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Regional Economic Distress and Political Participation in National and European Parliamentary Elections in Western Europe

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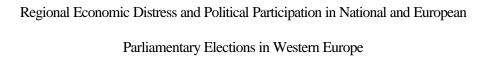


# **Working Paper No. 281**

# REGIONAL ECONOMIC DISTRESS AND POLITICAL PARTICIPATION IN NATIONAL AND EUROPEAN PARLIAMENTARY ELECTIONS IN WESTERN EUROPE

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By:

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Key words: income inequality, political participation, poverty

I am grateful to Vincent Mahler and Lee Rainwater for comments. Remaining errors are my own.

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# **ABSTRACT**

This paper examines the relationship between regional or "contextual" economic distress and individual political participation in the mid-1990s for the following countries: Belgium, France, West Germany, Italy, Spain, and the United Kingdom. In exploring this connection, I construct regional poverty rates, unemployment rates and inequality scores using data made available through the efforts of the Luxembourg Income Study (LIS) and Eurostat (2000). I predict individual political participation in national elections and in the 1994 European Parliamentary election using data from the Eurobarometer (1994) and include regional level interactive variables estimating levels of neighborhood economic distress. I find that there are no such negative concentration effects. Rather, I find evidence suggesting that underprivileged persons living in economically disadvantaged regions are *more* likely to vote in elections for the European Parliament.

## **Overview**

Research on the individual determinants of electoral participation in the developed world has contributed much to our understanding of political participation and democratic politics in general. One conclusion from this research, which is very troubling to some observers, is that there is a "systematic bias against less well-to-do citizens" in electoral contests within the developed world that represents democracy's "unresolv ed dilemma" (Lijphart, 1997). Despite these findings there has been little effort to determine whether concentrations of economically disadvantaged persons further contribute to individual political isolation among the economically underprivileged. In other words, do concentrations of poverty, unemployment, and a wide gap between the rich and the poor foster individual disengagement from the national and European political arenas? In order to answer this central question, I use self-reported electoral turnout data from the 1994 European Election Study. I estimate "local" or regional poverty and income inequality in six Western European countries using data from the Luxembourg Income Study (LIS): Belgium, France, West Germany, Italy, Spain and the United Kingdom. Regional unemployment rates (Eurostat) for these same countries are also included in my investigation. These contextual variables are included as interactive variables in individual level analyses predicting individual participation in national and European election in the 1990s. I find that unlike what has been suggested in similar research in the United States, there is no such linkage within Western European localities. On the contrary, there is some evidence suggesting that persons living in

<sup>&</sup>lt;sup>1</sup> The LIS project an independent non-for-profit association is based in Luxembourg. It is funded on a continuing basis by the government of Luxembourg and by the national research councils and other institutions of the member countries. The LIS contains over 100 data-sets covering countries in Europe, North America, Asia and Australia, between the early 1960s and the late 1990s.

economically disadvantaged regions in Western Europe are more likely to participate in European Parliamentary elections.

## **Review of the Literature**

Most of the research examining the relationship between poverty and/or unemployment and electoral participation has been conducted at the individual level of analysis (see Schlozman and Verba, 1979; Wolfinger and Rosenstone, 1980; Burnham, 1982; Texeira, 1992; Rosenstone and Hansen, 1993; and Verba, Lehman-Schlozman, Brady and Nie, 1993. Verba, Nie and Kim, 1978). In the main, this research finds that poor individuals (and the less well-educated) are less likely to be participatory citizens and that their interests are not being fairly represented (given the size of their "constituency") in their national assemblies. While these studies investigating the political attitudes and behavior of the poor do tell us much about the political consequences associated with poverty and unemployment, they ignore potentially important *contextual* factors that might contribute to even greater political isolation.

Similarly, since the first elections were held for the European Parliament in 1979, there has been a good deal of research examining individual participation in these so-called "second order" contests (see Reif and Schmitt, 1980). Our understanding of the factors associated with individual political participation in European Parliamentary elections has significantly increased with each election and further study (see e.g., Franklin et al. 1996). In the main, this research recognizes that an individual's socioeconomic characteristics<sup>2</sup> are the most important predictors of voting in the European Parliamentary election, followed by his or her affective attachment to a political party (Schmitt and van der Eijk, 2001: 14).

Signific antly, however, many models predicting individual political participation in European

membership in their index.

 $<sup>^2</sup>$  They include age, sex, educational attainment, church attendance, union membership and urban-rural

elections fail to include individual income as an explanatory variable. Furthermore, there has been no effort to determine whether there are sub-national contextual variables, such as concentrations of poverty or unemployment, which influence individual political behavior.<sup>3</sup> This latter shortcoming is especially relevant in light of the significance of regions within the EU policy framework, most notably the European Structural Funds.

Despite these gaps within the literature, there have been a few important studies examining the social problems associated with high concentrations of poverty and unemployment. Most of this research focused exclusively on "ghettos" or "deadly neighborhoods" in the U.S., where such problems are at the extreme. Such communities, usually identified as those neighborhoods where more than 40% of the residents are "poor," are said to negatively affect individual engagement in the nation's/community's social life. This approach is perhaps best exemplified by Wilson's (1987) book, *The Truly Disadvantaged*. In this work and subsequent revisions he argues "...a structure of inequality has evolved which is linked to contemporary behavior in the inner city by a combination of constraints, opportunities and social psychology" (Wilson, 1991-92: 642). Wilson develops his theory focusing on the complex, historical factors associated with the rise of urban "ghettos" in the U.S. However, following up his initial research, Wilson argued that his theory was generalizable to other countries as well:

[I]n my usage, the concept can be theoretically applied not only to all racial and ethnic groups, but also to different societies...Moreover, in other societies the combination

<sup>&</sup>lt;sup>3</sup> There is a notable exception related to research on attitudes towards European integration rather than participation per se. Mahler, Taylor and Wozniak (2000) examine support for the EU at the individual, regional and national levels of analysis and they find, among other things, that economic distress within a region is associated with greater support for European integration. This is in line with my own findings.

<sup>&</sup>lt;sup>4</sup> See also Marable (1983) and (1992).

of weak labor force attachment and social isolation may exist in certain urban environments without the same level of concentrated poverty inherent in American ghettos [emphasis mine] (1991-1992: 653).

In brief, he posits that the lack of "convertional role models", weakness of "informal mainstream social networks" and other social ills associated with neighborhoods with high concentrations of the "underclass" reinforces and maintains individual-level social isolation. However, Wilson did not investigate political isolation, more specifically political participation, in his seminal works.

Others, however, have applied this conceptual framework in studies investigating political isolation in communities with high concentrations of poverty. Cohen and Dawson (1993) hypothesize that "...residents of these communities become disconnected from the community or group structures and networks that facilitate their economic and social participation" (287). They assert "...neighborhoods engulfed by the severest poverty are qualitatively different, in the structural opportunities, both political and economic, that they afford their residents, from neighborhoods without extreme concentrations of poverty" (Cohen and Dawson, 1993: 287). They test their hypotheses using the 1989 Detroit Area Study to measure individual political attitudes and behavior within the African-American population. Neighborhood or local poverty is estimated using data from the 1980 U.S. Census. Their results show that individuals living in communities with higher levels of poverty, controlling for individual-level characteristics, are less likely to engage in political discussion, attend a political meeting or contribute money to a political campaign (1993:

297).<sup>5</sup> However, they do not find any evidence that neighborhood poverty has any effect on individual participation in elections (301).<sup>6</sup>

Finally, Putnam (1993) offers another theoretical approach to understanding the relationship between regional economic distress and individual political attitudes and behavior that informs this paper. In his classic study of regional variation in levels of "civicness" in Italy, Putnam argues that differences between "horizontal" and "vertical" power structures that developed in the northern and southern regions of Italy, respectively, can be attributed to differing historical experiences that were initiated 1000 years ago. In short, he argues that a relatively equal distribution of wealth in the northern regions spurred the development of participatory attitudes and a vibrant civil society that continue to thrive today. In the southern regions, on the other hand, relatively unequal distributions of wealth inhibited the formation of such orientations and continue to plague good governance in the south. Thus, a wider gap between the rich and the poor in a region is associated with a weaker civil society, as expressed by individual orientations towards politics and each other (interpersonal trust). There is some similarity, therefore, to Wilson's notion that greater economic stress in a community adversely affects the formation of "social capital" and it offers an alternative conceptualization of the problem and suggests that regional levels of income inequality may have adverse political consequences.

Despite the contributions of this previous research, comparative studies of the relationship between concentrations of poverty and other economic disturbances and

<sup>&</sup>lt;sup>5</sup> They also find that individuals living in high-poverty neighborhoods are less likely to be church-members or belong to other groups.

<sup>&</sup>lt;sup>6</sup> Berry, Portney and Thomson (1991) examine the political behavior of poor people in neighborhoods with high concentrations of poverty. They conclude that there is no evidence that the individuals living in poor neighborhoods behave differently than others having similar individual-level characteristics.

individual political behavior have been lacking. This is especially true of research focusing on electoral contests outside the United States, including both European national and European Parliamentary elections. Furthermore, there have been no attempts to broaden our definition of "neighborhood" and examine other local contexts where there might be high concentrations of economic stresses. Finally, there has not been any effort to determine whether a community with a high level of income inequality fosters either political or social isolation in much the same way that concentrations of poverty or unemployment are hypothesized to do so. This research seeks to address these shortcomings of the previous literature and examines the relationship between "local" poverty, income inequality and unemployment across 76 regions or "communities in six Western Europe an countries in the mid 1990s. In short, do concentrations of poverty, unemployment, and high levels of income inequality foster individual disengagement from national and European political arenas?

# **Data and Methods**

The measures of poverty and income inequality used in this paper were estimated from microdata contained in the Luxembourg Income Study (LIS). Although these data are available in four "Waves" ranging from the early 1980s until the mid-1990s, I rely exclusively on Wave III (centered on 1990). This is in order to ensure that the measures of income inequality and poverty derived from these data are causally prior to the measure of the dependent variable. The countries examined and the years from which the poverty and income inequality scores are derived are Belgium (1989), France (1989), West Germany (1989), Italy (1991), Spain (1990) and the United Kingdom (1991).

The majority of the national-level surveys included in the LIS report the respondent's region/state/province of residence. In the countries I include in this regional analysis, the units are well defined politically, territorially and culturally. Specifically, I aggregate households at the level of Belgian States, French Administrative Regions, West German

Länder,<sup>7</sup> Italian Regions, Spanish Autonomous Communities and British Regions. These countries were selected due to the availability and comparability of regional information included in both the LIS data and in the Eurobarometer Survey. <sup>8</sup> Ideally, we would be able to identify "neighborhoods" as previous research has done but limitations of the available data make this impossible. Nonetheless, this regional examination offers a better estimate of local concentrations of poverty and income inequality than has previously been accomplished. Thus, for the purposes of this paper the region is taken to signify the "neighborhood" or "locality" which shapes individual attitudes towards politics at the national and supranational levels. A list of the regions, including those that have been combined, <sup>9</sup> and the number of observations from which the measures of income inequality are derived is included in the Appendix.

Three of the six countries I examine are federal systems: Belgium, Germany and Spain (see Huber, Ragin and Stephens, 1993). The remaining three, France Italy and the U.K. are unitary systems. One might expect regional variation in the poverty rate to be greatest in the strong federal systems and lowest in the unitary ones. This does not seem to be the case, however. What is important is that regardless of whether the system is federal or unitary, people often identify themselves as citizens of a "region" in addition to (or instead of) identifying with the nation as a whole. This is true independent of the degree of political

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<sup>&</sup>lt;sup>7</sup>I exclude the East German regions since I rely on the 1989 LIS data set.

<sup>&</sup>lt;sup>8</sup> The Eurobarometer and several individual LIS surveys classify regions according to the NUTS scheme (Niveaux d'Unités Territoriales Statistiques) used by the EU.

<sup>&</sup>lt;sup>9</sup> In some cases either the LIS survey or the Eurobarometer reported combined regions. These are indicated in the Appendix and when this was performed, it followed a straightforward geographical approach wherein contiguous regions were combined.

decentralization specified by the constitutional structures of the countries under examination. Italy is a case in point.

Perhaps more importantly, there is a process of greater "regionalization" within Europe tracing its roots to the founding of the Community (for an overview of this process, see Adshead and Bache, 2000). In fact, the Treaty of Rome proposes that the European Community should seek to diminish "...the differences existing between the various regions and the backwardness of the less favored regions" (Article 158). Although European policy has undergone numerous changes to meet this challenge, the main policy instrument targeting regional disparities continues to be the Structural Fund (see European Communities Commission, 1999 and Heinelt and Smith, 1996). For example, at the Berlin European Council in 1999, the Commission allocated one-third of the European Union's budget between the years 2000 and 2006, roughly €213 billion, towards the Structural Fund (European Commission, 2002). The vast majority of these funds (70%) are directed towards the "Objective 1" regions that are defined as those whose per capita GDP is less than 75% of the Community's average (European Commission, 2001). Given the scale of this policy and the fact that approximately 22% of Europeans live in Objective 1 regions, it is necessary to determine whether there are regional factors influencing individuals' orientation toward the European Union.

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<sup>&</sup>lt;sup>10</sup> "Objective 2 of the Structural Funds aims to revitalise all areas facing structural difficulties, whether industrial, rural, urban or dependent on fisheries. Though situated in regions whose development level is close to the Community average, such areas are faced with different types of socio-economic difficulties that are often the source of high unemployment. These include: the evolution of industrial or service sectors; a decline in traditional activities in rural areas; a crisis situation in urban areas; difficulties affecting fisheries activity" (European Commission, 2002).

## Regional Measures of Economic Stress

Measuring poverty at the regional level raises basic theoretical questions about how we should estimate economic well-being (see Citro, 1995; and Rainwater, Smeeding and Coder, 2001). Although this debate is an interesting one, in this paper I adopt a national relative <sup>11</sup> standard, which is computed as the proportion of the region's population below 50% of the national median. This approach is sensitive to the wealth of a region relative to the national standard. This *inter-regional* approach clearly captures disparities in wealth between regions and does not reflect *intra-regional* income inequality per se.

In addition to the measure of poverty, I estimate income inequality within regions using the P90P10 Ratio computed at the regional level. Unlike poverty rates, which focus on the bottom of the income distribution, the P90P10 ratio has the advantage of focusing on *both* the bottom *and* the top of the income distribution (see Atkinson, Rainwater and Smeeding, 1995). This measure computes the ratio of income at the ninetieth and the tenth percentiles of the distribution. Furthermore, it is commonly used to measure the "social distance" or gap between the rich and the poor in comparative studies of income inequality (Smeeding, 2000).

All of the measures just discussed are based upon total non-zero<sup>12</sup> disposable in come at the household level. This includes gross wages and earnings, earnings from self-employment, cash property income, pensions and social transfers and deducts taxes and mandatory employee contributions.<sup>13</sup> In order to account for differences in household size, I transform total household incomes into equivalent incomes by dividing the former by the square root of the number of household members (see Atkinson, Rainwater and Smeeding,

<sup>11</sup> One could also generate a "European Poverty Threshold" following a recent report by Eurostat (2000). This approach is not practical, however.

<sup>&</sup>lt;sup>12</sup> This is the procedure Atkinson et. al. (1995) in their definitive study.

<sup>&</sup>lt;sup>13</sup>See the definition of LIS Summary Income Variables at http://www.lisproject.org/techdoc/summary.pdf.

1995: 21). Furthermore, as I am concerned with distribution of incomes among persons, rather than households, the results refer to "person weights," which equal the household weight times the number of household members.<sup>14</sup>

Finally, regional unemployment figures are from Eurostat's *Regio* series of regional statistics as reported in the *International Statistical Yearbook* (2000). The figures used are the percentages of the total labor force unemployed in the region.

The dependent variables, self-reported turnout in the most recent national election and in the 1994 European Parliament election, are computed using the *Special Release of the Eurobarometer Survey: European Election Studies 1994*. These surveys are conducted every five years to coincide with elections to the European Parliament. In this survey, respondents are asked whether they participated in their country's most recent national election and whether they participated in the European contest. Obviously, the year in which the national election occurred varies by country and I report the years of each national election in my results. In addition, I recoded the variables into dichotomous scores so those individuals who either refused to answer the question or don't remember whether they voted or not are excluded.

In order to provide individual-level controls in my analyses, I also included the most important predictors of electoral participation as identified by previous research. Namely, Age, Education, Gender, Party Attachment, Low Income and Unemployed are included in each of the equations that follow. Age is simply the respondent's exact age and Gender is dummy variable coded zero if the respondent is a man and one is she is a woman. Education is operationalized as the age at which the respondent left formal education. This differs from

<sup>&</sup>lt;sup>14</sup> This is in line with the current practice in European and international research. Atkinson *et al.* (2002: 29), for instance, argue "We are not suggesting that individuals should be considered in isolation; but each person should count for one."

the preferred educational attainment variable but it does allow one to construct an ordinal index that closely reflects attainment. In this study, individuals who left school at age 14 or earlier are all coded as 1 while each additional year of education beyond this up until age 22 and is coded as additional units increase in education. Those leaving school after the age of 22 are given the same score on the *Education* variable and thus individuals returning to school after this age are coded as having the highest level of education. Furthermore, those persons still in school are dropped from the analysis. An individual's *Party Attachment* is assessed by the respondent's answer to the Eurobarometer question "Do you consider yourself to be close to any particular party?" I reverse Euroba rometer's ordinal scale so that "Close to no particular party" is zero, "Merely a sympathizer" equals one, "fairly close" equals two and "very close" is equal to three. 15 An individual's economic well-being is measured by the variable *Low income*, which is a dummy variable equaling one if the respondent's household income falls in the bottom quartile of the harmonized Eurobarometer measure of household income. 16 Finally, *Unemployed* is also a dummy variable coded as one if the respondent indicates that they are "unemployed or temporarily not working" in response to a query on their occupation and zero otherwise.

Wilson's hypothesis suggests that poor and/or unemployed persons living in neighborhoods with higher concentrations of poverty and unemployment are more likely to be socially isolated than poor persons living in less-disadvantaged neighborhoods. This calls for the construction of an interactive variable (see Lewis-Beck, 1980: 54-56; and Berry and

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<sup>&</sup>lt;sup>15</sup> There is a follow-up question to assess party attachment so that the number of respondents indicating that they "don't know" is limited. I drop this latter group in this analysis.

<sup>&</sup>lt;sup>16</sup> In the Eurobarometer survey series, respondents indicate their household income on a country-specific ordinal scale. The harmonized indicator I use from the Eurobarometer collapses these categories into four quartiles across the European countries.

Feldman, 64-72). Accordingly, I construct dummy interactive variables for each of the indicators of regional economic distress. Specifically, the dummy variable equals 1 if the individual is EITHER *Low Income* OR *Unemployed* and this is multiplied by each of the regional measures of economic distress. On the other hand, the neighborhood context could be seen as additive, in which case the local context equally affects all individuals – not just the poor. Ideally, the equations that follow would simultaneously include BOTH the interactive AND the additive forms of the variable. However, multicollinearity is a significant problem when the individual variable, the contextual variable and the interactive terms are all entered in the same equation and therefore, based on theoretical grounds, I only discuss the results of the explanatory analyses including the interactive term. <sup>17</sup>

There are additional statistical problems arising from the multilevel nature of the dataset that must be addressed. Namely, the individual observations are nested within countries and regions. In this case, if we were to make no attempt to account for the structure of the data we might underestimate standard errors of the coefficients and increase the likelihood of making a Type I error (see Steenbergen and Jones, 2002: 220). Accordingly, and due to the significant cross-national differences in the electoral regimes in each of the countries and other factors not specified in the model (see Powell, 1986; Jackman, 1987; Jackman and Miller, 1995, and Franklin, et. al., 1996), I include country dummy variables using the U.K. as the reference country. Although the fixed-effects model accounts for cross-national features of the data, it does not account for the regional level, in which the individual observations are nested with regions. Therefore, I also compute "robust standard errors," which relax the assumption of the independence of the observations across the regions and thus accounts for the regional clustering (see Huber, 1967; White, 1980; and StataCorp, 2001:

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<sup>&</sup>lt;sup>17</sup> The results including both the interactive term and the contextual variable are included in the Appendix.

254-58).<sup>18</sup> This approach is appropriate since I am interested only in making inferences about individuals and not about their regions, in which case a multi-level model would be preferred (see Snijders and Boskers, 1999).

#### Results

A brief summary of regional poverty, income inequality and unemplo yment in Europe

Summary statistics for the regional variables are reported in Table 1. All of the regional indicators are reported in the Appendix. As shown in this Table, poverty rates in the 76 European regions and 6 countries under examination ranged from a low of about 1% in Bremen, Germany (1989) to a high of over 35% in Sicily. The mean regional poverty rate in Europe equals about 8 percent. <sup>19</sup> Examining the figures for each of the countries, we find that there is a good deal of intra-country variance in regional poverty within each of the countries. In fact, it is clear that the national aggregate poverty rates can be very misleading if one were to assume that the rate was equal across the entire country. For example, the standard deviation in the regional poverty rate in Italy equals 8.8 percent and ranges from a minimum of 1.1 percent in Umbria to the previously reported high found in Sicily.

# /TABLE 1 ABOUT HERE/

Turning now to the P90P10 ratios of income inequality, we find that mean regional income inequality ranges from a low of about 2.8 in Belgium - followed by West Germany, France, Italy, and Spain – to a high of 4.2 in the UK. Across the regions, the ratio of income at the ninetieth percentile and the tenth percentile ranges from a low of 2.3 in Hamburg to a high of 5.1 in the Southeast region of the U.K. In other words, the equivalent income of a person at the 90<sup>th</sup> percentile of the distribution is more than five times greater than the income

 $<sup>^{\</sup>rm I8}$  I am grateful to Troy Powell for suggesting this method to me.

<sup>&</sup>lt;sup>19</sup> These are unweighted averages and thus do not equal the national rate of poverty.

of an individual at the 10<sup>th</sup> percentile of the distribution in the Southeast but only around 2.3 times greater in Hamburg. Within countries, regional income inequality varies most widely in Italy, where the standard deviation equals .507 and ranges from a low of 2.7 in Umbria to a high of 5.0 in Sicily.

Regional unemployment rates across the regions of the six countries under examination averaged 13.7 percent in 1994. This ranged from a low of 4.1 percent in Trentino, Northern Italy to a high of 34.7 percent in Andalucia, Spain. The standard deviation across these European regions equals 6.7 percent. Mean regional unemployment rates by country vary from a low of 7.5 percent in Germany to a high of about 23 percent in Spain (it bears mentioning once again that these figures are unweighted means of the regions and thus they do not equal the national rate of unemployment). After West Germany, the next lowest mean rate of regional unemployment in 1994 was found in the U.K, followed by Belgium, Italy and France. The greatest regional variation of unemployment within countries was reported in Italy, with a standard deviation equal to about 6.2 percent.

Electoral Participation in Western European Regions

Table 2 reports summary statistics for the dependent variables: regional voter turnout rates for the most recent national election in each country (and the year in which the election was held) and the participation rate in the 1994 elections for the European Parliament. These figures are based upon self-reported responses. The lowest mean regional turnout was reported in the UK (75.2 percent),<sup>20</sup> followed in ascending order by France (79.5%), West Germany (79.8%), Spain (81%) and Belgium (81.1%). Italians, on average, participate in elections with the highest frequency (88.8%). The mean regional rate of voter participation equals 81.7 percent across the 76 regions included in this study. Turnout was lowest in the West German region of Bremen and highest the Spanish region of Cantabria, where all of the

<sup>&</sup>lt;sup>20</sup> Once again, these figures are unweighted and thus this figure does not equal the national participation rate.

respondents reported voting in the 1993 national election.<sup>21</sup> The standard deviation in the rate of participation in national elections across the European regions equals 7.23 percent.

#### /TABLE 2 ABOUT HERE/

Examining participation in elections for the European Parliament (the lower half of Table 2), it is evident that mean regional participation in the 1994 European election was considerably lower than in national contests, as the average rate of participation within regions is about ten percent lower in the former. This supports the notion that elections for the European Parliament are "second order" contests. The only national exception to this trend is in Belgium, where mean reported regional turnout was higher in the European election (84.0%) than in the national election (81.1%). In the other countries under examination, participation in the European electoral contest ranged from about 6 percent (W. Germany) to almost 30 percent lower (U.K.) than the rate in national elections. The variation in regional rates of participation is also greater in the European election than in national contests. The minimum value of 42.2 percent turnout is found in the British combined region of East/West Midlands and East Anglia and together with the mean regional rate of 48.8 percent, clearly reflects the weak support for "Europe" by the British people. At the other extreme, 97.5 percent of respondents in Abruzzi/Molise in Italy reported voting in the 1994 European election.

The bivariate correlations between the independent variables are reported in Table 3. I report the relationships between the interactive variables and their components separately in Table 3A. Examining the relationships between the individual level variables in Table 3, it is evident that there is not a great deal of multicollinearlity although all of the coefficients are

<sup>&</sup>lt;sup>21</sup> These turnout figures are merely illustrative. There were only 14 respondents from Cantabria included in the Eurobarometer. Only 12 respondents were included from Bremen. However, the mean number of observations per region equals 86 and the median equals 50.

statistically significant (with the exception of *Gender* and *Unemployed*). The strongest association is between *Age* and *Education* and it is in the negative direction, indicating that older persons tend to have left school at an earlier age (and older persons are more likely to have low incomes). Furthermore, it is worthy of noting that *Education* is negatively associated with *Low Income*, indicating that the more well-educated persons are less likely to be poor and that, not surprisingly, unemployed individuals are more likely to have low incomes.

# /TABLE 3 ABOUT HERE/

Perhaps the most interesting relationships are those between the individual and regional level variables. For example, we find that there is a negative association between an individual's educational attainment and the measures of regional economic distress. Of course, causality cannot be determined by these bivariate relationships but these correlation coefficients indicate that regions with higher inequality, unemployment and poverty lack human capital. Furthermore, it is interesting to note that individual *Low Income* is unrelated to the *P90P10* ratio. However, there is a positive association between individual *Low Income*, *Poverty* and the regional *Unemployment* rate, as expected. Finally, *Poverty* and the *P90P10* ratio are both associated with higher unemployment, suggesting that unemployment and income inequality/poverty are linked in Western Europe. Overall, this table indicates that the magnitudes of these associations do not indicate that multicollinearity is a significant problem in the equations that follow.<sup>22</sup>

#### /TABLE 3A ABOUT HERE/

A brief examination of the correlation matrix of the interactive variables and their components suggests that multicollinearity may pose problems for the estimates in a few of the equations. Specifically, the *Low Income* variable and each of the interactive terms are

 $<sup>^{22}</sup>$  These values are well under the "rule of thumb" of .80 suggested by Berry and Feldman (1985: 42).

highly correlated, with the interactive variable between *Individual Distress* (*Low Income* or *Unemployed*) and the regional *P90P10* ratio being potentially problematic.<sup>23</sup> However, our theoretical reasons for simultaneously including the interactive terms and the individual level predictors in the equations that follow leaves us with few options. The correlations between the interactive variable and the contextual variables, however, do not present the same problems. Nonetheless, in order to be more parsimonious, I only discuss the results including the individual level predictors and the interactive term (but see Tables A1 and A2 in the Appendix).

Binary Logistic Regression Results

Table 4 reports the results of the explanatory analysis. The dependent variable is individual participation in the citizens' country's last national election, coded as "1" for having voted and "0" for not participating. The base model includes all of the individual level control variables as well as dummy variables each of the countries minus the U.K. (Column (1)). There are 4052 individual observations across the 76 regions and 6 countries included in this analysis of national voting behavior. As previous research indicates, both *Age* and *Education* are found to increase the probability of individual participation in national elections in this study. The top number in the cell, the odds ratio, <sup>24</sup> indicates that a one-year increase in an individual's age increases the probability of voting by about 4 percent while an additional year of education increases this probability by about 7 percent. Gender is unrelated to the probability of having voted in the most recent national election. Finally, a one-level increase in a respondent's *Party Attachment* approximately doubles the probability of having voted in their nation's most recent national election.

<sup>&</sup>lt;sup>23</sup>Multicollinearity may result in unreliable estimates having large standard errors, which decreases the likelihood of obtaining statistically significant results (Berry and Feldman, 1985: 58-59).

<sup>&</sup>lt;sup>24</sup> See Long (1997) for a very clear discussion of logistic regression analysis.

#### /TABLE 4 ABOUT HERE/

With regard to the variables measuring individual-level economic well-being, these results show that *Low Income* reduces the probability of voting by between one-third and one-half while *Individual Unemployment* reduces the probability of voting in national elections by about one-fourth. The fact that the less well-off and unemployed are less likely to participate in the political life of their country is fairly well-documented but is still an important finding that has significant implications for normative, if not procedural, conceptions of democracy. In short, poor and unemployed persons are less likely to vote.

The country dummy control variables capturing significant differences in electoral laws across the countries suggest that as previous comparative research demonstrates, the institutional features of various electoral arrangements affects mass participation (see Powell, 1986; Jackman, 1987; and Jackman and Miller, 1995). More specifically, the results reflect the fact that voting is compulsory in Belgium, with Italy also having a quasi-compulsory voting requirement. The overall fit of the model indicated by the Pseudo R squared suggests that only about 16 percent of the variance in an individual's probability of voting is explained by the independent variables.

The equation reported in Column 2 includes the interactive variable of the respondent's personal economic situation (*Low Income* or *Unemployed*) and their local context or regional *Poverty Rate*. Including this variable does not greatly alter either the statistical significance or the magnitude of the coefficients of the variables reported in the base equation. Examining this equation and the next three (Columns 3-5), we find that the results of the logistic regression do not lend any support to the notion that poor or unemployed persons living in areas that have greater local poverty, higher income inequality or unemployment decreases the probability that they will participate in the political life of their country. Therefore, unlike what many have found within the United States, high

concentrations of economic distress within Western European regions do not negatively affect individual incentives to participate in the sociopolitical life of their countries. In fact, although the coefficients are not statistically significant, the directions of the relationships are all in the opposite of the predicted direction.

The next table, Table 5, reports findings estimating the probability of voting in the 1994 election for representatives to the European Parliament. Once again, the "base" model is reported in Column (1). There are some minor differences between the two base models. Namely, the effects of *Age*, *Party Attachment* and *Low Income* are slightly less pronounced while all of the country dummy variables show statistically significant positive relationships (due to the fact that the U.K. is the reference country). Finally, the overall explanatory power of the model predicting an individual's vote in the European contest, as reflected by the Pseudo R squared, explains slightly less of the variance in individual participation as the model examining voting in national elections.

#### /TABLE 5 ABOUT HERE/

As shown in Column (2), poor or unemployed persons living in regions with higher rates of local poverty *increases* the probability of voting in elections for the European Parliament. In fact, a one-percent increase in the rate of "local" poverty increases the likelihood of voting by roughly 3 percent. This is contrary to our expectations of finding a negative relationship. Including this variable does not increase the explanatory power of the model, however.

The equation including the interaction between the P90P10 ratio of income inequality and individual economic distress is reported in Column (3). Once again the coefficient is in the positive direction and statistically significant, suggesting that local income inequality *positively* affects the individual political engagement of economically disadvantaged persons. Furthermore, the results in the next Column show that higher *Regional Unemployment* is

associated with greater individual political participation at the European level. In fact, poor or unemployed individuals living in regions with a one percent higher unemployment rate are about four percent more likely to vote in European Parliamentary elections than their counterparts is more well-off areas.

Overall, the results indicate that local concentrations of poverty, income inequality and unemployment affect individual political behavior. However, unlike the hypotheses suggested by *The Truly Disadvantaged*, there is *no* evidence suggesting that pockets of high poverty, income inequality or unemployment in Western Europe serve to further depress the individual incentives of economically underprivileged persons to participate in national elections. Rather, with regard to elections for the European Parliament, I find that these persons living in regions with higher poverty rates, greater income inequality and a higher unemployment were *more* likely to participate in the European election. A possible explanation for this finding is that mobilization efforts are greater in economically disadvantaged areas because of the importance of EU Objective 1 or Objective 2 Structural Funds to these regions. Receiving these funds raises the stakes of the European contest and also increases support for the EU, thus fostering participation.

#### Conclusion

This paper explored the relationship between local concentrations of poverty, income inequality and unemployment and individual political participation in seventy-six regions in six Western European countries in the mid-1990s. In addition to these "contextual" variables, the effects of individual-level characteristics on voting, including low-income status and employment status, were also investigated. Local poverty and income inequality was estimated using the data provided by the LIS. Individual electoral participation in both the most recent national election and in the 1994 elections for the European Parliament and

individual-level characteristics were measured using the 1994 European Election Study Special Issue of the Eurobarometer Series.

The results of the analyses suggest that low income, unemployed and less welleducated persons are less likely to vote in either their national election or in the election of
their representatives to the European Parliament. However, the answer to the question posed
at the beginning of this paper is "no" as we found no evidence that negative economic
circumstances in a community adversely affects individual electoral participation by
economically disadvantaged persons. Rather, individuals living in regions with greater
concentrations of poverty and higher levels of unemployment are *more* likely to participate in
the elections for the European Parliament. Therefore, unlike in the United States, where some
have found evidence of unfavorable local economic conditions negatively affecting
individual social and political participation, this does not seem to be the case within Western
European "neighborhoods."

There are at least two important implications of these findings. First, the fact that poor and unemployed people are less likely to vote suggests that the shape of the active electorate is biased. Therefore, the preferences of the less well-off are not being represented in either their national legislatures or in the European Parliament (see Bennet and Resnick, 1990; Hill and Leighley, 1992; Franzese, 1998; Hicks and Swank, 1992; and Jesuit, 2001). In short, public policy outcomes are not likely to reflect their interests since – paraphrasing V.O. Key – "if you don't vote, you don't count" (1949). Furthermore, public policies that fail to address the needs of the poor are likely to lead to a greater number of poor persons and therefore lower turnout rates and therefore ever increasingly ineffective social policies. This is the "systematic bias" against the "less well-to-do" to which Lijphart refers (1997).

Second, while we found no evidence that negative local economic conditions negatively affect individual participation in national elections, as the "deadly neighborhood"

hypothesis suggests, we did find that these contextual factors influence individual participation in the European contest. Namely, economically underprivileged persons living in regions with higher levels of poverty, income inequality and unemployment are more likely to participate in these elections than their counterparts living in more economically advantaged areas.<sup>25</sup> This suggests that political elites within these regions, which are recipients of or candidates for Structural Funds, are making greater efforts to mobilize support for the European Union in order to direct these funds and maintain future commitments. In addition, there is a greater individual economic incentive for citizens within these regions to participate in European elections. In fact, previous research has found greater support for the E.U. within Objective One regions (see Mahler, et al., 2000). Therefore, one can argue that political "regionalization" seems to be gathering momentum within the economically disadvantaged regions of Europe. Some have expressed concerns that this could lead to greater ethnic/class fragmentation while others, in the same vein as de Toqueville, view the decentralization of political authority as good for democratic governance (European Commission, 2001). Whichever interpretation one prefers, this research suggests that Europe's efforts to address the so-called "democratic deficit" and political representation more generally as it considers constitutional changes within the supra-national European framework will need to confront the increasingly relevant sub-national dimension.

<sup>&</sup>lt;sup>25</sup>In fact, based on a cursory examination of aggregate voter turnout data from the 1994 European Parliamentary election as well as tables A1 and A2 in the Appendix, there is some evidence suggesting that all persons living in economically disadvantaged regions are more likely to have voted, regardless of their income or labor force status.

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**Table 1: Summary Statistics of Regional (Contextual) Variables** 

Country	Obs.	Mean	Standard deviation	Minimum	Maximum			
Poverty (nation	al line)							
Belgium	3	4.782	2.447	2.6	7.4			
France	21	9.763	2.894	4.2	17.4			
W. Germany	10	5.016	2.083	0.9	6.9			
Italy	18	9.094	8.800	1.1	35.5			
Spain	17	9.815	5.619	3.5	22.2			
UK	7	15.783	4.200	11.1	23.9			
Euro "6"	76	9.350	5.994	0.9	35.5			
Income Inequa	Income Inequality (P90P10)							
Belgium	3	2.755	.181	2.6	3.0			
France	21	3.346	.370	2.7	4.4			
W. Germany	10	2.801	.242	2.3	3.1			
Italy	18	3.365	.507	2.7	5.0			
Spain	17	3.755	.382	3.1	4.5			
UK	7	4.444	.296	4.2	5.1			
Euro "6"	76	3.448	.578	2.3	5.1			
Unemployment								
Belgium	3	11.100	3.205	7.4	13.0			
France	21	12.329	2.100	8.1	16.0			
W. Germany	10	7.530	1.924	5.0	10.8			
Italy	18	11.639	6.227	4.1	22.7			
Spain	17	22.971	5.226	15.1	34.7			
UK	7	10.271	2.285	7.4	14.5			
Euro "6"	76	13.676	6.663	4.1	34.7			

Table 2: Self-reported Turnout Aggregated at the Regional Level

Country	Obs.	Mean	Standard deviation	Minimum	Maximum				
Most recent national election									
Euro "6"	76	81.7	7.23	67.8	100.0				
Belgium (91)	3	81.1	3.76	76.8	83.7				
France (93)	21	79.5	6.67	68.3	90.7				
W. Germany (90)	10	79.8	7.16	67.8	90.7				
Italy (94)	18	88.8	5.46	75.1	97.5				
Spain (93)	17	81.0	6.14	73.3	100.0				
UK (92)	7	75.3	4.14	69.0	81.4				
European Parliamen	t electi	on (1994)							
Euro "6"	76	70.6	12.47	42.2	97.5				
Belgium	3	84.0	5.77	77.3	87.5				
France	21	66.1	8.00	50.8	83.2				
W. Germany	10	72.3	7.16	61.6	84.6				
Italy	18	82.3	6.76	70.9	97.5				
Spain	17	69.1	10.98	42.7	92.7				
UK	7	48.8	7.06	42.2	57.9				

**Table 3: Correlation Matrix of Independent Variables** 

Variable	1	2	3	4	5	6	7	8 9	9
1. Age	1.000								
2. Education	**341	1.000							
3. Gender	**070	**109	1.000						
4. Low Income	**.191	**227	**.091	1.000					
5. Unemployed	**146	**.048	022	**.136	1.000				
6. Party Attachment	**.101	**.061	**063	**028	**016	1.000			
7. Regional Poverty	005	**105	002	**.053	**.045	**030	1.000		
8. Regional P90P10	.000	**105	.002	004	.009	.000	**.713	1.000	
9. Unemployment	022	**082	002	**.044	.021	**054	**.427	**.309	1.000
* p < .05; ** p < .01.									

**Table 3A: Correlation Matrix of Interactive Variables** 

Variable	1	2	3	4	5	6	7	8	9
1. Low Income	1.000								
2. Unemployed	**.136	1.000							
3. Interact1 (6*7)	**.741	**.416	1.000						
4. Interact2 (6*8)	**.899	**.476	**.887	1.000					
5. Interact3 (6*9)	**.774	**.414	**.844	**.872	1.000				
6. Poor OR Unemp.	**.300	**.572	**.228	**.272	**.230	1.000			
7. Regional Poverty	**.053	**.045	**.315	**.127	**.165	.018	1.000		
8. Regional P90P10	004	.009	**.197	**.096	**.078	.004	**.713	1.000	
9. Unemployment	**.044	.021	**.174	**.076	**.286	.006	**.427	**.309	1.000
* p < .05; ** p < .01									

**Table 4: Vote in National Election** 

	(1)	(2)	(3)	(4)
Age	**1.044	**1.044	**1.044	**1.044
	(.005)	(.005)	(.005)	(.005)
Education	**1.065	**1.066	**1.065	**1.065
	(.024)	(.024)	(.024)	(.024)
Gender (woman)	.934	.929	.931	.932
	(.100)	(.101)	(.101)	(.100)
Party Attachment	**2.010	**2.010	**2.010	**2.006
	(.175)	(.175)	(.175)	(.174)
Low Income	**.570	**.471	**500	**.489
	(.071)	(.089)	(.159)	(.092)
Individual	*.770	**.689	.712	**.701
Unemployment	(.099)	(.097)	(.136)	(.101)
Belgium	**2.020	**2.177	**2.065	**2.021
	(.436)	(.500)	(.459)	(.448)
France	1.003	1.047	1.017	.994
	(.147)	(.162)	(.163)	(.145)
W. Germany	1.092	1.174	1.116	1.109
	(.195)	(.236)	(.223)	(.201)
Italy	**7.041	**7.229	**7.111	**6.941
	(2.037)	(2.124)	(2.073)	(2.023)
Spain	**1.589	**1.631	**1.599	*1.488
	(.272)	(.300)	(.281)	(.257)
Ind. Distress *	-	1.022	-	_
Regional Poverty		(.015)		
Ind. Distress *	-	-	1.044	-
P90P10			(.100)	
Ind. Distress * Reg.	-	-	-	1.014
Unemployment				(.011)
Pseudo R2	.161	.162	.161	.162

Top number is log odds ratio, number in ( ) is robust standard error. \*p<.05 \*\*p<.01. n=4052 (unweighted)

**Table 5: Vote in 1994 European Parliament Election** 

	(1)	(2)	(3)	(4)
Age	**1.025	**1.025	**1.025	**1.025
	(.004)	(.004)	(.004)	(.004)
Education	**1.067	**1.069	**1.068	**1.068
	(.017)	(.017)	(.017)	(.017)
Gender (woman)	.880	.874	.869	.877
	(.066)	(.066)	(.065)	(.066)
Party Attachment	**1.719	**1.720	**1.721	**1.715
	(.098)	(.098)	(.098)	(.096)
Low Income	**.680	**.508	**.413	**.436
	(.061)	(.065)	(.086)	(.067)
Individual	.888	.748	**.658	*.679
Unemployment	(.126)	(.116)	(.104)	(.117)
Belgium	**8.207	**9.086	**8.884	**8.259
	(2.197)	(2.310)	(2.334)	(2.286)
France	**1.753	**1.845	**1.829	**1.709
	(.316)	(.313)	(.324)	(.302)
W. Germany	**2.396	**2.623	**2.565	**2.487
	(.513)	(.535)	(.548)	(.524)
Italy	**7.682	**8.027	**7.953	**7.505
	(1.851)	(1.844)	(1.912)	(1.786)
Spain	**3.304	**3.412	**3.376	**2.808
	(.681)	(.651)	(.684)	(.586)
Ind. Distress *	-	**1.031	-	-
Regional Poverty		(.011)		
Ind. Distress *	-	-	**1.167	-
P90P10			(.067)	
Ind. Distress * Reg.	-	_	-	**1.041
Unemployment				(.012)
Pseudo R2	.145	. 145	.145	.147

Top number is log odds ratio, number in ( ) is robust standard error. \*p<.05 \*\*p<.01. n=4099 (unweighted)

# **Appendix**

Table A1. Vote in National Election Including Interactive and Contextual Variables

	(1)	(2)	(3)	(4)
Age	**1.044	**1.044	**1.044	**1.044
_	(.005)	(.005)	(.005)	(.005)
Education	**1.065	**1.066	**1.067	**1.065
	(.024)	(.024)	(.024)	(.024)
Gender (woman)	.934	.929	.931	.935
	(.100)	(.100)	(.101)	(.100)
Party Attachment	**2.010	**2.011	**2.016	**2.012
	(.175)	(.175)	(.177)	(.176)
Low Income	**.570	**.478	*.480	**.458
	(.071)	(.092)	(.161)	(.083)
Individual	*.770	*.696	.693	**.671
Unemployment	(.099)	(.106)	(.138)	(.101)
Belgium	**2.020	**2.264	1.508	**1.986
	(.436)	(.604)	(.530)	(.381)
France	1.003	1.075	.835	1.038
	(.147)	(.209)	(.186)	(.159)
W. Germany	1.092	1.219	.842	1.013
	(.195)	(.298)	(.264)	(.186)
Italy	**7.041	**7.412	**5.908	**7.193
	(2.037)	(2.256)	(1.989)	(2.055)
Spain	**1.589	*1.666	**1.414	**2.139
	(.272)	(.398)	(.310)	(.554)
Ind. Distress *	-	1.019	-	-
Regional Poverty		(.017)		
Regional		1.004	-	-
Poverty		(.016)		
Ind. Distress *	-	-	1.058	-
P90P10			(.108)	
Regional	-	1	.837	-
P90P10			(.166)	
Ind. Distress * Reg.	-	-	-	*1.022
Unemployment				(.011)
Regional	-	-	-	.973
Unemployment				(.019)
Pseudo R2	.161	.162	.162	.162

Top number is log odds ratio, number in ( ) is robust standard error.

<sup>\*</sup>p<.05 \*\*p<.01. n=4052 (unweighted)

**Table A2. Vote in 1994 European Parliament Election Including Interactive and Contextual Variables** 

	(1)	(2)	(3)	(4)
Age	**1.025	**1.026	**1.025	**1.025
	(.004)	(.004)	(.004)	(.004)
Education	**1.067	**1.070	**1.068	**1.068
	(.017)	(.017)	(.017)	(.017)
Gender (woman)	.880	.875	.869	.877
	(.066)	(.066)	(.065)	(.066)
Party Attachment	**1.719	**1.729	**1.721	**1.715
	(.098)	(.096)	(.098)	(.096)
Low Income	**.680	**.568	**.413	**.453
	(.061)	(.085)	(.086)	(.072)
Individual	.888	.806		*.696
Unemployment	(.126)	(.122)	(.104)	(.114)
Belgium	**8.207	**11.511	**8.884	**8.321
	(2.197)	(3.187)	(2.334)	(2.402)
France	**1.753	**2.164		**1.666
	(.316)	(.394)	(.324)	(.310)
W. Germany	**2.396	**3.300	**2.565	**2.598
	(.513)	(.758)	(.548)	(.516)
Italy	**7.682	**9.505		**7.444
	(1.851)	(2.206)	(1.912)	(1.774)
Spain	**3.304	**3.894	**3.376	*2.336
	(.681)	(.646)	(.684)	(.842)
Ind. Distress *	-	1.017	-	-
Regional Poverty		(.014)		
Regional		1.026		
Poverty		(.018)		
Ind. Distress *	-	-	*1.151	-
P90P10			(.068)	
Regional			1.165	
P90P10			(.169)	
Ind. Distress * Reg.	-	-	-	**1.036
Unemployment				(.013)
Regional				1.014
Unemployment				(.018)
Pseudo R2	.145	. 147	.145	.147

Top number is log odds ratio, number in ( ) is robust standard error. \*p<.05 \*\*p<.01. n=4099 (unweighted)

Table A3. Regional Poverty, Income Inequality and Unemployment

COUNTRY	REGION	Unemp.	Poverty	P90P10
FRANCE	ALSACE	8.1	7.0	2.98
	AQUITAINE	13.0	11.5	3.63
	AUVERGNE	11.6	12.0	3.64
	BASSE NORMANDIE	13.5	9.2	2.97
	BOURGOGNE	11.6	9.6	3.11
	BRETAGNE	10.4	10.6	3.58
	CENTRE	11.8	9.0	3.24
	CHAMPAGNE-ARDENNES	13.7	9.6	3.10
	FRANCHE-COMTE	9.9	8.3	2.76
	HAUTE NORMANDIE	14.6	11.2	3.19
	ILE DE FRANCE	10.7	4.2	3.57
	LANGUEDOC-ROUSSILLON	15.3	17.4	4.39
	LIMOUSIN	10.6	7.4	3.24
	LORRAINE	10.6	5.9	2.73
	MIDI PYRENEES	11.4	10.2	3.54
	NORD-PAS DE CALAIS	16.0	12.8	3.15
	PAYS DE LA LOIRE	12.0	10.3	3.41
	PICARDIE	14.7	10.8	3.61
	POITOU-CHARENTES	12.6	13.4	3.55
	PROVENCE-ALPES-COTE D-AZUR	15.7	6.9	3.36
	RHONE-ALPES	11.1	7.7	3.51
BELGIUM	BRUXELLES	12.9	2.6	2.68
	VLAANDEREN	7.4	4.4	2.63
	WALLONIE	13.0	7.4	2.96
GERMANY	BADEN WUERTTEMBERG	5.6	6.6	3.14
	BAYERN	5.0	5.7	3.00
	BERLIN (WEST)	10.5	6.3	2.71
	BREMEN	10.8	.9	2.86
	HAMBURG	7.0	2.2	2.29
	HESSEN	6.2	3.5	2.78
	NIEDERSACHSEN	7.9	6.4	2.99
	NORDRHEIN - WESTFALEN	8.3	5.2	2.93
	RHEINLAND PFALZ/SAAR	7.4	6.4	2.69
	SCHLESWIG HOLSTEIN	6.6	6.9	2.62
ITALY	BASILICATA	16.2	8.7	3.18
	CALABRIA	21.8	16.3	3.63
	CAMPANIA	22.7	18.1	3.55
	EMILIA ROMAGNA	6.5	3.1	2.98
	FRIULI VENEZIA GIULIA	6.6	4.6	3.72
	LAZIO	10.6	6.6	3.31
	LIGURIA	10.2	3.3	3.37
	LOMBARDIA/MILAN	6.0	1.9	3.05
	MARCHE	6.4	7.9	3.22
	MOLISE E ABRUZZI	11.0	10.5	3.42
	PUGLIE	14.7	21.8	3.67
	SARDEGNA	20.0	8.1	2.86
	SICILIA	21.6	35.5	5.02
	TOSCANA	8.0	3.4	3.04
	TRENTINO	4.1	2.4	3.03

VALLE D"AOSTA E PIEMONTE   8.1   5.2   3.61     VENETO		UMBRIA	8.7	1.1	2.70
SPAIN		VALLE D"AOSTA E PIEMONTE	8.1	5.2	3.61
ARAGON ASTURIAS ASTURIAS BALEARES 17.0 6.8 3.38 ASTURIAS BALEARES 17.0 6.8 3.45 CANARIAS CANARIAS CANTABRIA CASTILLA - LEON CASTILLA - LA MANCHA CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA 15.1 15.4 16.6 4.32 NAVARRA 15.1 15.4 18.3 3.5 3.98 PAIS VALENCIANO PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SOUTH WEST 17.0 6.6 3.38 3.44 4.5 4.50 22.5 4.3 3.06 3.45 22.5 4.3 3.41 10.2 3.91 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 24.4 7.7 3.41 1.9 3.7 3.82 22.2 4.13 3.7 3.8 2.2 2.2 4.13 3.7 3.8 2.2 2.2 4.13 3.7 3.8 2.2 2.2 4.13 3.7 3.8 2.2 2.2 4.13 3.7 3.8		VENETO	6.3	5.3	3.21
ASTURIAS BALEARES 17.0 6.8 3.45 CANARIAS CANARIAS CANTABRIA CASTILLA - LEON CASTILLA - LA MANCHA CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA 15.1 15.4 18.3 18.3 16.5 4.50 28.3 16.5 4.50 29.3 29.1 10.2 3.91 20.6 13.9 3.73 273 282 29.2 4.13 3.7 3.82 29.2 4.13 3.7 3.82 29.3 20.2 4.13 30.6 19.7 11.9 3.87 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3 4.3	SPAIN	ANDALUCIA	34.7	17.4	4.07
BALEARES CANARIAS CANARIAS CANTABRIA CASTILLA - LEON CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH NORTHERN IRELAND SOUTH WEST  BALEARES 117.0 6.8 3.45 4.50 28.3 16.5 4.50 28.3 16.5 4.50 29.3 11.0 20.6 13.9 3.73 3.7 3.82 21.2 4.13 3.7 3.82 22.2 4.13 3.7 3.82 22.2 4.13 3.7 3.82 22.2 4.13 3.7 3.82 22.2 4.13 3.7 3.82 22.2 4.13 4.19 3.87 4.19 3.87 4.19 3.87 4.37 4.33 4.31 4.31 4.31 4.31 4.31 4.31 4.31		ARAGON	18.2	6.6	3.38
CANARIAS CANTABRIA CASTILLA - LEON CASTILLA - LA MANCHA CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH NORTHERN IRELAND SOUTH EAST SOUTH WEST  10.2 3.91		ASTURIAS	22.5	4.3	3.06
CANTABRIA CASTILLA - LEON CASTILLA - LA MANCHA CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SOUTH WEST  EAST MANCHA CASTILLA - LA MANCHA 21.7 10.2 3.91 20.9 3.73 3.73 3.82 22.2 4.13 3.7 3.82 22.2 4.13 3.7 3.87 4.13 3.87 4.13 4.32 4.34 4.32 4.34 4.32 4.34 4.34 5.34 4.31 6.34 6.34 6.37 6.34 6.37 6.34 6.37 6.34 6.37 6.34 6.37 6.34 6.37 6.34 6.37 6.34 6.37 6.36 6.36 6.36 6.36 6.36 6.37 6.37		BALEARES	17.0	6.8	3.45
CASTILLA - LEON CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH NORTHERN IRELAND SOUTH EAST SOUTH WEST  10.2 3.91 20.6 13.9 3.73 3.72 3.82 22.2 4.13 3.7 3.82 21.3 22.2 4.13 3.7 3.87 4.11.5 1.5 1.6 4.32 1.5 1.6 4.32 1.5 1.6 4.32 1.5 1.6 4.32 1.5 1.5 1.6 1.6 4.32 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.7 1.7 1.1 1.7 1.7 1.1 1.7 1.7 1.7 1.7		CANARIAS	28.3	16.5	4.50
CASTILLA - LA MANCHA CATALUNA EXTREMADURA GALICIA MADRID MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SOUTH EAST SOUTH WEST  20.6 13.9 3.73 3.72 3.82 21.3 1.9 1.19 3.87 3.89 1.19 3.87 3.89 1.19 3.87 3.89 1.19 3.87 3.89 1.19 3.87 3.81 3.81 3.81 3.81 3.81 3.81 3.81 3.81		CANTABRIA	24.4	7.7	3.41
CATALUNA   21.3   3.7   3.82     EXTREMADURA   32.3   22.2   4.13     GALICIA   19.7   11.9   3.87     MADRID   20.9   5.7   3.79     MURCIA   25.1   16.6   4.32     NAVARRA   15.1   5.4   3.34     LA RIOJA   18.3   3.5   3.98     PAIS VALENCIANO   25.2   8.1   3.44     PAIS VASCO   25.2   6.3   3.66     U.K.   EAST/WEST MIDLANDS + EAST ANGLIA   11.5   15.8   4.31     NORTH + YORKS&HUMBERSIDE + NORTH   10.6   16.6   4.37     WEST   NORTHERN IRELAND   14.5   23.9   4.36     SCOTLAND   9.6   17.1   4.34     SOUTH EAST   7.4   11.1   5.07     SOUTH WEST   8.6   13.1   4.51		CASTILLA - LEON	21.7	10.2	3.91
EXTREMADURA GALICIA GALICIA H9.7 H1.9 S.87 MADRID 20.9 MURCIA NAVARRA 15.1 LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  8.6 13.1 4.51		CASTILLA - LA MANCHA	20.6	13.9	3.73
GALICIA MADRID MADRID 20.9 MURCIA NAVARRA 15.1 LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  11.9 3.87 3.79 3.79 3.79 3.79 3.79 3.79 3.79 3.7		CATALUNA	21.3	3.7	3.82
MADRID MURCIA MURCIA NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  MURCIA 25.1 16.6 4.32 15.1 5.4 3.34 18.3 3.5 3.98 25.2 6.3 3.66 25.2 6.3 3.66 11.5 15.8 4.31 10.6 16.6 4.37 4.31 11.5 5.07 8.6 17.1 4.34 5.07		EXTREMADURA	32.3	22.2	4.13
MURCIA NAVARRA 15.1 16.6 4.32 NAVARRA 15.1 15.1 5.4 3.34 LA RIOJA PAIS VALENCIANO PAIS VASCO 25.2 8.1 3.44 PAIS VASCO 25.2 6.3 3.66  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND 9.6 17.1 4.34 SOUTH EAST SOUTH WEST 8.6 13.1 4.51		GALICIA	19.7	11.9	3.87
NAVARRA LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  15.1 5.4 3.34 18.3 3.5 3.98 25.2 6.3 3.66 25.2 6.3 3.66 11.5 15.8 4.31 10.6 16.6 4.37 11.5 15.8 4.31 10.6 16.6 4.37 11.1 5.07 11.1 5.07 11.1 5.07 11.1 5.07		MADRID	20.9	5.7	3.79
LA RIOJA PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  18.3 3.5 3.98 25.2 8.1 3.44 11.5 15.8 4.31 10.6 16.6 4.37 11.5 15.8 4.31 10.6 16.6 4.37 11.1 5.07 11.1 5.07 11.1 5.07 11.1 5.07		MURCIA	25.1	16.6	4.32
PAIS VALENCIANO PAIS VASCO  U.K.  EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND SCOTLAND SCOTLAND SOUTH EAST SOUTH WEST  PAIS VALENCIANO 25.2 8.1 3.44 11.5 15.8 4.31 10.6 16.6 4.37 14.5 23.9 4.36 50.0 17.1 4.34 50.0 50.0 50.0 50.0 50.0 50.0 50.0 50.		NAVARRA	15.1	5.4	3.34
PAIS VASCO  U.K. EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH 10.6 16.6 4.37 WEST  NORTHERN IRELAND 14.5 23.9 4.36 SCOTLAND 9.6 17.1 4.34 SOUTH EAST 7.4 11.1 5.07 SOUTH WEST 8.6 13.1 4.51		LA RIOJA	18.3	3.5	3.98
U.K.       EAST/WEST MIDLANDS + EAST ANGLIA NORTH + YORKS&HUMBERSIDE + NORTH WEST NORTHERN IRELAND       11.5       15.8       4.31         NORTHERN IRELAND SCOTLAND SOUTH EAST SOUTH WEST       14.5       23.9       4.36         7.4       11.1       5.07         8.6       13.1       4.51		PAIS VALENCIANO	25.2	8.1	3.44
NORTH + YORKS&HUMBERSIDE + NORTH       10.6       16.6       4.37         WEST       14.5       23.9       4.36         NORTHERN IRELAND       9.6       17.1       4.34         SCOTLAND       9.6       17.1       4.34         SOUTH EAST       7.4       11.1       5.07         SOUTH WEST       8.6       13.1       4.51		PAIS VASCO	25.2	6.3	3.66
WEST NORTHERN IRELAND 14.5 SCOTLAND 9.6 17.1 4.34 SOUTH EAST 5.07 SOUTH WEST 8.6 13.1 4.51	U.K.	EAST/WEST MIDLANDS + EAST ANGLIA	11.5	15.8	4.31
NORTHERN IRELAND SCOTLAND SOUTH EAST SOUTH WEST  14.5 23.9 4.36 9.6 17.1 4.34 7.4 11.1 5.07 8.6 13.1 4.51		NORTH + YORKS&HUMBERSIDE + NORTH	10.6	16.6	4.37
SCOTLAND       9.6       17.1       4.34         SOUTH EAST       7.4       11.1       5.07         SOUTH WEST       8.6       13.1       4.51		WEST			
SOUTH EAST       7.4       11.1       5.07         SOUTH WEST       8.6       13.1       4.51		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
SOUTH WEST 8.6 13.1 4.51		SCOTLAND	9.6	17.1	4.34
		SOUTH EAST		11.1	5.07
				13.1	4.51
WALES 9.7 12.8 4.15		WALES	9.7	12.8	4.15