

Intentions to migrate within the European Union: A challenge for simple economic macro-level explanations

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Abstract

Individual mobility within the European Union has remained rather low, in spite of large socio-economical differences and the lack of political restrictions for citizens of member states. Taking this as a starting point, this paper sets out to develop a more appropriate view by combining aspects of economic and sociological migration theories both at the macro and micro levels. For this purpose, the Eurobarometer survey 54.2 of 2001 is analysed by applying a three-level regression. Therefore, different characteristics of 15 European countries, 196 nuts-2-regions and about 7,000 respondents aged younger than 45 years are considered. Analyses show that the assumption of push-and-pull models – namely, that people leave less developed places – applies only within countries. In fact, the highest migration intentions can be observed in regions with a developmental gap compared to the overall level of a country. But between countries, the effect is quite the opposite – the highest intentions can be found in highly developed countries. However, the explanatory power of macro-level variables is rather low compared to that of individual characteristics. Therefore, research should place more emphasis on individual characteristics, to estimate a migration potential more accurately.

Key words:

migration, mobility, multilevel, European Union

1. Introduction

In the course of the enlargement of the European Union in the year 2004, potential migration from the new member states into the “old” member countries was discussed intensely. In public discussion, a socioeconomic lag was often said to be the main factor promoting migration from less developed countries to more prosperous ones. But a view on movements within the “old” European Union shows that mobility has remained rather low in spite of large socio-economical differences. Thus, theoretical explanations based on simple economic macro-level models do not seem to work effectively. Therefore, this paper sets out to develop a more appropriate view by combining common assumptions of different theories.

Migration has been the subject of many studies and theories, at both the micro and macro levels (see Franz 1984; Wagner 1989; Massey *et al.* 1993; Wallace *et al.* 1998; Finnie 2004; Ryan 2004; Krieger 2004). A main, common strand within these theories is the economic approach emphasizing economic motives, effects and differences. Sociological theories, on the other hand, additionally consider non-economic aspects. Both theories offer micro- and macro-level explanations, but discuss these levels more or less separately, which has some disadvantages: Macro-level models can be used to identify critical macro-level circumstances related to overall movements, but cannot explain individual behaviour. Individual explanations emphasize personal circumstances and characteristics, but do not consider objective impacts at the macro level. This paper attempts to transcend this separation, both in terms of theoretical considerations and within the empirical analysis.

In the empirical analysis, macro- and micro-level theories are investigated with one large dataset, namely the Eurobarometer survey 54.2 of 2001. In the multilevel analysis, three levels are considered simultaneously, namely the individual, the region and the nation-state. The dependent variable is the intention to move. People, therefore, were asked whether or not they intended to move within the next five years, and to where they would move. We thus observe a willingness to move that need not necessarily result in an actual move. But the way in which that willingness was measured indicates somewhat more than a vague inclination (Baláz *et al.* 2004; Krieger 2004). Thus we can expect that these individuals will move more often than the rest of their fellow citizens. Furthermore, the analysis concentrates on explanations referring to source regions and countries. This limitation is necessary, as home regions were surveyed in detail, whereas target regions were asked by such vague categories as “a region within the county,” “another country,” and “outside the European Union.”

Additionally, due to the small number of individuals that intended to move, the analysis was restricted to individuals aged 15 to 44. Intentions are very low among older individuals.

The paper is structured as follows: In section two, economic and sociological theories referring to mobility are introduced. Subsequently, an integrative view and hypotheses are brought forward in part three. Section four gives a brief overview of the used dataset, the operationalization of variables and a multilevel analysis, with a detailed overview of the variables given in the appendix. Section five comprises a descriptive overview of the migration potential within the EU member countries and various multilevel analyses. Finally, conclusions are drawn in part six.

2. Theories referring to mobility

2.1. Economic approaches

These approaches concentrate on the economic sphere and assert that economic factors are the most important ones in people's decisions to move. They take into account factors such as prosperity, wages or unemployment. Both the macro- and micro-level models are characterized by two core assumptions, namely equilibrium at the factor level and rational actors at the individual level (Wagner 1989; Fassmann and Meusbürger 1997; Krieger 2004). Equilibrium means that supply and demand tend to equate; this means that migration takes place from regions with a low demand for labour to regions with a higher demand. The rational actor assumption asserts that all individuals try to improve their utility by balancing the costs and benefits of migration. Furthermore, migration is considered a free decision; forced migrations are not taken into account (Jenssen *et al.* 1978).

At the macro level, according to neoclassical theory, economic differences tend to decrease until equilibrium is reached. In these terms, the supply-and-demand sides can also be seen as push-and-pull sides. Consequently, this model is also called the push-and-pull model. Various push factors have been mentioned. Franz (1984: 57ff.) sees the labour market and one's income level as crucial factors. Straubhaar (1994) mentions the level of development, population density, social and economic structure, prosperity, the size of a region and the gap between regions and countries. Furthermore, he emphasizes that social, political and ecological circumstances must also be considered. Fassmann and Meusbürger (1997) mention unemployment, wage differences and the distance between two regions as substantial factors in the decision-making process. The macro-level approach is also based on the assumption that individuals act rationally and take into account the costs of a move. Distance is seen as a

factor that influences migration flows; other models also include gravitational aspects (Franz 1984: 52ff.; Wagner 1989). The distance model asserts that migration between two regions declines with growing distance between two regions. The gravitation model also takes population density into account: It asserts that the amount of migration grows with increasing population density within a region.

At the micro level, the starting point of the economic approach is “homo oeconomicus” – the rational actor. People tend to improve their personal situations and choose rationally among alternatives. They choose freely, but are restricted due to their different levels of available resources, such as wealth and education (Hof 1993; Straubhaar 1994). Hence, individual migration is a result of the individual’s balancing of benefits and costs. Nonetheless, the decision to migrate does not occur abruptly; it can be seen as a stepwise process (Straubhaar 1994): Migration starts with imaging the new destination, continues with balancing benefits and costs, and end with an actual move. Of course, people will only move if the benefits exceed the costs. For example, previous research for Europe has shown that the ratio of income difference has to be a factor of two or greater, in order for migration to occur (Hof 1993). Furthermore, recent research has enlarged this approach and applied it to the family level as well (Stark 1991; Straubhaar 1994; Meusburger and Fassmann 1997; Wallace *et al.* 1998). It is argued that when families try to improve their economic situation, it is possible that as a first step, only one member moves to another region, or that several members move to different regions to find the best place. Thus, a family is able to spread risks and reduce costs by replacing unfavourable destinations with better ones.

A further extension of neoclassical micro theory is human capital theory. Here, migration is seen as a personal investment in human capital (Massey *et al.* 1993; Fassmann and Meusburger 1997; Baláz *et al.* 2004; Hunt 2004). This theory asserts that individuals also take into account long-term advantages. Hence, they are also willing to move if they do not receive higher wages immediately, but have better promotion prospects and therefore receive higher wages in the longer term (Wagner 1989). This approach suggests that moving is more attractive for younger people and for those who are able to sell their labour easily.

2.2. Sociological Approaches

One macro-level approach is systems theory (Franz 1984: 62f.). The main question in this theory is how societies deal with internal tensions in their subsystems, tensions among subsystems and tensions among societies. Sources of such tension include scarcity of

nutrition, overpopulation, or scarcity of positional goods such as power or jobs. Systems could react in different ways, such as through demographical, technological or social-organisational changes; migration is part of demographical change.

Hoffmann-Nowotny (1970) has formulated a particular macro-level approach. He sees unequal distributions of power and prestige as the main sources of tension. (Prestige refers to the legitimate amount of participation or possession of central social values, whereas power relates to the opportunity to fulfil these claims.) Both factors are mutually dependent: A certain prestige claims a certain amount of power, and vice versa. Tensions occur if a system cannot fulfil these requirements, whereas – and this is a crucial point – systems tend to equate power with prestige. Systems could react in different ways to equate power with prestige, for example by forcing individual or collective mobility, re-evaluating these standards, the emergence of subcultures, or individual decisions to give up certain positions. Individual migration, thus, is a consequence of such tensions.

In a later paper, Hoffmann-Nowotny (1988) considers two macro factors as substantial, namely the gap in structural development and the integration of values (cultural dimension). Regarding international migration, Hoffmann-Nowotny emphasizes that structural differences are only one factor; cultural homogeneity and historical relationships such as colonies and the distance between countries can be important as well. Hence, migration tends to occur between countries with historical ties or cultural similarities, above all with a similar language. According to Fassmann and Meusburger (1997), one should consider previous routes such as those from Austria to Germany and Switzerland, from Portugal to France, or from Greece to Germany (Fassmann and Münz 1994). Sometimes immigration is even supported by the government – for example, for the “Aussiedler” (ethnic Germans) in Eastern Europe, to Germany (Kreyenfeld and Konietzka 2002).

Another approach concentrates on migrant networks and social capital (Massey *et al.* 1993; Espinosa and Massey 1997; Faist 1997; Pries 1997; Haug 2000; Ryan 2004). Here, systems of source and destination countries are assumed, and one country can be a member of different migration systems. A crucial point is that if a social network between migrants and the people who stayed in the home country is established, chain migrations could occur. If this happens, wage differences are not important anymore, because these networks have reduced the cost of migration considerably (Massey *et al.* 1993).

At the micro level, Esser (1980) and others have formulated an actor-orientated approach that also tries to overcome the differences between macro and micro approaches. Regional characteristics are seen as very important, but only because of their effects on the individual. For example, local prosperity is only substantial in terms of its effect on individual wealth or income. Furthermore, the subjective perception of an actor is more important than the actual, objective situation; hence, this approach concentrates on subjective expectations, perceptions and evaluations.

Three main factors are mentioned as being substantial in the individual decision to move (Wagner 1989: 22; Esser 1980: 182ff.): (1) the motive of an actor, namely the incentive of a new situation; (2) knowledge and control aspects, namely whether an actor is convinced that she or he is able to cope with the new situation; and (3) the expectation that benefits will exceed the costs of a move. This third point sounds rather similar to what is found in economic models, but in contrast to the economic approach, the sociological model is not restricted to economic factors (Pries 1997).

Potential individual motives to migrate are manifold (Ikonomu 1988). Important ones are family circumstances such as marriage or divorce, health-oriented motives or career prospects. For international migration – and refugees in particular – political motives are also important factors (Newland 1980). Short-distance moves can be seen as moves due to dissatisfaction with the current neighbourhood (Wagner 1989); thus, the desire for a better social life could be another motive for migration. Baláz *et al.* (2004) point out that for the first migration, cultural and educational aspects are important, whereas for additional moves economic considerations are the most important. Repeated migration, on the other hand, often results in a return migration to the home region (Hunt 2004).

This approach is also extended to the collective decisions of partnerships and families, where migration is seen as a household strategy (Wallace 1999). Following this approach, mobility is rather low for individuals who have a steady life partner, as they must take into account the gains and losses for two persons rather than one (Kalter 1998). Furthermore, migration is only one possible reaction to negative circumstances; to lessen one's satisfaction level and cope with the current situation is also a possible way (Wagner 1989: 23).

Another approach concentrates on individuals' life cycles (Killisch 1979; Wagner 1989), though Wagner (1990) stresses the fact that this approach should not be classified as a migration theory but as a research strategy. In any case, the following findings have emerged:

young adults are very mobile due to career aspects, job opportunities or moving out of their parents' households. This period is followed by adaptations to living conditions due to having children, followed by a period with low mobility due to the socialisation requirements of children. Once those children move out, the parents' mobility increases for a certain period, but decreases in the highest age group again. Furthermore, studies show that the experience of having had previous moves increases the chance of having additional moves in the future. Regarding the employment status of migrants, findings are inconsistent, but there are indications that self-employed and blue-collar workers are less mobile than white-collar professionals (Wagner 1990), and that long-distance migrants tend to be more skilled than short-distance migrants (Hunt 2004).

3. Integrative view, new aspects and corresponding hypotheses

Economic approaches assert equilibrium at the macro level in terms of economic factors. Additionally, sociological theory mentions tensions due to scarcity of nutrition or tensions and shortcomings in the distribution of power and prestige (two factors that are closely related to the socioeconomic position). In terms of this study (i.e., mobility within the European Union), factors such as scarcity of nutrition and the like are negligible; socioeconomic factors will be the most important factors. With a view to socioeconomic factors, the differences between sociological and economic approaches are smaller. Both approaches refer to factors related to economic circumstances, such as income, power or prestige. However, sociological theory can contribute to the discussion with its emphasis on culture, social capital and other societal factors. Cultural distance, lack of common language and the like can be barriers between countries. Information about the target region can be obtained by social networks, which subsequently lower the costs of a move; people thus tend to migrate to countries to which a network has been established. These points seem to be more relevant between countries. Within countries, the flow of information and the knowledge of local circumstances are better. Furthermore, language barriers and cultural distances will be smaller.

These considerations point to another shortcoming of current theories – namely, that only a single macro level is taken into account. But, as analysis about labour market and other spheres in economy have shown, areas are often segmented. The labour market, for example, is divided into secondary and primary sectors, with a low flow between them (Fassmann and Meusburger 1997). As mentioned in the previous paragraph, barriers can be expected mostly

between countries; thus, we can expect that the macro levels might be segmented as well, whereas this segmentation probably runs between countries.

At the individual level, economic explanations apply the principle of rationality and assume a homo oeconomicus who seeks better opportunities by considering costs. This assumption resembles the sociological approach of Esser (1980), who also assumes a rational actor. The family economic approach points to social embedding, and human capital theory highlights the various chances to sell or improve one's own skills. In summary, at the individual level we must consider social embedding, social characteristics and motivations simultaneously. According to the above-mentioned theories, individuals who have better chances of selling or improving their labour marketability will migrate more often. Their social embedding is relevant, as having partner or children will hinder their ability to move. On the other hand, within large families, the probability of a move can be higher when considered as a strategy of "spreading the risk." With a view to individual motivation, we can expect that motives related to socioeconomic progress will be the most important sources. At the same time, we can assume that these motives will be more important for economically active individuals.

According to these considerations, the following hypotheses can be brought forward:

(1) The common basis for all the theories mentioned above is that migration will occur from disadvantaged regions or countries. The regional level and the nation-state level will have independent effects, when controlling for individual characteristics. Potential macro-level characteristics forcing migration include low prosperity, high unemployment rate, low wage level, growing unemployment, declining prosperity, rural or peripheral geographical position, small service sector and high population density.

(2) Interactions between the macro and micro levels will be observable. Interactions will occur in the sense that macro-level factors will strengthen the effect of certain micro-level factors. For example, young individuals will show a higher overall intention to move. Young people within disadvantaged regions will display higher intentions than young people within advantaged regions. Similar effects should be observable for country-level factors.

(3) There are some individual characteristics that effect migration intentions. Individuals who have a good chance of selling their labour or good opportunities to improve their human capital will display higher intentions. On the other hand, having a family and children of one's own will have negative effects in terms of displaying migration intentions. Subjective

motivations will be important as well. Both subjective and objective criteria will interact; economic motives will be more important for economically active persons – or those who are soon to be active – than for economically non-active ones.

(4) Due to the limitation of data, it is not possible to grasp social networks directly, but it is nonetheless possible to consider former migration flows. At the macro level, we can expect that regions with a larger flow of emigrants in the past will also have a larger flow today. At the individual level, we can expect that individuals who migrated in the past have gained experience and established networks, and thus are more likely will migrate again. Considering return migration, foreigners may also show a higher intention to move.

4. Data, operationalization and research methods

The empirical analyses are based on the Eurobarometer survey 54.2 of the year 2001. This survey was conducted in all 15 then-member states of the EU. The total sample size is 15,792, whereas the national sample sizes vary from 371 in Northern Ireland to 1,025 in Austria. The mean sample size is 887. The limitation of analysing only individuals aged 15 to 44 years results in a total sample size of 6,886 and a national mean sample size of 491. Level two (the regions) comprises 196 units and level three (the countries) 17 units, since Northern Ireland and East Germany are treated as countries as well.

The following variables are used in the analyses (see appendix for detailed information). The dependent variable is the intended distance to move. Respondents were asked if they intended to move within the next five years and, if yes, how far they intend to move. These intentions were recoded as follows¹: No move, move within their own city or within the same region (0), to another region (1), to another EU member country (2), or to outside the EU (3).

The following variables were included from the Eurobarometer survey: age, education, gender, possible motive for a move (e.g., career, financial aspects, better social life, better public services, social benefits, and “other motives”), household income, total household size, number of children in the household, previous movement experiences (including number and distance), employment status, and the contextual variable “size of community.”

¹ As one reviewer mentioned correctly, the dependent variable need not be interval scaled from a geographical point of view. Here, I am assuming that the “mental” distances for respondents are close to an interval scale.

At the macro level, there was a distinction made between regions (nuts 2 level) and nation-states. All characteristics were taken from the regional statistical yearbook of Eurostat (Eurostat 2003). Data comprised regional GDP, its growth from 1995 to 1999, the unemployment rate and its growth from 1996-2000, population density, wage level in the manufacturing industry, percentage of total employed people in the service sector, overall employment rate, and the net migration rate. Chart 1 presents the nuts-2-regions in Europe. It shows the GDP level in the different nuts 2 regions of the European Union and the new member states. As a next step, these regional data were aggregated to country characteristics (see appendix for detailed operationalization).

HERE: Chart 1: GDP in Nuts 2 Regions (Source: Eurostat 2003, p. 47)

An analysis was conducted by a linear three-level regression using the programme MLwiN. The first level comprised individual characteristics, the second level regional characteristics, and the third level national characteristics. Although multilevel regression is used more frequently, some features should be highlighted for the sake of greater understanding (see Snijders and Bosker 1999; Hox 2002; Hadler 2004): The first step in a multilevel analysis is considering the “empty model”: This model does not include independent variables, but shows variances at all levels. Subsequently, once independent variables are included, the reduction of variance can be compared with the empty model (i.e., the higher the reduction, the better the R^2 value). Another model is the random intercept model. Here it is assumed that the slopes (B-values) of the regression coefficients are similar (fixed) within all countries and regions. However, all regression parameters can also be allowed to vary within each level (random slope models): The effect of education, for example, can be different for each country. In these random slope models, the variance within these entities depends on the values of the “random” variable. Thus the explained variance (R^2) cannot be reported as being straightforward. Though discussions on how to report R^2 are still ongoing, here I report the reduction of variance and the correlation between the estimated and the observed variables.

A problem was the skewed dependent variable. Although the analysis is limited to individuals aged 15 to 44, the dependent variable is still not normally distributed. Therefore, robust standard errors – which are also known as Huber-White or Sandwich estimators – are used. These standard errors are robust against the violation of the normal distribution assumption and produce more reliable results (Hox 2002).

5. Analysis of the intentions to move

Table 1A shows the overall migration intentions in different countries. We can see that the willingness to move reduces rapidly, the farther the distances become. Only about 2 percent of all respondents intend to move abroad within the next five years. The intentions in migrating of people aged 44 and younger are also presented in Table 1A. It becomes clear that the willingness of this segment is higher than that of the overall sample – only 45 percent of the young people do not consider moving within the next 5 years, whereas the corresponding value for the total sample is about 31 percent. Thus, a close relation between the intention to move and age is found. In Table 1B the mean values of these intentions are presented, with the left-hand columns showing all respondents and the right-hand columns only the younger groups.

There are some differences in the absolute levels between the countries. Intended migrations within one's own city and one's own region are rather high in Scandinavia and Great Britain. Possible explanations are differences in the housing market, labour market frictions or different employment protections (see for example Hämäläinen and Böckerman 2004; Huber 2004; Sato 2004). Such speculation, however, is beyond the scope of this paper, and we thus return to inter-regional migration intentions. The highest rates of such migration can be found in Scandinavia and France, and the lowest rates in Germany, Portugal, Greece and Spain. Astonishingly, the latter three are former source countries in terms of migration, and they are still characterized by rather low prosperity and wages compared to other EU countries. According to push-and-pull models, these southern countries should be considered push regions, as they show a higher migration potential. Thus, at first sight, a simple push-and-pull model does not apply. However, we do not know yet the basis of these intentions, nor what effects individual and regional characteristics will have.

HERE Table 1A: Intended distance to move within the next 5 years (percentages)

HERE Table 1B: Intended distance to move within the next 5 years (mean values)

In order to scrutinize the effects of individual, regional and national characteristics, a multilevel regression is applied. Table 6 reports the results of the empty model. Results show a substantial and significant variation at all three levels: The variance is about 0.008 at the country level, 0.006 at the regional level and 0.345 at the individual level. All parameters are significant; thus, substantial differences in migration intentions at all three levels are

indicated. The next step is to explain these differences by considering the theories mentioned in section two. For this purpose, certain variables were entered into the multilevel regression. In doing so, the micro level was modelled first, and the regional and country-wide characteristics added afterwards. Additionally, interaction effects between employment status and motives – and between individual characteristics and social context – were also considered.

HERE TABLE 2: Determinants of migration intention

Consider individual characteristics (see Table 2). In terms of age, the youngest group is the most willing to move, with willingness to move decreasing with age. Individuals between 25 and 35 show a somewhat higher intention to move than the older individuals, but this difference is not significant. An analysis that considered all respondents (which is not shown here) indicated that individuals aged older than 35 show very low intentions to move. Thus, higher intentions occur only within the youngest cohorts. These findings corroborate previous findings and are in line with several theories, such as human capital or life cycle theories. Regarding gender, it is reported that women show lower intentions of moving than men; this finding is in line with the previous finding that men have better opportunities to sell their labour.

The life cycle approach and the family economics approach place emphasis on household composition. In this analysis, we also see a close relationship between household composition and migration intention. The presence of children within a household is a substantial barrier to migration intentions. Furthermore, the number of adults within a household is also a substantial factor: Overall, mobility willingness increases with the total number of adult household members – a fact which confirms household economy approaches in terms of spreading the risk migrating. Thus, living in a large family increases the chance to migrate, so long as people do not have children. Further analyses will show that the effect of having children also depends on the country people live in (see graph 1 and the corresponding interpretation).

We can conclude that the hypothesis related to such individual characteristics as age and household composition is confirmed. Both factors have a substantial effect on migration intentions. Of course, it is impossible at this point to speculate on the validity of different migration theories; age differences could be discussed using both the human capital approach and the life cycle approach, but the same is true for the findings outlined below.

One of the most substantial factors is the experience of previous moves. The more often individuals have moved and the farther they have moved, the more willing they will be to move again, and the farther they are likely to intend to move within the next five years. This finding can be interpreted in two different ways. First, we can suggest that we are observing short-term migration. People move to another region, work there for a certain time and return to their home region. Second, we can interpret this segment as being a very mobile subpopulation. For this segment, mobility is a steady characteristic, with its members moving frequently from one region to the next. However, the effect of the distance of previous moves by and large exceeds the effects of all other factors. On the other hand, being a foreigner has no effect on intention to move: Individuals who are nationals of countries other than that in which live do not show a higher willingness to move. Hence, the hypotheses regarding the experience of previous migration are clearly confirmed in general, though refuted within the context of being a foreigner.

Regarding the classical stratification characteristics of income, education and employment status, the following findings can be reported. The higher the household income, the farther people intend to move. Respondents who did not answer the question about their income are also less willing to move. Education does not have an effect among the individuals aged younger than 45, so long as those with the occupational status “student” are ignored, as this is also an indicator of education. On the other hand, the employment status of a respondent is important. When disregarding their motives, it can be said that managers, white-collar workers, unemployed persons, and students are more willing to move than those in other groups. When motives are also taken into account, however, managers do not differ significantly from blue-collar workers.

Regarding individual motives, it can be said that a better social life and career prospects are the two most important factors in prompting the intention to move. “Other motives,” a category that comprises a myriad of reasons, is important as well. Financial aspects, better public services or social benefits do not increase the overall willingness to move. We instead see that one significant motive is related to economic aspects (i.e., career) and one to quality of life (i.e., better social life). The economic aspects are in line with explanations of economic micro-level theories, whereas the social life motive could be discussed as in terms of dissatisfaction with current location. On this latter issue, Rossi (1953) has shown that dissatisfaction with one’s neighbourhood is a very substantial motive, but it seems that this

fact is valid for a region as well. The possibility of a better social life increases migration intentions, and since motives and employment status can be mutually dependent, some interactions have been entered into this multilevel regression (see Table 3).

HERE: TABLE 3 Significant interactions between employment status and migration motives

One can see that career motives are important for economically active persons – or those who are soon to be active – with the exception of the self-employed and blue-collar workers. For students, unemployed persons and white-collar workers, career-related motives have the highest impact. The motive of “a better social life” has a similar effect for all groups. Interesting results emerge that refer to the motive of “better public services”: It did not have an effect on the overall population, but unemployed and retired persons, as well as students, would move for better public services. Not surprisingly, these groups would also reap the highest benefits in doing so. In summary, economically active individuals consider the career-oriented motives; groups that benefit from public services name “better public services”. Thus, we see a close relationship between factual social situations and named motives. The hypothesis concerning the interaction of social characteristics and motives is clearly confirmed.

Consider social context. Regarding the effects of the size of the respondents’ communities, we find that the larger a community is, the more willing people are to move. Thus, individuals in urban areas show higher migration intentions than individuals in rural areas. Contrary to our hypothesis, urbanites are more mobile than people in rural areas. A possible explanation can be that centres are more attractive, but are left again – maybe only for other urban centres. On the other hand, overall intentions are lower within regions with a large population density (Table 4). Thus, the results are ambiguous.

In examining the effect of macro-level characteristics taken from external sources, it turned out that only a few regional and national factors are significant. The vast majority have no substantial effect when individual variables are considered first. Table 4 gives an overview of the macro variables and their effects, if they are entered as a single macro-level parameter. At the country level, the prosperity, size of the service sector, and unemployment rate are all significant. At the regional level, gaps in prosperity and population density are substantial; as the migration rate of a region has no effect, the hypothesis about the meso-level and social networks must be rejected in terms of the influence of former flows. Regions with higher

migration rates do not establish or force further migration. However, at the individual level, the individual experience of former migration has an effect, and can be interpreted as an accumulation of social capital and networks.

HERE: Table 4: Effects of macro level variables

In the next step, possible significant combinations of all macro variables are considered. It is not possible to develop a model that includes more than two significant macro-level variables. Table 5 shows all the possible significant combinations of two macro-level variables, and the remaining variances at the regional and national levels.

HERE Table 5: Remaining variances at the regional and national level for far moves

The combination of the regional prosperity gap and the size of the service sector at the national level reduces the national variation to 0.0024 and the regional variation to 0.0009. The larger the national service sector and the larger the prosperity gap between a region and the national level, the farther the intended migration distances become. Another possibility to consider is national prosperity and the regional gap in prosperity. Here, one can say that the intention to move is rather low in countries with a low GDP – a fact refuting classical push models. Within countries, we see that the higher the gap between the regional GDP and the countrywide GDP, the more willing people are to move – a fact that supports classical push models. Thus, we can observe two contrary processes, one confirming push-and-pull models and one rejecting them. Apart from these contrary processes, all indicators point in the same direction: At the national level, we can conclude that in higher developed countries, in terms of prosperity, low unemployment or large service sectors, the intentions to move are higher as well. At the regional level, the highest intentions can be found in the lower developed areas. Thus, the highest intentions to move can be found in lower-developed regions within highly developed countries. The lowest level of intentions can be found in highly-developed regions within lower developed countries.

Consider the interdependence of social context (i.e., the region or nation-state) and individual characteristics. For this purpose, the ability of the multilevel analysis to assume that the slope (the B-value) is allowed to be different within and across the used levels was applied. Of course, we must bear in mind that our analysis comprises only 17 level-three-entities (countries). Thus, we must be cautious about these findings. However, they are rather sound, and I will briefly report the most interesting findings in this regard.

HERE Graph 1: Intention to move and number of children in 17 countries (prediction from multilevel regression)

At the national level, “number of children” and “age” have a significant variation and co-variation with the intercept at level three. The intention is very different across countries when people do not have children (see Graph 1). People become more similar in terms of migration intentions, the more children they have. Within countries with a low general intention to move (Spain, Portugal and Greece), the number of children does not matter, as the intention to move is low to begin with. In countries with a high overall intention to move (Sweden and Great Britain, for example), children really matter. The decrease of intention becomes very strong as the number of children increases. For example, in Sweden we can observe the highest intention when respondents do not have children, but with an increasing number of children, the intention to move decreases rapidly in that country. Respondents with four or more children show a lower intention to move than those in Spain!

A similar relationship can be found with the age of the respondents. As with the graph for the number of children, the lines for age also fan inward. Again, differences across countries are large for younger people and become smaller for older people. The effects of variables differ according to the social context. However, the hypothesis assumes that younger people within disadvantaged regions show higher intentions to move than those within advantaged regions. We could not confirm this effect at the regional level, as the variance at the regional level was very well explained by the regional prosperity gap. At national level, however, a strengthening effect is observable – the effect of the number of children one has depends on the social context. With a view to our hypothesis, it is confirmed at a very general level (i.e., dependence between context and individual characteristics), but refuted in terms of interaction between regional disadvantages and individual age.

HERE Table 6: Degree of explanation and remaining variances for empty model and models shown in table 2

Consider finally the explanatory power of these different models (Table 6). The first column shows the remaining variances for the empty model, which is the model lacking explanatory variables. Variance at the national level is about 0.008, at the regional level about 0.006 and at the individual level about 0.335. The introduction of explanatory variables reduces the remaining variance at all three levels. At the regional level, it even becomes insignificant. Subject to the model, the explained variance is about 70% at the national level, about 77% at the regional level, and about 15% at the individual level. Furthermore, we must also mention

the rather low explanatory benefit of including macro-level variables. Table 6 also shows the explained variance at the individual level, when all macro-level variables are excluded. It is evident that the differences are only marginal. The introduction of macro-level variables raises the explained variances from 14.7% to 15.3%. On the other hand, individual variables explain up to 51% at the national level and up to 61% at the regional level. Thus, another very important conclusion is that the intention to move depends much more on individual characteristics than on macro-level factors.

6. Conclusions

The aim of this paper was to explain individual migration intentions in a manner more appropriate to both theoretical consideration and empirical analysis. For this purpose, the common assumptions of economic and sociological theories were outlined; subsequently, the migration intentions of individuals aged 15 to 44 were analysed by a three-level regression. Level one comprises the respondents, level two the European nuts 2 regions, and level three the member-states of the European Union in the year 2001. The data basis was the Eurobarometer-survey 54.2.

The common basis for all theories was that migration occurs from disadvantaged regions or countries. In this regard, various factors were considered. It turned out that the higher the regional gap in prosperity is, the higher the intention on the part of its inhabitants to move. But at the country level, we can observe the opposite: The higher developed a country is, the higher the intention among its citizenry to move. Thus, a lack of macro-level theory became evident. Simple macro models apply only if a homogenous macro level is a given. In this paper, two macro levels were considered, namely region and nation. Push-and-pull models worked only within countries, and not between countries. Thus, it became evident that national borders are still barriers for individual migration, independent of the national gap in prosperity or other economic factors. Thus we can conclude that the European Union is not yet a common market in terms of individual migration. The possibility of moving between countries is very much exists in terms of legal opportunities, but is used rather seldom by individuals. Here, future research must place more emphasis on individual obstacles to crossing borders.

With a view to the explanatory power of different variables and models, it turned out that the explanatory power of macro-level variables is rather low compared to micro-level variables. We can conclude that the intention to move – and therefore the migration potential of a region

– depends strongly on individual characteristics and motives. Thus, research should concentrate on individual variables to explain migration intentions properly. Here, the most important factor at the individual level is the distance of previous moves.

At the individual level, most theories were confirmed: Economic motives are important: The willingness to move increases in larger families, and young people show a higher willingness to move than older ones. Nevertheless, besides these economic motives, a better social life is another important motive. Hence, economic theories that concentrate only on career motives or financial aspects are missing other substantial motivations for migration. Here, sociological actor theories are more appropriate for studies such as this, as they take into account these other aspects as well. However, it became evident that the effect of individual characteristics depends strongly on the context in which the respondents live: Having children, for example, decreases the intention to move, regardless of country. But that decrease is much stronger in countries that otherwise have a high overall intention to move. In Sweden, individuals without children show the highest willingness to move among all countries. On the other hand, Swedish individuals with four or more children show the lowest willingness among all respondents.

In conclusion, analyses conducted only at the macro level can be strongly misleading. Hence, research should place emphasis on individual characteristics to estimate the migration potential more accurately. With a view to further enlargements of the European Union, we must also emphasize that national barriers are still obstacles for migration. As we have seen in this paper, transnational migration intentions remain very low within the current EU, in spite of large economic differences and the legal possibility for free movement.

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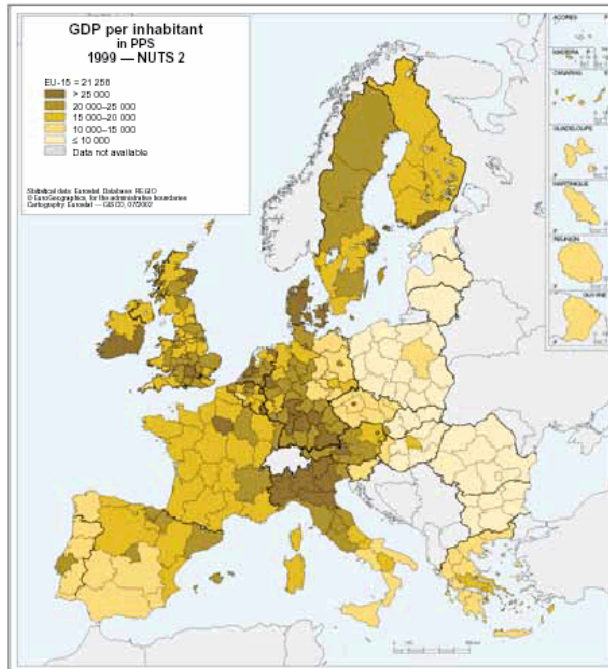
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8. Appendix

HERE Table 7: Operationalization of variables

Chart 1: GDP in Nuts 2 Regions



Source: Eurostat 2003, p. 47

Table 1A: Intended distance to move within the next 5 years (percentages)

Country		no move	same city	same region	other region	Other EU county	outside EU	No answer	N
France	All resp.	58	7	8	7	2	2	16	(1004)
	Aged <45	44	10	10	10	2	3	20	(583)
Sweden	All resp.	59	13	5	5	2	3	14	(984)
	Aged <45	42	18	6	8	3	4	19	(467)
Finland	All resp.	53	15	8	8	2	1	13	(998)
	Aged <45	31	21	13	12	4	2	16	(492)
Luxemburg	All resp.	71	5	3	5	3	2	11	(570)
	Aged <45	61	6	5	7	4	3	15	(351)
Denmark	All resp.	65	9	7	6	2	3	9	(993)
	Aged <45	52	11	12	9	2	4	10	(488)
Netherlands	All resp.	62	10	5	5	1	2	15	(1008)
	Aged <45	50	12	8	7	2	4	18	(542)
Great Britain	All resp.	62	13	4	3	1	3	14	(989)
	Aged <45	44	20	6	5	1	4	20	(522)
Ireland	All resp.	68	7	3	4	2	2	14	(986)
	Aged <45	53	11	4	6	3	2	20	(572)
Italy	All resp.	70	4	2	4	1	1	18	(997)
	Aged <45	55	6	3	7	1	2	26	(502)
Belgium	All resp.	72	6	4	3	2	1	11	(1020)
	Aged <45	59	9	7	6	2	1	16	(560)
Northern Ireland	All resp.	72	10	3	2	2	1	10	(321)
	Aged <45	58	18	5	4	2	2	12	(176)
Austria	All resp.	79	5	2	4	1	1	9	(1025)
	Aged <45	68	7	3	6	1	2	13	(590)
Greece	All resp.	79	9	2	4	0	1	6	(998)
	Aged <45	68	13	3	6	0	1	9	(527)
Germany East	All resp.	76	5	3	3	0	0	13	(999)
	Aged <45	62	7	4	7	0	0	20	(450)
Spain	All resp.	72	8	3	2	0	1	14	(985)
	Aged <45	60	13	4	2	0	1	19	(560)
Germany West	All resp.	77	4	1	2	0	0	16	(975)
	Aged <45	62	7	1	3	0	0	25	(501)
Portugal	All resp.	80	7	3	1	0	-	9	(940)
	Aged <45	68	10	6	2	0	-	14	(463)
Total	All resp.	69	8	4	4	1	1	13	(15792)
	Aged <45	55	12	6	6	2	2	17	(8346)

*Sorted according to the mean value of all respondents within a country (see Table 1B)

Table 1B: Intended distance to move within the next 5 years (mean values*)

Country	All respondents			Aged 15 to 44		
	Mean	SE	N	Mean	SE	N
France	0.20	0.020	(1004)	0.31	0.034	(465)
Sweden	0.19	0.021	(984)	0.34	0.041	(380)
Finland	0.19	0.019	(998)	0.33	0.035	(414)
Luxemburg	0.19	0.027	(570)	0.26	0.039	(300)
Denmark	0.18	0.020	(993)	0.29	0.035	(440)
Netherlands	0.17	0.019	(1008)	0.27	0.034	(445)
Great Britain	0.16	0.020	(989)	0.23	0.034	(415)
Ireland	0.15	0.019	(986)	0.25	0.032	(455)
Italy	0.12	0.016	(997)	0.20	0.031	(371)
Belgium	0.12	0.015	(1020)	0.16	0.025	(469)
Northern Ireland	0.10	0.026	(321)	0.15	0.044	(155)
Austria	0.10	0.014	(1025)	0.16	0.024	(514)
Greece	0.06	0.010	(998)	0.09	0.016	(479)
Germany East	0.05	0.010	(999)	0.11	0.020	(362)
Spain	0.05	0.011	(985)	0.08	0.019	(451)
Germany West	0.04	0.008	(975)	0.07	0.017	(374)
Portugal	0.02	0.005	(940)	0.03	0.009	(397)
Total	0.12	0.004	(15792)	0.20	0.007	(6886)

*no move=0, same city=0, same region=0, other region=1, Other EU county=2, outside EU=3

Table 2: Determinants of migration intention (Multilevel Regression)

		Model without motives			Model with motives		
		B	SE	Beta	B	SE	Beta
Constant		-0.166	0.090	-	-0.254	0.097	-
<i>Objective Individual Characteristic</i>	Age 15 to 24	0.130	0.023	0.10	0.100	0.023	0.08
	Age 25 to 34	0.030	0.017	0.02	0.019	0.015	0.01
	Age 35 to 44	REF			REF		
	Gender (women=1)	-0.030	0.012	-0.02	-0.022	0.012	-0.02
	Education (low-high)	0.001	0.008	0.01	-0.001	0.010	-0.00
<i>Household Characteristics</i>	Income of household (low-high)	0.093	0.029	0.07	0.074	0.028	0.06
	Income not answered	-0.025	0.010	-0.06	-0.021	0.010	-0.05
	Household size (small-large)	0.020	0.008	0.05	0.017	0.010	0.04
	Number of Children	-0.072	0.013	-0.12	-0.062	0.013	-0.11
<i>Previous Moves</i>	Previous Distance (short-long)	0.083	0.013	0.18	0.075	0.011	0.17
	Foreigner	0.031	0.054	0.01	0.030	0.053	0.01
	Number of previous moves	0.021	0.008	0.05	0.017	0.008	0.04
<i>Occupation</i>	Worker	REF			REF		
	Student	0.192	0.042	0.12	0.179	0.040	0.11
	Retired	-0.036	0.028	-0.01	-0.013	0.030	-0.00
	Unemployed	0.080	0.043	0.03	0.084	0.043	0.04
	Housewife/man	0.020	0.017	0.01	0.034	0.018	0.02
	White Collar	0.060	0.020	0.03	0.054	0.018	0.03
	Manager	0.046	0.020	0.02	0.026	0.019	0.01
	Self employed	-0.015	0.020	-0.01	-0.015	0.018	-0.01
<i>Motives</i>	Career	-			0.127	0.028	0.10
	Finance	-			0.002	0.024	0.00
	Social Benefits	-			0.022	0.026	0.01
	Public Services	-			-0.002	0.024	-0.00
	Social life	-			0.133	0.027	0.09
	None of these	-			-0.009	0.036	-0.01
	Other	-			0.217	0.072	0.09
	Do not know	-			-0.037	0.036	-0.01
<i>Contextual Characteristics</i>	Size of community (small-large)	0.016	0.005	0.03	0.013	0.005	0.03
	GDP Country (low-high)	0.009	0.003	0.06	0.011	0.003	0.07
	GDP-Gap of Region (low-high)	0.005	0.002	0.03	0.005	0.002	0.03
Remaining variance* at	national level	2.68	1.28		2.37	1.13	
	regional level	1.42	0.79		0.78	0.71	
	individual level	300.89	35.55		300.35	33.49	
Correlation between observed and predicted values:		0.353				0.388	
-2loglikelihood value			11501			11297	

df_{Level1}=6854 for model with motives, df_{Level1}=6862 for model without motives, df_{Level2}=194 for both models and df_{Level3}=15 for both models; IGLS estimation with robust standard errors. Variances and errors are multiplied by 1000 for the sake of better readability. *Italic: Significant effects.*

Table 3: Interactions between employment status and migration motives*

Motives	Employment Status	Effects of Interactions		
		B	SE	Beta
Career aspects	x Student	0.149	0.060	0.08
	x Unemployed	0.123	0.070	0.03
	x White Collar	0.051	0.030	0.02
Better public services	x Unemployed	0.360	0.164	0.04
	x Retired	0.476	0.116	0.03
	x Students	0.119	0.060	0.03
Financial aspects	x Housemen/women	0.065	0.034	0.02
Remaining variance (SE) at				
national level:			2.29 (1.11)	
regional level:			0.62 (0.07)	
individual level:			297.47 (33.01)	
Correlation between observed and predicted values:			0.395	
-2loglikelihood value			16503	

*This model is an enlargement of the model with motives shown in table 2. All possible interactions occupation x motive were included additionally to the occupation and motives. This table presents only all (nearly) significant results. $df_{Level1}=6817$, $df_{Level2}=194$ and $df_{Level3}=15$. IGLS estimation with robust standard errors. Variances and errors are multiplied by 1000 for the sake of better readability.

Table 4: Effects of included macro level variables when entered as single macro level predictor

Macro level variables	Effects of macro level variables		
	B	SE	Beta
GDP Region (low-high)	NS		
GDP Gap Country – Region (low-high)	4.75	2.24	0.03
GDP Country (low-high)	10.67	3.30	0.07
Growth of GDP (all parameters*)	NS		
Regional Population Density (low-high)	-0.135	0.063	-0.03
Population Density (other parameters)	NS		
Size of National Service Sector (low-high)	9.20	3.33	0.07
Size of Service Sector (other parameters)	NS		
National unemployment rate (low-high)	-7.48	3.76	-0.05
Unemployment rate (other parameters)	NS		
Growth of Unemployment (all parameters)	NS		
Employment rate (all parameters)	NS		
Wage Level (all parameters)	NS		
Regional migration rate	NS		

This model is an enlargement of the model with motives shown in table 2. Values of Bs and SE are multiplied by 1000 for the sake of better readability. NS = not significant; *Three terms are entered for every subject, namely the national level, the regional level, and the gap between the regional and the national level. $df_{Level1}=6817$, $df_{Level2}=194$ or 195 and $df_{Level3}=15$ or 16. IGLS estimation with robust standard errors.

Table 5: Remaining variances at the regional and national level for far moves

Upper value: National level Lower value: Regional level	Regional Gap GDP	National GDP	National size of service sector	National unemployment rate	Regional population density
Regional gap GDP	3.916** 1.121				
National GDP	2.368** 0.777	2.399** 1.088			
National size service sector	2.388** 0.909	--	2.419** 1.271		
National unemployment rate	3.058** 0.937	--	--	3.083** 1.271	
Regional population density	--	2.324** 0.948	2.197** 1.052	2.776** 1.086	3.784** 1.282

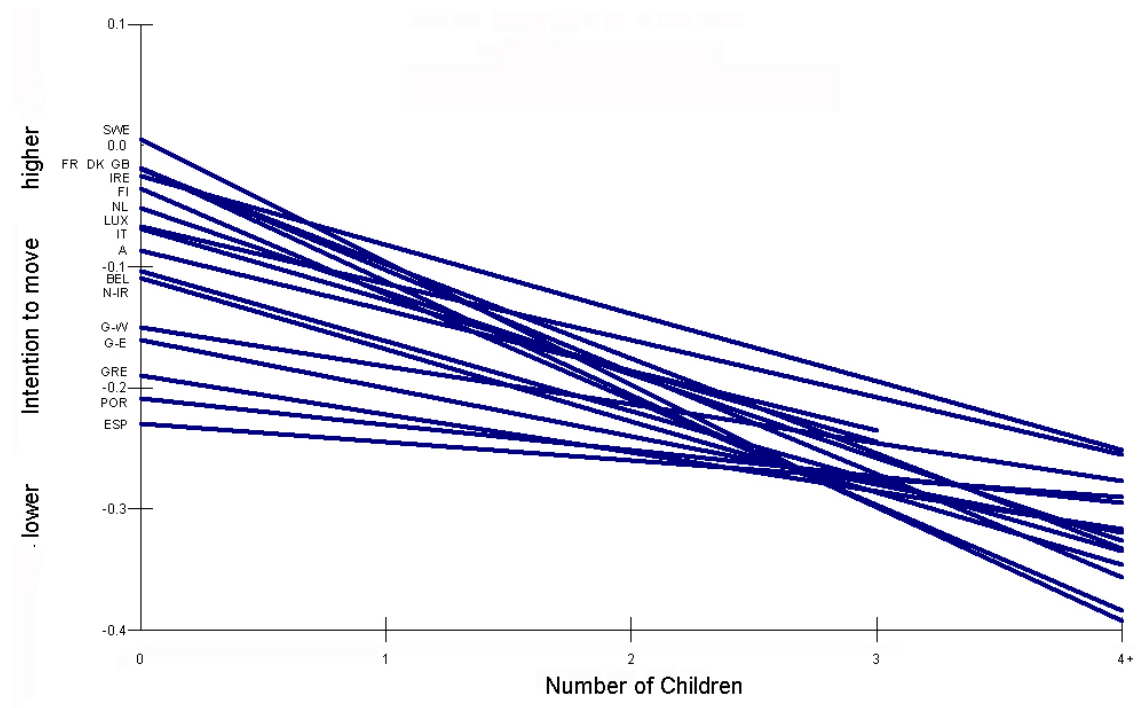
This model is an enlargement of the model with motives shown in table 2. All values are multiplied by 1000 for the sake of better readability. -- = not both parameters significant. $df_{Level1}=6817$, $df_{Level2} = 194$ or 195 and $df_{Level3}=15$ or 16 . IGLS estimation with robust standard errors. ** $p < 0.05$.

Table 6: Remaining variances for the empty model and the models shown in table 2

	Empty model	without motives	with motives	with motives excl. macro level variables
Variance at national level (SE)	7.98** (2.19)	2.68** (1.28)	2.37** (1.13)	3.91** (1.61)
Explained Variance (%)		66.4%	70.3%	51.0%
Variance at regional level (SE)	5.79** (2.21)	1.42 (0.79)	0.78 (0.72)	1.45 (0.86)
Explained Variance (%)		70.2%	77.1%	61.1%
Variance at individual level (SE)	344.54** (43.11)	308.89** (35.51)	300.35** (33.50)	300.13** (33.55)
Explained Variance (%)		12.6%	15.3%	14.7%

Values of variances and standard errors are multiplied by 1000 for the sake of better readability. Explained variance is computed by the formula $1 - (\text{Sum of remaining variances at current and upper levels}) / (\text{Sum of remaining variances at current and upper levels in empty model})$. ** $p < 0.05$.

Graph 1: Intention to move and number of children in 17 countries (prediction from multilevel regression)



This graph is drawn out of an enlargement of the model with motives shown in table 2. Here, the slope of the variable "Number of Children" was allowed to vary at national level. This graph shows the prediction by taking into account all level three variables.

Table 7: Operationalization of variables

Dependent Variable (longest distance was taken)	
	Migration Intention
Do you think you will move in the next five years? Y/N	0
Intend to move within the same city, town or village Y/N	0
Intend to move to another city, town, or village within the same region Y/N	0
Intend to move to another region within the same country Y/N	1
Intend to move to another country within the European Union Y/N	2
Intend to live in a country outside the European Union Y/N	3

Independent Variables taken from the Eurobarometer Survey EB 54.1 of 2001

“Motives: Which, if any, of these would encourage you to move?”

- Better career prospects Y/N = 1/0
- Your financial situation Y/N = 1/0
- Better social benefits Y/N = 1/0
- Better public services Y/N = 1/0
- Better social life Y/N = 1/0
- Other reasons Y/N = 1/0
- None of these Y/N = 1/0
- DK Y/N = 1/0

Number of previous moves

- “Have you moved in the last ten years?” Y/N ; No = 0
- How many times? Number

Distance of previous moves

- “Have you moved in the last ten years? Yes No” No=0
- Moved once or more within the same city, town or village Y=1
- Moved to another city, town or village once or more within the same region Y=2
- Moves to another region once or more within the same country Y=3
- Moved to another country once or more within the European Union Y=4
- Lived in a country outside the European Union Y=5

Education: How old were you when you stopped full-time education? Number

Sex: Male=0, Female=1

Age: How old are you? Groups 15-24 and 25-34, Reference group = 35-44

How many people live in your household, including yourself, all adults and children; number

How many children under 15 are currently living at home, number

Foreigner: “What is your nationality?” different to country of investigation = 1, same =0

Occupation: Self employed, managers, other white collar, manual workers, house person, unemployed, retired, students

Income of household: “Please count the total wages and salaries per month of all members of this household”

1 = much lower, 2 = lower, 3 = higher, 4 = much higher than national mean

Independent contextual (regional and national) characteristics taken from Regions: Statistical Yearbook

For the following regional characteristics were taken from the Regions: Statistical Yearbook of Eurostat (2003). These regional characteristics were aggregated to grasp the national characteristics. National characteristics, thus, reflect the average value among regions. The following parameter values are included at regional level:

Regional population density: 40, 90, 160, 300, 450 Inhabitants per km²

Regional GDP: 12.5, 17.5, 22.5, 27.5 in 1000 Euros per inhabitant in PPS

Average growth in regional GDP in percentage between 1995 and 1999: 2, 3.25, 4.75, 6.25, 8

Regional unemployment rate in total percentage: 2.5, 7.5, 12.5, 17.5

Growth of regional unemployment rate, average yearly increase 1996 to 2000 (in %): -10.5, -7.5, -4.5, -1.5, 1.5

Regional employment rate: Men and women aged between 15 and 64 years (% of total population): 58.5, 63.5, 68.5, 73.5

Regional size of service sector: Persons employed in services, % of total employed: 57.5, 62.5, 67.5, 72.5, 77.5

Regional wage level: Wages and salaries per head 1999 in 1000 Euro per Person: 17, 20.25, 24.25, 25.08, 27.1, 30
Migration rate: -3, -1.25, 1.25, 3.25, 6 persons per 1000 inhabitants
Size of community: rural (1), suburban (2), urban (3), grand centres (4)
Regional Gap = Aggregated regional level within a country – regional level
