1 Descriptive Statistics

The following section presents some interesting descriptive features of the data set. We provide complete summary statistics in Appendix A.

Timing and educational choice after dissolutions of apprenticeship contracts are similar to previous studies. A majority of contracts was dissolved during the first year of the apprenticeship (63%). Late dissolutions (3rd and 4th year) are quite uncommon. Nearly 80 % of all youths decided to continue their education, but one fifth decided to quit the educational system and work as unskilled workers or end up unemployed.

We find a familiar descriptive result with respect to previous level of schooling:¹ the higher it is, the lower is the youths' risk of dropping out of the schooling system. While more than 40% of teenagers without any schoolleaving certificate dropped out, only 6% of the ones holding an *Abitur* did so. Inversely, they chose much more often to upgrade, probably also due to the fact that they are the only ones among the respondents who can enter university directly.

¹The German schooling system tracks pupil into three different schools after 4 or 6 years of primary school. The lower secondary school (*Hauptschule*) lasts 5 years while the middle secondary school (*Realschule*) lasts 6 years and the upper secondary school (*Gymnasium*) lasts either 8 or 9 years and pupils graduate with an *Abitur*. The latter is the only type of school whose graduates are allowed to study at a university. However, there are also various possibilities to gain a *Fachabitur* (that allows its holders to study only in a certain field) or *Fachhochschulreife* (in order to study at a polytechnic) outside the Gymnasium.

Table 1: Choice by prior level of schooling

	None	Hauptschule	Realschule	Fachabitur	Abitur
Changers	55.17%	71.69%	79.09%	78.72%	67.53%
Upgraders	3.45%	2.25%	6.46%	11.7%	26.62%
Dropouts	41.38%	26.06%	14.44%	9.57%	5.84%
n	58	756	727	94	154

There are also remarkable differences for youths in apprenticeship with different training durations. Those in two-year apprenticeships are much more likely to drop out as opposed to change than those in three-year and longer apprenticeships. The numbers for upgraders are quite similar for all three different apprenticeship durations.

Table 2: Choice by apprenticeship duration

	2 years	3 years	3.5 years
Changers	55.83%	73.55%	71.74%
Upgraders	7.5%	7.35%	7.25%
Dropouts	36.67%	19.1%	21.01%
n	120	1361	138

Finally, a look at the choice of terminating youths depending on the timing of their termination of contract shows that the early terminations seem to be less problematic than the late ones: while only 16% of the terminations during probation time led to a dropout, 37% of the terminations during the third year did so. This result is mirrored by the development of changing behavior, which decreases heavily for the later terminations. This shows that time seems to matter crucially for educational choices.

Table 3: Choice by Timing

	Probation	First year	Second year	Third year	Fourth year
Changers	74.39%	76.03%	77.13%	60.13%	40.00%
Upgraders	9.42%	7.39%	3.74%	2.61%	6.67%
Dropouts	16.20%	16.58%	19.13%	37.25%	53.33%
n	531	609	481	153	15

As already mentioned, the data set contains information on the regional origin of respondents, and patterns of behavior across the regions vary remarkably. The following table summarizes the inter-regional differences.

		, ,	0	
	Aachen	Augsburg	Darmstadt	Flensburg
Changers	73.05%	78.50%	61.36%	77.38%
Upgraders	5.39%	5.21%	11.36%	4.76%
Dropouts	21.56%	16.29%	27.27%	17.86%
n	167	307	44	168
	Frankfurt/O.	Freiburg	Gera	Karlsruhe
Changers	77.98%	77.84%	84.85%	76.64%
Upgraders	4.59%	11.98%	3.03%	6.54%
Dropouts	17.43%	10.18%	12.12%	16.82%
n	109	167	33	107
	Kiel	Krefeld	Leipzig	Osnabrueck
Changers	70.80%	59.78%	79.37%	78.02%
Upgraders	5.47%	12.85%	6.35%	2.2%
Dropouts	23.72%	27.37%	14.29%	19.78%
n	274	179	63	91
	Rostock	Entire Sample		
Changers	75.00%	74.18%		
Upgraders	3.75%	6.6%		
Dropouts	21.25%	19.23%		
\overline{n}	80	1789		

Table 4: Choice by Region of Origin

Dropout rates are highest in Darmstadt and Rostock, while they are lowest in Freiburg and Gera. The size of regional labor markets could provide an explanation for the different dropout rates. We will test this hypothesis in the empirical part of our paper.

A Complete Summary Statistics

Variable	Mean	Std. Dev.	Min	Max	n
1 - non notivo povento	0.0786	0.2602	0	1	1790
1 = non-mative parents	0.0760	0.2092	0	1 0 7802	1050
appr.wage/wage for unskilled worker $1 - b$ and $1 - $	0.3210	0.0912	0	0.7095	1790
1 = 0.007 moleculation with more than 0.07 molecular	0.2245	0.4172 0.4070	0	1	1709
1 = girl in occupation with more than 60% males	0.2095	0.4070	0	1	1709
1 = no school leaving certificate	0.0324	0.1772	0	1	1789
1 = Realschule graduate	0.4107	0.4921	0	1	1789
1 = Fachabitur holder	0.0522	0.2225	0	1	1789
1 = Gymnasium graduate	0.0858	0.2801	0	1	1789
1 = contract termination in business-related occupation	0.3018	0.4592	0	1	1789
1 = contract termination in crafts occupation	0.2820	0.4501	0	1	1789
1 = contract termination in technical occupation	0.2380	0.4260	0	1	1789
1 = firm size between 10 and 49 employees	0.3458	0.4758	0	1	1789
1 = firm size between 50 and 99 employees	0.1028	0.3038	0	1	1789
1 = firm size between 100 and 499 employees	0.0935	0.2912	0	1	1789
1 = firm size over 500 employees	0.0671	0.2502	0	1	1789
1 = bad prospects as a reason for termination	0.0439	0.2051	0	1	1789
1 = bad income prospects as a reason for termination	0.0616	0.2404	0	1	1789
1 = bad career prospects as a reason for termination	0.0439	0.2051	0	1	1789
1 = exam nerves as a reason for termination	0.0379	0.1911	0	1	1789
1 = financial distress as a reason for termination	0.0539	0.2258	0	1	1789
% of youths in full-time school for dually provided occupation	0.1520	0.1668	0.0208	0.6169	1789
working age population density	0.1857	0.1389	0.0548	0.5555	1789
public transport density	0.2697	0.1898	0.0559	0.7376	1789
local unemployment rate	0.0891	0.0459	0.0468	0.2008	1789

Table 5: Descriptive Statistics

B Additional Estimation Results

1401		Itesuits		
14	Upgrade I	Dropout I	Upgrade II	Dropout I
d1	0.693	0.036***	0.672	0.082^{***}
d2	1 309	0.100***	1 054	0.148***
42	[1.339]	[0.029]	[0.650]	[0.031]
d3	1.562	0.289***	1.003	0.291***
	[1.633]	[0.079]	[0.648]	[0.062]
apprenticeship wage/wage unskilled	0.001***	0.004^{***}		
	[0.002]	[0.005]		
1 = non-native parents	0.956	1.421	0.971	1.499*
1 - famala	[0.487]	[0.403]	[0.351]	[0.322]
1 – Tennale	[0 161]	[0.181]	[0 130]	[0 131]
1 = male in occupation with	0.456**	0.82	0.509**	0.838
more than 60% females	[0.182]	[0.174]	[0.151]	[0.139]
1 = female in occupation with	1.662	1.506	1.272	1.189
more than 60% males	[0.629]	[0.405]	[0.359]	[0.224]
1 = school dropout	1.041	1.667	1.559	1.925^{**}
	[1.109]	[0.588]	[1.185]	[0.497]
I = Realschule	2.364**	0.592***	2.226***	0.602***
1 - Fachabitur	[0.859]	[0.110]	[0.647]	[0.088]
I = Facilabitui	[2 039]	[0.140]	[2 009]	[0.153]
1 = Abitur	8.222***	0.203**	11.329***	0.334***
	[3.631]	[0.128]	[3.690]	[0.123]
1 = apprenticeship in	1.896	1.221	1.648	0.889
business occupation	[1.263]	[0.413]	[0.536]	[0.170]
1 = apprenticeship in	0.64	1.193	0.684	0.723
crafts occupation	[0.472]	[0.443]	[0.289]	[0.149]
1 = apprenticeship in	0.743	0.619	0.959	0.581**
1 = firm size	[0.515]	[0.230]	[0.357]	[0.127]
hetw 10-49 employees	[0 416]	[0.262]	[0.317]	[0 181]
1 = firm size	2.804**	1.395	2.647***	1.088
betw. 50-99 employees	[1.213]	[0.416]	[0.853]	[0.247]
1 = firm size	1.213	1.002	2.143**	1.125
betw. 100-499 employees	[0.550]	[0.319]	[0.727]	[0.259]
1 = firm size	1.282	1.269	1.559	1.202
over 500 employees	[0.634]	[0.472]	[0.580]	[0.319]
1 = bad prospects	0.375	1.289	1.004	0.957
1 - bad income prospects	0.782	1 648	0.862	1 489
reason for termination	[0.472]	[0.564]	[0.390]	[0.390]
1 = bad career prospects	1.945	0.597	1.486	0.689
reason for termination	[1.077]	[0.317]	[0.658]	[0.278]
1 = exam nerves	0.364	1.081	0.221	0.987
reason for termination	[0.379]	[0.352]	[0.226]	[0.231]
1 = financial distress	0.823	2.565***	0.598	1.769***
reason for termination	[0.621]	[0.679]	[0.363]	[0.361]
in out-of-firm training	[132 361]	[0.00]	[195.902]	[82 084]
local population density	0	[0.000]	0	[02:004]
F -F	[0.000]	[0.000]	[0.000]	[0.000]
local supply-demand ratio	0	1.959	0	3.436
on the job market for apprentices	[0.000]	[2.336]	[0.000]	[2.846]
local density of public transport	0.926	8.225	0.686	2.075
	[1.038]	[7.226]	[0.553]	[2.084]
local unemployment rate	0.843	43.165	0.009	96.791
Hessen	[0.300] 5.495	[210.227] 301.409	0.040	[327.133] 06 565
1105501	[31,280]	[1516.900]	[0.315]	[251.649]
Baden-	2.325	109.849***	0.026	37.358
Wuerttemberg	[16.132]	[511.199]	[0.127]	[118.425]
Sachsen	0.116	0.000***	1,180.85	0.000**
	[1.639]	[0.000]	[12, 150.594]	[0.000]
Brandenburg	0	0	0	0
NT* 1	[0.000]	[0.000]	[0.000]	[0.000]
medersachsen	0.188	115.029*** [211.722]	0.089	2.251
Thueringen	[U.535] 0.092	[211.722]	[U.181] 326.255	[2.869]
1 nuer mgen	[0.941]	[0.000]	[2.688 231]	[0 000]
Mecklenburg-	0.097	0	305.72	0
	[1.700]	[0 0 0]	[410 569]	[0 0 0]
Vorpommern	11.799	0.000	410.008	10.0001
Norpommern n	1967	[0.000]	3389	[0.000]

Table 6: Full Results

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	dl	upgrade I	aropout I	upgrade II	aropout 1
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	d1	1.168	0.056***	1.008	0.114****
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	d2	1.938	0.143***	1.468	0.195***
d3 2.11° 0.377*** 1.335 0.388* apprenticeship wage/wage unskilled 0.002^{***} 0.009*** 1 = non-native parents 0.713 1.415 0.861 1.473* 1 = non-native parents 0.713 1.415 0.861 1.473* 1 = frmale in occupation with 0.449** 0.846 0.502** 0.847 1 = male in occupation with 0.449** 0.846 0.502** 0.847 1 = male in occupation with 1.624 1.431 1.282 1.163 more than 60% males 0.580 [0.381] 0.286 1 = female in occupation with 1.624 1.431 1.282 1.163 more than 60% males 0.580 [0.348] 0.248 [0.487] 1 = Realschule 1.156* 0.466** 0.848 [0.497] 1 = Realschule 1.156* 0.466** 0.848 [0.497] 1 = Realschule 2.012* 0.0469* 1.248 [0.488] 0.202 1 = school dropout 1.099 1.48 1.487 [0.798] 1 = Fachabitur 4.074** 0.758 0.485*** 0.740* 1 = Fachabitur 8.685*** 0.440* 2.060** 2.066** [0.298* 1 = apprenticeship in 1.763 1.149 [1.509** 0.298** 1 = apprenticeship in 0.558 1.14 0.657 0.229* 1 = apprenticeship in 0.774 0.653 0.0966 (0.600* technical occupation [1.149] [0.350] [0.502] [0.137] 1 = apprenticeship in 0.774 0.653 0.0966 (0.600* technical occupation [0.525] [0.221] [0.3544] [0.129 technical occupation [0.525] [0.221] [0.3544] [0.129 technical occupation [0.525] [0.221] [0.3544] [0.268] 1 = firm size 2.464** 1.277 2.491*** 1.044 betw 50-90 employees [0.536] [0.233] [0.663] [0.223] 1 = firm size 2.464** 1.277 2.491*** 1.044 betw 50-90 employees [0.547] [0.281] [0.663] [0.224] 1 = firm size 3.139 [0.340] [0.752] [0.214] 1 = firm size 3.139 [0.340] [0.752] [0.214] 1 = firm size 3.139 [0.340] [0.752] [0.214] 1 = bad prospects [0.547] [0.281] [0.663] [0.224] 1 = bad prospects [0.547] [0.344] [0.511] [0.278] 1 = bad prospects [0.547] [0.384] [0.334] [0.344] 1 = bad carcer prospects [0.547] [0.341] [0.266] 1 = exam nerves [0.376] [0.382] [0.334] [0.334] 1 = bad carcer prospects [0.382] [0.341] [0.541] [0.264] 1 = bad prospects [0.547] [0.382] [0.286] [0.331] [0.304] 1 = bad carcer prospects [0.381] [0.324] [0.354] [0.235] [0.300] 1 = firm size [0.441] [0.511] [0.254] [0.326] [0.331] [0.341] [0.34		[1.939]	[0.033]	[0.874]	[0.034]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	d3	2.11	0.377***	1.335	0.368***
$\begin{aligned} & \begin{tabular}{l lllllllllllllllllllllllllllllllllll$		[2.157]	[0.083]	[0.832]	[0.064]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	apprenticeship wage/wage unskilled	0.002***	0.009***		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		[0.004]	[0.009]	0.004	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 = non-native parents	0.713	1.415	0.861	1.473**
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1 — female	[0.362]	[0.334]	0.485***	0.200
$\begin{split} 1 = male in occupation with 0.4492+ 0.846' 0.5022+ 0.847' more than 60% females [0.176] 0.161] [0.145] (0.128] 1 = formale in occupation with 1.624 1.431 1.282 1.163 more than 60% males 1.099 1.48 1.487 1.1570' 1.980' 1.156] [0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 1.156] 0.466] [1.117] 0.366 0.18** 0.167** 0.260** 5.127** 0.279** 0.271 0.481 0.455 0.729 0.231 0.264 0.271 0.481 0.455 0.729 0.251 0.223 0.025 0.0551 0.2060** 0.251 0.2061 0.553 0.2560 0.256 0.2560 0.256 0.2560 0.256 0.2560 0.256 0.2560 0.2560 0.2560 0.2560 0$		[0 166]	[0.185]	[0 128]	[0 129]
$\begin{array}{llllllllllllllllllllllllllllllllllll$	1 = male in occupation with	0.449**	0.846	0.502**	0.847
1 = fermale in occupation with 1.624 1.431 1.282 1.163 more than 60% males 10.999 1.48 1.487 1.570* 1 = school dropout 1.099 1.48 1.487 1.570* 1 = Realschule 2.516** 0.616*** 2.390*** 0.618** 1 = Fachabitur 4.074** 0.260** 5.127*** 0.279** 1 = Abitur 8.685*** 0.187*** 11.570*** 0.299** 1 = appernticeship in 1.763 1.449 1.611 0.899 business occupation [1.149] [0.558] 1.14 0.657 0.722 rafs occupation [0.408] [0.383] [0.272] [0.137] 1 = apprenticeship in 0.774 0.653 0.996 0.00** t = apprenticeship in 0.774 0.653 0.996 0.01** 1 = apprenticeship in 0.774 0.653 0.996 0.02** 1 = firm size 1.075 1.214 1.08 1.15 t = firm size 1.271	more than 60% females	[0.176]	[0.161]	[0.145]	[0.128]
$\begin{array}{llllllllllllllllllllllllllllllllllll$	1 = female in occupation with	1.624	1.431	1.282	1.163
1 = school dropout 1.099 1.48 1.487 1.570* 1 = Realschule 2.516** 0.616*** 2.390*** 0.618** 1 = Fachabitur 4.074** 0.260** 5.127*** 0.618** 1 = Fachabitur 4.074** 0.260** 5.127*** 0.260* 0.140] [2.063] [0.084] 1 = Aptitur 8.685*** 0.140] [2.066] [0.106] [0.086] [0.137] 1 = apprenticeship in 1.763 1.149 1.611 0.899 [0.137] 1 = apprenticeship in 0.774 0.653 0.906 (0.000* 1 = firm size 1.075 1.214 1.085 [0.159] 1 = firm size 1.201 0.966 2.063** 1.081 betw. 10-49 employees [0.517] [0.281] [0.663] 0.223] [0.272] [0.137] 1 = firm size 1.214 1.246 1.166 1.165 [0.529] [0.274] [0.274] [0.274] 1 = firm size 1.201 0.966 2.0663* 1.081 [0.224] [0.663] [0.224] [0.176] [0	more than 60% males	[0.580]	[0.348]	[0.343]	[0.202]
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 = school dropout	1.099	1.48	1.487	1.570*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1 — Poplashula	[1.100]	[0.400]	2 200***	[0.300]
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1 = Realschule	[0.912]	[0 109]	2.390	[0.084]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1 = Fachabitur	4.074**	0.260**	5.127***	0.279***
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		[2.262]	[0.140]	[2.068]	[0.119]
	1 = Abitur	8.685***	0.187***	11.570***	0.299***
$\begin{split} 1 &= \operatorname{apprenticeship in} & 1.763 & 1.149 & 1.611 & 0.899 \\ \operatorname{business occupation} & [1.149 & [0.350] & [0.502] & [0.157] \\ 1 &= \operatorname{apprenticeship in} & 0.558 & 1.14 & 0.657 & 0.722* \\ \operatorname{crafts occupation} & [0.408] & [0.383] & [0.272] & [0.137] \\ 1 &= \operatorname{apprenticeship in} & 0.774 & 0.653 & 0.996 & 0.600* \\ \operatorname{technical occupation} & [0.525] & [0.221] & [0.354] & [0.125] \\ 1 &= \operatorname{firm size} & 1.075 & 1.214 & 1.108 & 1.15 \\ \operatorname{betw. 10-49 employees} & [0.356] & [0.223] & [0.285] & [0.159] \\ 1 &= \operatorname{firm size} & 2.464* & 1.27 & 2.491*** & 1.044 \\ \operatorname{betw. 50-99 employees} & [0.993] & [0.340] & [0.752] & [0.218] \\ 1 &= \operatorname{firm size} & 1.201 & 0.996 & 2.066** & 1.081 \\ \operatorname{betw. 100-499 employees} & [0.517] & [0.281] & [0.663] & [0.224] \\ 1 &= \operatorname{firm size} & 1.191 & 1.231 & 1.476 & 1.165 \\ \operatorname{ver 500 employees} & [0.546] & [0.414] & [0.511] & [0.278] \\ 1 &= bad prospects & 0.373 & 1.372 & 1.01 & 0.964 \\ 1 &= bad income prospects & 0.789 & 1.547 & 0.849 & 1.0341 \\ 1 &= bad acreer prospects & 1.883 & 0.644 & 1.459 & 0.709 \\ \operatorname{reason for termination} & [0.447] & [0.460] & [0.364] & [0.354] \\ 1 &= bad career prospects & 1.883 & 0.644 & 1.459 & 0.709 \\ \operatorname{reason for termination} & [0.547] & [0.526] & [0.337] & [0.302] \\ \operatorname{reason for termination} & [0.547] & [0.526] & [0.337] & [0.300] \\ \operatorname{reason for termination} & [0.547] & [0.526] & [0.337] & [0.300] \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lccal population density} & 0 & 0 & 0 \\ \operatorname{lcal suply-demand ratio} & 0 & 0 & 0 \\ \operatorname{lcal suply-demand ratio} & 0 & 0 & 0 \\ \operatorname{lcal suply-demand ratio} & 0 & 0 & 0 \\ \operatorname{lcal suply-demand ratio} & 0 & 0 & 0$		[3.693]	[0.112]	[3.665]	[0.106]
business occupation $ 1.149 $ $ 0.350 $ $ 0.502 $ $ 0.57]$ $ 0.57]$ 1 = apprenticeship in 0.558 1.14 0.657 0.722* crafts occupation $ 0.408 $ $ 0.383 $ $ 0.272 $ $ 0.371 1 = apprenticeship in 0.774 0.653 0.996 0.600* technical occupation 0.526 0.221 0.354 0.122 1 = firm size 1.075 1.214 1.108 1.15 betw. 10-49 employees 0.356 0.223 0.285 0.159 1 = firm size 2.464** 1.277 2.491*** 1.044 betw. 50-99 employees 0.993 0.340 0.752 0.218 1 = firm size 1.201 0.996 2.060** 1.081 betw. 100-499 employees 0.517 0.281 0.663* 0.224 1 = firm size 1.191 1.231 1.476 1.165 over 500 employees 0.546 0.414 0.511 0.278 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination 0.306 0.562 0.539 0.332 1 = bad income prospects 1.883 0.644 1.459 0.709 1 = bad income prospects 1.883 0.644 1.459 0.709 1 = bad career prospects 1.883 0.644 1.459 0.709 1 = bad career prospects 0.372 1.031 0.234 0.266 1 = exam nerves 0.372 1.031 0.234 0.205 1 = financial distress 0.738 2.355*** 0.565 1.665*2 34.825 1 = financial distress 0.738 2.355*** 0.565 2.34.825 1 out-of-firm training [195.028] [0.000] [361.893] [162.214] 1 occal porply-demand ratio 0 1.706 0 2.4633 on the job market for apprentices [0.000] [1.867] [0.529] [0.371] 1 = 0.4100 - 1.706 0 2.4635 1 = 0.43194] [0.285] [92.388] 2 = 0.44184 0.0071 [1.31.60] 4 = sen 1.442 95.664 0.071 1.88.77 0 colal onenty 0 0 0 00 0 0 00 0 0 00 0 0 00 0 0 0 00 0 0 0 00 0 0 00 0 0 0 00 0 0$	1 = apprenticeship in	1.763	1.149	1.611	0.899
1 = apprenticeship in 0.558 1.14 0.657 0.722 crafts occupation [0.408] [0.383] [0.272] [0.137] 1 = apprenticeship in 0.774 0.653 0.996 0.600* 1 = firm size 1.075 1.214 1.08 1.15 betw. 10-49 employees [0.356] [0.223] [0.285] [0.159] 1 = firm size 2.464** 1.277 2.491*** 1.044 betw. 10-49 employees [0.517] [0.281] [0.663] [0.222] 1 = firm size 1.01 0.996 2.060*** 1.081 betw. 100-499 employees [0.517] [0.281] [0.663] [0.242] 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination [0.447] [0.460] [0.364] [0.354] 1 = bad income prospects 0.789 1.547 0.849 1.498* reason for termination [0.441] [0.514] [0.266] 1.231 1.024 reason for termination [0.482] [0.444] 1.459 0.709 1.655	business occupation	[1.149]	[0.350]	[0.502]	[0.157]
$\begin{array}{llllllllllllllllllllllllllllllllllll$	1 = apprenticeship in	0.558	1.14	0.657	0.722*
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1 = appropriation	[0.408]	0.652	[0.272]	[U.137] 0.600**
$\begin{array}{l c c c c c c c c c c c c c c c c c c c$	technical occupation	0.774	[0.000	0.354]	[0 122]
betw. 10-49 employees 10.356 [0.223] [0.285] [0.150] 1 = firm size 2.464** 1.277 2.491*** 1.044 betw. 50-99 employees [0.993] [0.340] [0.752] [0.218] 1 = firm size 1.201 0.996 2.060** 1.081 betw. 100-499 employees [0.517] [0.281] [0.663] [0.224] 1 = firm size 1.191 1.231 1.476 1.165 over 500 employees [0.546] [0.414] [0.511] [0.323] 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination [0.447] [0.460] [0.364] [0.354] 1 = bad career prospects 1.883 0.644 1.459 (0.769) reason for termination [0.347] [0.286] [0.234] [0.206] 1 = financial distress 0.372 1.031 0.231 1.004 reason for termination [0.547] [0.526] [0.337] [0.300] local percuratage of youth 22.278 0.000 [36.52] 14.825 lo	1 = firm size	1.075	1.214	1,108	1.15
$\begin{array}{llllllllllllllllllllllllllllllllllll$	betw. 10-49 employees	[0.356]	[0.223]	[0.285]	[0.159]
betw. 50-99 employees $[0.993]$ $[0.340]$ $[0.752]$ $[0.218]$ 1 = firm size $[0.517]$ $[0.281]$ $[0.663]$ $[0.224]$ 1 = firm size $[0.517]$ $[0.281]$ $[0.663]$ $[0.224]$ 1 = firm size $[0.517]$ $[0.281]$ $[0.663]$ $[0.224]$ 1 = bad prospects $[0.546]$ $[0.414]$ $[0.511]$ $[0.788]$ 1 = bad prospects $[0.546]$ $[0.373]$ $[1.372]$ 1.01 0.964 reason for termination $[0.306]$ $[0.562]$ $[0.539]$ $[0.322]$ 1 = bad income prospects 0.789 1.547 0.849 $[0.364]$ $[0.354]$ 1 = bad arecer prospects 1.883 0.644 1.459 0.709 reason for termination $[0.948]$ $[0.311]$ $[0.594]$ $[0.266]$ 1 = exam nerves 0.372 1.031 0.231 1.004 reason for termination $[0.547]$ $[0.456]$ $[0.331]$ $[0.026]$ 1 = financial distress 0.738 2.355^{***} 0.565 1.695^{**} reason for termination $[0.547]$ $[0.526]$ $[0.337]$ $[0.300]$ local percentage of youth 22.278 0.000^{*} 56.52 34.825 in out-of-firm training $[195.028]$ $[0.000]$ $[361.893]$ $[162.216]$ local population density 0 0 0 0 0 0 0 0 0 0 0	1 = firm size	2.464^{**}	1.277	2.491^{***}	1.044
1 = firm size 1.201 0.996 2.060** 1.081 betw. 100-499 employees [0.517] [0.281] [0.663] [0.224] 1 = firm size 1.191 1.231 1.476 1.165 over 500 employees [0.546] [0.414] [0.511] [0.738] 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination [0.447] [0.460] [0.364] [0.354] 1 = bad income prospects 1.883 0.644 1.459 0.709 reason for termination [0.948] [0.311] 0.231 1.004 reason for termination [0.382] [0.286] [0.337] [0.300] l = fnancial distress 0.738 2.355*** 0.565 1.695** reason for termination [0.547] [0.526] [0.337] [0.300] local percentage of youth 22.278 [0.000] [361.893] [162.216 local population density 0 0 0 0 0 local supply-demand ratio 0 1.706 0 2.4635 on	betw. 50-99 employees	[0.993]	[0.340]	[0.752]	[0.218]
betw. 100-499 employees $[0.517]$ $[0.281]$ $[0.663]$ $[0.224]$ 1 = firm size 1.191 1.231 1.476 1.165 over 500 employees $[0.546]$ $[0.414]$ $[0.511]$ $[0.278]$ 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination $[0.306]$ $[0.562]$ $[0.539]$ $[0.332]$ 1 = bad income prospects 0.789 1.547 0.849 1.498* reason for termination $[0.447]$ $[0.460]$ $[0.364]$ $[0.364]$ 1 = bad career prospects 1.883 0.644 1.459 0.709 reason for termination $[0.382]$ $[0.286]$ $[0.231]$ $[0.266]$ 1 = exam nerves 0.372 1.031 0.231 1.004 1 = bad career prospects 0.738 2.355*** 0.565 1.695** reason for termination $[0.547]$ $[0.526]$ $[0.337]$ $[0.300]$ local percentage of youth 22.278 0.000* 56.52 34.825 in out-of-firm training $[195.028]$ $[0.000]$ $[361.893]$ $[162.211]$ local appulation density 0 0 0 0 0 local supply-demand ratio 0 1.706 0 2.4635 no the job market for apprentices $[0.000]$ $[1.867]$ $[0.000]$ $[1.837]$ local density of public transport 0.801 6.721 0.682 1.794 [0.800] $[6.581]$ $[0.047]$ $[131.600]Hessen 1.442 95.664 0.071 38.077Sachae [7.930] [334.918] [0.285] [92.389]Baden- 0.498 246.516 0.026 [1.310]Hessen 4.126 0 293.15 0[0.000]$ $[0.000]$ $[0.000]$ $[0.000]Brandenburg [0.371] [113.040] [0.125] [47.905]Sachaen 4.126 0 233.15 0[0.371]$ $[113.040]$ $[0.212]$ $[1.856]Thueringen 1.708 0.000*** 616.51 [0.000]Readen- 0.438 246.516 0.026 16.191Hessen 4.126 0 23.15 0[0.371]$ $[113.040]$ $[0.212]$ $[1.856]Thueringen 1.708 0.000*** 616.51 [0.000]Readen- 0.135 67.790** 0.107 1.554[0.371]$ $[113.040]$ $[0.212]$ $[1.856]Thueringen 1.708 0.000*** 616.51 0.0004Niedersachsen 0.135 67.790** 0.107 1.554[0.371]$ $[113.040]$ $[0.212]$ $[1.856]Thueringen 1.708 0.000*** 616.51 0.000*Niedersachsen 0.135 67.90** 0.432.8 0[0.000]$ $[0.000]$ $[0.000]$ $[0.000][0.000]$ $[0.000]$ $[0.000]$ $[0.000][0.000]$ $[0.000]$ $[0.000]$ $[0.000][0.000]$ $[0.000]$ $[0.000]$ $[0.000][0.000]$ $[1.857]$ $[0.000]$ $[1.838]$ $[0.000]$	1 = firm size	1.201	0.996	2.060**	1.081
1 = trm size 1.191 1.231 1.476 1.167 0ver 500 employees [0.546] [0.414] [0.511] [0.278] 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination [0.306] [0.562] [0.539] [0.332] 1 = bad income prospects 0.789 1.547 0.849 1.498* reason for termination [0.447] [0.460] [0.364] [0.354] 1 = exam nerves 0.372 1.031 0.231 1.004 reason for termination [0.547] [0.526] [0.234] [0.205] 1 = financial distress 0.738 2.355*** 0.565 1.695** reason for termination [0.547] [0.526] [0.337] [0.300] local percentage of youth 22.278 0.000 56.52 34.825 in out-of-firm training [195.028] [0.000] [0.000] [0.000] local population density 0 0 0 2.4635 on the job market for apprentices [0.000] [1.877] [0.860] [1.871]	betw. 100-499 employees	[0.517]	[0.281]	[0.663]	[0.224]
over sourcemproyees [0.346] [0.414] [0.511] [0.278] 1 = bad prospects 0.373 1.372 1.01 0.964 reason for termination [0.306] [0.562] [0.539] [0.332] 1 = bad income prospects 0.789 1.547 0.849 1.498* 1 = bad career prospects 1.883 0.644 1.459 0.709 reason for termination [0.948] [0.311] [0.266] 1.031 0.231 1.004 reason for termination [0.382] [0.266] [0.337] [0.300] local procentage of youth 22.278 0.000* 56.52 34.825 in out-of-firm training [195.028] [0.000] [361.893] [162.216 local population density 0 0 0 0 0 0 local density of public transport 0.801 6.721 0.682 1.794 local unemployment rate 0.182 84.584 0.009 41.843 Hessen [1.311] [381.965] [0.471] <t< td=""><td>1 = firm size</td><td>1.191</td><td>1.231</td><td>1.476</td><td>1.165</td></t<>	1 = firm size	1.191	1.231	1.476	1.165
1 - bat prospects0.3751.3721.010.904reason for termination[0.306][0.562][0.539][0.332]1 = bad income prospects0.7891.5470.8491.498*reason for termination[0.447][0.460][0.364][0.354]1 = bad career prospects1.8830.6441.4590.709reason for termination[0.382][0.286][0.231]1.0041 = exam nerves0.3721.0310.2311.004reason for termination[0.547][0.526][0.337][0.300]1 = financial distress0.7382.355***0.5651.695**reason for termination[0.547][0.526][0.337][0.300]local percentage of youth22.2780.000\$6.5234.825in out-of-firm training[195.028][0.000][361.893][162.216local population density00000local apopulation density00000local unemployment rate0.8016.7210.6821.794local unemployment rate0.480[6.581][0.252][0.871]local unemployment rate0.498246.5160.026[6.181]Wuerttemberg[3.293][1042.449][0.125][47.905Sachen4.1260293.1500Baden-0.13567.790**0.1071.554Wuerttemberg[3.293][1000][21.7085][0.0	over bou employees	[U.346] 0.979	[U.414] 1.270	[U.511]	[0.278]
Lates to termination $[0.303]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.304]$ $[0.366]$ $[0.366]$ $[$	reason for termination	[0.306]	[0 562]	[0.539]	[0 333]
reason for termination[0.447][0.460][0.364][0.354]1 = bad career prospects1.8830.6441.4590.709reason for termination[0.948][0.311][0.594][0.266]1 = exam nerves0.3721.0310.2311.004reason for termination[0.382][0.286][0.337][0.305]1 = financial distress0.7382.355***0.5651.695**reason for termination[0.547][0.526][0.337][0.300]local percentage of youth22.2780.000*56.5234.825in out-of-firm training[195.028][0.000][361.893][162.210]local population density00000local supply-demand ratio01.70602.4635on the job market for apprentices[0.000][1.887][0.000][1.887]local density of public transport0.8016.7210.6821.794local unemployment rate0.18284.5840.00941.843Hessen1.44295.6640.07138.077gaden-0.498246.5160.02616.191Wuerttemberg[3.293][1042.449][0.125][47.905Sachsen4.1260293.150Sachsen(1.3567.790**0.1071.554Meeklenburg-[1.327][0.000][0.000][0.000]Niedersachsen0.13567.790**0.1071.554Thu	1 = bad income prospects	0.789	1.547	0.849	1.498*
$\begin{array}{llllllllllllllllllllllllllllllllllll$	reason for termination	[0.447]	[0.460]	[0.364]	[0.354]
$\begin{array}{llllllllllllllllllllllllllllllllllll$	1 = bad career prospects	1.883	0.644	1.459	0.709
$\begin{array}{l l l l l l l l l l l l l l l l l l l $	reason for termination	[0.948]	[0.311]	[0.594]	[0.266]
reason for termination[0.382][0.286][0.234][0.205]1 = financial distress0.7382.355***0.5651.695**reason for termination[0.547][0.526][0.337][0.306]local percentage of youth22.2780.000*56.5234.825in out-of-firm training[195.028][0.000][361.893][162.210local population density00000local supply-demand ratio01.70602.4635on the job market for apprentices[0.000][1.867][0.000][1.837]local density of public transport0.8016.7210.6821.794local unemployment rate0.18284.5840.00941.843Hessen1.44295.6640.07138.077Baden-0.498246.5160.02616.191Wuerttemberg[3.293][1042.449][0.125][47.905Sachsen4.1260293.150Sachsen(1.371)[113.040][0.212][1.856]Thueringen1.7080.0001[0.000][0.000]Niedersachsen0.13567.790**0.1071.554Mecklenburg-8.3650443.280Vorpommern[147.042][0.000][57.249][0.000]Itertingen0.03680.71240.389.06594.594Last02.463500.0040.594Sachsen0.3680.71240.	1 = exam nerves	0.372	1.031	0.231	1.004
$\begin{array}{llllllllllllllllllllllllllllllllllll$	reason for termination	[0.382]	[0.286]	[0.234]	[0.205]
$\begin{array}{l c c c c c c c c c c c c c c c c c c c$	1 = nnancial distress	0.738	2.355***	0.565	1.695***
Acta percension 22.216 0.000 00.22 034.223 In out-of-firm training [195.028] [0.000] [361.893] [162.211] local population density 0 0 0 0 0 local supply-demand ratio 0 1.706 0 2.4635 on the job market for apprentices [0.000] [1.867] [0.000] [1.837] local density of public transport 0.801 6.721 0.682 1.794 local unemployment rate 0.182 84.584 0.009 41.843 local unemployment rate 0.182 84.584 0.009 41.843 Hessen 1.442 95.664 0.071 38.077 Baden- 0.498 246.516 0.026 16.191 Wuerttemberg [3.293] [1042.449] [0.125] [47.905 Sachsen 4.126 0 293.15 0 Sachsen 0.135 67.790** 0.107 1.554 Muerttemberg 0.000 [0.000] [0.000] [0.000] Sachsen 0.135 67.790**	reason for termination	[U.547] 22 278	[U.526] 0.000*	[U.337] 56 52	[U.300] 3/1.92#
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	in out-of-firm training	[195 028]	[0.000]	[361 893]	[162 216
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	local population density	0	0	0	0
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		[0.000]	[0.000]	[0.000]	[0.000]
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	local supply-demand ratio	0	1.706	0	2.4635
$\begin{array}{l c c c c c c c c c c c c c c c c c c c$	on the job market for apprentices	[0.000]	[1.867]	[0.000]	[1.837]
	local density of public transport	0.801	6.721	0.682	1.794
$\begin{array}{llllllllllllllllllllllllllllllllllll$	11	[0.860]	[6.581]	[0.529]	[0.871]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	iocai unemployment rate	0.182	84.584	0.009	41.843
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Hessen	[1.311] 1.449	[381.903] 95.664	[0.047]	28 077
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	11055011	[7,930]	[334 918]	[0.285]	[92.380]
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Baden-	0.498	246.516	0.026	16.191
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Wuerttemberg	[3.293]	[1042.449]	[0.125]	[47.905]
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sachsen	4.126	0	293.15	0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		[55.399]	[0.000]	[217.085]	[0.000]
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Brandenburg	0	0	0	0
$\begin{array}{llllllllllllllllllllllllllllllllllll$	AT' 1 1	[0.000]	[0.000]	[0.000]	[0.000]
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Niedersachsen	0.135	67.790**	0.107	1.554
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Thuoringon	[0.371]	[113.040]	[0.212] 616 51	[1.856]
$\begin{array}{cccccccc} [21,037] & [21,037,005$	1 nuer mgen	[18 207]	[0.000]	[4 893 068]	[0.001]
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Mecklenburg-	8.365	0	443.28	[0.001]
Var. of gamma mixture distribution 0.0002 0.4229 0.0004 0.0594 S.E. of gamma mixture distribution 0.0368 0.7124 0.0389 0.4519 LR test of Gamma var. = 0 -0.0004 0.4302 -0.0002 0.04802 LR test > χ^2 0.5000 0.2560 0.5000 0.4833 n 1967 3389	Vorpommern	[147.042]	[0.000]	[572.249]	[0.000]
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Var of gamma mixture distribution	0.0005	0 4220	0.0004	0.0504
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	S.E. of gamma mixture distribution	0.0368	0.7124	0.0389	0,4519
LR test > χ^2 0.5000 0.2560 0.5000 0.4483 n 1967 3389	LR test of Gamma var. $= 0$	-0.0004	0.4302	-0.0002	0.0169
n 1967 3389	LR test $> \chi^2$	0.5000	0.2560	0.5000	0.4483
	n	1967		3389	

=

Table 7: Complementary log-log model