

Appendix B. Supplementary results

Start-Up Subsidies for the Unemployed: Long-Term Evidence and Effect Heterogeneity

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This supplementary appendix contains additional information to the following chapters in the paper:

Chapter 4.1: In addition to Figure 1 in the paper, Figure B.1 depicts the causal effects of both programs and the respective gross levels for participants and matched non-participants over time.

Chapter 4.2: In addition to Table A.4 in the paper, Tables B.1 to B.4 provide detailed matching quality indicators for the different subgroups.

Chapter 5.1: Table B.5 contains the results of the extended propensity score estimation, i.e., the specification including risk attitudes. Figure B.2 shows the related distribution of the estimated propensity scores among participants and non-participants.

Chapter 5.4: Table B.6 shows the distribution of participants and non-participants along the propensity score distribution.

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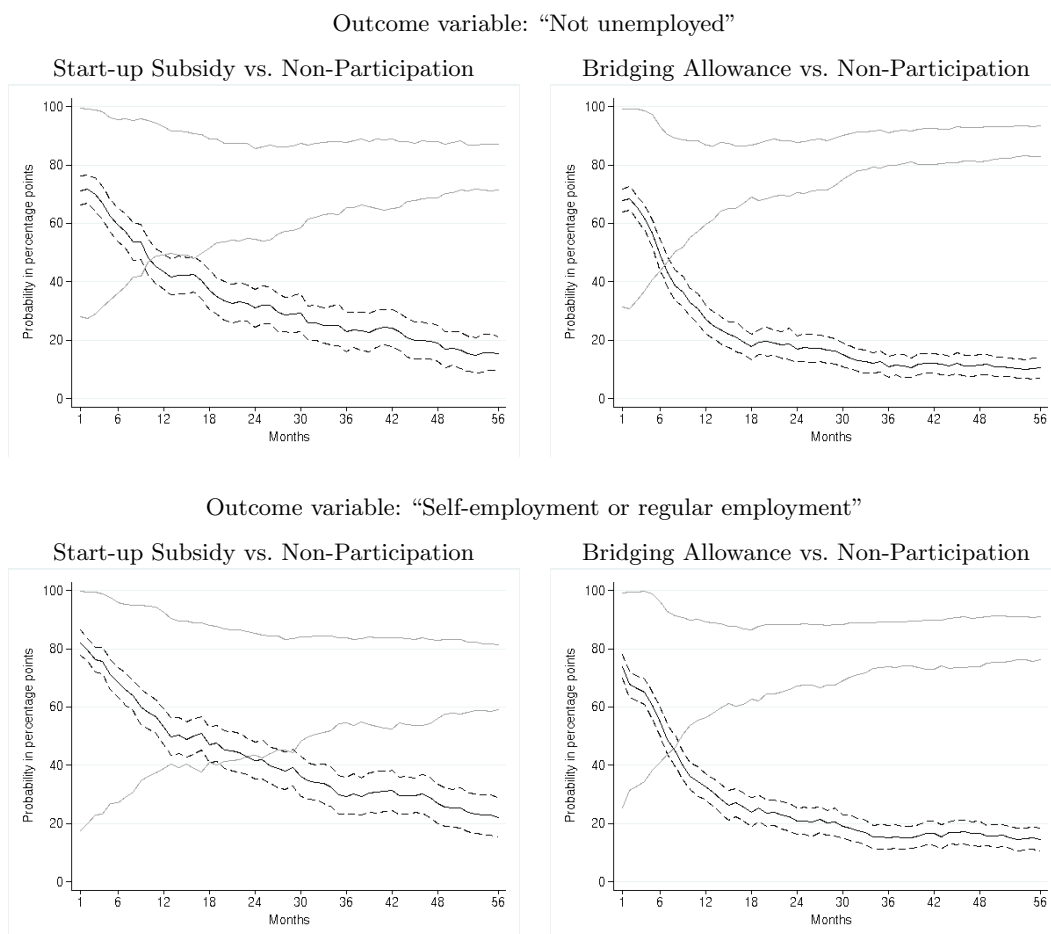
List of Tables

B.1 Matching Quality Across Subgroups: Educational level	4
B.2 Matching Quality Across Subgroups: Professional Qualification	5
B.3 Matching Quality Across Subgroups: Age	6
B.4 Matching Quality Across Subgroups: Nationality	7
B.5 Propensity Score Estimation: Extended Specification	8
B.6 Distribution of Participants and Non-Participants Along the Propensity Score Distribution	11

List of Figures

B.1 Causal Effects and Gross Levels of Start-up Subsidy and Bridging Allowance Over Time	3
B.2 Propensity Score Distribution of Extended Specification	10

Figure B.1: Causal Effects and Gross Levels of Start-up Subsidy and Bridging Allowance Over Time



Note: Depicted are average treatment effects on the treated (solid line), i.e., the difference in outcome variables between participants and non-participants. We provide 5% confidence intervals for the ATT (dashed lines), which are based on *bootstrapped* standard errors with 200 replications. Moreover, the solid gray lines indicate gross levels of the ATT, i.e., due to persistent positive ATT, the upper (lower) gray lines indicate the gross probability of participants (matched non-participants).

Table B.1: Matching Quality Across Subgroups: Educational level

	Start-up Subsidy		Bridging Allowance	
	Before matching	After matching	Before matching	After matching
Low educated				
t-test of equal means ^{a)}				
1%-level	13	0	9	1
5%-level	21	1	13	1
10%-level	26	1	19	1
Mean standardized bias	12.987	3.753	10.833	2.244
Number of variables with standardized bias of a certain amount				
< 1%	2	12	7	12
1% until < 3%	8	9	4	26
3% until < 5%	8	16	3	12
5% until < 10%	7	15	14	4
≥ 10%	29	2	26	0
Pseudo-R ²	0.169	0.015	0.136	0.007
Highly educated				
t-test of equal means ^{a)}				
1%-level	9	0	3	0
5%-level	15	1	6	1
10%-level	24	2	8	1
Mean standardized bias	17.737	7.393	6.861	3.375
Number of variables with standardized bias of a certain amount				
< 1%	3	2	5	11
1% until < 3%	1	8	16	18
3% until < 5%	2	12	9	11
5% until < 10%	10	18	13	11
≥ 10%	36	12	10	2
Pseudo-R ²	0.301	0.059	0.112	0.013

^{a)} Depicted is the number of variables which differ significantly between treated and controls. The decision is based on a simple *t-test* of equal means. There are 54 observable variables in total.

Table B.2: Matching Quality Across Subgroups: Professional Qualification

	Start-up Subsidy		Bridging Allowance	
	Before matching	After matching	Before matching	After matching
	Low qualified			
t-test of equal means ^{a)}				
1%-level	14	0	8	1
5%-level	19	1	12	1
10%-level	24	1	16	1
Mean standardized bias	12.615	4.145	10.007	2.822
Number of variables with standardized bias of a certain amount				
< 1%	3	9	3	15
1% until < 3%	1	12	3	17
3% until < 5%	12	14	9	11
5% until < 10%	13	19	22	11
≥ 10%	25	0	17	0
Pseudo-R ²	0.177	0.019	0.126	0.008
	Highly qualified			
t-test of equal means ^{a)}				
1%-level	9	2	3	0
5%-level	12	4	5	1
10%-level	18	4	7	1
Mean standardized bias	19.008	14.048	9.002	4.166
Number of variables with standardized bias of a certain amount				
< 1%	2	1	2	8
1% until < 3%	2	4	5	15
3% until < 5%	4	5	8	11
5% until < 10%	9	15	21	15
≥ 10%	34	26	16	3
Pseudo-R ²	0.082	0.000	0.128	0.020

^{a)} Depicted is the number of variables which differ significantly between treated and controls. The decision is based on a simple *t-test* of equal means. There are 54 observable variables in total.

Table B.3: Matching Quality Across Subgroups: Age

	Start-up Subsidy		Bridging Allowance	
	Before matching	After matching	Before matching	After matching
	≤ 30			
t-test of equal means ^{a)}				
1%-level	3	2	2	5
5%-level	4	6	8	7
10%-level	7	5	11	8
Mean standardized bias	12.457	9.968	14.709	14.308
Number of variables with standardized bias of a certain amount				
< 1%	2	5	2	1
1% until < 3%	6	9	5	4
3% until < 5%	8	9	4	3
5% until < 10%	10	12	9	11
$\geq 10\%$	25	16	30	31
Pseudo-R ²	0.006	0.000	0.007	0.000
	> 30			
t-test of equal means ^{a)}				
1%-level	16	0	9	1
5%-level	29	1	12	1
10%-level	32	1	18	1
Mean standardized bias	15.779	3.74	8.765	2.492
Number of variables with standardized bias of a certain amount				
< 1%	0	8	5	15
1% until < 3%	4	20	6	23
3% until < 5%	3	11	10	7
5% until < 10%	14	13	20	9
$\geq 10\%$	33	2	13	0
Pseudo-R ²	0.197	0.017	0.109	0.008

^{a)} Depicted is the number of variables which differ significantly between treated and controls. The decision is based on a simple *t-test* of equal means. There are 51 observable variables in total.

Table B.4: Matching Quality Across Subgroups: Nationality

	Start-up Subsidy		Bridging Allowance	
	Before matching	After matching	Before matching	After matching
Native				
t-test of equal means ^{a)}				
1%-level	19	0	7	1
5%-level	23	1	11	1
10%-level	27	1	19	1
Mean standardized bias	15.296	3.424	8.753	2.197
Number of variables with standardized bias of a certain amount				
< 1%	3	11	3	16
1% until < 3%	0	20	6	26
3% until < 5%	3	8	14	6
5% until < 10%	16	14	15	7
≥ 10%	33	2	17	0
Pseudo-R ²	0.209	0.016	0.110	0.007
Non-German				
t-test of equal means ^{a)}				
1%-level	8	2	5	0
5%-level	13	6	13	1
10%-level	19	8	16	1
Mean standardized bias	14.696	11.871	12.263	5.202
Number of variables with standardized bias of a certain amount				
< 1%	3	4	7	5
1% until < 3%	4	10	3	16
3% until < 5%	7	3	5	10
5% until < 10%	10	14	14	16
≥ 10%	31	24	26	8
Pseudo-R ²	0.096	0.000	0.188	0.032

^{a)} Depicted is the number of variables which differ significantly between treated and controls. The decision is based on a simple *t-test* of equal means. There are 55 observable variables in total.

Table B.5: Propensity Score Estimation: Extended Specification

	Start-up Subsidy vs. Non-Participation	Bridging Allowance vs. Non-Participation
Age bracket (Ref.: 18 to 24 years)		
25 to 29 years	0.459**	0.407*
30 to 34 years	0.537***	0.3
35 to 39 years	0.291	0.344*
40 to 44 years	0.381*	0.166
45 to 49 years	0.46**	0.241
50 to 64 years	0.898***	0.381*
Marital status (Ref.: Single)		
Married	-.103	-.005
Number of children in household (Ref.: No children)		
one child	0.182	-.092
Two or more children	0.083	-.152
Health restriction that affect job placement (Ref.: No)		
Zes	-.106	-.071
Nationality (Ref.: German)		
Non-German	0.088	0.161**
Desired working time (Ref.: Part-time)		
Full-time	-.080	0.092
School leaving certificate (Ref.: No degree)		
Lower secondary school	-.104	0.159
Middle secondary school	0.044	0.216
Specialized upper secondary school	-.093	0.242
Upper secondary school	0.014	0.214
Occupational group (Ref.: Manufacturing)		
Agriculture	-.249	0.112
Technical occupations	-.721**	0.282
Services	-.412*	0.083
Others	-.621**	-.340
Professional qualification (Ref.: Workers with tertiary education)		
Workers with technical college education	0.101	-.038
Skilled workers	0.054	0.046
Unskilled workers	0.184	0.059
Duration of previous unemployment (Ref.: < 1 month)		
≥ 1 month - 3 months	-1.633***	-.908***
≥ 3 months - < 6 months	-1.470***	-.950***
≥ 6 months - < 1 year	-1.621***	-1.080***
≥ 1 year - < 2 years	-1.752***	-1.123***
≥ 2 years	-1.312***	-1.183***
Professional experience (Ref.: without professional experience)		
with professional experience	-.129	-.261**
Last employment		
Duration of last employment	0.001	0.002***
Placement propositions		
Number of placement propositions	-.006	-.010**
Employment status before job-seeking (Ref.: Employment)		
Self-employed	0.295	-.393*
School attendance/never employed before/apprenticeship	0.373**	0.244*
Unemployable	0.202	-.079
Others, but at least once employed before	0.458***	0.246*
Others	0.307	0.445

Table B.5 to be continued.

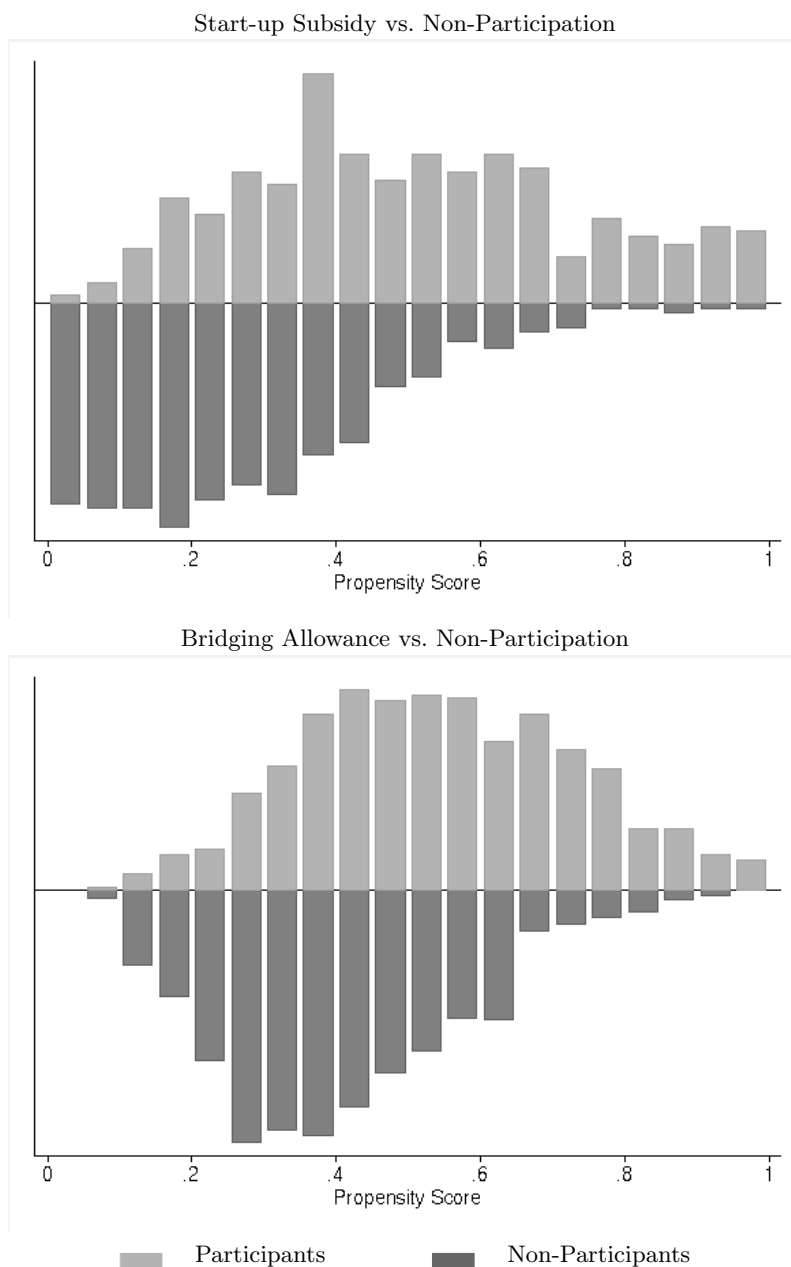
Table B.5 continued.

	Start-up Subsidy vs. Non-Participation	Bridging Allowance vs. Non-Participation
Regional cluster (Ref.: II a)		
II b	0.71**	0.198
III a	0.726**	0.021
III b	0.543*	0.14
III c	0.58*	0.086
IV	0.885***	0.156
V a	0.63*	0.39
V b	0.693**	−.077
V c	0.762**	0.224
Remaining unemployment benefit entitlement (in months)	−.028***	−.023***
Unemployment benefit level (in Euro)	−.029***	0.024***
Average daily income from regular employment in first half of 2003		
BEH	−.002	−.002
Intergenerational transmission		
Parents are/were self-employed	0.462***	0.44***
Willing to take risk: Risk attitude ≥ 7 (Ref.: Unwilling to take risk)	0.211**	0.236***
Constant	1.248**	−.578
Number of observations		
Participants	472	756
Non-Participants	853	853
Hit-Rate (%) ^{a)}	67.00	63.08
Pseudo R ²	0.200	0.110
Log-likelihood	−690.334	−990.198

Note: * 10%, ** 5%, *** 1% significance level.

^{a)} The Hit-Rate reports the share of correct predictions. For participants (non-participants) the prediction is correct if $\hat{P}(W) > \bar{P}$ ($\hat{P}(W) \leq \bar{P}$), where \bar{P} is the observed share of participants.

Figure B.2: Propensity Score Distribution of Extended Specification



Note: These are propensity score distributions for participants and non-participants based on estimation results in Table B.5.

Table B.6: Distribution of Participants and Non-Participants Along the Propensity Score Distribution

	Start-up Subsidy vs. Non-Participation Participants	Non-Participants	Bridging Allowance vs. Non-Participation Participants	Non-Participants
Propensity scores				
< 0.1	1.48	19.93	0.13	0.59
0.1 until < 0.2	7.41	20.28	2.12	7.74
0.2 until < 0.3	11.02	20.16	6.48	20.16
0.3 until < 0.4	16.53	17.23	14.15	24.03
0.4 until < 0.5	16.10	11.25	21.56	20.87
0.5 until < 0.6	14.83	5.04	16.80	14.77
0.6 until < 0.7	11.65	3.52	18.52	8.09
0.7 until < 0.8	6.78	1.29	11.38	2.46
0.8 until < 0.9	6.78	0.82	5.69	1.06
0.9 until 1	7.42	0.47	3.17	0.23

Note: All results in percentages. Propensity scores are estimated using the final specification as presented in Table A.2 in the paper. For instance, 1.48% of Start-up Subsidy participants have estimated propensity scores below 0.1.