## Appendix

| Variable | Participants |  | Non-Participants |  |
| :---: | :---: | :---: | :---: | :---: |
|  | N | Mean | N | Mean |
| Sociodemographics |  |  |  |  |
| Employment probability 180 days after programme start | 63878 | 0.10 | 103641 | 0.11 |
| Daily wage 180 days after programme start (if employed) | 2332 | 38.23 | 4817 | 36.94 |
| Gender: female | 63878 | 0.45 | 103641 | 0.46 |
| No graduate | 63877 | 0.10 | 103617 | 0.14 |
| Intermediate school certificate, no professional qualification | 63877 | 0.24 | 103617 | 0.29 |
| High school degree or vocational training | 63877 | 0.58 | 103617 | 0.47 |
| High school degree and vocational training | 63877 | 0.04 | 103617 | 0.05 |
| Subject-linked university degree | 63877 | 0.02 | 103617 | 0.02 |
| University degree | 63877 | 0.02 | 103617 | 0.03 |
| Age group < 25 years | 63878 | 0.04 | 103641 | 0.14 |
| Age group 25 until 30 years | 63878 | 0.13 | 103641 | 0.14 |
| Age group 30 until 35 years | 63878 | 0.13 | 103641 | 0.13 |
| Age group 35 until 40 years | 63878 | 0.14 | 103641 | 0.11 |
| Age group 40 until 45 years | 63878 | 0.18 | 103641 | 0.12 |
| Age group 45 until 50 years | 63878 | 0.20 | 103641 | 0.13 |
| Age group 50 until 58 years | 63878 | 0.15 | 103641 | 0.18 |
| Age group > 58 years | 63878 | 0.03 | 103641 | 0.05 |
| Family Status: living alone | 63878 | 0.45 | 103641 | 0.45 |
| Family Status: married/living with a partner | 63878 | 0.33 | 103641 | 0.34 |
| Family Status: divorced/widowed/living separately | 63878 | 0.23 | 103641 | 0.21 |
| Family Status: missing | 63878 | 0.00 | 103641 | 0.00 |
| Citizenship: German | 63878 | 0.90 | 103641 | 0.81 |
| Citizenship: other than German | 63878 | 0.10 | 103641 | 0.19 |
| Citizenship: missing | 63878 | 0.00 | 103641 | 0.00 |
| Health problems: yes | 63870 | 0.25 | 103520 | 0.22 |
| Household information |  |  |  |  |
| Child < 3 years: no | 63878 | 0.58 | 103641 | 0.50 |
| Child < 3 years: yes | 63878 | 0.03 | 103641 | 0.04 |
| Child < 3 years: missing | 63878 | 0.39 | 103641 | 0.46 |
| Child between 3 and 6 years: no | 63878 | 0.58 | 103641 | 0.50 |
| Child between 3 and 6 years: yes | 63878 | 0.04 | 103641 | 0.04 |
| Child between 3 and 6 years: missing | 63878 | 0.39 | 103641 | 0.46 |
| Child between 6 and 10 years: no | 63878 | 0.54 | 103641 | 0.47 |
| Child between 6 and 10 years: yes | 63878 | 0.08 | 103641 | 0.07 |
| Child between 6 and 10 years: missing | 63878 | 0.39 | 103641 | 0.46 |
| Child between 10 and 15 years: no | 63878 | 0.52 | 103641 | 0.46 |
| Child between 10 and 15 years: yes | 63878 | 0.09 | 103641 | 0.08 |
| Child between 10 and 15 years: missing | 63878 | 0.39 | 103641 | 0.46 |
| Role within household: Main person | 63878 | 0.86 | 103641 | 0.79 |


| Role of within household: partner | 63878 | 0.13 | 103641 | 0.15 |
| :---: | :---: | :---: | :---: | :---: |
| Role of within household: minor, unmarried child / unmarried adult | 63878 | 0.01 | 103641 | 0.06 |
| Role of within household: missing | 63878 | 0.00 | 103641 | 0.00 |
| Number of persons in BG: 1 | 63878 | 0.48 | 103641 | 0.46 |
| Number of persons in BG: 2 | 63878 | 0.23 | 103641 | 0.23 |
| Number of persons in BG: 3 | 63878 | 0.14 | 103641 | 0.15 |
| Number of persons in BG: 4 | 63878 | 0.09 | 103641 | 0.10 |
| Number of persons in BG: 5 or more | 63878 | 0.06 | 103641 | 0.07 |
| Number of persons in BG: missing | 63878 | 0.00 | 103641 | 0.00 |
| Number of persons of age able to work: 1 | 63878 | 0.62 | 103641 | 0.58 |
| Number of persons of age able to work: 2 | 63878 | 0.31 | 103641 | 0.34 |
| Number of persons of age able to work: > 2 | 63878 | 0.06 | 103641 | 0.08 |
| Number of persons of age able to work: missing | 63878 | 0.00 | 103641 | 0.00 |
| Number of persons under age able to work: 0 | 63878 | 0.91 | 103641 | 0.91 |
| Number of persons under age able to work: 1 | 63878 | 0.08 | 103641 | 0.08 |
| Number of persons under age able to work: more than 1 | 63878 | 0.01 | 103641 | 0.01 |
| Number of persons under age able to work: missing | 63878 | 0.00 | 103641 | 0.00 |
| Number of unemployed persons: 0 | 63878 | 0.98 | 103641 | 0.97 |
| Number of unemployed persons: 1 | 63878 | 0.02 | 103641 | 0.03 |
| Number of unemployed persons: > 1 | 63878 | 0.00 | 103641 | 0.00 |
| Number of persons above age limit: 0 | 63878 | 1.00 | 103641 | 0.99 |
| Number of persons above age limit: 1 or more | 63878 | 0.00 | 103641 | 0.01 |
| Number of persons above age limit: missing | 63878 | 0.00 | 103641 | 0.00 |
| Lone parent: no | 63878 | 0.83 | 103641 | 0.86 |
| Lone parent: yes | 63878 | 0.17 | 103641 | 0.14 |
| Additional administrative information |  |  |  |  |
| Profile: Integrated | 63878 | 0.07 | 103641 | 0.07 |
| Profile: Market, activation, promotion | 63878 | 0.16 | 103641 | 0.22 |
| Profile: About to develop | 63878 | 0.35 | 103641 | 0.26 |
| Profile: About to be stable | 63878 | 0.18 | 103641 | 0.14 |
| Profile: Support necessary | 63878 | 0.15 | 103641 | 0.15 |
| Profile: missing | 63878 | 0.09 | 103641 | 0.14 |
| Job returner: no | 63878 | 0.95 | 103641 | 0.96 |
| Job returner: yes | 63878 | 0.05 | 103641 | 0.03 |
| Job returner: missing | 63878 | 0.00 | 103641 | 0.01 |
| Responsible administrative body: ARGE | 63574 | 0.93 | 103423 | 0.93 |
| Responsible administrative body: gT/gAw | 63574 | 0.07 | 103423 | 0.07 |
| Responsible administrative body: zkT | 63574 | 0.00 | 103423 | 0.00 |
| Reason for end of receiving social assistance benefits: start of work <br> Reason for end of receiving social assistance benefits: relocation | 63878 63878 | 0.07 0.11 | 103641 103641 | 0.07 0.13 |
| Reason for end of receiving social assistance benefits: omission of employment <br> Reason for end of receiving social assistance benefits: other reasons | 63878 63878 | 0.13 0.16 | 103641 103641 | 0.12 0.18 |
| Reason for end of receiving social assistance benefits: missing | 63878 | 0.53 | 103641 | 0.50 |


| Special status | 63878 | 0.15 | 103641 | 0.25 |
| :---: | :---: | :---: | :---: | :---: |
| Relieved receiving of benefit: children | 63878 | 0.02 | 103641 | 0.02 |
| Relieved receiving of benefit: job returner | 63878 | 0.05 | 103641 | 0.02 |
| Relieved receiving of benefit: none | 63878 | 0.85 | 103641 | 0.75 |
| Relieved receiving of benefit: missing | 63878 | 0.09 | 103641 | 0.21 |
| Dropout of measure due to inappropriate behaviour | 63878 | 0.03 | 103641 | 0.02 |
| Dropout of measure due to other reasons | 63878 | 0.04 | 103641 | 0.03 |
| Measure not completed successfully | 63878 | 0.05 | 103641 | 0.03 |
| Employment History Information on last job |  |  |  |  |
| Blue-collar worker | 63878 | 0.11 | 103641 | 0.12 |
| White-collar Worker | 63878 | 0.03 | 103641 | 0.03 |
| profession: missing | 63878 | 0.86 | 103641 | 0.85 |
| Semi-skilled worker | 63878 | 0.14 | 103641 | 0.16 |
| Professionally oriented activities | 63878 | 0.69 | 103641 | 0.64 |
| Complex specialized activities | 63878 | 0.07 | 103641 | 0.07 |
| Highly complex activities | 63878 | 0.08 | 103641 | 0.08 |
| Complexity: missing | 63878 | 0.02 | 103641 | 0.05 |
| Manufacturing/ processing trade / agriculture | 63878 | 0.41 | 103641 | 0.36 |
| Service sector or others | 63878 | 0.59 | 103641 | 0.64 |
| Indicators of past employment history |  |  |  |  |
| Number of months employed: 1 years before 2010 | 63878 | 0.36 | 103641 | 0.62 |
| Number of months employed: 2-4 years before 2010 | 63878 | 2.53 | 103641 | 3.55 |
| Number of months employed: 5-7 years before 2010 | 63878 | 4.13 | 103641 | 4.70 |
| Number of months unemployed: 1 years before 2010 | 63878 | 9.47 | 103641 | 8.65 |
| Number of months unemployed: 2-4 years before 2010 | 63878 | 25.34 | 103641 | 21.37 |
| Number of months unemployed: 5-7 years before 2010 | 63878 | 14.93 | 103641 | 11.88 |
| Number of months seeking work: 1 years before 2010 | 63878 | 0.83 | 103641 | 0.49 |
| Number of months seeking work: 2-4 years before 2010 | 63878 | 1.86 | 103641 | 1.20 |
| Number of months seeking work: 5-7 years before 2010 | 63878 | 1.28 | 103641 | 0.92 |
| Number of months program: 1 years before 2010 | 63878 | 0.53 | 103641 | 0.66 |
| Number of months program: 2-4 years before 2010 | 63878 | 1.87 | 103641 | 2.28 |
| Number of months program: 5-7 years before 2010 | 63878 | 6.80 | 103641 | 4.76 |
| Employed at all in the last 7 years before 2010 | 63878 | 0.44 | 103641 | 0.45 |
| Regional information |  |  |  |  |
| Regional unemployment rate (level of job centres) | 62722 | 10.05 | 102493 | 9.86 |
| Regional employment rate (level of job centres) | 62722 | 50.32 | 102493 | 49.53 |
| GDP per capita of employed person (level of job centres) | 63149 | 54149.53 | 101594 | 59327.68 |

Table A.1. Summary of descriptive statistics for participants and non-participants. Source: own calculations

Check for covariate imbalancing after matching


Graph A.1. Standardized bias of the radius-matching estimation, 180 days after programme start. Source: own calculations, based on IEB.


Graph A.2. Estimated (pseudo-) treatment effects based radius-matching (left) and mahalanobis-matching (right) with regression adjustment. Source: own calculations based on IEB.


Graph A.3. Estimated substitution effects based on semi-parametric difference-in-differences estimation with radiusmatching (left) and mahalanobis-matching (right). Source: own calculations based on IEB. The points in time refer to the definition of the point $t_{1}, t_{0}$ is the point in time one year ago.

