The kids are alright?
A note on parental satisfaction in Germany

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Abstract. *In social sciences, research of satisfaction presents mixed or negative effects of parental satisfaction (e.g. Powdthavee 2009, Hansen 2012), while recent findings show that socio-economic differences matter (e.g. Myrskylä/Margolis 2014, Pollmann-Schult, 2014). Here, we use long run German panel data with fixed effects regressions and interaction terms to analyze the effects of birth on parental satisfaction. At first, in contrast to other authors, we present a positive and significant effect of becoming parents. Second, we present gender-specific results of unemployed parents. While unemployed fathers perceive lower levels of satisfaction in general, unemployed mothers have higher levels of satisfaction in the Western part, but lower in the Eastern part of Germany. We conclude that different regional employment schemes drive these results.*

Keywords: satisfaction, children, (un-)employment.

JEL Classification: I31, J13, J64.

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[1] This paper is the private opinion of the author.

Introduction

Satisfaction research analyze inter alia if and how sociology-demographics can influence the level of everyday life satisfaction. From a specific economic point of view, satisfaction is an equivalent to the economic concept of utility (e.g. Frey and Stutzer, 2002, Frey, 2008). We start the analysis with the central question if and how children or in general fertility have an effect on parental satisfaction. In recent surveys Powdthavee (2009), and Hansen (2012) discuss both positive and negative effects of having children or getting parents. Interestingly, the larger part of the papers present negative effects on parental satisfaction. If we turn to neoclassical textbook knowledge of population economics (e.g. Becker, 1965, Becker and Lewis, 1973) fertility should be a result of a cost-benefit analysis. Therefore they should calculate their optimal number of children: Based on direct and opportunity costs, males but especially females should maximize over the household to provide labor supply to the market (no children) or to the household (any children). We assume that a high market wage should lower household supply, and maybe the number of children, and vice versa. Second, older children should be less costly than babies in terms of caring intensity. Therefore, our hypothesis is that the given number of children in a given household is the result of an optimization. A larger number of children should increase the level of utility or satisfaction.

As a key result, the number of children has a positive impact on satisfaction. Using terms of interaction, we find gender and regionally mixed results of perceived unemployment: While unemployed fathers perceive lower levels of satisfaction in general, unemployed mothers have higher levels of satisfaction in the Western part, but lower in the Eastern part of Germany. We conclude that different regional employment schemes drive these results.

The structure of the paper is the following: After the introduction section, section number two gives a brief discussion of the empirical literature. In section three data set and empirical strategy is presented. The results are reported in section four, while a conclusion is drown in section five.

Literature review

Recent studies present mixed or negative effects of children on parental life satisfaction (e.g. Powdthavee, 2009, Hansen, 2012), For instance Di Tella et al. (2001, 2003) show an ongoing decline with the number of children for a set of 12 European countries (with Eurobarometer). Cross country analyzes, such as Margolis and Myrskylä (2011) (with World Value Survey), or Aasve et al. (2012) (with European Social Survey) use global data and present rather mixed evidence for parental satisfaction. For instance, Herbst and Ifcher (2011) show an ongoing long-run effects of higher parental satisfaction in the US (with US General Social Survey and Needham Life Style Survey). Hansen et al. (2009) show that gender-specific differences exist between parents and non-parents. Here, male satisfaction is not effected by children, while women report lower effects of childlessness (with Norwegian Life Course, Ageing and Generation data). Here, those women who

have no biological opportunity to get pregnant, because of infertility report lower levels of life satisfaction than mothers (McQuillan et al. 2007). Tsang et al. (2003) show that young children, who do not attend to school increase parental stress and therefore lower satisfaction. Hagstrom and Wu (2014) show ethical differences in satisfaction for a set of pregnant women (with US Behavioral Risk Factor Surveillance System data). Myrskylä and Margolis (2014) show that the age of the parents matters, as well (with German SOEP data). Clark et al. (2008) show a timing effect of parental satisfaction. Before and after the birth satisfaction is inverse u-shaped. This effect is driven by adaption. Similar results are presented by Myrskylä and Margolis (2014). However, the temporary reduction is explained by marital stress because of family roles (Dew and Wilcox 2011 with US National Survey of Families and Households data). In the long run humans adapt any lifetime event, any way if positive or negative (Frijters et al. 2011 with Australian HILDA data). Pollmann-Schult (2014) shows that parental satisfaction can be decomposed in different stress types, such as financial costs (with German SOEP data).

Data and method

The German SOEP data is the largest panel data in Germany (see Wagner et al., 2007). We use several waves from 1984 to 2007 with 19,749 individuals and an average panel participation of 5.7 years. We limit the data towards those in the ages 18 to 60 years who get children over the time-span. Children are observable till the age of 16 in a parental household. The left-hand variable is life satisfaction.

Table 1. *Descriptive*

	Mean	Std. Dev.	Min	Max
Satisfaction	7.0270	1.7607	0	10
1 Child	0.4942	0.4999	0	1
2 Children	0.3468	0.4759	0	1
3 and more Children	0.1191	0.3239	0	1
Unemployed	0.0798	0.2710	0	1
1st Ch*UE	0.0400	0.1959	0	1
2nd Ch*UE	0.0242	0.1538	0	1
3rd Ch*UE	0.0108	0.1033	0	1
HH Income	2,409	1,397	0	35,000
Secondary School	0.3191	0.4661	0	1
Upper Sec. School.	0.0404	0.1970	0	1
A-Level	0.1496	0.3567	0	1
Other School	0.1124	0.3158	0	1
No School Degree	0.0606	0.2386	0	1
Still in School	0.0119	0.1083	0	1
Eastern Germany	0.2029	0.4022	0	1

Source: GSOEP 1984-2007.

It is a likert-scale from 0 (lowest level) to 10 (highest level of satisfaction). As controls we use the number of children (1, 2, 3+ with reference no children), (un-) employment, household income, education, years and German regions. See table 1 for the descriptive statistics. These variables are used in the estimation equation (1) below:

Satisfaction = a_0 + Children $_{it}$ + Unemployed $_{it}$

+ Children $_{it}$ * Unemployed $_{it}$ + Controls $_{it}$ + residuum (1)

We try four different models, separated for man and women each. In models I and we use simple OLS and fixed effects estimations for Germany, as a whole. The models III and IV use fixed effects spitted for Western and Eastern Germany. For a theoretical discussion of the estimation techniques see (Greene, 2012).

Results

At first life satisfaction for males and females is relatively similar. Table 2 shows that the highest magnitudes are around the levels 7 and 8 with over 50 percent of the distribution, each.

Table 2. *Life satisfaction by gender*

Scale	0	1	2	3	4	5	6	7	8	9	10
Male	0.45	0.35	1.08	2.27	3.34	11.15	11.28	22.93	30.56	11.40	5.17
Female	0.47	0.37	1.06	2.56	3.47	12.32	10.73	21.71	29.41	11.93	5.94

Source: GSOEP 1984-2007.

It is obvious that the OLS estimations (model I) are not the best specification. However, even this specification proves the hypotheses discussed above. Having children in the parental household, effects satisfaction of male and female parents. The effect is the largest for fathers. Here the number increases satisfaction. For mothers, we find a u-shaped effect. Of cause, actual unemployed lowers satisfaction in general. When we turn towards the interaction term, we present lower satisfaction for unemployed fathers, but higher for unemployed mothers. However, this interaction is not significant. Household income and a high level of school education increase satisfaction in general, while the dummy for Eastern Germany lowers satisfaction. We take this last coefficient as a reason to split the analyzes into a Western and an Eastern part.

Again in model III for Western Germany, we find the same positive effect on parental satisfaction. We reassess the result of an increasing effect for fathers and a u-shaped distribution for mothers. However, significance is less robust for women than for men. Unemployment itself remains strongly negative, while the interaction between children and unemployment remain mixed, but not significant. All controls are identical in their directions.

For Eastern Germany (model IV) the direction of the coefficients differ. Fathers show an inverse u-shaped effect for a higher number of children. Now, mothers have an increasing effect. However, only the third children is statistical significant. When we turn to the interaction effect, the structure differs. However, the interactions remain not significant. The controls remain stable.

Finally, the hypotheses is proved. The presence of children increases parental satisfaction. All interactions show a mixed effect. Unemployed fathers loose satisfaction in the Western and Eastern parts of Germany. While men receive on the average higher wags, unemployment is a stronger burden for fathers. Unemployed mothers have higher satisfaction in the Western Germany, but lower in Eastern Germany. This leads to the conclusion that women face different employment schemes in German regions. In Western Germany a more traditional male bread-winner marriage is still more common, than in the Eastern part. Here women have traditional higher employment rates because of a more labor orientation in the former GDR.

Table 3

	Model I		Model II	
	OLS Male	OLS Female	Fixed Male	FE Female
	Germany (all)	Germany (all)	Germany (all)	Germany (all)
Children (Ref No)				
1 Child	0.2309***	0.2441***	0.1723**	0.2148***
	0.0406	0.0418	0.0752	0.0790
2 Children	0.2281***	0.2936***	0.1907**	0.2002**
	0.0409	0.0421	0.0768	0.0802
3 and more Children	0.1663***	0.2131***	0.2225***	0.2136**
	0.0448	0.0457	0.0827	0.0861
Unemployed (Ref No)	-1.1652***	-0.7821***	-0.7210***	-0.4485***
	0.1429	0.1340	0.1501	0.1522
Children*UE (Ref No)				
1 Child*UE	-0.1358	-0.0497	-0.1344	0.0455
	0.1513	0.1397	0.1579	0.1556
2 Children*UE	-0.1518	0.0507	-0.1287	0.0316
	0.1562	0.1431	0.1638	0.1587
3 + Children*UE	-0.2335	0.0044	-0.2250	0.0865
	0.1704	0.1562	0.1881	0.1736
Income	0.0002***	0.0002***	0.0001***	0.0001***
	0.0075	0.0074	0.0001	0.0001
Education (Ref Primary)				
Secondary	0.1102***	0.1058***	0.0316	0.0533
	0.0200	0.0195	0.0773	0.0872
Upper Secondary	0.0991***	0.1840***	-0.0243	0.1475
	0.0331	0.0405	0.1148	0.1323
A-Level	0.2124***	0.1555***	0.0921	0.2621**
	0.0228	0.0244	0.1019	0.1234
Other School	-0.0315	0.0663**	0.0476	-0.0491
	0.0253	0.0264	0.0958	0.11027
No School Degree	-0.0462	-0.1637***	0.0663	-0.2045
	0.0370	0.0341	0.1109	0.1369
Still in School	0.6335	0.4275***	0.1624	0.2428
	0.0533	0.0595	0.1325	0.1507
Region (Ref West)				
Eastern Germany	-0.5840***	-0.5673***	-0.6831***	-0.3852**
	0.0207	0.0199	0.14258	0.1565
Years	Ok	Ok	Ok	Ok
N	54,131	58,672	54,131	58,672
R²	0.0989	0.0792	0.0684	0.0438
robust standard errors, * p<0.1, ** p<0.05,*** p<0.01. Source: SOEP 1984-2007				

Table 4

	Model III		Model IV	
	FE Male	FE Female	FE Male	FE Female
	West Germany	West Germany	East Germany	East Germany
Children (Ref No)				
1 Child	0.1992**	0.2221**	0.1131	0.1680
	0.0813	0.0927	0.2019	0.1467
2 Children	0.2311***	0.2166**	0.1579	0.2274
	0.0833	0.0941	0.2036	0.1477
3 and more Children	0.2786***	0.2271**	0.0864	0.2881
	0.0896	0.0996	0.2166	0.1701
Unemployed (Ref No)	-0.7730***	-0.3971*	-0.5268**	-0.5463***
	0.1807	0.2060	0.2593	0.2057
Children*UE (Ref No)				
1 Child*UE	-0.2296	0.0706	-0.0358	0.0587
	0.1931	0.2119	0.2676	0.2092
2 Children*UE	-0.2077	0.0245	-0.0618	0.0715
	0.1996	0.2150	0.2770	0.2178
3 + Children*UE	-0.1742	0.2152	-0.3591	-0.0677
	0.2261	0.2341	0.3247	0.2441
Income	0.0001***	0.0001***	0.0002***	0.0002***
	0.0001	0.0001	0.0001	0.0001
Education (Ref Primary)				
Secondary	0.0689	0.1002	-0.0714	-0.1527
	0.0903	0.0914	0.1472	0.2601
Upper Secondary	0.0246	0.0888	-0.1964	0.1932
	0.1207	0.1475	0.3277	0.3044
A-Level	0.1289	0.2525*	0.0018	0.1022
	0.1124	0.1444	0.2442	0.2652
Other School	0.0559	-0.0329	0.1135	-0.2988
	0.0983	0.1191	0.3867	0.2397
No School Degree	0.0423	-0.1780	0.3423	-1.009**
	0.1162	0.1404	0.3089	0.4925
Still in School	0.2507	0.3490**	-0.0387	-0.2134
	0.156	0.1769	0.2657	0.3111
Years	Ok	Ok	Ok	Ok
N	43,391	46,514	10,740	12,158
R²	0.0410	0.0168	0.0789	0.0655
robust standard errors, * p<0.1, ** p<0.05,*** p<0.01. Source: SOEP 1984-2007				

Conclusions

In this paper we showed if and how the number of children can effect parental satisfaction. The hypotheses was that a higher number of children should lead to higher utility or satisfaction. We tried to include theory of population economics into the spectrum of satisfaction research. At first, in contrast to other authors, we present a positive and significant effect of becoming parents. Second, we present gender-specific results of unemployed parents. While unemployed fathers perceive lower levels of satisfaction in general, unemployed mothers have higher levels of satisfaction in the Western part, but lower in the Eastern part of Germany. We conclude that different regional employment schemes drive these results. At first, in contrast to other authors,

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