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Unemployment and volunteer work in longitudinal perspective

An analysis of the West German subsample from the German Socio Economic Panel (GSOEP) for the years 1992 and 1996

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Introduction

Starting point of the analysis[1] is the discussion about possibilities to defuse the crisis on the German labour market by supporting volunteer work. For that reason, the effects of unemployment on the probability to volunteer are of special interest. For this purpose, logistic regressions are estimated for the years 1992 and 1996, using longitudinal data from the West German subsample of the German Socio-Economic-Panel (GSOEP).

Starting Question

Besides a generally growing number of volunteer workers in Germany (see *Figure 1*), cross sectional analyses of the GSOEP data have shown that especially the volunteering rate of the unemployed has increased since the mid-1980s. As can be seen from *Figure 2*, the volunteering rate of unemployed was rather low in 1985. Eleven years later, however, this group reveals an almost average activity.
The following analyses address the question, whether the cross-sectional finding of an increasing number of unemployed volunteer workers can be confirmed in a dynamic perspective. Therefore, the following hypotheses are tested by estimating several binary logistic regression models for longitudinal data of the West German subsample of the German Socio Economic Panel (GSOEP).

[1] For details see ERLINGHAGEN (2000).

Figur 1: *Volunteer activity rate in West Germany between 1985 and 1996*

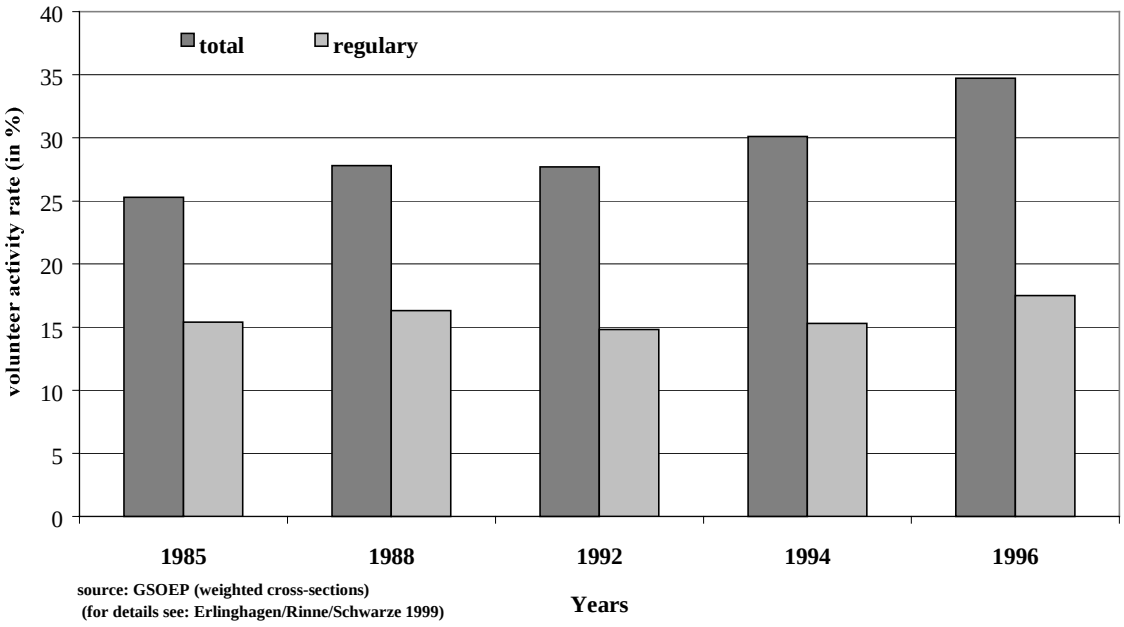
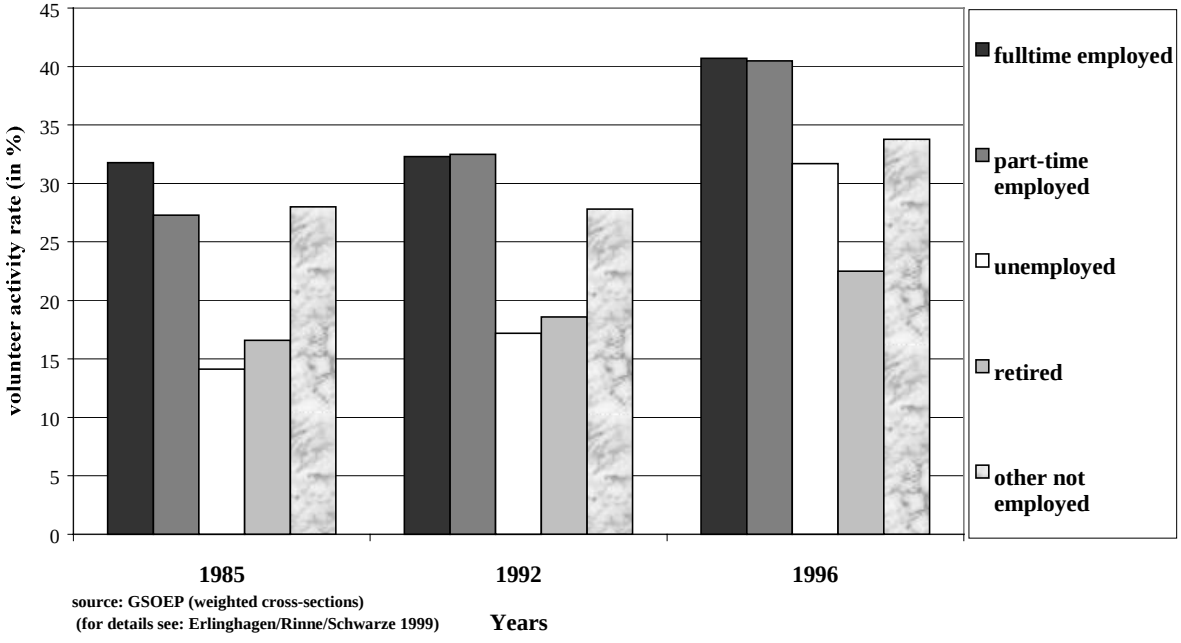


Figure 2: *Volunteer activity rate in West Germany between 1985 and 1996 by employment status*



Hypotheses

Thesis 1: Labour not only creates income, it also gives meaning to a person's life. Unemployed are excluded from this opportunity. For this reason, it is expected that unemployed people increase their volunteering activities to compensate this disadvantage.

Thesis 2: Especially for long-term unemployed, opportunity costs for volunteering are reduced, because their human capital devaluates with an increasing duration of unemployment. Therefore, an increasing volunteer activity of this group is supposed.

Thesis 3: Under the assumptions of Thesis 1 and Thesis 2, it is concluded that there should be an increasing probability to start a volunteer career when unemployment is experienced for the first time.

Data Source

GSOEP participants were asked about their volunteer activities in 1992 and 1996 as follows:

"Which of the following activities do you do in your free time? How frequently do you do the following activities?" [2]

- go to cultural events, ex: concerts, theater, lectures
- go to the cinema, pop concerts, dance halls, disco, sporting events
- participate in sports
- visit with friends, relatives, or neighbors
- help out friends, relatives, or neighbors
- *volunteer work in clubs, associations, or social services*
- *participate in citizens' action groups, political parties, local government*
- go to church or religious institutions

In the analysis both categories of interest ("volunteer work in clubs, etc."; "participate in citizens' action groups etc.") are summarized to "volunteer work".

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[2] Answer categories: (1) weekly, (2) monthly, (3) less than once per month, (4) never.

Construction of the longitudinal dataset

Only respondents of the West German sample of the GSOEP (Sample A) are included in the analyses, (1) who participated continuously in the GSOEP between 1991 and 1997 (because complete unemployment information from the GSOEP calendar variables is needed), and (2) who gave a valid answer to at least one of the two 'volunteer questions' in 1992 and 1996. Under this conditions 5356 persons remained in the sample to be analyzed.

Two different regression models were estimated by varying the binary dependent variable as follows:

Model 1: Getting started with a volunteer work between 1992 and 1996

The dependent variable equals '1' if volunteer work is reported in 1996 but not in 1992; the dependent variable equals '0' if there is no voluntary activity in any of the observed years.

Model 2: Bringing volunteer work to an end between 1992 and 1996

The dependent variable equals '1' if volunteer work is reported in 1992, but not in 1996; the dependent variable equals '0' if there is volunteer activity both in 1992 and 1996.

In addition, the two models are varied by including different explanatory variables in the estimations. The composition of the set of explanatory variables differs in four ways (a-d) as shown in *Table 1*.

Table 1: *Explanatory variables included in the different estimations ('a' to 'd') of Model I and II*

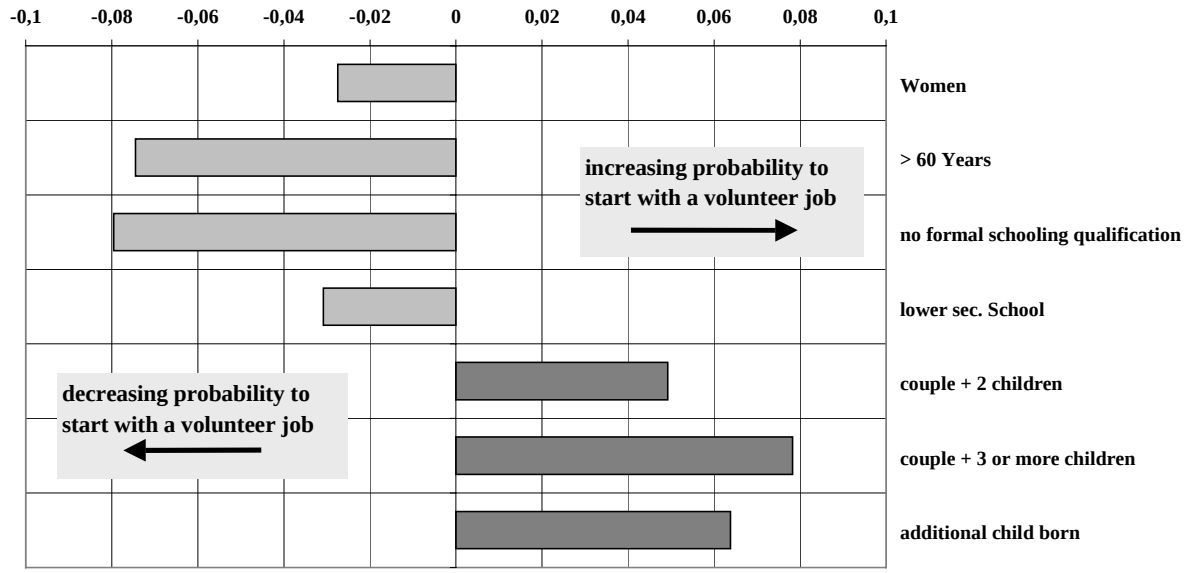
	Estimation		Estimation
explanatory variables		**explanatory variables**	
sex		**schooling**	
men* / women	a,b,c,d	no formal schooling qualification	a,b,c,d
age		lower sec. school („Hauptschule")	a,b,c,d
19-25 years	a,b,c,d	medium sec. school ("Realschule")*	a,b,c,d
26-40 years	a,b,c,d	"Abitur"	a,b,c,d
41-60 years*	a,b,c,d	improve schooling degree	a,b,c,d
> 60 years	a,b,c,d	**household-/familystatus**	
unemployment		single household	b,d
employed (never unemployed)*	a,b,c,d	single parent household	b,d
not employed (never unemployed)	a,b,c,d	couple without children*	b,d
change of working status (never unemployed)	a,b,c,d	couple + 1 child	b,d
short-term unemployed	a,b	couple + 2 children	b,d
medium-term unemployed	a,b	couple + 3 or more children	b,d
long-term unemployed	a,b	other households	b,d
first time unemployed before 1992	c,d	separation	b,d
first time unemployed after 1992	c,d	new partner	b,d
		child leaves household	b,d
		first child born	b,d
		additional child born	b,d

note: * reference group

Results of the logistic regression

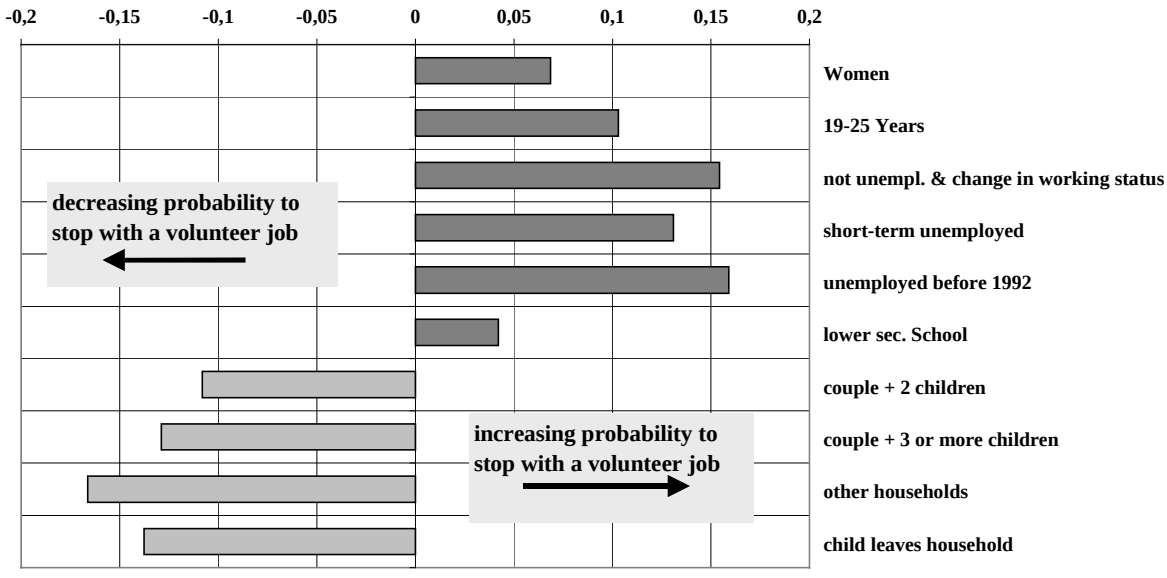
The complete results of the four logistic regression estimations of the two models are documented in the appendix (T*able 2* to *Table 4*). Note that every estimation was done for both, the complete dataset and for the dataset split by sex. For an easier interpretation, significant results (p <= 0,1) are presented in *Figures 3* to *6* as marginal effects.

Figure 3: *Marginal effects of the binary logistic regression (Model I), West Germany, complete sample*



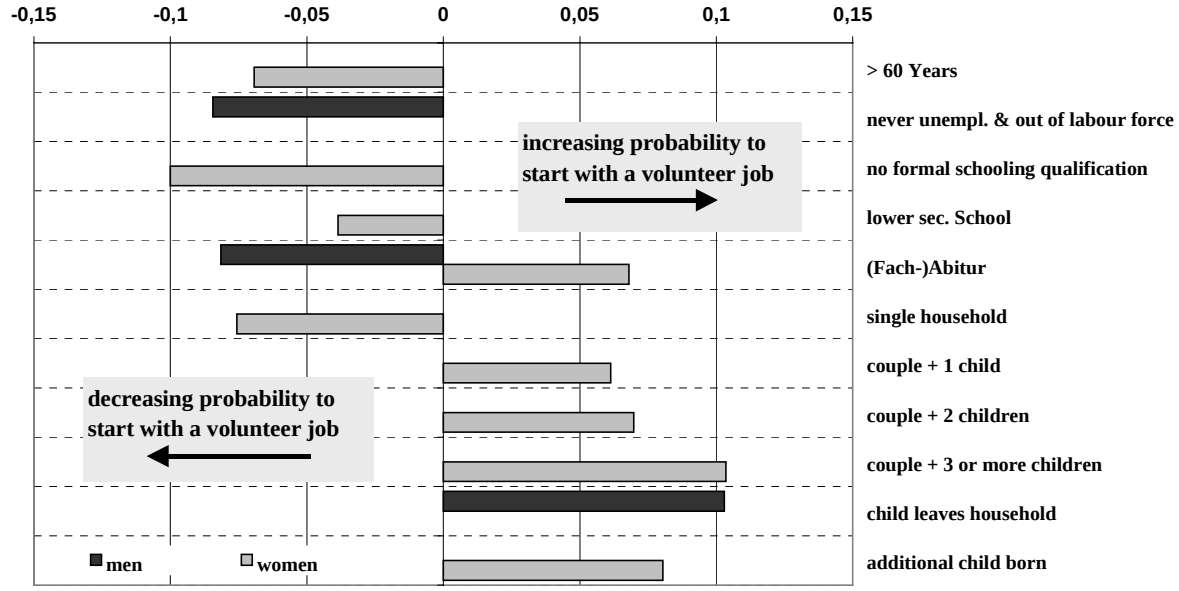
source: GSOEP (longitudinal section), wave 9 to 14

Figure 4: *Marginal effects of the binary logistic regression (Model II), West Germany, complete sample*



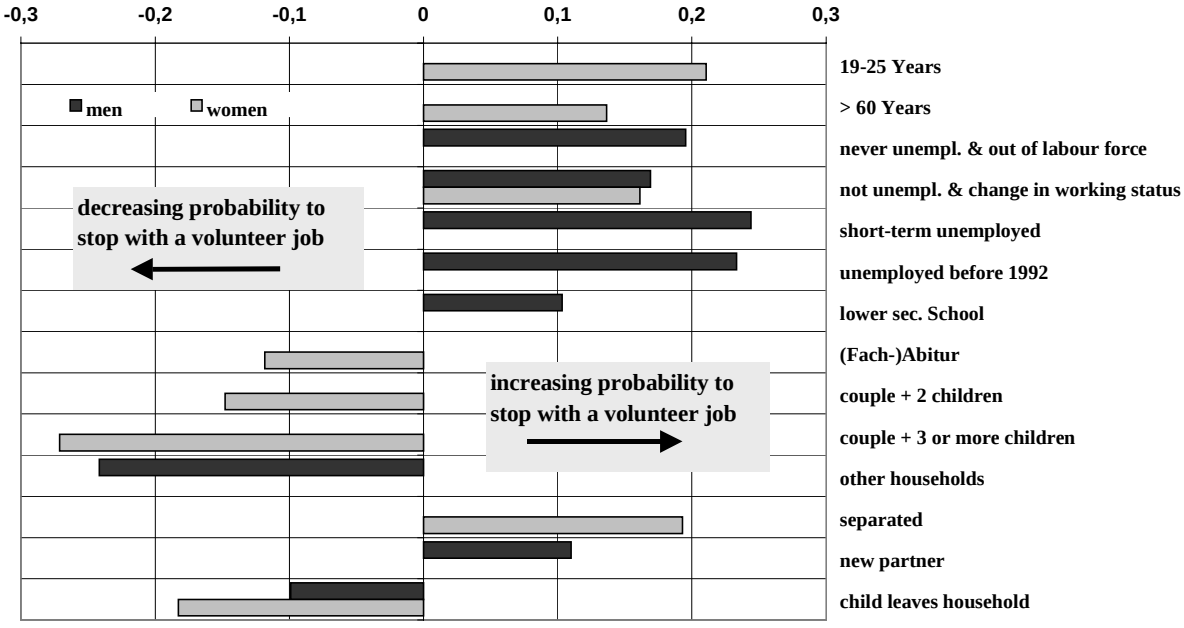
source: GSOEP (longitudinal section), wave 9 to 14

Figure 5: *Marginal effects of the binary logistic regression (Model I), West Germany, male/female*



source: GSOEP (longitudinal section), wave 9 to 14

Figure 6: *Marginal effects of the binary logistic regression (Model II), West Germany, male/female*



source: GSOEP (longitudinal section), wave 9 to 14

Conclusion

There is no evidence for an increasing propensity to take up or maintain volunteer work among the unemployed. In contrast, it is shown that the chance to volunteer especially increases with a higher educational degree, or if the person lives in 'secure' family circumstances. On the 'volunteer market' qualifications are in demand that are similar to those supporting a successful participation in the regular labor market.

Therefore, the hope that an assumed individually higher willingness to volunteer among the unemployed may contribute to cope with the general labour market crisis turns out to be misleading. Especially low-educated persons, being a problem group on the labor market, do not regard volunteering as an adequate activity for themselves.

References

Erlinghagen, Marcel (2000): Arbeitslosigkeit und ehrenamtliche Tätigkeit im Zeitverlauf. Eine Längsschnittanalyse der westdeutschen Stichprobe des Sozio-oekonomischen Panels (SOEP) für die Jahre 1992 und 1996; in: Kölner Zeitschrift für Soziologie und Sozialpsychologie 52, H.2, 291-310.

For details on the cross-sectional analysis of volunteer work see:

Erlinghagen, Marcel / Rinne, Karin / Schwarze, Johannes (1999): Ehrenamt statt Arbeitsamt – Sozioökonomische Determinanten ehrenamtlichen Engagements in Deutschland, WSI-Mitteilungen 4/99, 246-255.

For details on the longitudinal analysis of volunteer work in East Germany see:

Erlinghagen, Marcel (1999): Zur Dynamik von Erwerbstätigkeit und ehrenamtlichem Engagement in Deutschland. Diskussionspapier Nr. 190, Berlin: Deutsches Institut für Wirtschaftsforschung (DIW).

Appendix

Table 2: *Complete West German subsample (1992 to 1996) – Logit estimation for Model I and Model II*

	Model Ia[c]		**Model Ib[d]**		**Model IIa[c]**		**Model IIb[d]**	
	Coeff.	Sign.	Coeff.	Sign.	Coeff.	Sign.	Coeff.	Sign.
sex								
men	RG		RG		RG		RG	
women	-0,2233	**	-0,1808	**	0,3345	***	0,3061	**
age								
19-25 years	0,0485		0,0418		0,5573	**	0,4398	*
26-40 years	0,1125		0,1444		0,3615	**	0,1651	
41-60 years	RG		RG		RG		RG	
> 60 years	-0,7354	***	-0,5345	***	0,5125	***	0,1805	
unemployment [1]								
employed (never unemployed)	RG		RG		RG		RG	
not employed (never unemployed)	0,0429		-0,0236		0,0906		0,1490	
change of working status (never unemployed)	0,0624		0,0341		0,5579	***	0,6521	***
short-term unemployed	0,2045		0,2679		0,6441	**	0,5514	*
medium-term unemployed	0,1213		0,1262		-0,3656		-0,3142	
long-term unemployed	-0,0683		-0,0073		0,3455		0,3465	
[first time unemployed before 1992]	[-0,0590]		[-0,0178]		[0,7071]	**	[0,6652]	**
[first time unemployed after 1992]	[0,1607]		[0,2012]		[-0,1553]		[-0,1431]	
schooling								
no formal schooling qualification	-0,6314	**	-0,6422	**	0,1275		0,1312	
lower sec. school („Hauptschule")	-0,1880	*	-0,2026	*	0,2708	*	0,1886	*
medium sec. school ("Realschule")	RG		RG		RG		RG	
"Abitur"	-0,0745		-0,0657		-0,1049		-0,1698	
improve schooling degree	0,4749		0,3994		0,0864		0,1975	
Household-/Familystatus								
single household			-0,2834				0,0973	
single parent household			-0,2153				0,1063	
couple without children			RG				RG	
couple + 1 child			0,2022				-0,2552	
couple + 2 children			0,3042	**			-0,5194	**
couple + 3 or more children			0,4583	**			-0,6484	**
other households			0,1766				-0,8934	**
separation			-0,3795	**			0,3581	
new partner			-0,0858				0,1533	
child leaves household			0,2072				-0,6851	***
first child born			-0,1453				-0,1713	
additional child born			0,3824	**			-0,3567	
constant	-1,1037	***	-1,2261	***	-1,2680	***	-0,9057	***
R^2 (Cox & Snell)	0,024		0,033		0,039		0,060	
R^2 (Nagelkerke)	0,038		0,052		0,054		0,082	

source:
ERLINGHAGEN (2000)
comment:
All models were estimated twice, varying the explanatory unemployment variables. For reasons of clarity, the estimated coefficients of the models using the explanatory variable "fist time unemployment" are reported incomplete. The table shows only the two dummy-variables and their coefficients, which are important for testing the hypothesis. To show this, the corresponding information is typed in brackets.
note:
Dependent variable Model I: '0' = no volunteering 1992 & 1996; '1' = start volunteering
dependent variable Model II: '0' = volunteering in 1992 & 1996; '1' = stop volunteering
Significance: ***: $p \leq 0,01$ **: $0,01 < p \leq 0,05$ *: $0,05 < p \leq 0,1$ / RG = reference group
source: GSOEP (wave 9 to wave 13) / [1] source: GSOEP (wave 14)

Table 3: *West German subsample (1992 to 1996) – Logit estimation for Model I, male/female*

	men				women			
	model Ia[c]		**model Ib[d]**		**model Ia[c]**		**model Ib[d]**	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
age								
19-25 years	0,1186		0,1700		-0,0300		-0,0599	
26-40 years	0,1013		0,2017		0,1163		0,0583	
41-60 years	RG		RG		RG		RG	
> 60 years	-0,2534		-0,2121		-0,9379	***	-0,5577	***
unemployment [1]								
employed (never unemployed)	RG		RG		RG		RG	
not employed (never unemployed)	-0,6301	**	-0,5789	**	0,2922	*	0,1551	
change of working status (never unemployed)	0,1184		0,1439		0,0104		-0,0504	
short-term unemployed	0,1296		0,1819		0,1989		0,2590	
medium-term unemployed	0,0496		0,0670		0,1317		0,0655	
long-term unemployed	-0,1917		-0,1647		0,0023		0,0740	
[first time unemployed before 1992]	[-0,1964]		[-0,1938]		[0,0057]		[0,0330]	
[first time unemployed after 1992]	[0,0875]		[0,1397]		[0,17289		[0,1719]	
schooling								
no formal schooling qualification	-0,2717		-0,3051		-1,0473	**	-1,0557	**
lower sec. school („Hauptschule")	-0,1473		-0,1735		-0,2636	*	-0,2846	*
medium sec. school ("Realschule")	RG		RG		RG		RG	
"Abitur"	-0,5287	**	-0,5526	***	0,4448	**	0,4521	**
improve schooling degree	0,5864		0,5558		0,4150		0,2399	
Household-/Familystatus								
single household			0,2098				-0,6690	**
single parent household			-0,1390				-0,2296	
couple without children			RG				RG	
couple + 1 child			-0,0101				0,4115	*
couple + 2 children			0,1928				0,4628	**
couple + 3 or more children			0,2321				0,6408	**
other households			0,3001				-0,0197	
separation			-0,4299				-0,3365	
new partner			0,0185				-0,0396	
child leaves household			0,5548	**			-0,0512	
first child born			0,0086				-0,3082	
additional child born			0,1916				0,5177	**
constant	*-1,0403*	***	*-1,1819*	***	*-1,3807*	***	*-1,4356*	***
R^2 (Cox & Snell)	*0,026*		*0,032*		*0,035*		*0,051*	
R^2 (Nagelkerke)	*0,040*		*0,050*		*0,057*		*0,084*	

source:
ERLINGHAGEN (2000)
comment:
see comment in table 2
Note:
dependent variable model I: '0' = no volunteering 1992 & 1996; '1' = start volunteering
dependent variable model II: '0' = volunteering in 1992 & 1996; '1' = stop volunteering
significance: ***: $p \leq 0,01$ **: $0,01 < p \leq 0,05$ *: $0,05 < p \leq 0,1$ / RG = reference group
source: GSOEP (wave 9 to wave 13) / [1] source: GSOEP (wave 14)

Table 4: West German subsample (1992 to 1996) – Logit estimation for model II, male/female

	men				women			
	model Ia[c]		**model Ib[d]**		**model Ia[c]**		**model Ib[d]**	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
age								
19-25 years	0,1927		0,1397		0,9127	**	0,8565	**
26-40 years	0,2718		0,0372		0,4553	**	0,3208	
41-60 years	RG		RG		RG		RG	
> 60 years	-0,3058		-0,4428		1,1278	***	0,5596	*
unemployment [1]								
employed (never unemployed)	RG		RG		RG		RG	
not employed (never unemployed)	0,8276	***	0,8530	**	-0,3403		-0,1703	
change of working status (never unemployed)	0,8039	***	0,7371	**	0,4705	*	0,6575	**
short-term unemployed	1,1598	***	1,0309	**	0,1301		ß,1129	
medium-term unemployed	-0,3274		-0,3580		-0,3216		-0,2653	
long-term unemployed	0,6033		0,5300		0,0012		0,1667	
[first time unemployed before 1992]	[1,0660]	***	[0,9827]	**	[0,2936]		[0,4240[	
[first time unemployed after 1992]	[0,0431]		[-0,0289]		[-0,3235]		[-0,2937]	
schooling								
no formal schooling qualification	0,4679		0,5189		-0,4748		-0,4537	
lower sec. school („Hauptschule")	0,4490	**	0,4939	**	0,1468		0,1375	
medium sec. school ("Realschule")	RG		RG		RG		RG	
"Abitur"	0,1256		0,0868		-0,4620	*	-0,5189	*
improve schooling degree	0,4615		0,6854		-0,4853		-0,4278	
Household-/Familystatus								
single household			-0,0191				0,0741	
single parent household			0,7758				-0,4590	
couple without children			RG				RG	
couple + 1 child			-0,1184				-0,3907	
couple + 2 children			-0,3423				-0,6596	**
couple + 3 or more children			-0,1255				-1,4512	***
other households			-1,8248	**			-0,1581	
separation			-0,0298				0,7824	**
new partner			0,4929	*			-0,3091	
child leaves household			-0,5155	*			-0,8477	**
first child born			-0,1514				-0,0708	
additional child born			-0,3301				-0,4769	
constant	*-1,3778*	***	*-1,1591*	***	*-0,7806*	***	*-0,3517*	
R^2 *(Cox & Snell)*	*0,040*		*0,065*		*0,054*		*0,087*	
R^2 *(Nagelkerke)*	*0,056*		*0,092*		*0,073*		*0,117*	

source:
ERLINGHAGEN (2000)
comment:
see comment in table 2
Note:
dependent variable model I: '0' = no volunteering 1992 & 1996; '1' = start volunteering
dependent variable model II: '0' = volunteering in 1992 & 1996; '1' = stop volunteering
significance: ***: $p \leq 0,01$ **: $0,01 < p \leq 0,05$ *: $0,05 < p \leq 0,1$ / RG = reference group
source: GSOEP (wave 9 to wave 13) / [1] source: GSOEP (wave 14)