannot be said of friends and other acquaintances. As it seems, external voting norms are entirely an affair of intimate relationships within the primary environment of one's family. When making up their minds about whether or not to vote, voters do not seem to care about what people outside their family think. Finally, it does also seem to be of some relevance what outcome people expect from their neighbors in the district where they live.

The purpose of this modelling endeavour was to create a comprehensive individual-level model of local voting that may be used as a baseline against which the presence of contextual effects can be tested. However, as Model 3 is very large and contains many obviously irrelevant predictors, it seems more economical to use for that end an optimized, parsimonious

version of this model, consisting only of variables of proven relevance. The fourth column of Table 3 displays such an optimized model that was created by means of stepwise exclusion of insignificant predictors from Model 3. Its message is very clear: With regard to voters' personal attributes, local turnout is higher among older respondents, among voters who are interested in local politics and with a strong attachment to a political party, as well as a strong internal voting norm. In addition, all instrumental considerations were retained in the model. Hence, the involvement hypothesis, the norms hypothesis and the instrumental hypothesis fared best. In contrast, citizens' personal resources and their degree of political support or alienation does not seem to count for local electoral participation. Yet, relational components also play a role. Trusting citizens are more inclined to go to the polls, while none of the other aspects of social integration does seem to be of relevance for local voting. Finally, both indicators of election-related aspects of respondents' social environment that appeared relevant in the full model, that is, family voting norms and the expected turnout of their wider neighborhood, also survived in the optimized model. This is a first indication that local electoral behavior cannot be fully understood when looking exclusively at individual voters, and neglecting their embeddedness in various kinds of social environments.

The preparatory work being done, modelling genuine contextual effects is now the next step. Multi-level modelling is the most appropriate approach to deal with problems of that kind, and it has increasingly become the method of choice of such studies (e.g., Jones et al. 1992; Heath et al. 1996; Fisher 2000; Lubbers & Scheepers 2000; Klein & Pötschke 2000; Pickery 2002).[9] The first step in multi-level modelling is to estimate of a so-called empty model (E model). This is done in the fifth column of Table 3. The general purpose of E models in multi-level analysis is to determine whether a significant portion of the variance in the dependent variable can be attributed to the belongingness of respondents to higher-order units, such as, in our case, municipal districts. It includes only the intercept, but no explanatory variables, and it tests whether the intercept is similar in all districts or whether it varies across districts, indicating different baseline levels of the dependent variable. Accordingly, Model 5 provides us with an estimate of whether residents of various districts differ with regard to their propensity to go voting. To answer this question the random variance τ_0^2 of the intercept has to be inspected. Does the intercept vary significantly across districts? The answer is no -- the significance of the variance component is .164 so that, applying the conventional rules, the null hypothesis cannot be rejected that the baseline of individual turnout is the same in all districts of the city.

For this reason, the next step of my analysis is strictly speaking superfluous, but it is nonetheless interesting for the sake of a more complete picture. This step consists in

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9 The program HLM 6 (Raudenbush et al. 2004) was used for the following analyses. All models discussed in this paper are so-called random intercept models, that is, models where only the intercept is assumed to vary across higher-order units, and where attempts are made to explain this variation by variables pertaining to attributes of these units. Although explorations indicated the existence of some random slopes, that is, variance in the strength of the effects of individual-level independent variables on dependent variables, no meaningfully interpretable contextual effects could be found. Therefore, these more complicated models are not discussed in the paper (cf. Hox 2002; Luke 2004, for general treatments of multi-level modelling).

estimating a so-called I model -- a model that includes all individual-level predictors previously identified as relevant in Model 4, in addition to the intercept that is, again, specified as varying at random. Normally, this is the logical next step in model development if an E model reveals significant variation of the intercept between higher-order units, indicating that these units are characterized by different baseline levels of the dependent variable. Its purpose is to determine whether this variation is due to a pure composition effect, that is, the fact that the higher-order units differ in the distribution of the relevant individual-level attributes. If no significant intercept random variance remains in an I model, it is proven that there are no contextual effects, and that a pure individual-level model adequately describes the data structure.

The I model is displayed in the sixth column of Table 3. It is first of all worth noting that all individual-level variables that appeared relevant in Model 4 reveal similar coefficient estimates (fixed effects in the terminology of multi-level modelling) which are all highly significant. However, the random variance of the intercept detected by Model 5 has almost completely disappeared. Forgetting for a moment that this variance by conventional standards failed to attain statistical significance anyway, this means that by adding the individual-level explanatory variables to the E model the amount of inter-district variance in the intercept is reduced by about 97 percent. Hence, had the variance component in the E model been significant we were to conclude now that regarding the districts where respondents reside there are no contextual effects on turnout. A pure individual-level model is perfectly sufficient to account for local electoral participation.

Although having started this endeavour with high hopes to be able to expand the conventional way of modelling electoral participation through pure individual-level predictors the results so far only partly justify such enthusiasm. To be sure, voters' embeddedness in social environments does count, as people trusting their fellow-citizens are more likely to go to the polls than others. Furthermore, their propensity to take part in the local election to some degree also depends on the stance taken by their family, and on their perception of the likely electoral participation of the other residents of their neighborhood. However, no genuine contextual effect of the district they reside in could be detected. The laborious exercise in multi-level modelling didn't thus take us very far. Yet, the analysis must not stop at this point. Although there are no direct effects of neighborhood contexts on turnout, the possibility cannot be excluded that there may be indirect contextual effects that are mediated by one or several of the individual-level independent variables.

Indirect contextual effects on local turnout

To test for this possibility E models were computed for all independent variables of Models 4 resp. 6 of Table 3. Three of these variables showed significant variance across districts and thus merit further attention. The degree to which respondents trusted other people, the turnout they expected for their district, and their interest in local politics varied significantly across districts. Let us begin with a more thorough analysis of *social trust*.

Table 4 follows a similar logic as Table 3, except that the first three steps are skipped. The first column displays a pure individual-level model conventionally estimated by means of OLS regression. To obtain a good prediction of individuals' social trust a broad range of independent variables was taken into account. The best and most parsimonius equation is displayed as Model 1. According to this model, males are more trusting than females. Higher levels of formal education, knowledge about local politics, satisfaction with democracy, trust in the city council, higher levels of external efficacy concerning local political elites, political self-confidence that expresses itself in the assumption that one's vote counts at the local election, and membership in a voluntary organisation all contribute to higher levels of social trust. Model 2 is the E model, revealing that the baseline level of social trust varies significantly, with $p < .01$, across districts. However, the amount of variance that is attributable to the residence of respondents in certain districts is limited -- about 1.8 percent of the total variance in the intercept, as can be seen from the intra-class correlation coefficient ρ. Including the individual-level variables from Model 1 into the E model to obtain the I model leads to a reduction of the district-level variance by about 41 percent, but the remaining unexplained level-2 variance remains significant.

- Table 4 -

This means that it makes sense to proceed further by attempting to construct a so-called C model (i.e., complete model) that includes also district-level explanatory variables, testing for the possibility that the variance in the intercept is not random but systematically attributable to properties of the districts, in other words, to genuine contextual effects. The C model by which the variance in the intercept could best be explained is displayed in column 4. The only variable that -- in an admittedly rather exploratory manner -- could be identified as a possible source of a contextual effect is the average income of tax payers in the district (at the most recent point in time when these data were available, that is, in 1998). However, with a t-value of just 1.7 even this effect hardly reaches the 10-percent level of statistical significance. In any case, the analysis is at least suggestive of the conclusion that the affluence of the district they reside in counts for individuals' trust in others, independent of individual variables that also are important. As it seems, net of their own personal attributes, persons living in more affluent neighborhoods tend to be more trusting than those living in less well-to-do districts.

Predicting social trust from individual attributes, Newton (1999) discovered that the socio-economically privileged members of society are most likely to be trusting. This is plausible -- they can more easily afford to make mistakes by trusting untrustworthy people. The contextual effect found here may add an important facet to this line of reasoning. Interacting with affluent, hence probably also more trusting, others may lead to some sort of contagion with regard to trust. If others trust me, people might reason, why shouldn't I, then, also trust others? In addition, the risk of one's own trust being betrayed may be smaller in such an environment. Compared to Model 2 the inclusion of neighborhood affluence in the model leads to an additional increase in the amount of variance explained at the district level by another 23 percent. Yet, although the remaining unexplained intercept random variance that is

attributable to the districts is now very small, it is still significant, indicating the possibility that other factors may also be important for the differences in social trust that exist between the various neighborhoods within the city.[10]

Table 5 turns to findings for the *expections people had with regard to turnout at the local election* in their district. Just two variables proved relevant as predictors of these assessments at the individual level, and their combined explanatory power is very poor. People who were satisfied with democracy were significantly more likely to expect many of their fellow citizens to go to the polls. Homeownership also seems to have played a role, with homeowners expecting higher turnout. Model 2 is the E model, and we can see that the intercept varied significantly across districts. The amount of variance that according to this analysis is attributable to district rather than individual differences is somewhat larger for people's turnout expecations than for social trust, as indicated by the intra-class correlation of .05. The I model (Model 3) suggests that the individual-level variables indeed do not tell the entire story, as the variance component associated with the intercept decreases somewhat, but does not disappear, and above all, remains significant. However, homeownership is no longer significant, so that it can be dropped from the model which is done in Model 4.

- Table 5 -

From there we can proceed to the C model. In column 5 we see that Duisburg citizens were good prophets. The baseline differences between the districts of the city can be explained to a substantial part (62 percent, as compared to the E model) by the actual regional distribution of turnout at this election. Apart from the tendency of those more satisfied with democracy to expect a rather high turnout rate from their fellow citizens, it was those living in districts where indeed many people went to the polls at the local election who tended to expect a higher than average turnout. In contrast, those residing in quarters with lower turnout tended to expect other citizens from the same district to abstain in higher numbers. How could they know this in advance? As turnout rates are highly correlated between different elections it is probably their experience from earlier elections that citizens use as a heuristic to infer what people will do at an upcoming election. At least circumstancial evidence for this assumption is provided by Models 6 and 7 that show that turnout expectations for the upcoming local election can just as well be predicted from participation rates at previous elections, such as the European election that took place three months earlier, or even the general election that was held fully two years before. Apparently, people learn how their neighborhood works in terms of electoral participation, and use this knowledge to infer how turnout will develop at future elections. Ironically, since this expectation influences their own decisions about participation or abstention, the high correlation of turnout rates at different elections seems to be, at least to a small part, the result of a self-fulfilling prophecy: People continuously experience others in their neighborhood either to show up or to abstain in high numbers, and this carries over to

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10 One caveat must be mentioned: in order to fully ascertain that the contextual effect of district affluence on individual social trust is not a veiled composition effect, it would strictly speaking be necessary to include a corresponding measure of affluence -- in our case personal or household income -- in the I model. Unfortunately, no such variable is available in the survey. However, as the model includes at least some correlates of income, especially education, this must not be considered a really serious drawback.

their own likelihood of participation or non-participation at future elections -- a mechanism that may create a virtuous circle of higher participation in some districts, and a vicious circle of declining participation in others.

Our final analysis concerns *interest in local politics*. According to the E model (Model 2 in Table 6) the baseline level of political interest in local affairs differs between districts, although this finding is rather suggestive, as the random fluctuation of the intercept fails the conventional level of statistical significance ($p = .064$). Be that as it may, in any case the I model displayed in column 3 shows that any intercept variance that there may exist is entirely due to differences between districts with regard to a whole bundle of individual-level variables. In this case, as in the case of electoral participation itself, no contextual effect can be detected, and differences between districts are fully accounted for by composition effects.

- Table 6 -

According to the analyses reported so far, no direct contextual effects on local voting could be detected. But two of the independent variables that have an impact on the likelihood of individuals to go to the ballots at the local election appear sensitive to characteristics of voters' social contexts. The results of our random intercept models suggest that voters' social trust depends in part on the affluence of their neighborhood, with more affluent districts creating more trusting inhabitants which, in turn, are then more likely to go to the polls. Further, there is clear evidence that voters' perceptions of the likely turnout that their district will achieve at an upcoming election, are partly a function of previous election outcomes in these areas. Since voters who expect their fellow citizens to turn out in higher numbers display a higher likelihood to go the the polls, themselves, higher levels of electoral participation may indeed give rise to a virtuous circle of stronger participation, while lower levels might nurture a vicious circle of declining turnout.

Yet, how important are these mediated effects of social contexts for electoral turnout, when compared with the direct effects of voters' personal attributes and the more conventionally detected environmental effects? The best way to answer this question is by computing predicted probabilities to go voting among various categories of voters that are distinguished by contrasting values on each of the relevant independent variables while holding constant all other attributes. The result of this operation is displayed in Table 7. According to this analysis interest in local politics and the internal voting norm appear as the main factors that are responsible for a high or a low likelihood of individuals to cast their votes at local elections. All else equal, voters that are highly interested in local affairs are predicted to have a 43 percent higher turnout rate than uninterested voters. The difference between voters with a strongly internalized voting norm and those who feel no such obligation is 37 percent.

- Table 7 -

With 17 percent, the predicted difference between the youngest and the oldest respondents is also sizable. The influence of all other personal attributes is in the magnitude of about 10

percent. Whether a voters' decision to abstain is approved or sanctioned by her family makes a difference of about 9 percent, and the predicted gap between voters who expect their district to have a lower than average turnout and those who expect a high turnout is somewhat less than 7 percent. Thus, the variables through which the two contextual effects are mediated -- social trust and expections of district turnout --, are not among the most important predictors of local election turnout. Since the contextual effects, in turn, are but one predictor of these variables' values, the effects of differences in district attributes that carry over to the probability of individual voters to vote or to abstain, can be limited at best.

Part of the variation in individuals' expections about the turnout of their district is a function of previous levels of turnout at other elections. Taking the example of the European election of 2004 we can estimate the gap in the likelihood to go voting that comes about as an indirect consequence of the huge gap between the districts with the highest and the lowest turnout at this election to amount to about 1.5 percent turnout difference at the local election between voters residing in these extremely contrasting districts. The corresponding mediated effect of differences between the most and the least affluent districts amounts to less than 1 percent of the predicted turnout at the local election. Hence, contextual effects, mediated through individual attributes, do play a role for the levels of electoral participation. But their eventual impact on the likelihood of voters residing in different neighborhoods to go to the polls is far smaller than that attributable to differences in voters' personal characteristics. Of the two contextual effects that were detected, the turnout-related equivalent to the 'partisan reinforcement effect' is clearly the more consequential one.

Conclusion

This paper had two aims: to shed light on the neglected theme of participation at local elections in Germany and the factors that facilitate or inhibit such activity; and specifically to explore the role of voters' social enviroments, in particular their residential contexts, for turnout. With regard to the first aim, clear progress has been made. Several factors were identified that unequivocally stimulate turnout at local elections: voters' political involvement, the presence of a strong voting norm, as well as instrumental considerations. Voters are more likely to go to the polls if they believe that local elections are important, that their outcome makes a difference for future municipal policies, and that their own votes count in determining that outcome. On the whole, voters' interest in local politics and their voting norms turned out to be by far the most important predictors of individual turnout at local elections. In contrast, citizens' personal resources and their degree of political support or alienation with regard to various dimensions of the national and the municipal institutional order were not found to be of any relevance.

Apart from these purely personal attributes, variables that pertain to the social embeddedness of voters also were found to be significant. Trusting citizens turned out to be also more electorally active citizens at the local level. Yet, other aspects of social integration did not appear important. Even more relevant are external voting norms with which citizens are

confronted through their social environment, but only insofar as such norms are maintained by members of one's family. Whether and how one's friends and acquaintances care about one's electoral participation does not appear to be of import. The wider environment of the districts voters reside in also seem to play a role, as assumed by recent studies on contextual effects on voting behavior. People are stimulated to go to the polls, themselves, when they expect that their fellow citizens will turn out in large numbers, creating something like a "bandwagon effect" concerning not the direction of the vote but turnout. These findings suggest something like an equivalent to the 'partisan reinforcement effect', except that it does not concern party choice but turnout as such choices' precondition.

Particular emphasis was placed on the question whether there are genuine contextual effects, originating not from indivdual voters' personal attributes, but -- to use the terminology coined by Lazarsfeld & Menzel (1962) -- from 'analytical' properties of the city districts they reside in. This was motivated by the observation that districts differ hugely both with regard to turnout at all kinds of elections, and with regard to social structures. Yet, if there are differences regarding individuals' propensity to take part in the local election that are associated with where they reside -- for which no statistically unequivocal prove could be provided -- they are fully explainable through composition effects, that is, they are entirely due to differences in the distributions of individual attributes between districts.

However, evidence was found for the existence of indirect contextual effects of district attributes that are mediated through personal characteristics that, in turn, are relevant for turnout. First, turnout differences seem to be self-sustaining if not self-reinforcing, in that the experience of voters with turnout levels in their districts is an important source from which they derive their expectations about how turnout will be at an upcoming election, and this, in turn, then influences their own likelihood to go to the polls or to abstain. Second, residents of more affluent districts exhibit higher levels of social trust which, in turn, creates a stronger propensity to vote. However, these indirect contextual effects are much weaker than the direct consequences of voters' differences on each of the personal attributes included in this analysis.

Yet, this must not necessarily mean that contextual effects are generally of small relevance for turnout at local elections. Perhaps administrative districts of cities are simply not the units from which such effects originate. A priori it is by no means clear which units are the relevant ones when it comes to contextual effects on political behavior. Concerning the direction of the vote, such effects have been documented for units as large as communities, counties, and even states. On the other hand, analyses comparing units of differing sizes suggest that smaller units are more influential than larger ones (MacAllister et al. 2001). This suggests that districts may be simply too large, and perhaps also too diverse internally, to be a powerful source of contextual effects.

Of course, this problem has a vital connection to a question not touched upon so far in this paper (and similarly neglected in many other studies of contextual effects): that of the theory through which contextual effects can be explained. Many authors contend that contextual

effects are in essence 'neighborhood effects', created by voters' social interactions within their immediate social environments, according to the principle that "people who talk together vote together" (Miller 1977, 65). If that notion is correct, it is people's life-spaces, the geographical and social units within which they interact with significant others, that constitute, and thus also demarcate the boundaries of politically relevant contexts (Eulau 1986, ch. 12). At least three important implications follow from this line of reasoning. The first is that administrative city districts correspond only by conincidence, but not by necessity to such units. The second is that it is hard to obtain valid data describing such units, since data from official statistics, produced for administrative purposes and focusing on administrative entities, are useful only, again, by coincidence. Third, it is perhaps more adequate anyway to study voters' personal interactions directly, by means of social network analysis (Huckfeldt & Sprague 1995), instead of using the weak proxy of aggregate data describing regional units.

While this argument suggests that city districts may be too large to be relevant sources of contextual effects, one may just as well expand the discussion 'upwards', to 'even-higher-order' units than districts. Within cities, there are many differences between people's life spaces, be they districts or not. However, in many other respects, variables that are potentially relevant for explaining turnout at local elections are constant for all citizens of the same city -- or even all cities of the same state, or even the nation as a whole. One could think, for instance, of aspects like local, or regional political cultures. Above all, however, this concerns the institutional architecture that governs the electoral process and is the theme of many other papers in this workshop. On the whole, what emerges from these considerations is the notion of a multi-layered political reality, with attributes of many levels simultaneously impinging on the political behavior of the individuals that are inevitably embedded in these complex, hierachically interwoven social and political structures.

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Table 1: Turnout at the 2004 local election in Northrhine-Westphalia (%)

	Northrhine-Westphalia total	Duisburg	Duisburg mayor runoff
1999	55.0	44.2	-
2004	54.5	48.0	38.0

Source: Statistical Office Northrhine-Westphalia

Table 2: Intention to participate in 2004 local election in Duisburg (%)

	Local election (survey respondents)	Local election (non-responders)	General election (survey respondents)
Will participate...			
certainly	76.5	58.9	80.6
probably	8.8	10.9	9.7
perhaps	5.0	7.9	3.8
probably not	3.2	4.8	2.5
certainly not	5.8	13.9	3.2
DK	0.8	3.6	0.2
(N)	(1008)	(878)	(1006)

Table 3: Individual-level and multi-level models of local election turnout (logit coefficients)

	1	**2**	**3**	**4**	**5**	**6**
Fixed effects						
γ_{000} Constant	-6.836**	-6.769**	-6.967**	-7.445**	1.153**	-7.487**
γ_{010} Gender (1=m, 0=f)	.216	.151	.192			
γ_{020} Age (in years)	.020**	.020**	.019**	.018**		.017**
γ_{030} Interest in local politics (0 - 5)	.721**	.721**	.722**	.808**		.844**
γ_{040} Strength of party id (1 - 4)	.223*	.207+	.217+	.277*		.256**
γ_{050} Voting norm (1 - 5)	.505**	.518**	.478**	.503**		.494**
γ_{060} Education (1=completed secondary, 0=less)	.135	.145	.121			
γ_{070} Knowledge of local politics (0 - 3)	.081	.078	.070			
γ_{080} Internal local political efficacy (1 - 5)	.078	.086	.100			
γ_{090} Satisfaction with democracy (1 - 5)	.163+	.155	.141			
γ_{100} Trust in municipal council (1 - 5)	-.092	-.128	-.122			
γ_{110} External local political efficacy (1 - 5)	-.011	-.026	-.037			
γ_{120} Perceived competence of local parties (-1 - 1)	.222+	.223+	.193			
γ_{130} Party makes difference for local policy (1 - 5)	.174*	.180*	.183*	.194**		.200**
γ_{140} Nat. election not more imptnt than local election (1 - 5)	.189*	.190*	.180*	.147+		.154*
γ_{150} Vote counts in local election (1 - 5)	.237**	.233**	.223**	.222**		.222*
γ_{160} Social trust (1 - 5)		.124	.123	.202*		.197*
γ_{170} Church attendance (1 - 5)		-.051	-.056			
γ_{180} Member of trade union or other vol. org. (0/1)		.165	.122			
γ_{190} Attachment to city (1- 5)		.009	.015			
γ_{200} Gainful employment (1/0)		-.263	-.254			
γ_{210} Married/living with partner (1/0)		-.095	-.089			
γ_{230} Homeowner (1/0)		-.114	-.149			
γ_{240} Voting norm family (-1 - 1)			.312*	.337*		.327**
γ_{250} Voting norm friends (-1 - 1)			.017			
γ_{260} Expected turnout in district (1 - 3)			.259+	.280+		.290*
Random effects						
$\sigma_e^{2\,\#}$					1.000	1.000
τ_0^2					.089 ###	.002
$R^{2\,\#}$	.275	.280	.286	.280		
(N_I)	(908)	(908)	(908)	(948)	(936)	(936)
(N_C)					(46)	(46)

** p < .01; * p < .05; + p < .10.

Constrained. ## Models 1 - 4: Cox & Snell R^2. ### p = .164.

Table 4: Individual-level and multi-level models of social trust (unstandardized regression coefficients)

	1	**2**	**3**	**4**
Fixed effects				
γ_{00} Constant	1.050**	2.840**	1.064**	1.064**
γ_{01} District level average income per tax payer in 1998 (in 1.000 €; grand mean centered)				.010+
γ_{10} Gender (1=m, 0=f)	.243**		.240**	.237**
γ_{20} Education (1=completed secondary, 0=less)	.293**		.291**	.288**
γ_{30} Knowledge of local politics (0-3)	.105**		.097*	.092*
γ_{40} Satisfaction with democracy (1 - 5)	.171**		.166**	.165**
γ_{50} Trust in municipal council (1 - 5)	.079*		.082*	.084*
γ_{60} External local political efficacy (1 - 5)	.076**		.078**	.078**
γ_{70} Vote counts in local election (1 - 5)	.091**		.091**	.091**
γ_{80} Member of trade union or other voluntary organization (0/1)	.203**		.210**	.205**
Random effects				
σ_e^2		1.212	1.024	1.026
τ_0^2		.022**	.013*	.008*
P		.018	.012	.008
Deviance		2996.943	2827.983	2835.598
$R^{2\,\#\#}$	.161		.133	.126
(N_I)	(985)	(974)	(974)	(974)
(N_C)		(46)	(46)	(46)

** p < .01; * p < .05; + p < .10.
# = Model 1: Adjusted R^2; Models 2 - 4: Maddala-R^2 (compared to Model 2).

Table 5: Individual-level and multi-level models of expected district turnout (unstandardized regression coefficients)

	1	**2**	**3**	**4**	**5**	**6**	**7**
Fixed effects							
γ_{00} Constant	1.556**	1.771**	1.579**	1.592**	1.595**	1.590**	1.593**
γ_{01} District level turnout at Municipal Election 2004 (percent; grand mean centered)					.013**		
γ_{01} District level turnout at European Election 2004 (percent; grand mean centered)						.016**	
γ_{01} District level turnout at General Election 2002 (percent; grand mean centered)							.018**
γ_{10} Satisfaction with democracy (1 - 5)	.063**		.057*	.059*	.057*	.058*	.058*
γ_{20} Homeowner (0/1)	.083+		.055				
Random effects							
σ_e^2		.429	.428	.427	.428	.428	.428
τ_0^2		.024**	.019**	.021***	.009*	.010**	.009*
ρ		.053	.042	.047	.020	.023	.020
$R^{2\,\#}$	.013		-.0005	.0004	.007	.005	.008
(N_I)	(1004)	(993)	(993)	(993)	(993)	(993)	(993)
(N_C)		(46)	(46)	(46)	(46)	(46)	(46)

** p < .01; * p < .05; + p < .10.
# = Model 1: Adjusted R^2; Models 3 - 7: Maddala-R^2 (compared to Model 2).

Table 6: Individual-level and multi-level models of local political interest (unstandardized regression coefficients)

	1	**2**	**3**
Fixed effects			
γ_{00} Constant	-.835**	3.016**	-.805**
γ_{10} Age (in years)	.006**		.006**
γ_{20} Education (1=completed secondary, 0=less)	-.122*		-.123*
γ_{30} Knowledge of local politics (0-3)	.094**		.098**
γ_{40} Internal local political efficacy (1 - 5)	.140**		.140**
γ_{50} Party makes difference for local policy (1 - 5)	.076**		.077**
γ_{60} National election not far more important than local election (1 - 5)	.099**		.095**
γ_{70} Vote counts in local election (1 - 5)	.058**		.059**
γ_{80} Member of trade union or other voluntary organization (0/1)	.172**		.166**
γ_{80} Attachment to city (1- 5)	.130**		.127**
γ_{80} Reading local newsaper (0 - 7)	.063**		.063**
γ_{80} General political interest (0 - 5)	.436**		.430**
Random effects			
σ_e^2		1.309	.660
τ_0^2		.026+	.001
ρ		.020	.000
Deviance		2950.105	2347.184
$R^{2\,\#\#}$	.509		.472
(N_I)	(953)	(944)	(944)
(N_C)		(46)	(46)

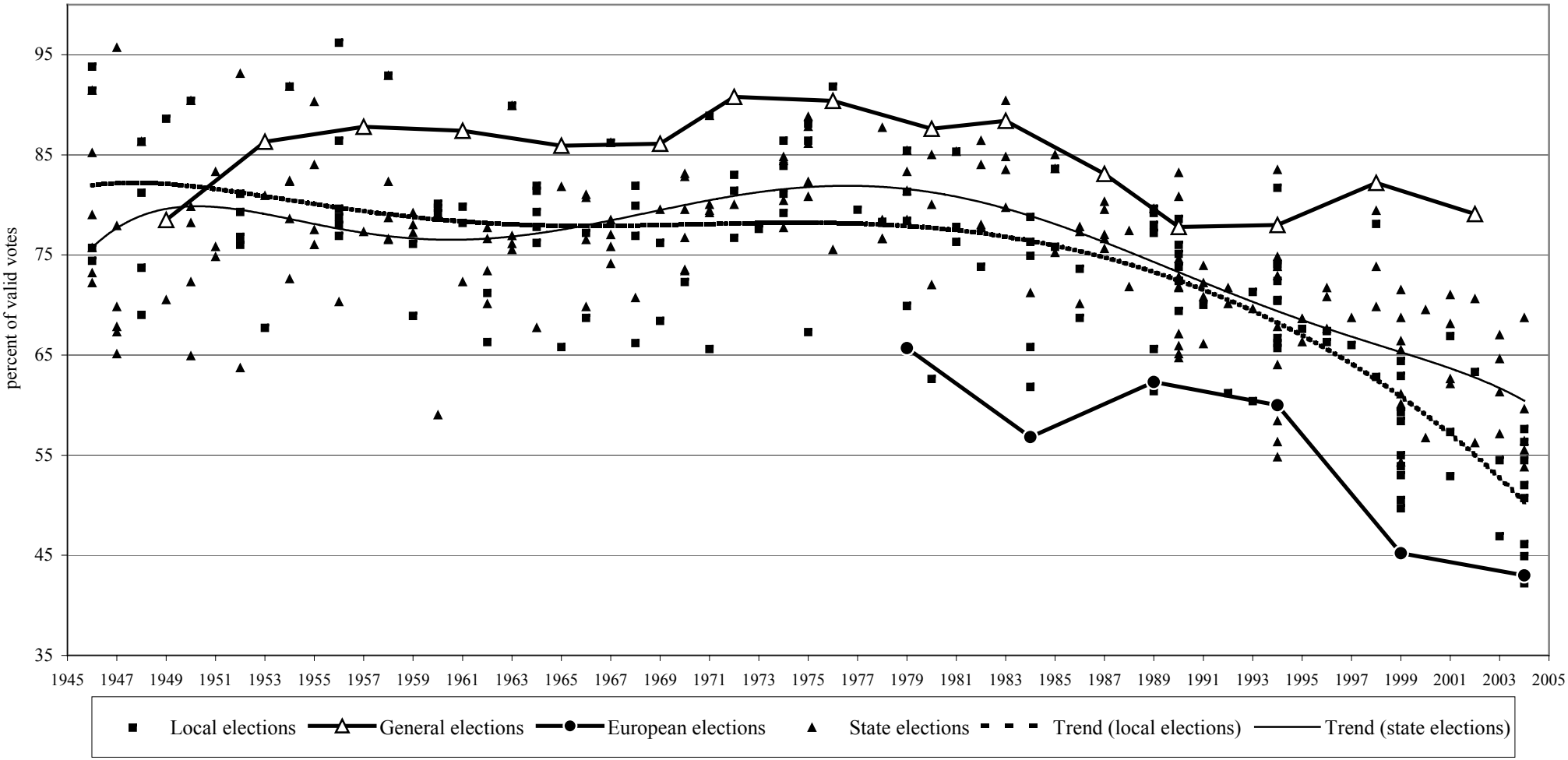
** p < .01; * p < .05; + p < .10.
# = Model 1: Adjusted R^2; Model 3: Maddala-R^2 (compared to Model 2).

Table 7: Predicted effects of individual and district attributes on probability of individual electoral participation (differences between highest and lowest values in sample)

Predicted grand mean	.854
Predicted direct effects of individual attributes	
Age (16 - 96 years)	.168
Interest in local politics (0 - 5)	.432
Strength of party id (1 - 4)	.095
Internal voting norm (1 - 5)	.374
Party makes difference for local policy (1 - 5)	.102
National election not more important than local election (1 - 5)	.074
Own vote counts in local election (1 - 5)	.128
Social trust (1 - 5)	.099
External voting norm family (-1 - 1)	.089
Expected district turnout (1 - 3)	.067
Predicted mediated effects of district attributes	
District level average income per tax payer in 1998 (19.600 - 52.400 €), mediated through social trust	.008
District turnout at European Election 2004 (21.2 % - 48.7 %), mediated through expected turnout	.015

Note: Calculations of predicted probabilities based on eq. 4 in Table 3, eq. 4 in Table 5, and eq. 6 in Table 6, with all variables except those tested fixed at sample mean.

Figure 1: Turnout at local elections in Germany, 1946 - 2004



Source: Federal and State Statistical Offices

Figure 2: Turnout in districts of town at most recent elections (% of valid votes)

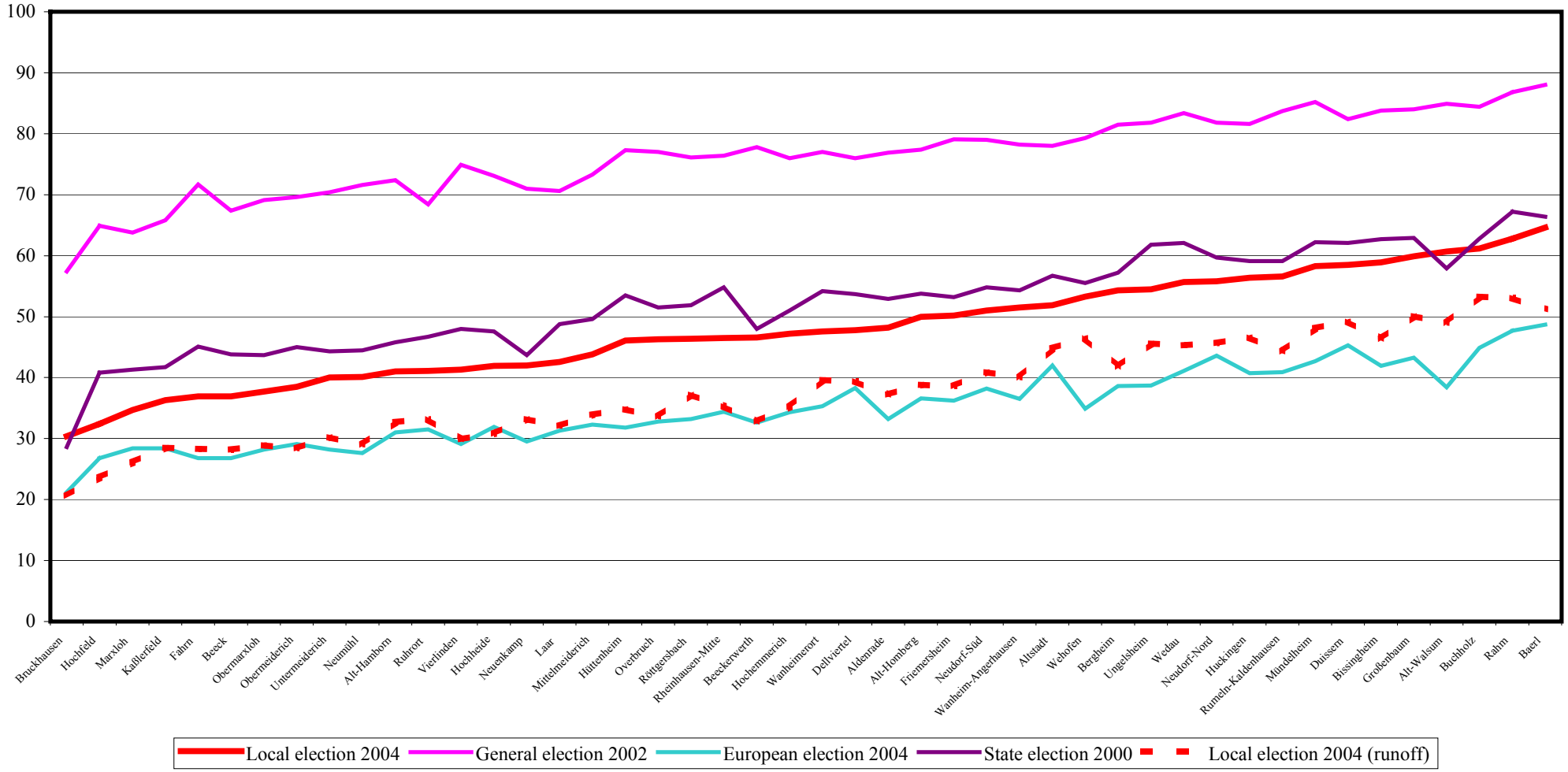


Figure 3: Turnout change in districts of town between late 1970s and most recent elections (% of valid votes)