## Online Appendix

Figure A.1: Kindergarten attendance in East Germany


Notes: The figure shows the percentage of all children of the respective age who attend child care in East Germany. Data: Micro Census. Source: BMFSFJ (2005, p.299).

Table A.1: Reduced-form and 2SLS estimates on sample with single mothers and mothers with partners (without partner covariates)

| Employmentyes/no |  |  |  | Weekly working hours |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2SLS |  |  |  | Reduced form | 2SLS |  |
|  | Reduced form | First stage | Second stage |  |  | First stage | Second stage |
| Above cut-off age at last kindergarten start | $\begin{aligned} & 0.060^{*} \\ & (0.033) \end{aligned}$ | $\begin{gathered} 0.175 * * * \\ (0.028) \end{gathered}$ |  | Above cut-off age at last kindergarten start | $\begin{gathered} 2.129 * * \\ (1.002) \end{gathered}$ | $\begin{gathered} 0.169 * * * \\ (0.028) \end{gathered}$ |  |
| Child care |  |  | $\begin{aligned} & 0.345^{*} \\ & (0.189) \end{aligned}$ | Child care |  |  | $\begin{gathered} 12.572^{* *} \\ (5.917) \end{gathered}$ |
| Year controls | Yes | Yes | Yes | Year controls | Yes | Yes | Yes |
| Federal state controls | Yes | Yes | Yes | Federal state controls | Yes | Yes | Yes |
| Individual-level controls | Yes | Yes | Yes | Individual-level controls | Yes | Yes | Yes |
| First-stage F-test |  |  |  | First-stage F-test |  |  |  |
| Robust F statistic |  |  |  | Robust F statistic |  |  |  |
| Prob $>$ F |  |  |  | Prob > F |  |  |  |
| N | 2,286 |  |  | N | 2,245 |  |  |
| $\mathrm{R}^{2}$ | 0.099 |  |  | $\mathrm{R}^{2}$ | 0.147 |  |  |

Notes: The table shows reduced-form and 2SLS estimates; standard errors are clustered at the individual mother level and given in parentheses. The sample consists of all mothers with children born between 1992 and 2000 who are older than 36 months at the time of the interview but not older than 48 months at the time of the last kindergarten start. As controls are included mother's age, years of schooling, migration background, a dummy indicating single mothers, the size of the household, the youngest child's age and gender, number of siblings, and distance (in months) to his or her oldest sibling, as well as state and year dummies. *** $1 \%$ level of significance, ** $5 \%$ level of significance, * $10 \%$ level of significance. Data: SOEP.

Table A.2: Reduced-form ordered logit estimates

|  | Above cut-off age at last kindergarten start |
| :--- | :---: |
| Not employed | $-0.082^{* *}$ |
|  | $(0.037)$ |
| Marginally employed | 0.002 |
|  | $(0.002)$ |
| Part-time employed | $0.050^{* *}$ |
|  | $(0.023)$ |
| Full-time employed | $0.030^{* *}$ |
|  | $(0.013)$ |
| Year controls | Yes |
| Federal state controls | Yes |
| Individual level controls | Yes |
|  | 1,936 |
| N | 0.077 |
| Pseudo ${ }^{2}$ |  |
| Notes: The table shows marginal effects from reduced-form ordered logit estimatations, holding other variables |  |
| constant at their mean; standard errors are clustered at the individual mother level and given in parentheses. The |  |
| sample consists of all mothers with children born between 1992 and 2000 who are older than 36 months at the time |  |
| of the interview but not older than 48 months at the time of the last kindergarten start. As controls are included |  |
| mother's age, years of schooling, migration background, a dummy indicating single mothers, the size of the |  |
| household, the youngest child's age and gender, number of siblings, and distance (in months) to his or her oldest |  |

Table A.3: Reduced-form and 2SLS estimates on sample of mothers whose youngest child is close to the cut-off

|  | Employment (yes/no) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2SLS <br> Piecewise linear |  | $\begin{gathered} \text { 2SLS } \\ 30-42 \text { months } \end{gathered}$ |  | $\begin{aligned} & \text { 2SLS } \\ & \text { 32-40 months } \end{aligned}$ |  | 2SLS <br> 34-38 months |  |
|  | First stage | Second stage | First stage | Second stage | First stage | Second stage | First stage | Second stage |
| Above cut-off age at last kindergarten start | $\begin{gathered} 0.103^{* * *} \\ (0.039) \end{gathered}$ |  | $\begin{gathered} 0.127 * * * \\ (0.036) \end{gathered}$ |  | $\begin{gathered} \hline 0.122 * * * \\ (0.038) \end{gathered}$ |  | $\begin{gathered} \hline 0.125 * * * \\ (0.041) \end{gathered}$ |  |
| Child care |  | $\begin{gathered} 0.392 \\ (0.451) \end{gathered}$ |  | $\begin{gathered} 0.363 \\ (0.324) \end{gathered}$ |  | $\begin{gathered} 0.310 \\ (0.348) \end{gathered}$ |  | $\begin{gathered} 0.460 \\ (0.388) \end{gathered}$ |
| Child's age at kindergarten start | $\begin{gathered} 0.025 * * * \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.019) \end{gathered}$ |  |  |  |  |  |  |
| Above cut-off x Child's age at kindergarten start | $\begin{gathered} -0.030^{* * *} \\ (0.009) \end{gathered}$ | $\begin{aligned} & -0.004 \\ & (0.020) \end{aligned}$ |  |  |  |  |  |  |
| Year controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Federal state controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Individual level controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| First stage F-test |  |  |  |  |  |  |  |  |
| Robust F statistic |  | 6.713 |  | 12.833 |  | 10.646 |  | 9.275 |
| Prob $>$ F |  | 0.010 |  | 0.000 |  | 0.001 |  | 0.003 |
| N |  | 1,936 |  | 1,221 |  | 917 |  | 541 |
| $\mathrm{R}^{2}$ |  | 0.126 |  | 0.131 |  | 0.136 |  | 0.082 |

Notes: The table shows 2SLS estimates; standard errors are clustered at the individual mother level and given in parentheses. The full sample consists of all mothers with children born between 1992 and 2000 who are older than 36 months at the time of the interview but not older than 48 months at the time of the last kindergarten start. In Columns 1 and 2 , we use the full sample and run piecewise linear regressions. In Columns 3 and 4 , we only use observations of mothers whose youngest child is between 30 and 42 months old at the start of the last kindergarten year, in Columns 5 and 6 the sample consists of mothers whose youngest child is between 32 and 40 months old at the start of the last kindergarten year, whereas in Columns 7 and 8 , we restrict the sample to mothers whose youngest child was between 34 and 38 months old at the start of the last kindergarten year. As controls in all regressions are included mother's age, years of schooling, and migration background; partner's age, years of schooling, migration background, employment status, and net labor income; the size of the household; the youngest child's age and gender, number of siblings, and distance (in months) to his or her oldest sibling; as well as state and year dummies. *** $1 \%$ level of significance, ** $5 \%$ level of significance, * $10 \%$ level of significance. Data: SOEP.

Table A.4: Micro Census: Descriptive statistics for the treatment and the control groups in 1996 and 2001

|  | 1996 |  | 2001 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Mean | SD |
| Treatment Group (mother's youngest child is 3 or 4): |  |  |  |  |
| Employed ( $1=$ yes, $0=$ no) | 0.471 |  | 0.581 |  |
| Age | 32.731 | 5.123 | 33.837 | 5.000 |
| Highest school degree |  |  |  |  |
| General school | 0.402 |  | 0.341 |  |
| Intermediate school | 0.305 |  | 0.337 |  |
| Upper secondary technical school degree | 0.036 |  | 0.047 |  |
| School degree from East Germany | 0.028 |  | 0.014 |  |
| High school | 0.155 |  | 0.194 |  |
| School degree missing | 0.079 |  | 0.067 |  |
| Nationality (German $=1$, non-German=0) | 0.87 |  | 0.866 |  |
| N |  | 5,78 |  | 5,534 |
| Control Group (mother's youngest child is 10 or 11): |  |  |  |  |
| Employed ( $1=$ yes, $0=$ no) | 0.653 |  | 0.712 |  |
| Age | 39.624 | 5.044 | 40.232 | 4.988 |
| Highest school degree |  |  |  |  |
| General school | 0.467 |  | 0.417 |  |
| Intermediate school | 0.27 |  | 0.315 |  |
| Upper secondary technical school degree | 0.032 |  | 0.041 |  |
| School degree from East Germany | 0.025 |  | 0.013 |  |
| High school | 0.132 |  | 0.149 |  |
| School degree missing | 0.074 |  | 0.066 |  |
| Nationality (German=1, non-German=0) | 0.906 |  | 0.092 |  |
| N |  | 4,0 |  | 4,522 |
| Control Group (women w/ o children aged $>29$ 心 $<=36$ ): |  |  |  |  |
| Employed ( $1=$ yes, $0=$ no) | 0.875 |  | 0.903 |  |
| Age | 32.573 | 1.988 | 32.773 | 1.996 |
| Highest school degree |  |  |  |  |
| General school | 0.232 |  | 0.186 |  |
| Intermediate school | 0.297 |  | 0.326 |  |
| Upper secondary technical school degree | 0.064 |  | 0.073 |  |
| School degree from East Germany | 0.021 |  | 0.014 |  |
| High school | 0.316 |  | 0.359 |  |
| School degree missing | 0.069 |  | 0.042 |  |
| Nationality (German $=1$, non-German $=0$ ) | 0.942 |  | 0.933 |  |
| N |  | 7,00 |  | 7,472 |
| Control Group (women w/ o children aged $>20$ 心 $<=60$ ): |  |  |  |  |
| Employed ( $1=$ yes, $0=$ no) | 0.693 |  | 0.737 |  |
| Age | 41.508 | 12.777 | 41.537 | 12.493 |
| Highest school degree |  |  |  |  |
| General school | 0.438 |  | 0.381 |  |
| Intermediate school | 0.243 |  | 0.265 |  |
| Upper secondary technical school degree | 0.037 |  | 0.045 |  |
| School degree from East Germany | 0.019 |  | 0.011 |  |
| High school | 0.184 |  | 0.228 |  |
| School degree missing | 0.079 |  | 0.070 |  |
| Nationality (German=1, non-German=0) | 0.941 |  | 0.931 |  |
| N |  | 49,63 |  | 47,683 |

Data: Micro Census.

Table A.5: Difference-in-differences estimation using various control groups and multiple post-treatment periods

| Control group: Women with... | Employed (yes=1, no=0) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10-11 year old kids |  | no kids (age 29-36) |  | no kids (age 18-60) |  |
| Treatment group * 1991 | 0.024* | 0.018* | -0.008 | -0.015 | -0.004 | -0.001 |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 1993 | 0.003 | 0.001 | 0.002 | -0.005 | 0.006 | 0.003 |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 1995 | 0.001 | 0.002 | -0.010 | -0.011 | -0.003 | -0.011 |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 1997 |  |  | 0.032*** | 0.036*** | 0.022** | 0.026*** |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 1998 | 0.005 | 0.008 | 0.013 | 0.017 | 0.015 | 0.017* |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 1999 | 0.032** | 0.037*** | 0.044*** | 0.050*** | 0.032*** | 0.038*** |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 2000 | 0.036*** | 0.036*** | 0.061*** | 0.062*** | 0.050*** | 0.055*** |
|  | (0.014) | (0.014) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group * 2001 | 0.051*** | 0.050*** | 0.082*** | 0.081*** | 0.065*** | 0.072*** |
|  | (0.014) | (0.013) | (0.011) | (0.011) | (0.010) | (0.010) |
| Treatment group dummy | Yes | Yes | Yes | Yes | Yes | Yes |
| Year dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Individual control variables | No | Yes | No | Yes | No | Yes |
| Observations | 87,195 | 87,195 | 109,376 | 109,376 | 470,375 | 470,375 |
| $\mathrm{R}^{2}$ | 0.033 | 0.066 | 0.179 | 0.207 | 0.020 | 0.106 |

Notes: The table shows difference-in-differences estimates, where the year 1996 marks the baseline year; robust standard errors in parentheses. As controls in Columns 2 , 4 , and 6 are
included mother's age, mother's highest school degree, and nationality. The sample consists of women living in West Germany. *** $1 \%$ level of significance, ** $5 \%$ level of significance,

* $10 \%$ level of significance. Data: Micro Census.

Table A.6: Difference-in-differences estimation for mothers with partners and single mothers
Employed (Yes=1,no=0)

Control group: Women with...
10-11 year old kids

|  | All mothers |  | Mothers with Partners |  | Single Mothers |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Treatment group $($ yes $=1$, no $=0)$ | $-0.182^{* * *}$ | $-0.209^{* * *}$ | $-0.170^{* * *}$ | $-0.200^{* * *}$ | $-0.265^{* * *}$ | $-0.257^{* * *}$ |
|  | $(0.010)$ | $(0.011)$ | $(0.011)$ | $(0.012)$ | $(0.029)$ | $(0.031)$ |
| After treatment $(2001=1,1996=0)$ | $0.059^{* * *}$ | $0.053^{* * *}$ | $0.062^{* * *}$ | $0.056^{* * *}$ | 0.028 | 0.031 |
|  | $(0.010)$ | $(0.010)$ | $(0.011)$ | $(0.011)$ | $(0.025)$ | $(0.025)$ |
| After treatment*Treatment group | $0.051^{* * *}$ | $0.050^{* * *}$ | $0.048^{* * *}$ | $0.049^{* * *}$ | $0.080^{* *}$ | $0.065^{*}$ |
|  | $(0.014)$ | $(0.013)$ | $(0.015)$ | $(0.014)$ | $(0.038)$ | $(0.037)$ |
| Individual control variables | No | Yes | No | Yes | No | Yes |
| Observations | 19,844 | 19,844 | 17,485 | 17,485 | 2,359 | 2,359 |
| $\mathrm{R}^{2}$ | 0.035 | 0.073 | 0.031 | 0.067 | 0.062 | 0.130 |

Notes: The table shows difference-in-differences estimates; robust standard errors in parentheses. As controls in Columns 2, 4, and 6 are included the mother's age, highest school degree, and nationality. The sample consists of women living in West Germany. *** $1 \%$ level of significance, ${ }^{* *} 5 \%$ level of significance, * $10 \%$ level of significance. Data: Micro Census.

Table A.7: Reduced-form and 2SLS estimates on gross monthly earnings


Notes: The table shows reduced-form and 2SLS estimates; standard errors are clustered at the individual mother level and given in parentheses. The sample consists of all mothers with children born between 1992 and 2000 who are older than 36 months at the time of the interview but not older than 48 months at the time of the last kindergarten start; top 3 percent incomes are excluded from the sample. In columns (1) through (3), we only control for the youngest child's age (in months). As controls in columns (4) through (6) are included mother's age, years of schooling, and migration background; partner's age, years of schooling, migration background, employment status, and net labor income; the size of the household; the youngest child's age and gender, number of siblings, and distance (in months) to his or her oldest sibling; as well as state and year dummies. *** $1 \%$ level of significance, ** $5 \%$ level of significance, * $10 \%$ level of significance. Data: SOEP.

