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Working Paper

Life satisfaction and economic outcomes in Germany pre- and post-unification

IZA Discussion Papers, No. 2494

Provided in Cooperation with:

IZA – Institute of Labor Economics

Suggested Citation: Easterlin, Richard A.; Zimmermann, Anke C. (2006) : Life satisfaction and economic outcomes in Germany pre- and post-unification, IZA Discussion Papers, No. 2494, Institute for the Study of Labor (IZA), Bonn, <https://nbn-resolving.de/urn:nbn:de:101:1-20080509203>

This Version is available at:

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IZA DP No. 2494

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Pre- and Post-Unification**

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December 2006

Life Satisfaction and Economic Outcomes in Germany Pre- and Post-Unification

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Discussion Paper No. 2494
December 2006

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ABSTRACT

Life Satisfaction and Economic Outcomes in Germany Pre- and Post-Unification^{*}

Throughout Germany real income has trended upward since 1991, but life satisfaction has risen in the East, fallen in the West, and been fairly stable for Germany as a whole. By 1997 the initial excess of West over East Germany was cut by over one-half; since then, the differential has changed very little, and even edged slightly upward. The post-unification decline in West Germany appears to be a break with the pattern in the seven years prior to unification and occurs among Germans, European foreigners, and Turkish foreigners. After 1997, Turkish foreigners, unlike the others, continue to decline in life satisfaction, and by 2004, their initial excess over East Germans largely disappears. The life satisfaction of post-unification migrants from East Germany to the West is somewhat less than that of Germans and European foreigners in the West, but higher than that of Turkish foreigners and of Germans in East Germany. Migrants from the West to East Germany have life satisfaction about equal to that of Germans in that region. Trends and differences in overall life satisfaction are most systematically related to reports on satisfaction with income, next to the unemployment rate, and least of all, to absolute real income.

JEL Classification: D60, I31, D1, O52

Keywords: subjective well-being, domain satisfaction, German unification

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^{*} Easterlin is grateful for the opportunity to spend a week at ZUMA (Centre for Survey Research and Methodology, Mannheim, Germany) as a visiting scholar in October 2005, and Zimmermann, for the opportunity to participate in a SOEP seminar at Cornell University in September 2005. The paper has benefited greatly from comments by Heinz-Herbert Noll and Stefan Weick. The University of Southern California provided financial support.

I. Introduction

How satisfied with their lives are the people of Germany, and how does satisfaction differ between East and West? How has life satisfaction changed since unification? How does the life satisfaction of foreigners compare with that of Germans, and among foreigners, the Turks with Europeans? What of Germans who moved between the two regions since unification – how have they fared? What has been chiefly responsible for determining the levels and changes in life satisfaction? These are the concerns of this article – population differentials, trends, and sources of change in life satisfaction in Germany, pre- and post-unification.

Until the last few decades, well-being has typically been inferred from what are known as “objective” measures – GDP per capita, life expectancy, educational attainment, and the like. Recently, however, increasing attention has been paid to measures of “subjective” well-being (SWB) – responses to questions on personal happiness or overall life satisfaction. A substantial methodological literature discusses the reliability, validity, and comparability of the responses to such questions (Clark et al., 2006; DiTella and MacCulloch, 2006; Frey and Stutzer, 2002ab; Graham, forthcoming; Kahneman et al., 1999; Layard 2005; Veenhoven 1993). The consensus is that SWB measures, though not without their shortcomings, are meaningful measures of well-being.

Our focus here is overall satisfaction with life, the answer on a 0 to 10 integer scale to the following question: “How satisfied are you with your life, all things considered?” We examine the course of life satisfaction over time in West and East Germany and Germany as a whole, and its trends and differences among subgroups of the population. Of special interest is the status of foreigners, a growing proportion of the

population. One projection to 2050, for example, puts the non-German segment of the population at close to one-quarter, of which over three-fourths would be non-Western (Coleman, 2006, p. 414).

We also investigate how trends and differences in life satisfaction are related to economic outcomes. Non-economic factors influence life satisfaction too, but our initial analysis of the data revealed that in Germany since 1991 life satisfaction has been most systematically related to economic outcomes, while the influence of non-economic factors has been much more idiosyncratic. Hence, we focus our attention on the effect of economic outcomes.

Very little has been written on this subject. One exception is an econometric study by Frijters et al. (2004a) of life satisfaction in East Germany 1991-2001 that uses the same data source as the present study (cf. also Frijters et al., 2004b). The main conclusion of their analysis is evident from the title: *Money Does Matter! Evidence from Increasing Real Income and Life Satisfaction in East Germany following Reunification*.

By comparison, our study looks at West as well as East Germany, at Germany as a whole, and various subgroups of the population within West and East Germany, and adds three more years of experience. As will be seen, this more comprehensive approach yields quite different results. Although economic outcomes do matter for life satisfaction, real income alone – the focus of the analysis of Frijters et al. – is not a very good explanatory variable. The unemployment rate does better than real income. Coupling income with the unemployment rate yields no improvement over the unemployment rate alone. However, a single subjective variable, satisfaction with income, is usually as good or better in explaining life satisfaction than the unemployment rate or the two objective

variables together. The positive association of life satisfaction and satisfaction with income found here is by no means inevitable; for example, over the life cycle subjective well-being in the United States and financial satisfaction move in almost diametrically opposed ways (Easterlin 2006).

II. Data, Population Groups, Measures, and Methodology

The data are those of the Socio-Economic Panel (SOEP), conducted annually since 1984 in West Germany and since 1991 in East Germany, weighted so as to be representative of the population generally of each region (Haisken-DeNew and Frick, 2005).¹ The population of each region is subdivided into Germans and foreigners, and the foreign population of West Germany, into Turkish and European foreigners. In addition, migrants between the two regions since 1990 – almost all of them Germans – are examined separately.²

The relative numbers of the population groups is indicated in Table 1, col. 1. As can be seen, in East Germany the number of both internal migrants from West Germany and foreigners is very small relative to that of Germans.

There are both similarities and differences among the population groups. The gender and age compositions of the total populations of East and West Germany are much alike (Table 1, Panel A, cols. 2-4). But the two regions differ markedly in ethnic composition. Foreigners in Germany are concentrated almost wholly in the West, averaging in the period under study about one-twelfth of the population there (cols. 5-8).

¹ The data used in this publication were made available to us by the German Socio-Economic Panel Study at the German Institute for Economic Research (DIW), Berlin.

² The SOEP includes a measure that indicates in which region the respondent lived in 1989. Respondents are identified as migrants if they reside in the other part of Germany during the year of the survey.

In contrast, in East Germany foreigners comprise less than one percent of the total. In both East and West, foreigners and internal migrants, when compared with Germans in those regions, typically have the gender and age characteristics of populations of migrant origin – disproportionately male and concentrated in the younger working ages (cols. 2-4).

Germans in West Germany are better educated than those in the East, and more highly concentrated in white collar occupations and self-employment (Table 2, cols. 1, 5-8). Within West Germany foreigners and internal migrants are less educated than resident Germans and correspondingly less employed in white collar and self-employed work. The Turkish population, which has the lowest education level of all, is highly concentrated in semi-skilled and unskilled occupations. The younger age composition of those of migrant origin is reflected in a considerably lower proportion of them being pensioners (Table 2, col. 4).

The picture within East Germany is different from that within the West. Migrants from the West are better educated than resident East Germans and almost four out of five are in white collar jobs or self-employed, compared with less than three out of five for resident East Germans. The very small foreign population, most of them of East European origin, have the highest education of all and are three-fourths white collar. This group differs markedly from others, however, in having an extremely high unemployment rate – on the order of one in three (col. 3).

The analysis here is based on the annual means of life satisfaction and economic outcomes for each region and population group (the basic data are given in Appendix A). We focus principally on three measures of economic outcomes. Two are quite commonly

used – household income and the unemployment rate. We created a measure of the unemployment rate (proportion of respondents in the labor force who are not currently employed) for each population group from the SOEP data, because official unemployment rates from the Federal Statistical Office Germany are only available for the regional aggregates. The correlation between our measure and the official measures for East and West Germany as a whole from 1991 to 2004, is respectively 0.77 and 0.92. (For the regional aggregates we also investigate briefly another measure of economic outcomes, the inflation rate, reported below in the analysis of trends over time.)

Our third principal measure of economic outcomes, satisfaction with income, is less commonly used. This is the response to the question: “How satisfied are you with your household income?” Responses are on an integer scale from 0 up to 10.

The measure of satisfaction with income derives from the domain approach to analyzing life satisfaction, pioneered by psychologist Angus Campbell and his collaborators (1976, 1981). In this approach, overall satisfaction with life is seen as being influenced by satisfaction in different domains of life – finances, family life, health, work, and so on. Satisfaction in each domain is, in turn, viewed as reflecting the extent to which objective outcomes in that domain match the respondent’s goals or needs in that realm, and satisfaction may vary with changes in objective conditions, goals, or both. In this framework, satisfaction with income can be thought of as an intermediary variable between objective conditions and overall life satisfaction. Satisfaction with income is affected, on the one hand, by objective circumstances, such as income and unemployment, and, on the other, by subjective perceptions of material needs. Hence, in including in this analysis satisfaction with income as our third measure of economic

outcomes, we are implicitly bringing into play a factor other than actual income and unemployment, namely, perceptions of material needs.

This is a descriptive analysis, aimed at establishing the broad facts with regard to trends and differences, and relationships among the various measures. Hence we rely throughout on tables and time series graphs of the summary measures, checking our impressions against ordinary least squares regressions. As will be seen, the patterns and relationships are usually quite evident from the tables and graphs.

In exploring the relation of life satisfaction to satisfaction with income a question arises about a possible common bias in the two measures. Responses on satisfaction – whether with life in general or household income – are known to be influenced by individual personality. Consider two persons with identical perceived needs, income, and unemployment experience. If one of them is neurotic and the other not, it is likely that this person's responses on satisfaction with life in general and satisfaction with household income will both be lower than the other's, because a neurotic tends to assess his or her circumstances more negatively (Diener and Lucas, 1999). A correlation of life satisfaction with actual income or unemployment for the two individuals would show no relation, because objective circumstances are the same. But a correlation of life satisfaction with satisfaction with income would show a perfect positive correlation, and lead to the erroneous inference that income satisfaction was the source of the difference between the two in life satisfaction, whereas, in fact, the cause is a personality difference that has similarly affected the responses on both life satisfaction and satisfaction with income.

The present analysis should be largely free of the influence of this personality effect, however, because we study averages over time and among population groups, not point-of-time differences among individuals. Personality tends to be a stable individual characteristic and hence would not explain changes over time in satisfaction responses. If, for example, we were to find both average life satisfaction and satisfaction with income of the above two individuals – one neurotic and one not – declining over time (a positive time series correlation), personality could not be the explanation of the positive correlation because so far as personality is concerned, satisfaction with both life and income, like personality, should be the same from one time to the next. Similarly, a comparison of two population groups (say Germans and foreigners) at a point in time with regard to life satisfaction and satisfaction with income should be free of the effect of personality bias, unless it can be demonstrated that the two groups differ systematically with regard to personality characteristics known to affect subjective responses.

In what follows we take up first average differences among the various population groups over the entire period for which data are available. We then turn to examining changes over time. In each section, we first describe the life satisfaction patterns, and then take up their relations to the economic outcome variables.

III. Results

Cross Sectional Differences within Germany

Life satisfaction – Over the period 1991-2004, life satisfaction in West Germany has been, on average, considerably higher than in the East, the difference amounting, on a scale of 0 to 10, to about 0.7 points (Table 3, panel A-1, column 1). Within West

Germany Germans rank highest, followed in order by European foreigners (over seven-tenths of whom are from Southern Europe), migrants from East Germany, and Turkish foreigners (panel A-2). The range from high to low for these four groups equals 0.4 points. For the period since 1984, the same order and range prevails, except that migrants from the East drop out because of lack of data (panel B).

Within East Germany the German population is highest, as in the West, followed closely by migrants from West Germany (panel A-2). The tiny group of European foreigners in East Germany average considerably lower in life satisfaction than any other population group, and about one point less than East Germans. All of the West German population groups, including the lowest group within West Germany, Turkish foreigners, average higher in life satisfaction over the period 1991-2004 than any of the East German groups.

Relation to economic outcomes. – Differences among population groups in life satisfaction generally correspond fairly closely to differences in economic outcomes.

Compared with the East, West Germany as a whole has higher income, less unemployment, and higher satisfaction with income (Table 3, Panel A-1, cols. 2-4).

Within West Germany, the rank order from best to worst of the four population subgroups is the same for each of the economic outcome variables as for life satisfaction, both in 1991-2004 and 1984-2004 (Panels A-2, B). If Germans in East Germany are added to this ranking they tend to follow the general pattern. They are lower in life satisfaction than the lowest West German group, the Turkish population, and about as low or lower on economic outcomes.

The data for foreigners in East Germany must be viewed with some caution, because they are based on only 146 observations for the entire period. Even so, foreigners in East Germany tend to correspond reasonably well to the general pattern of positive association between life satisfaction and economic outcomes. They are the worst of the total of seven population groups in West and East Germany in terms of life satisfaction, unemployment, and satisfaction with income. However, their absolute level of income is somewhat out of line, placing them fifth out of the seven groups. The expected favorable impact of income on life satisfaction for this group is no doubt countered by their extremely high unemployment rate, which, if the data can be credited, is more than two times greater than that of any other population group.

The most notable exception to the high correlation evident in the table between levels of life satisfaction and economic outcomes is for migrants to East Germany from the West. Although they are next to last of the seven population groups in the ordering by life satisfaction, they rank third in income and fourth in both unemployment and satisfaction with income. It may be that the migrants from the West bring with them higher perceptions of material needs than those that prevail among East Germans, and this higher material standard offsets the effect of their higher income, yielding satisfaction with income and life in general not much different from those of East Germans. The difference between life satisfaction at origin and destination for internal migrants – a research issue of considerable interest in itself – is a subject for another paper. For studies of these migration flows around the time of unification, see Burda 1993 and Grabka et al. 1999.

Statistically, the economic outcome variables that are most systematically related to differences in life satisfaction among the seven population groups are satisfaction with income and unemployment; each of these, considered singly, accounts for the same proportion of variance in life satisfaction, 81 per cent (Appendix B). In contrast, household income by itself has no statistically significant explanatory power, due, no doubt, to the anomalous income ranking of internal migrants and foreigners in East Germany.

Trends over time

Life satisfaction. – In West Germany the trend in life satisfaction from unification through 1997 is downward, and in East Germany, upward, with a consequent narrowing of the differential between the two from an initial value of 1.3 points to about 0.6 points (Figure 1). Since then the trends have been fairly horizontal, with the differential edging up slightly after 2000.

For Germany as a whole, the net outcome of the contrasting trends of life satisfaction in East and West is a mild downtrend through about 1997, followed by a leveling off. As is clear from the figure, the trend for Germany is fairly close to that for West Germany. This is hardly surprising because West Germany makes up almost three-fourths of the total population.

In West Germany the downtrend of life satisfaction after 1991 was common to all four population groups in that region (Figure 2). But while life satisfaction for most population groups leveled off after 1997, that of Turkish foreigners continued to worsen. Compared with Germans in West Germany, the shortfall of Turkish foreigners in life

satisfaction increased between the first and second halves of the period, while the shortfalls of European foreigners and migrants from the East declined slightly (Table 4). Moreover, with East Germans improving between the first and second halves of the period, the excess of life satisfaction of the West German Turkish population over East Germans has come close to disappearing.

Generalizations about trends prior to unification are handicapped by the fact that the data relate only to West Germany, are for a fairly short period, seven years, and fluctuate considerably. Read in conjunction with the post-unification patterns however, one's impression is that up to 1991 none of the three population groups trends very much up or down, while after 1991, noticeable declines set in.

In East Germany, where Germans account for over 99 percent of the population, the uptrend for Germans is, not surprisingly, virtually identical with that for East Germany as a whole (Figure 3). Life satisfaction for the small number of migrants from the West fluctuates around that of Germans with little clear evidence of a trend. For the even smaller number of foreigners there is a sharp uptrend, and the initial shortfall of this group relative to Germans largely disappears. By 2004 life satisfaction differences among the three population groups in East Germany are quite small.

Relation to economic outcomes. – Trends in life satisfaction for the various population groups correspond chiefly to movements in satisfaction with income and the unemployment rate, with income satisfaction typically providing a somewhat better statistical explanation of life satisfaction. Household income, whether considered singly or together with the unemployment rate, has little consistent relation to life satisfaction,

and more often than not, the relationship, such as it is, is negative, not positive as one would expect.

For Germany as a whole, the parallel between the trend in life satisfaction and the trends in both satisfaction with income and the unemployment rate is quickly apparent from a simple graph (Figure 4, upper panel); a similar graph of life satisfaction and household income gives little evidence of any relationship (lower panel). (A trend adjustment to household income would not be appropriate here, because increasing real income is typically expected to generate a corresponding increase in life satisfaction.)

The relationship of life satisfaction to economic outcomes in West Germany post-unification is much like that for Germany as a whole – considerable similarity between the time series pattern of life satisfaction and those of the unemployment rate and income satisfaction (Figure 5, upper panel), and little similarity to that of absolute real income (lower panel). For the short pre-unification period, patterns of association are less apparent. In the few years before unification there is an upsurge in each of the economic outcome variables much like that in overall life satisfaction, but prior to that systematic relationships between economic outcomes and life satisfaction are not particularly evident.

In East Germany the pattern of overall life satisfaction appears to follow most closely that in satisfaction with income – both show a rise and fall, although the amplitude of the movement is greater for satisfaction with income (Figure 6, upper panel). The pattern for household income is more like that for life satisfaction than was true in West Germany, rising along with life satisfaction, but then income levels off

rather than declining as life satisfaction does. In East Germany there is little evidence of a relationship between the unemployment rate and life satisfaction.

These visual impressions can be checked against statistical regressions of life satisfaction on each of the three economic outcome variables. Taking the main regional aggregates together – Germany, West Germany, and East Germany – one finds satisfaction with income most related statistically to life satisfaction – the proportion of variance explained ranges from somewhat under one-half to three-quarters (Table 5, lines 1-3; for complete regression results see Appendix C). The unemployment rate does as well as income satisfaction in Germany and West Germany, but fails in East Germany. Household income performs least well – never accounting for more than 30 per cent of the variance in life satisfaction, and in one of the two cases where this is so, the relation of life satisfaction to real income is negative rather than positive (see Appendix C).

In principle, the inflation rate is a macro-economic variable that might be expected to affect life satisfaction negatively. Unlike the unemployment rate, it is not possible with our data to construct a measure of the inflation rate specific to each population group. But time series of the inflation rate as measured by the consumer price index, can be computed for Germany as a whole, 1991-2004, West Germany, 1985-2002, and East Germany, 1992-2002 (Federal Statistical Office, Germany, available at www.destatis.de). For each of these geographical aggregates and periods, we regressed life satisfaction on the inflation rate alone and in various combinations with household income and the unemployment rate. Considered singly, the inflation rate is unrelated to life satisfaction in Germany as a whole, 1991-2004, and in West Germany, 1985-2002; positively related in West Germany, 1991-2002, and negatively related in East Germany,

1992-2002. In multiple regressions with household income and the unemployment rate, the inflation rate is never statistically significant. In general, for those population groups for which data are available the inflation rate adds little or nothing to the analysis.

The findings on life satisfaction in relation to the different economic outcome variables are very largely replicated when one examines the population subgroups. Rather than present separate graphs, we summarize the regression results for the other groups in the remainder of Table 5 (lines 4-8), omitting Germans in both East and West Germany, because they largely duplicate the overall results for these regions. As is clear from the table, satisfaction with income continues to provide the best statistical explanation of life satisfaction, and its performance is even better relative to the other economic outcome variables than was the case for the regional aggregates in lines 1-3.

IV. Summary and Discussion

The experience of most countries for which data are available is that rising real income is not accompanied by increasing subjective well-being (Easterlin 1974, 1995, 2005). Germany as a whole since unification fits this pattern. But within Germany there are noteworthy differences in the trends of various population groups. The initial shortfall in life satisfaction of East relative to West Germany diminished noticeably to about 1997; subsequently it leveled off and then in the first few years of this century edged slightly upward.

Within West Germany, life satisfaction among Germans, European foreigners, and Turkish foreigners fell after unification. Although trends in the short seven-year pre-unification period are hard to establish, the post-unification declines appear to be a break

with pre-unification patterns of stability for these groups. The life satisfaction of post-unification migrants from East Germany to the West is somewhat less than that of Germans and European foreigners there, but higher than that of the Turkish population. Since 1997, life satisfaction in West Germany has been fairly stable among Germans, European foreigners and internal migrants from East Germany, but that of Turkish foreigners has continued to decline. By 2004 the initially higher life satisfaction of the West German Turkish population compared with East Germans had virtually disappeared. Within East Germany, there has been convergence in life satisfaction between Germans and the quite small groups of internal migrants from the West and European foreigners.

Economic conditions appear to have played an important part in the differences in the levels and trends of the various population groups. However, it is not so much the objective state of these conditions, measured here by real income and the unemployment rate, as people's subjective evaluation of these conditions, as reflected in their reports on satisfaction with income. In general, income satisfaction is much more consistently related to differences among and trends within population groups than the two objective measures. Considering all three measures together – satisfaction with income, unemployment, and income – real income is least associated statistically with trends and differences in life satisfaction.

The importance here of the association between subjective evaluations of economic conditions and life satisfaction is of significance for the study of subjective well-being generally. In the current literature on the economics of happiness the typical approach is to estimate regression equations of life satisfaction in relation to a variety of

objective measures – income, employment status, marital status, health, and so on (Blanchflower and Oswald, 2004; Frey and Stutzer, 2002ab). An alternative is to look at life satisfaction in relation to people’s perceptions of these conditions, the “life domain” approach. To date, very little work has been done by economists using this approach (but see Easterlin, 2006; Easterlin and Sawangfa, 2006; Rojas, forthcoming; van Praag et al., 2003; van Praag and Ferrer-i-Carbonell, 2004, chapters 3 and 4). The life domain approach does not preclude the analysis of objective life circumstances, but it forces the analyst to think of the effect of these circumstances in relation to what people want out of life – their income norms, family life aspirations, health goals, and so forth. The analysis here is obviously only a first step toward this more comprehensive inquiry, but the results are suggestive of the promise of the life domain approach in the study of subjective well-being.

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Table 1**Population by Demographic Characteristics
All Germany, 1991-2004, and West Germany, 1984-2004**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	n of obs.	Males, %	Ages 16-45 /16+, %		Nationality, %			
			Males	Females	German	Turkish	Southern Europe ^a	Other
<u>A. 1991-2004</u>								
Germany	189,043	46.7	52.4	45.9	92.5	2.8	2.5	2.2
West Germany (WG)	136,273	46.8	52.5	46.0	90.9	3.4	3.1	2.6
Germans	110,525	46.1	52.2	44.4	100.0	0.0	0.0	0.0
Migrants from EG ^b	3,806	42.6	71.4	71.3	99.8	0.1	0.0	0.1
Foreigners ^c	25,748	53.4	54.8	64.3	0.0	37.3	34.0	28.7
European	13,576	56.1	48.9	60.7	0.0	0.0	71.6	28.4
Turkish	9,565	52.9	65.1	71.1	0.0	100.0	0.0	0.0
East Germany (EG)	52,770	46.6	52.2	45.4	99.3	0.0	0.0	0.7
Germans	52,624	46.5	51.9	45.4	100.0	0.0	0.0	0.0
Migrants from WG	547	60.0	77.2	56.5	98.6	0.0	0.8	0.6
Foreigners	146	60.6	80.4	64.5	0.0	0.4	4.4	95.3
<u>B. 1984-2004</u>								
West Germany	206,177	46.9	53.2	46.4	91.8	3.0	3.0	2.3
Germans	162,756	46.2	52.7	44.9	100.0	0.0	0.0	0.0
Foreigners ^c	43,421	54.6	58.2	67.2	0.0	36.2	36.0	27.8
European	24,952	57.2	53.6	64.6	0.0	0.0	71.1	28.9
Turkish	15,597	53.6	67.2	73.8	0.0	100.0	0.0	0.0

a. Italy, former Yugoslavia, Greece, and Spain.

b. Includes a very small number of migrants in 1990.

c. Includes foreigners other than European or Turkish, numbering about 7 percent of all foreigners in West Germany.

Table 2

**Population by Socio-Economic Characteristics
All Germany, 1991-2004, and West Germany, 1984-2004**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Educa- tion > secon- dary, %	Work status ^a % of pop. 16-95			Occupation ^b , % of employed				House- hold income, 1995 euros
		Em- plove d	Unem- plove d	Pen- sioner	White collar	Self- empl.	Blue collar Skilled	Semi- and un- skilled	
<u>A. 1991-2004</u> ^a									
Germany	16.8	54.0	6.2	25.2	52.4	9.9	17.4	21.3	26,764
West Germany (WG)	17.8	54.5	4.8	24.7	53.5	10.1	15.3	22.0	28,166
Germans	18.3	54.2	4.3	26.3	56.5	10.7	15.1	18.7	28,370
Migrants from EG ^b	12.3	70.9	8.6	11.1	46.0	4.9	22.5	27.2	25,707
Foreigners ^c	12.2	57.8	9.4	9.1	25.6	5.4	17.4	52.3	26,130
European	12.9	65.7	7.5	10.0	28.2	6.7	18.1	48.1	28,200
Turkish	6.1	50.3	12.2	6.4	14.1	3.6	19.4	63.1	24,412
East Germany (EG)	12.6	51.7	12.2	27.3	47.2	8.7	26.6	18.5	22,522
Germans	12.4	51.7	12.0	27.4	47.0	8.7	26.7	18.5	22,505
Migrants from WG	25.9	58.2	9.6	18.3	53.3	25.0	6.9	15.2	27,068
Foreigners	38.8	47.7	35.5	11.6	74.8	3.4	10.0	12.1	25,079
<u>B. 1984-2004</u>									
West Germany	16.2	54.4	4.3	23.9	51.3	10.3	16.3	23.1	27,466
Germans	16.7	53.9	3.9	25.3	54.1	10.8	16.0	20.1	27,601
Foreigners ^c	11.0	59.6	8.8	8.0	23.3	5.4	18.8	53.1	25,715
European	11.6	67.4	7.0	8.2	25.8	6.9	20.1	48.2	27,290
Turkish	5.4	52.9	11.4	5.2	11.7	3.2	19.3	65.9	24,485

a. Work status categories not shown: not employed; in education, military or community service; do not know, no answer.

b. White collar: professional (highly qualified, and qualified), white collar worker (trained and untrained), managerial, civil service. Self-employed: self-employed (free lance), help in family business. Blue collar skilled: trained worker, foreman, farmer. Blue collar, semi-and unskilled: semi-trained worker, untrained worker, apprentice.

c. Includes foreigners other than European or Turkish, numbering about 7 percent of all foreigners in West Germany.

Table 3

Life Satisfaction and Economic Outcomes
Mean Values, Germany by Population Subgroup, 1991 – 2004 and West Germany,
1984 – 2004

	(1)	(2)	(3)	(4)
		Economic outcomes		
	Life satisfaction	Household income,^a 1995 euros	Unemployment rate, %	Satisfaction with income
A. 1991 - 2004				
1. Population aggregates				
Germany	6.89	26,764	10.2	6.25
West Germany (WG)	7.03	28,166	8.0	6.46
East Germany (EG)	6.30	22,522	18.9	5.38
2. Population subgroups (ranked by life satisfaction)				
West Germany (WG)				
Germans ^b	7.05	28,370	7.3	6.53
European foreigners	7.00	28,200	10.3	6.08
Migrants from EG ^c	6.84	25,707	11.1	5.80
Turkish foreigners	6.65	24,412	19.7	5.38
East Germany (EG)				
Germans ^b	6.31	22,505	18.7	5.39
Migrants from WG ^d	6.23	27,068	14.5	5.54
Foreigners	5.29	25,079	42.4	4.31
B. West Germany, 1984 - 2004				
Germans ^d	7.10	27,601	6.7	6.54
European foreigners	7.03	27,290	9.4	6.11
Turkish foreigners	6.70	24,485	17.9	5.50

- a. No 1991 data for East Germany.
b. Includes migrants from East Germany.
c. Omits 1991.
d. Omits 1991, 1992.

Table 4

Shortfall of Life Satisfaction of Specified Population Group Relative to Germans in West Germany, 1991 – 1997 and 1998 – 2004

	1991 – 1997	1998 – 2004
European foreigners	0.08	0.02
Migrants from East Germany	0.20	0.17
Turkish foreigners	0.33	0.48

Source: Tables A-4 to A-7.

Table 5

Adjusted R² from Time Series Regression of Life Satisfaction on Specified Variable, by Population Group, Specified Period

Line	Population group	Period	Satisfaction with Income	Unemployment Rate	Household Income, 1995 euros
1.	Germany	1991-2004	0.62***	0.49**	0.15 ^a
2a.	West Germany	1991-2004	0.76***	0.67***	-0.05
2b.	West Germany	1984-2004	0.43***	0.57***	0.29** ^{a,b}
3.	East Germany	1991-2004	0.75***	0.15	0.30* ^a
4a.	European foreigners (WG)	1991-2004	0.46**	0.11	-0.08
4b.	European foreigners (WG)	1984-2004	0.38**	0.10	-0.02
5a.	Turkish foreigners (WG)	1991-2004	0.61***	0.49**	0.07
5b.	Turkish foreigners (WG)	1984-2004	0.71***	0.61***	0.08
6.	Migrants to WG from EG	1992-2004	0.02	0.12	0.00
7.	Foreigners (EG)	1991-2004	0.39*	-0.06	0.25* ^{a,b}
8.	Migrants to EG from WG	1993-2004	0.31*	-0.07	-0.02

Source: Appendix C

a. 1992-2004

b. Regression coefficient of life satisfaction on income is negative

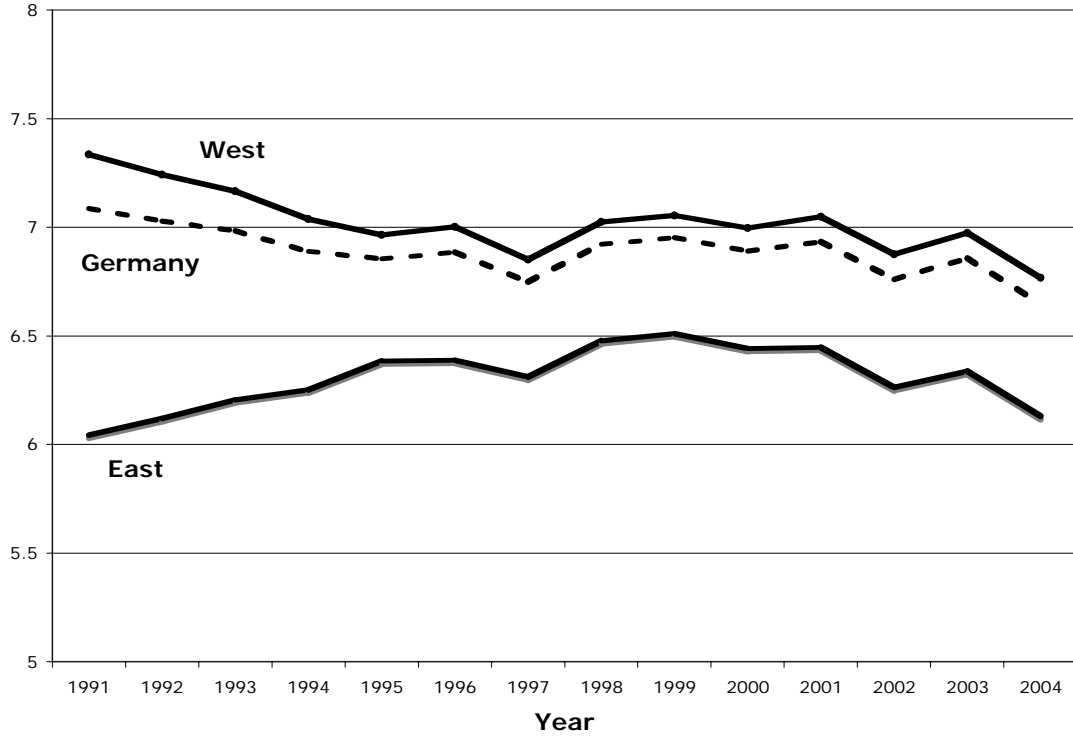
*** Prob > F < 0.001

** Prob > F = 0.001 to < 0.01

* Prob > F = 0.01 to 0.05

Fig 1

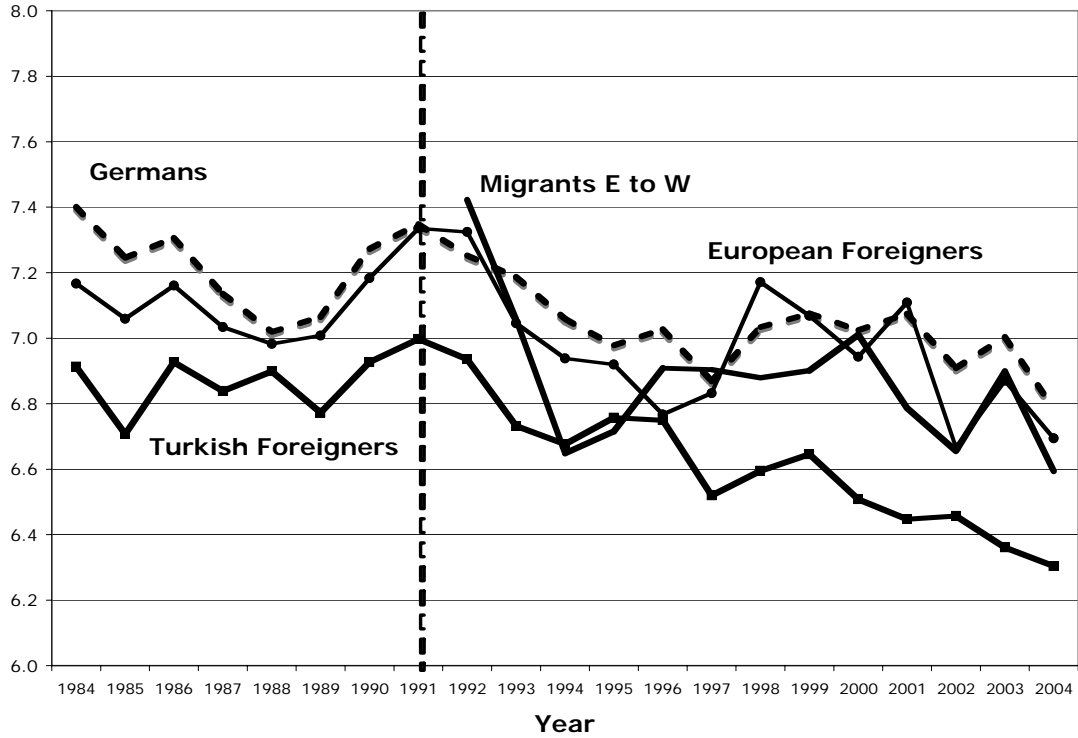
Life Satisfaction in East, West, and All of Germany, 1991-2004



Source: Appendix Tables A-1, A-2, A-3.

Fig 2

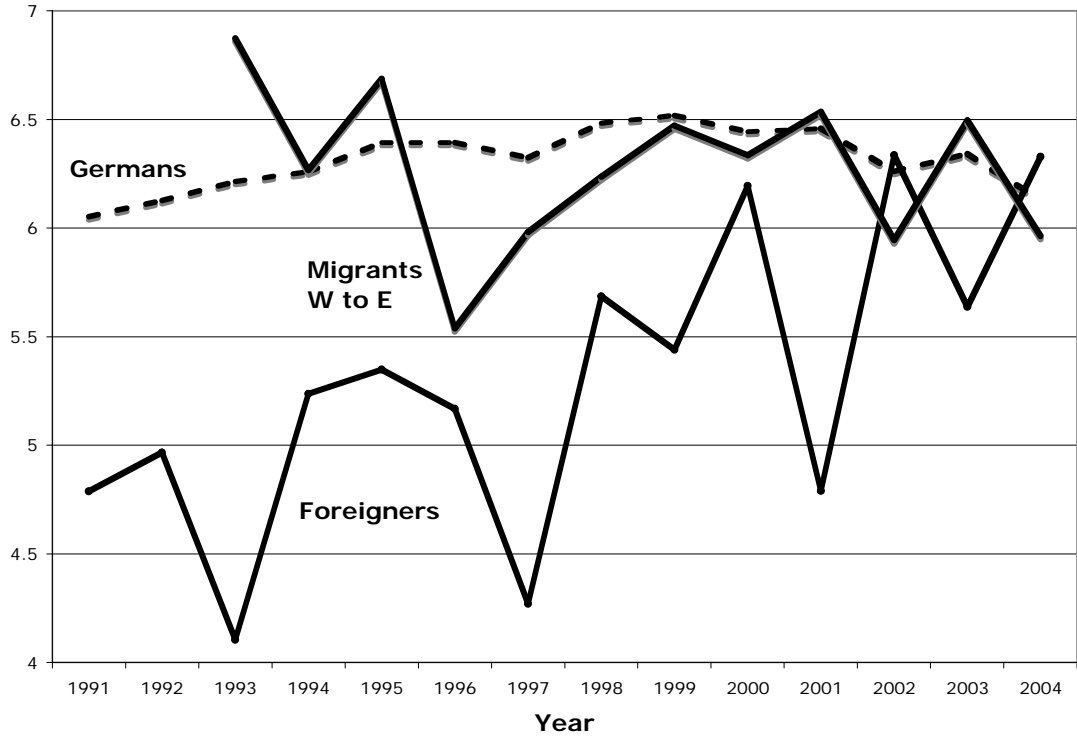
Life Satisfaction of Population Subgroups, West Germany, 1984-2004



Source: Appendix Tables A-4, A-5, A-6, A-7.

Fig 3

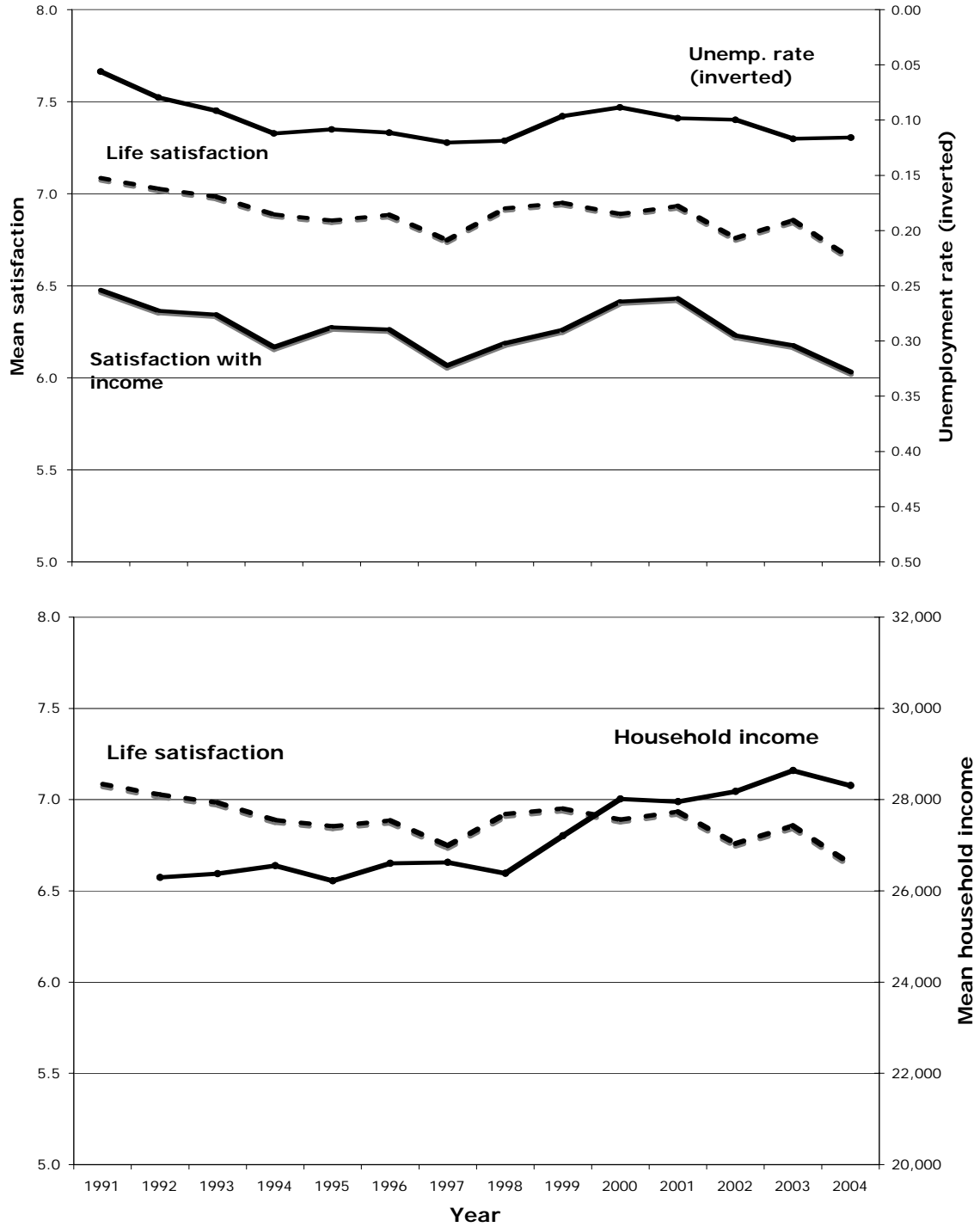
Life Satisfaction of Population Subgroups, East Germany, 1991-2004



Source: Appendix Tables A-8, A-9, A-10.

Fig 4

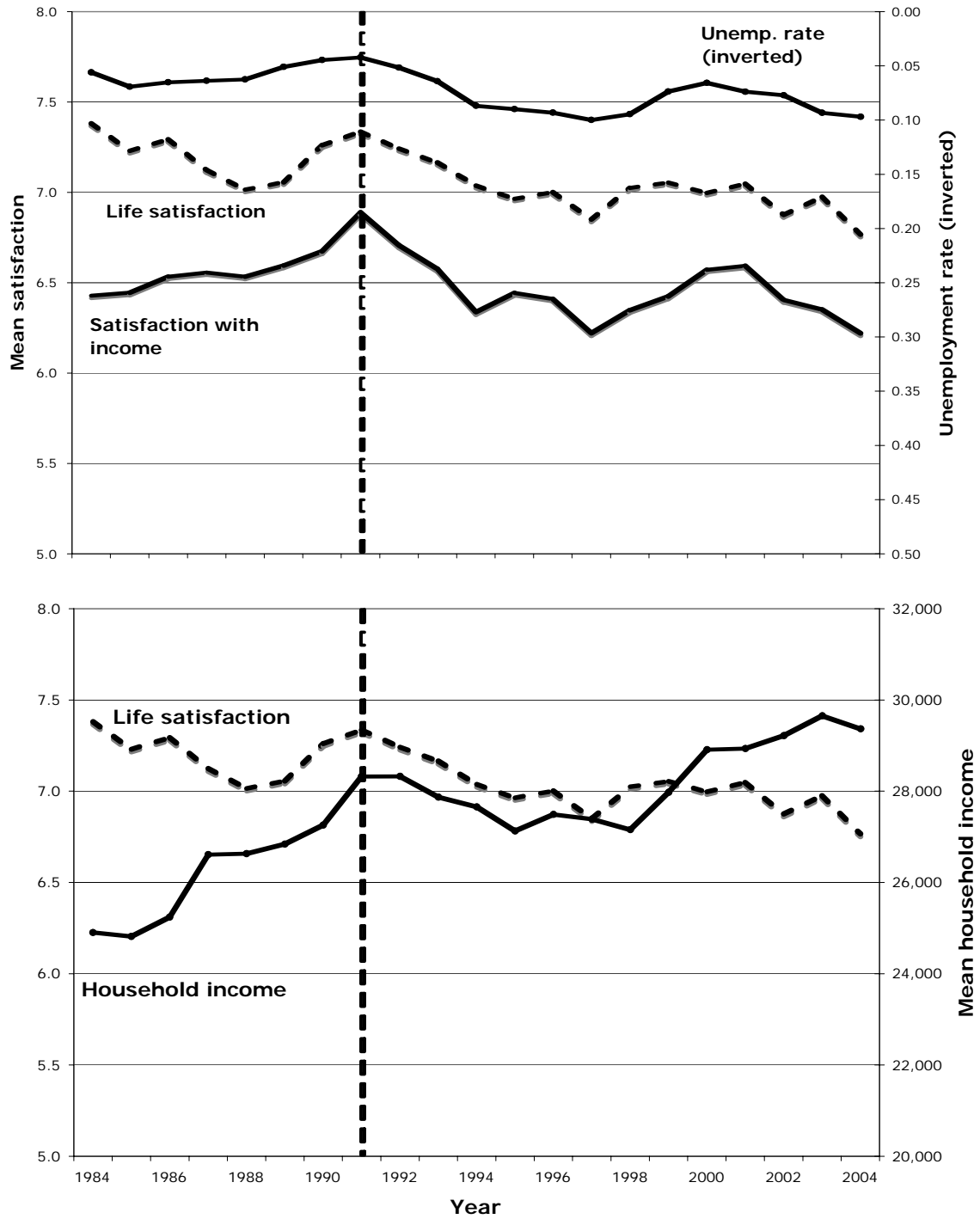
**Life Satisfaction, Unemployment, Satisfaction with Income, and Household Income
Germany, 1991-2004**



Source: Appendix Table A-1.

Fig 5

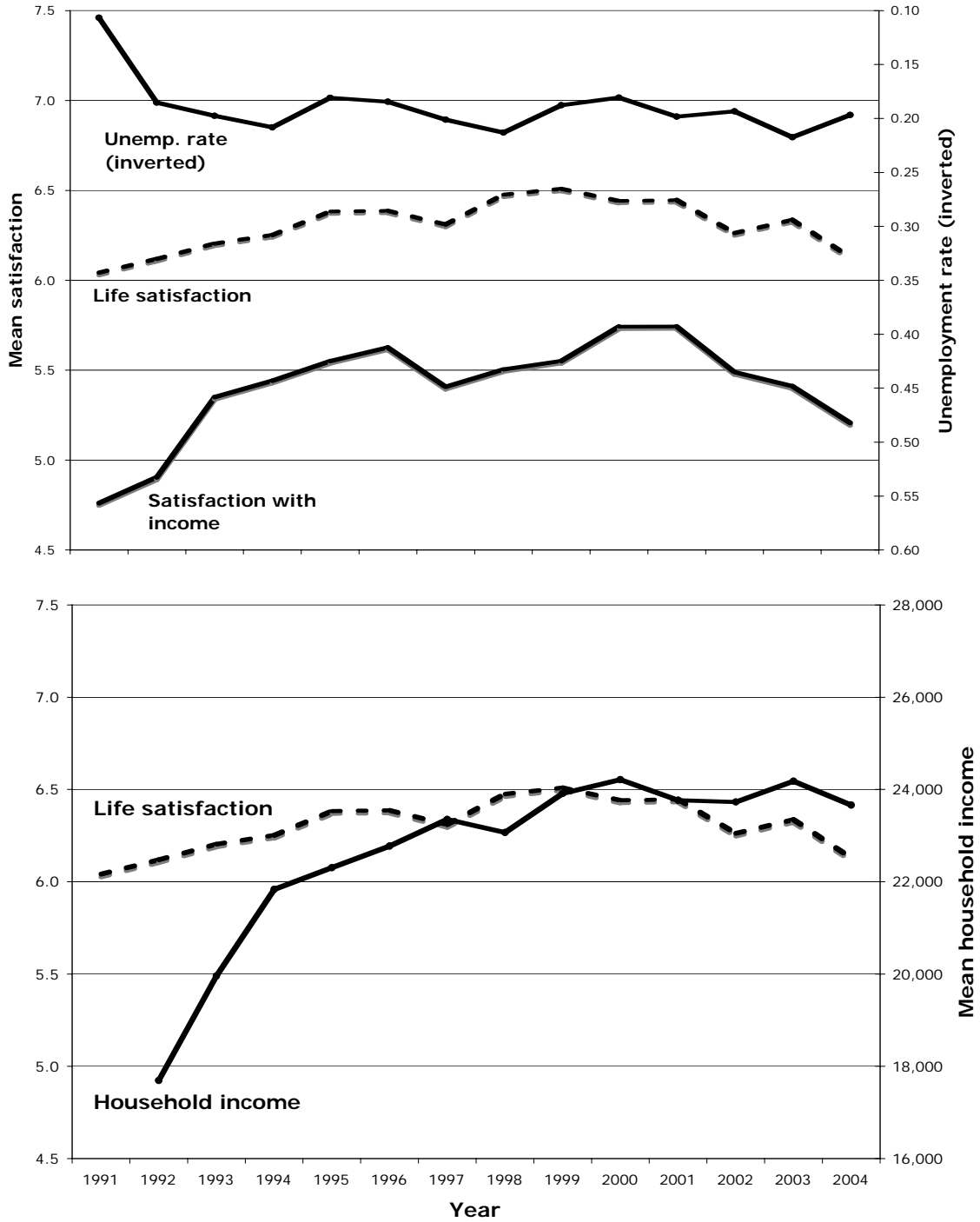
**Life Satisfaction, Unemployment, Satisfaction with Income, and Household Income
West Germany, 1984-2004**



Source: Appendix Table A-2.

Fig 6

**Life Satisfaction, Unemployment, Satisfaction with Income, and Household Income
East Germany, 1991-2004**



Source: Appendix Table A-3.

Appendix A: Basic Data

Table A-1
All Germany 1991-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1991	7.08	12,812	6.48	12,811	^a 28,322	^a 8,985	0.0561	12,941
1992	7.03	12,592	6.36	12,551	26,295	12,676	0.0795	12,676
1993	6.98	12,413	6.34	12,146	26,375	12,475	0.0915	12,475
1994	6.89	12,178	6.17	11,950	26,549	12,246	0.1120	12,246
1995	6.85	12,589	6.27	12,359	26,219	12,650	0.1084	12,650
1996	6.89	12,384	6.26	12,154	26,603	12,405	0.1114	12,405
1997	6.75	12,175	6.07	11,913	26,623	12,198	0.1204	12,198
1998	6.92	13,509	6.19	13,207	26,382	13,543	0.1187	13,543
1999	6.95	13,026	6.26	12,757	27,206	13,055	0.0964	13,055
2000	6.89	12,666	6.41	12,438	28,013	12,701	0.0885	12,701
2001	6.93	12,264	6.43	12,097	27,952	12,293	0.0983	12,293
2002	6.76	11,849	6.23	11,648	28,177	11,877	0.0996	11,877
2003	6.86	19,201	6.18	18,917	28,632	19,236	0.1168	19,236
2004	6.65	18,695	6.03	18,313	28,305	18,747	0.1158	18,747
mean 91-04	6.89	188,353	6.25	185,261	^b 26,764	176,102	0.1017	189,043
mean 91-97	6.92	87,143	6.28	85,884	25,941	74,650	0.0973	87,591
mean 98-04	6.85	101,210	6.22	99,377	27,756	101,452	0.1071	101,452

a. West German data. No estimates available for East Germany 1984 – 1990.

b. 1991 for West Germany only.

Table A-2
West Germany 1984-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1984	7.38	11,557	6.43	11,417	24,902	11,610	0.0561	11,610
1985	7.23	10,463	6.44	10,300	24,817	10,503	0.0693	10,503
1986	7.29	10,067	6.53	9,969	25,240	10,101	0.0652	10,101
1987	7.12	9,936	6.56	9,861	26,609	9,970	0.0638	9,970
1988	7.02	9,469	6.53	9,397	26,634	9,509	0.0625	9,509
1989	7.06	9,165	6.60	9,091	26,839	9,195	0.0510	9,195
1990	7.26	8,978	6.67	8,932	27,257	9,016	0.0446	9,016
1991	7.34	8,902	6.89	8,892	28,322	8,985	0.0423	8,985
1992	7.24	8,822	6.71	8,796	28,326	8,875	0.0516	8,875
1993	7.17	8,786	6.58	8,589	27,872	8,824	0.0641	8,824
1994	7.04	8,590	6.34	8,429	27,656	8,643	0.0868	8,643
1995	6.96	9,070	6.44	8,914	27,129	9,118	0.0899	9,118
1996	7.00	8,873	6.41	8,714	27,491	8,891	0.0932	8,891
1997	6.85	8,713	6.22	8,541	27,389	8,730	0.1000	8,730
1998	7.02	9,833	6.35	9,632	27,158	9,857	0.0946	9,857
1999	7.05	9,408	6.43	9,232	27,974	9,433	0.0738	9,433
2000	7.00	9,094	6.57	8,952	28,909	9,120	0.0657	9,120
2001	7.05	8,834	6.59	8,717	28,936	8,857	0.0739	8,857
2002	6.88	8,540	6.40	8,402	29,217	8,562	0.0771	8,562
2003	6.97	14,352	6.35	14,149	29,653	14,382	0.0933	14,382
2004	6.77	13,958	6.22	13,673	29,367	13,996	0.0970	13,996
mean 84-04	7.08	205,410	6.49	202,599	27,446	206,177	0.0726	206,177
mean 84-90	7.19	69,635	6.54	68,967	26,054	69,904	0.0588	69,904
mean 91-04	7.03	135,775	6.46	133,632	28,166	136,273	0.0797	136,273
mean 91-97	7.08	61,756	6.51	60,875	27,736	62,066	0.0757	62,066
mean 98-04	6.96	74,019	6.39	72,757	28,683	74,207	0.0846	74,207

Table A-3
East Germany 1991-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1991	6.04	3,910	4.76	3,919			0.11	3,956
1992	6.12	3,770	4.90	3,755	17,691	3,801	0.19	3,801
1993	6.20	3,627	5.35	3,557	19,957	3,651	0.20	3,651
1994	6.25	3,588	5.44	3,521	21,834	3,603	0.21	3,603
1995	6.38	3,519	5.55	3,445	22,305	3,532	0.18	3,532
1996	6.39	3,511	5.63	3,440	22,772	3,514	0.18	3,514
1997	6.31	3,462	5.41	3,372	23,349	3,468	0.20	3,468
1998	6.48	3,676	5.50	3,575	23,069	3,686	0.21	3,686
1999	6.51	3,618	5.55	3,525	23,915	3,622	0.19	3,622
2000	6.44	3,572	5.74	3,486	24,212	3,581	0.18	3,581
2001	6.45	3,430	5.74	3,380	23,766	3,436	0.20	3,436
2002	6.26	3,309	5.49	3,246	23,731	3,315	0.19	3,315
2003	6.34	4,849	5.41	4,768	24,180	4,854	0.22	4,854
2004	6.13	4,737	5.21	4,640	23,662	4,751	0.20	4,751
mean 91-04	6.30	52,578	5.38	51,629	22,522	48,814	0.19	52,770
mean 91-97	6.24	25,387	5.29	25,009	21,330	21,569	0.18	25,525
mean 98-04	6.37	27,191	5.49	26,620	23,764	27,245	0.20	27,245

Table A-4
Germans, West Germany 1984-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1984	7.40	8,528	6.46	8,409	24,972	8,566	0.0509	8,566
1985	7.25	7,876	6.48	7,741	24,958	7,904	0.0648	7,904
1986	7.31	7,573	6.56	7,500	25,356	7,600	0.0615	7,600
1987	7.14	7,457	6.59	7,402	26,714	7,484	0.0591	7,484
1988	7.02	7,079	6.56	7,026	26,729	7,110	0.0600	7,110
1989	7.07	6,824	6.64	6,772	26,964	6,850	0.0496	6,850
1990	7.27	6,689	6.71	6,657	27,339	6,717	0.0415	6,717
1991	7.35	6,622	6.94	6,632	28,296	6,695	0.0390	6,695
1992	7.25	6,592	6.76	6,579	28,355	6,630	0.0463	6,630
1993	7.19	6,578	6.64	6,431	27,909	6,606	0.0586	6,606
1994	7.06	6,486	6.41	6,358	27,702	6,529	0.0818	6,529
1995	6.98	6,917	6.52	6,796	27,457	6,957	0.0775	6,957
1996	7.03	6,880	6.49	6,739	27,801	6,893	0.0825	6,893
1997	6.87	6,834	6.30	6,680	27,721	6,844	0.0912	6,844
1998	7.03	8,063	6.43	7,878	27,384	8,079	0.0878	8,079
1999	7.08	7,778	6.52	7,618	28,301	7,795	0.0649	7,795
2000	7.02	7,567	6.66	7,434	29,128	7,585	0.0607	7,585
2001	7.07	7,382	6.68	7,274	29,189	7,402	0.0661	7,402
2002	6.91	7,200	6.49	7,071	29,534	7,219	0.0710	7,219
2003	7.00	12,763	6.43	12,575	29,910	12,790	0.0877	12,790
2004	6.79	12,465	6.26	12,201	29,561	12,501	0.0915	12,501
mean 84-04	7.10	162,153	6.54	159,773	27,601	162,756	0.0667	162,756
mean 84-90	7.21	52,026	6.57	51,507	26,156	52,231	0.0553	52,231
mean 91-04	7.05	110,127	6.53	108,266	28,370	110,525	0.0728	110,525
mean 91-97	7.10	46,909	6.58	46,215	27,889	47,154	0.0683	47,154
mean 98-04	6.98	63,218	6.47	62,051	28,946	63,371	0.0781	63,371

Table A-5
European Foreigners, West Germany 1984-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1984	7.17	1,999	6.00	1,980	24,879	2,006	0.1023	2,006
1985	7.06	1,722	5.97	1,698	23,493	1,730	0.0903	1,730
1986	7.16	1,626	6.08	1,607	23,820	1,630	0.0916	1,630
1987	7.03	1,602	6.11	1,588	25,571	1,606	0.0903	1,606
1988	6.98	1,512	6.21	1,500	25,735	1,518	0.0655	1,518
1989	7.01	1,445	6.30	1,429	25,761	1,447	0.0317	1,447
1990	7.18	1,433	6.46	1,420	27,471	1,439	0.0584	1,439
1991	7.34	1,402	6.56	1,390	29,196	1,408	0.0545	1,408
1992	7.32	1,349	6.50	1,342	28,722	1,357	0.0735	1,357
1993	7.05	1,349	6.16	1,311	29,101	1,353	0.0904	1,353
1994	6.94	1,289	5.89	1,267	29,206	1,295	0.1033	1,295
1995	6.92	1,286	6.13	1,254	25,946	1,288	0.1421	1,288
1996	6.77	1,193	5.97	1,180	26,725	1,194	0.1598	1,194
1997	6.83	837	5.67	829	26,661	840	0.1290	840
1998	7.17	821	5.92	811	27,138	824	0.1078	824
1999	7.07	722	5.95	717	27,350	725	0.0956	725
2000	6.94	683	6.43	678	29,430	685	0.0623	685
2001	7.11	638	6.37	636	29,339	639	0.0509	639
2002	6.67	597	5.74	593	29,387	598	0.0493	598
2003	6.87	706	5.84	701	30,378	707	0.1204	707
2004	6.69	662	5.98	648	28,993	663	0.1178	663
mean 84-04	7.02	24,873	6.11	24,579	27,290	24,952	0.0940	24,952
mean 84-90	7.09	11,339	6.17	11,222	25,306	11,376	0.0752	11,376
mean 91-04	7.00	13,534	6.08	13,357	28,200	13,576	0.1026	13,576
mean 91-97	7.02	8,705	6.13	8,573	27,922	8,735	0.1086	8,735
mean 98-04	6.96	4,829	6.00	4,784	28,669	4,841	0.0923	4,841

Table A-6
Migrants from East to West, West Germany 1992-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1992	7.42	95	6.03	95	21,339	95	0.1090	95
1993	7.06	130	5.59	125	22,567	131	0.0549	131
1994	6.65	147	6.01	149	24,019	151	0.1561	151
1995	6.72	227	5.69	224	24,536	228	0.1289	228
1996	6.91	237	5.95	237	25,974	238	0.1411	238
1997	6.90	247	5.74	244	25,727	247	0.0869	247
1998	6.88	273	5.82	269	27,542	273	0.1042	273
1999	6.90	308	5.73	302	27,689	308	0.0998	308
2000	7.01	309	6.35	304	29,128	310	0.0327	310
2001	6.79	335	6.11	331	25,806	336	0.0811	336
2002	6.66	349	5.70	345	25,510	350	0.0968	350
2003	6.90	541	5.64	536	25,741	544	0.1276	544
2004	6.59	554	5.58	543	24,685	556	0.1591	556
mean 92-04	6.84	3,752	5.80	3,704	25,707	3,767	0.1111	3,767
mean 92-97	6.90	1,083	5.82	1,074	24,516	1,090	0.1151	1,090
mean 98-04	6.81	2,669	5.79	2,630	26,398	2,677	0.1089	2,677

Table A-7
Turkish Foreigners, West Germany 1984-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1984	6.91	981	5.87	979	23,959	989	0.1042	989
1985	6.71	828	5.71	825	22,635	832	0.1537	832
1986	6.93	831	6.01	826	24,000	834	0.1359	834
1987	6.84	844	6.03	838	25,812	847	0.1441	847
1988	6.90	833	6.04	827	25,990	836	0.1328	836
1989	6.77	853	5.81	847	25,043	855	0.0931	855
1990	6.93	836	5.81	834	24,960	839	0.1169	839
1991	7.00	859	6.13	851	28,067	863	0.0933	863
1992	6.94	860	5.80	854	27,710	867	0.1296	867
1993	6.73	844	5.62	832	25,365	850	0.1508	850
1994	6.68	794	5.13	783	24,562	798	0.1755	798
1995	6.76	785	5.39	782	22,404	790	0.2612	790
1996	6.75	742	5.39	737	22,015	745	0.2172	745
1997	6.52	700	5.15	695	22,418	704	0.1869	704
1998	6.60	651	5.17	649	23,475	654	0.2022	654
1999	6.65	613	5.14	608	23,016	617	0.2188	617
2000	6.51	561	5.26	562	25,370	566	0.1524	566
2001	6.45	551	5.06	548	23,976	552	0.2760	552
2002	6.46	501	5.29	497	22,967	503	0.2294	503
2003	6.36	544	5.27	539	25,308	546	0.2369	546
2004	6.30	509	5.12	504	25,090	510	0.3259	510
mean 84-04	6.70	15,520	5.50	15,417	24,485	15,597	0.1789	15,597
mean 84-90	6.86	6,006	5.89	5,976	24,706	6,032	0.1245	6,032
mean 91-04	6.65	9,514	5.38	9,441	24,412	9,565	0.1968	9,565
mean 91-97	6.77	5,584	5.51	5,534	24,678	5,617	0.1730	5,617
mean 98-04	6.50	3,930	5.18	3,907	24,041	3,948	0.2301	3,948

Table A-8
Germans, East Germany 1991-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1991	6.05	3,896	4.78	3,905	a		0.1046	3,942
1992	6.13	3,760	4.91	3,745	17,649	3,791	0.1851	3,791
1993	6.21	3,620	5.36	3,550	19,907	3,644	0.1926	3,644
1994	6.26	3,577	5.46	3,510	21,808	3,592	0.2057	3,592
1995	6.39	3,502	5.56	3,430	22,277	3,515	0.1822	3,515
1996	6.39	3,501	5.63	3,430	22,741	3,504	0.1808	3,504
1997	6.32	3,452	5.42	3,363	23,331	3,458	0.1995	3,458
1998	6.48	3,666	5.52	3,565	23,072	3,676	0.2114	3,676
1999	6.52	3,609	5.56	3,516	23,910	3,613	0.1827	3,613
2000	6.44	3,563	5.74	3,477	24,197	3,572	0.1765	3,572
2001	6.46	3,423	5.75	3,373	23,686	3,429	0.1915	3,429
2002	6.26	3,301	5.48	3,238	23,771	3,307	0.1923	3,307
2003	6.34	4,837	5.42	4,756	24,208	4,842	0.2187	4,842
2004	6.13	4,725	5.21	4,628	23,660	4,739	0.1949	4,739
mean 91-04	6.31	52,432	5.39	51,486	22,505	48,682	0.1872	52,624
mean 91-97	6.25	25,308	5.30	24,933	21,297	21,504	0.1787	25,446
mean 98-04	6.37	27,124	5.49	26,553	23,763	27,178	0.1974	27,178

a. Not available.

Table A-9
Migrants from West to East Germany, East Germany 1993-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1993	6.87	16	7.30	16	29,184	16	0.0655	16
1994	6.27	20	7.54	20	23,250	20	0.0512	20
1995	6.69	26	6.20	26	26,602	26	0.1594	26
1996	5.54	33	4.49	32	25,155	33	0.1765	33
1997	5.98	37	4.81	36	25,248	37	0.0744	37
1998	6.24	38	4.57	37	27,370	38	0.2571	38
1999	6.47	38	5.17	37	29,247	38	0.1343	38
2000	6.34	36	5.39	36	25,936	36	0.1646	36
2001	6.53	46	6.12	46	27,550	47	0.0124	47
2002	5.94	53	5.38	53	27,989	53	0.1678	53
2003	6.49	91	5.53	91	25,943	92	0.2607	92
2004	5.96	96	5.59	92	29,778	96	0.1024	96
mean 93-04	6.23	530	5.54	522	27,068	532	0.1452	532
mean 93-97	6.17	132	5.79	130	25,535	132	0.1119	132
mean 98-04	6.26	398	5.41	392	27,850	400	0.1622	400

Table A-10
Foreigners, East Germany 1991-2004

Year	LS	n LS	Sat hhinc	n sat_inc	HH Income	n inc	unemp rate	n unemp. rate
1991	4.79	14	3.07	14	a		0.3158	14
1992	4.97	10	3.57	10	23,837	10	0.2059	10
1993	4.10	7	3.76	7	30,094	7	0.8617	7
1994	5.24	11	3.30	11	25,465	11	0.4461	11
1995	5.35	17	4.21	15	25,364	17	0.0656	17
1996	5.17	10	5.46	10	28,500	10	0.6421	10
1997	4.27	10	4.03	9	25,973	10	0.3620	10
1998	5.68	10	4.01	10	22,715	10	0.3633	10
1999	5.44	9	3.97	9	24,545	9	0.8187	9
2000	6.19	9	5.42	9	26,122	9	0.6172	9
2001	4.79	7	4.50	7	35,173	7	0.8214	7
2002	6.34	8	6.43	8	20,854	8	0.2825	8
2003	5.64	12	4.71	12	19,516	12	0.0727	12
2004	6.33	12	5.13	12	24,536	12	0.7123	12
mean 91-04	5.29	146	4.31	143	25,079	132	0.4242	146
mean 91-97	4.89	79	3.85	76	26,216	65	0.3691	79
mean 98-04	5.77	67	4.84	67	23,961	67	0.4898	67

a. Not available.

Appendix B

Life Satisfaction on Specified Variable(s)

Cross Sectional Regression for Population Subgroups (n=7), 1991-2004^a

Reg.	Sat income		HH Income x 10 ⁻⁵		Unemp. rate		Adj. R ²	Prob>F
	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat		
1	0.830	6.09					0.858	0.002
2			13.02	1.13			0.045	0.309
3					-0.049	-5.92	0.850	0.002
4			0.191	0.03	-0.049	-4.64	0.813	0.016

a. For regressions with household income, 1992-2004.

Appendix C

Life Satisfaction on Specified Variable(s) Time Series Regressions by Population Subgroup and Specified Period

Pop. group	Period	n	Sat income		HH Income x 10 ⁻⁵		Unemp. rate		Adj. R ²	Prob >F
			Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat		
1. Germany										
	91-04	14	0.692	4.68					0.617	0.001
	92-04	13			-5.37	-1.75			0.147	0.108
	91-04	14					-4.639	-3.69	0.492	0.003
	92-04	13			-5.02	-2.10	-4.724	-2.86	0.484	0.015
2. West Germany (WG)										
	91-04	14	0.712	6.54					0.763	0.000
	91-04	14			-3.19	-0.64			-0.048	0.535
	91-04	14					-6.980	-5.21	0.668	0.000
	91-04	14			-5.92	-2.48	-7.469	-6.57	0.768	0.000
3. West Germany (WG)										
	84-04	21	0.685	3.99					0.427	0.001
	84-04	21			-6.69	-3.00			0.286	0.007
	84-04	21					-6.997	-5.26	0.571	0.000
	84-04	21			-4.54	-3.02	-6.036	-5.21	0.699	0.000
4. East Germany (EG)										
	91-04	14	0.447	6.27					0.747	0.000
	92-04	13			4.06	2.49			0.302	0.030
	91-04	14					2.519	1.79	0.146	0.098
	92-04	13			4.27	2.50	-1.725	-0.64	0.263	0.088
5. Germans WG										
	91-04	14	0.721	6.73					0.773	0.000
	91-04	14			-4.50	-0.94			-0.009	0.365
	91-04	14					-7.442	-5.48	0.691	0.000
	91-04	14			-4.75	-2.00	-7.483	-6.16	0.753	0.000
6. Germans WG										
	84-04	21	0.651	3.49					0.359	0.002
	84-04	21			-6.69	-3.20			0.316	0.005
	84-04	21					-7.645	-5.35	0.580	0.000
	84-04	21			-4.34	-2.99	-6.441	-5.09	0.704	0.000
7. European foreigners WG										
	84-04	21	0.465	3.65					0.381	0.002
	84-04	21			-1.66	-0.81			-0.018	0.430
	84-04	21					-2.123	-1.81	0.103	0.086
	84-04	21			-2.24	-1.15	-2.327	-1.98	0.118	0.125

Appendix C (continued)

Pop. group	Period	n	Sat income		HH Income x 10 ⁻⁵		Unemp. rate		Adj. R2	Prob >F
			Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat		
8. European foreigners WG										
	91-04	14	0.519	3.45					0.456	0.005
	91-04	14			0.936	0.21			-0.079	0.839
	91-04	14					-2.539	-1.63	0.119	0.199
	91-04	14			-5.49	-1.04	-3.873	-1.92	0.119	0.199
10. Turkish foreigners WG										
	91-04	14	0.535	4.65					0.613	0.001
	91-04	14			4.1	1.42			0.073	0.181
	91-04	14					-2.388	-3.65	0.486	0.003
	91-04	14			-0.359	-0.13	-2.449	-2.98	0.440	0.016
11. Mig E-W										
	92-04	13	0.296	1.10					0.017	0.295
	92-04	13			-2.95	-0.98			-0.004	0.349
	92-04	13					-2.547	-1.61	0.117	0.136
	92-04	13			-4.7	-1.73	-3.325	-2.18	0.252	0.094
12. Germans EG										
	91-04	14	0.451	6.31					0.749	0.000
	92-04	13			3.92	2.36			0.276	0.038
	91-04	14					2.296	1.61	0.109	0.133
	92-04	13			4.14	2.42	-2.041	-0.79	0.250	0.095
13. Foreigners EG										
	91-04	14	0.488	3.03					0.386	0.011
	92-04	13			-9.95	-2.25			0.254	0.046
							-0.356	-0.49	-0.062	0.633
	92-04	13			-14.35	-2.42	0.926	1.10	0.267	0.085
14. Mig W-E										
	93-04	12	0.234	2.44					0.311	0.035
	93-04	12			5.09	0.88			-0.022	0.402
	93-04	12					-0.774	-0.52	-0.071	0.615
	93-04	12			4.98	0.82	-0.726	-0.48	-0.107	0.641