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ABSTRACT

Maternal Education and Early Child Development: The Roles of Parental Support for Learning, Learning Materials, and Father Characteristics*

This paper explores the intergenerational eects of maternal education on the development outcomes of 24- to 59-month-old children in Turkey. As the source of exogenous variation in maternal schooling, we use mothers' exposure to the 1997 education reform in Turkey, which extended the duration of compulsory schooling from 5 to 8 years. The data come from the 2018 Turkey Demographic and Health Survey, which has a rich special module on early child development. We find a substantial increase in mothers' educational attainment and a rise in children's readiness to learn. Our finding is novel because it measures readiness to learn at a very young age rather than cognitive skills at later ages, as the previous studies do. We also find suggestive evidence of a positive impact on children's social-emotional development. Examining the channels, we find that both mothers and fathers, particularly fathers, spend more time with their children, and the variety of activities parents engage with them rises. In addition, learning materials at home, such as books, rise. Also, exploring father outcomes, we find evidence of reductions in the schooling and age gaps between partners, implying an increase in women's bargaining power, and suggestive evidence of a rise in fathers' schooling. These findings about father outcomes are consistent with the signicant rise in fathers' involvement with children.

JEL Classification: I26, J13, J24

Keywords: maternal education, early child development, parental support for learning

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* The usual disclaimer holds.

1 Introduction

It is well-documented that intergenerational correlations between education and income are large, and family characteristics are a significant determinant of lifetime inequalities in human capital, income, and utility (Huggett et al., 2011; Black and Devereux, 2011; Chetty et al., 2014). Parenting skills and parental investments of time and material resources are the primary environmental factors during early childhood that can affect child development (Francesconi and Heckman, 2016).[1] Differences in outcomes that arise during early childhood persist particularly in cognitive development, and later remedial interventions are costly and have limited effects (Thompson and Nelson, 2001; Cunha and Heckman, 2008; Heckman and Mosso, 2014). These findings have led to the conclusion that skill formation is a dynamic process where long-term returns would be greater from investment in early years, but pay-offs also take a long time to materialize (Heckman and Carneiro, 2003; Todd and Wolpin, 2003; Cunha et al., 2006; Agostinelli and Wiswall, 2016).

In this paper, we are interested in measuring the causal effect of maternal schooling on early childhood developmental outcomes and identifying the potential mechanisms at work. The observed correlation between the educational achievements of generations may arise due to nature, i.e., genetic transmission from parents to children. If so, parents' achievement has no causal effect on children's achievement. Several studies on income heritability using primarily twins to study the role of genetic factors conclude that these factors explain around 30–40% of income variation (e.g., Branigan et al. (2013) and Hyytinen et al. (2019)). The effects of parental education may also arise through nurturing. Cunha and Heckman (2007) conceptualize children's skill formation as a process determined by self-productivity, investments in them, and other environmental factors including parenting skills. The latter two of these factors can be plausibly and causally affected by parental education. Due to

[1]For example, Jencks and Phillips (1998), Cameron and Heckman (2001), Fryer Jr and Levitt (2006), Carneiro et al. (2005) and Todd and Wolpin (2007) demonstrate that differences in parental achievement and socioeconomic status account for a large share of the black-white test score gap. A corresponding line of research including Milne et al. (1986), Bertrand and Pan (2013), Kalil and Mayer (2016), and Autor et al. (2019) show that children, particularly boys, from single-parent families have lower academic achievement.

higher earnings or a change in parents' preferences, parental education can increase material investments into children's skill formation, such as books, toys, and out-of-home early childhood education services. Parental time investments, such as playing and other activities that contribute to children's skill formation, may also change. Even if material or time investments do not quantifiably increase, a rise in parenting skills due to education would raise the quality of investments through factors that are more difficult to observe, such as the choice of toys or the vocabulary used during playtime. Depending on the channel through which parents' education affects early childhood development, potential policy interventions could range from cash transfers or free childcare services to parenting counseling or at-home interventions.

We use data from the 2018 wave of the Turkey Demographic and Health Survey (TDHS), which includes a detailed module on early childhood development. Our data is parent centric and includes a rich set of outcomes, including detailed information on household members' activities with children and the family environment during early childhood, as well as child development indicators. This allows us to pinpoint the potential mechanisms of the impact on childhood development starting from when children are 24 months old. To identify the causal effects of maternal schooling on early childhood outcomes, we use a major compulsory schooling reform that raised years of compulsory schooling from 5 (primary school) to 8 (middle school) in Turkey within a regression discontinuity design (RDD). The reform affected a significant proportion of the population in Turkey as the enrolment at the secondary school level (grades 6–8) was 52.8% during the 1996–97 school year, the year before the law changed.[2] In the estimation of RDD, we use both parametric and nonparametric approaches.

We study a large battery of child development indicators, including literacy-numeracy, readiness to learn, physical development, and social-emotional development of 36- to 59-month-old children in each household. Among these indicators, readiness to learn and social-emotional development reflect general skills and behaviors that are strongly related to

[2]TUIK (Turkish Statistical Institute), Education Statistics.

later life outcomes.[3] While the importance of these two pre-academic skills in later skill acquisition and avoiding later learning problems has long been recognized, the causal linkages from parental background and home environments to readiness to learn and social-emotional development have not received much attention.[4]

We find that the reform increases the probability of completing middle school by 14 to 20 percentage points among the sample of mothers with young children in the TDHS survey. The results show that children of mothers in treated cohorts (mothers who are subject to the extended compulsory schooling years) have significantly higher readiness to learn. In addition, we find suggestive evidence of rises in social-emotional development and the early childhood development index (ECDI).[5] However, we find no evidence of an effect on literacy and numeracy or physical development. We also show that the reform does not change the composition of our sample of mothers with young children.

We investigate several potential mechanisms that may explain the rise in the readiness to learn. For this purpose, we define treated households as those where mothers are exposed to the compulsory school reform. We first study whether there is a change in parental involvement with children, using a detailed list of activities that household members engage in with children. The results show that fathers in treated households engage in more activities with their children. We also find suggestive evidence of a positive effect on the number of activities mothers engage in. In addition, we find that the new activities the father is involved in are not those already done by the mother—implying an increase in the variety of activities

[3]Measures of attention and school readiness are significantly correlated with later academic achievement (Jensen, 1969; Duncan et al., 2007; Ricciardi et al., 2021). See also Grantham-McGregor et al. (2007), Heckman (2007), Hoover-Dempsey et al. (2005), Moffitt et al. (2011).

[4]Previous research found that home environmental factors and income and education among parents are associated with readiness to learn among children in kindergarten and early school years. Home environmental factors discussed by the literature on child development and psychology include the degree of cognitive stimulation at home and the nature of parent-child interactions (Pettit et al., 1997; Connell and Prinz, 2002). This literature suggests that lower income and education among parents may account for differences in readiness to learn since such parents display less nurturing parenting styles (Pettit et al., 1997; Nord, 1999).

[5]The Early Childhood Development Index (ECDI), a commonly used measure of early child development, demonstrates the percentage of children who show adequate development in at least three of the four development domains (numeracy/literacy, readiness to learn, physical, social-emotional).

parents engage in. Furthermore, we find that the increase in the number of activities does not come at the expense of the other family members being involved with children. When we explore the specific activities, we find that fathers become more likely to play with their children and take them outside and mothers are more likely to read to their children. In addition, suggestive evidence exists that fathers are more likely to sing songs with their children and mothers are more likely to play with them. Overall, these results show that parental time investment into children's skill formation rises through an increase in both the extent and variety of parental activities with children, particularly in paternal activities.

The second mechanism we study is whether parents in treated households increase the material investments for child development, such as the availability of toys and books. We find suggestive evidence for an increase in the probability that treated households have a children's book. On the other hand, there are no effects on the number of books or the availability of toys.

A striking finding of this paper regarding parental inputs is the rise in fathers' involvement with children. To better understand this, we explore fathers' and marital match characteristics. First, we find suggestive evidence that women exposed to the reform have more-educated husbands. This could result from assortative mating and the direct effect of the compulsory schooling reform on men's educational distribution, which we cannot distinguish. Second, a more educated woman could better facilitate her husband's involvement with their children. This would be more likely if women's bargaining power in marriage increases due to their reform exposure. To examine this, we measure the reform impact on the age and education gaps between partners. We find that the probability that mothers have educational attainment that is at least as high as that of fathers increases substantially. Moreover, suggestive evidence exists that the age gap decreases. These findings are consistent with a rise in women's bargaining power.

Finally, we explore the effects on the probability of employment of mothers and fathers or the use of childcare services. However, we find no evidence of an effect on any of these

outcomes. It is, therefore, possible to rule out a substantial increase in family income or investments through non-parental education as part of the mechanisms.[6]

In essence, our analysis of mechanisms at play indicates a significant rise in parental inputs in children's human capital production function—which aligns with the increase in children's readiness to learn and the suggestive rise in their social-emotional development and ECDI. However, it is important to note that even if parental inputs did not increase, we could still expect an improvement in child development indicators because the quality of existing inputs could increase due to the higher educational attainment of parents. An important and difficult channel to test is a potential increase in parenting skills and, therefore, the quality of time spent with children. This remains as another potential channel driving children's development.

The previous literature analyzing the causal link between a mother's education and child outcomes ranges in interest from health and fertility to income and education (Currie and Moretti, 2003; Black et al., 2005; Oreopoulos, 2006; Chen and Li, 2009; Holmlund et al., 2011).[7] Our study is particularly related to empirical analyses of the relationship between mothers' education and children's cognitive development or educational achievement. Our study makes several contributions to the existing literature on mothers' education and child development.

First, unlike the majority of previous studies that focus on child development outcomes during schooling years (see, e.g., Andrabi et al. (2012), Carneiro et al. (2013), Cui et al. (2019)), our study explores early childhood outcomes prior to formal schooling. To the best of our knowledge, the evidence on the earliest age that the impact of a mother's education on

[6]Consistent with our findings, analyzing the effect of the 1997 compulsory schooling reform, Aydemir and Kirdar (2017) find significant effects on women's wages but much smaller effects on men's wages. They also report a small effect on women's employment and no effects on men's employment.

[7]The causal effect of mothers' education can be challenging to identify, as shown by Black et al. (2005). Using Norwegian data, the authors find a strong intergenerational correlation in education levels; however, they also report that this relationship becomes much weaker and survives only for mothers and sons once they use a regional education reform to instrument mothers' education. Holmlund et al. (2011) find no causal link between mothers' and children's schooling in Sweden and argue that selection issues explain the observed correlation between the two variables. On the other hand, Oreopoulos (2006) find that mothers' education reduces the probability of grade repetition during secondary school.

children's cognitive outcomes is realized comes from the UK. Using the change in minimum school leaving age in the UK, Dickson et al. (2016) and Macmillan and Tominey (2022) find that the impact of mothers' schooling on children's cognitive skills emerges at school entry age (about age 4).[8] Our finding about the positive impact on a mother's schooling on children's cognitive outcomes (readiness to learn) is novel because it is measured at an even earlier age (36–59 months). While the earlier literature (including those in the UK context) detects the effect of maternal education on cognitive outcomes, such as test scores, our finding detects the effect on readiness to learn, which can be interpreted as a soft skill necessary to develop cognitive abilities. Our results, therefore, highlight the importance of analyzing different types of early childhood abilities to understand potential drivers of the divergence in concurrent or later test scores. Even though we observe no effect on numerical or literacy skills,[9] the positive effect on readiness to learn fits well with the conceptualization by Cunha and Heckman (2007) of skill formation as a dynamic process where earlier advantages become persistent over the lifetime.

Second, our finding of an increase in both the extent and variety of paternal involvement with children is novel in the literature. Some papers have also analyzed potential mechanisms that might drive the effects of mothers' education on children's development. For instance, Carneiro et al. (2013) find that more educated mothers have higher incomes, more educated spouses, and invest more in their children through books, trips, and special lessons. Andrabi et al. (2012) document that more education led Pakistani mothers to spend more time with their children. Macmillan and Tominey (2022) show that improved health behaviors during pregnancy and higher monetary investments at home measured in terms of toys are potential channels.[10] Our findings are different in the way that we find a substantial impact on paternal involvement with children. We uncover certain facts that could help us explain

[8]These cognitive skills are based on teachers' assessment of reading, writing, language, and mathematics skills.

[9]Children who are 36- to 59-month-old might be too young to observe an impact on numerical and literacy skills.

[10]However, unlike our findings, Macmillan and Tominey (2022) find no effects of time investments that include various activities such as reading to, singing or playing with children, and taking them out for walks.

these findings, such as the suggested evidence on the rise in the educational attainment of fathers and the evidence on the narrowing age and education gap between spouses, suggesting a rise in women's bargaining power.

Third, the school reform in our context affected lower levels of schooling distribution, raising compulsory school from 5 to 8 years in a context where school dropout after 5th grade was high, especially among girls. The estimated effects of the reform have thus high policy relevance, especially for low- and- middle-income countries with low school attainment and for the design of policies that aim to improve intergenerational mobility.[11]

Fourth, from a methodological perspective, our study combines unusually rich data on early childhood development with a major source of exogenous variation in schooling—both of which are rare for low- and middle-income countries. We use a compulsory schooling law that (i) raised the duration by 3 years, (ii) was well-enforced for a low- and middle-income country, (iii) impacted a large fraction of the population due to high drop-out rate after compulsory schooling, and (iv) was not related to schooling and child development outcomes, as its timing was related to political events. We combine this fine setting with an RDD design with high internal validity properties (Lee and Lemieux, 2010). In contrast, most previous studies on this topic use geographical variation as the source of exogenous variation in schooling.[12] Moreover, we find quite consistent results with alternative estimation methods in RDD (parametric vs. nonparametric and alternative methods of calculating the optimal bandwidth).

We must also acknowledge that while our findings suggest that rises in parental involvement with children and learning materials and changes in father characteristics lead to better child development in terms of readiness to learn and social-emotional development, these might not be the only channels. Parental education may affect child outcomes through

[11]In comparison, the increase in education in the UK context (Dickson et al., 2016; Macmillan and Tominey, 2022) and the US context (Carneiro et al., 2013) are for higher schooling levels. In contrast, Andrabi et al. (2012) use variation in mothers' schooling at an even lower level in Pakistan. Cui et al. (2019) use compulsory schooling laws in China that impact similar grade levels to our case.

[12]See, e.g., Andrabi et al. (2012), Carneiro et al. (2013), Cui et al. (2019).

higher parental investment before the child turns 24 months old and improved child health. Using the same reform, Usta (2020) provides evidence for greater pre and post-natal investment by mothers affected by the reform and an increase in the propensity of mothers to spend time with children at home and outside.[13] Several papers have previously analyzed the relationship between mothers' education and children's health outcomes over the life cycle, but the evidence for a causal effect is mixed (Desai and Alva, 1998; Chen and Li, 2009; Arendt et al., 2021). A similar picture emerges from studies focusing on the Turkish context; they find mixed results about the effect of maternal education on child health using the 1997 compulsory schooling reform (Güneş, 2015; Baltagi et al., 2019).

2 Background Information

Before the 1997 education reform, the school system in Turkey comprised 5 years of compulsory primary school, 3 years of noncompulsory middle school, and 3 years of high school education. Almost all schools in Turkey are co-educational. The 1997 Basic Education Reform Law (No. 4306) raised compulsory schooling from five to eight years by merging the first two education levels under the umbrella of basic education.

The extension of compulsory schooling had been discussed for a long time at the time of the policy; however, its actual timing was related to political developments. The secular government that had recently come to power seized the opportunity to curb (or delay) religious education by extending compulsory schooling.[14] As such, the timing of the reform did not coincide with better-than-average economic conditions, during which other health or schooling investments are generally more likely. Moreover, there was no concentrated policy effort to raise middle school attendance prior to the reform.

[13] Her measures are two dummy variables about whether or not a mother spends time inside and outside the house.

[14] Before the policy, students could enroll in Quranic Studies after completing primary school. Hence, they would not be exposed to a secular co-educational system anymore. Also, before the policy, students could enroll in Imam-Hatip middle schools, which provided both religious and secular education. More precisely, they provided additional religious courses on top of the secular curriculum given in other schools. After the policy, students could enroll in Imam-Hatip schools only at the high school level.

The law applied to all students who did not complete the 5th grade in the 1996–97 school year. A 4th grader in the 1996–1997 school year would have started primary school in September 1993, meaning that all cohorts starting primary school in the 1993-94 school year and afterward are treated. Children in Turkey start school in September of the year that they complete age six. In other words, the reform affected all children born in or after January 1987. However, some students may either start earlier or later than their designated year, implying imperfect compliance in the treatment status of the 1986 and 1987 cohorts.

The government invested substantially in improving the schooling infrastructure. The share of the Ministry of National Education (MONE) in the public investment budget, which was about 15% in 1996 and 1997, jumped to 37.3% in 1998 and remained at around 30% until 2000 (Kırdar et al., 2016). In urban areas, where the physical capacity was already high, MONE implemented policies to use the existing capacity more efficiently, such as introducing a double-shift system and expanding the number of classes in existing schools. However, the real bite of the policy came in the rural areas, where MONE utilized two key policies: bussing children to nearby schools and constructing boarding schools.[15] As a result of these policies of the MONE, the number of students in basic education (grades 1 to 8) increased from 9 to 10.5 million from the 1997-98 school year to the 2000-01 school year—implying a 15% increase—compared to a 1% decline in the preceding 3-year interval (Kırdar et al., 2018).

The education reform resulted in a substantial increase in children's schooling. Drawing data from annual Turkish Household Labor Force Surveys from 2009 to 2017, Aydemir et al. (2022) estimate that the reform increased the fraction of individuals with a middle school or higher degree by about 17 percentage points among men and 21 percentage points among women. Using the 2008 and 2013 rounds of the TDHS, Kırdar et al. (2018) estimate that the reform increased girls' schooling by about one year. There are several reasons for the large

[15]The number of students bussed to school increased from 127,683 in the 1996-97 school year to 621,986 in the 1999-2000 school year. In addition, the number of students in boarding schools at the basic education level rose from 34,465 in the 1996-97 school year to 281,609 in the 2001-2002 school year. According to Kırdar et al. (2016), these policies led to a substantial reduction in the urban-rural gap in the completed years of schooling by age 17 for both boys (0.5 years) and girls (0.7–0.8 years).

response in completed schooling. First, prior to the increase in compulsory schooling years, the drop-out rate after 5th grade was approximately 40%. Hence, there was significant room for improvement and a significant fraction of the population was affected.[16] Second, the duration of the extension was long (3 years). Third, the policy had spillover effects on high school completion. Several studies show that the education reform increased not only the newly mandated middle school completion but also high school completion (Kırdar et al., 2016, 2018).[17]

Despite the rapid expansion of the schooling infrastructure, there is no indication of significant deterioration in quality. While the student-to-classroom ratio initially rose from 28.6 in the 1997-98 school year to 31.2 in the 1999-2000 school year, it declined back to 28.3 by the 2000-2001 school year as MONE's investment materialized. Similarly, the student-to-teacher ratio remained constant at around 30 during the first years after the policy and dropped below 28 by the 2002-03 school year (Kırdar et al., 2016). Using TIMMS 1999 and 2007 international tests for grade 8 students, Aydemir and Kirdar (2017) find no deterioration in the performance of students affected by the reform.

3 Data

We use the 2018 Turkey Demographic and Health Survey (TDHS). Unlike the earlier rounds of TDHS, the 2018 round collects detailed information about early child development based on a module developed by UNICEF.[18] This module elicits information from parents about the development of their children and about conditions of home environment that are likely to be determinants of child's development.

For each child aged 36–59 months, the 2018 TDHS asks the mother to report the sta-

[16] Three years after the reform, the drop-out rate had fallen to less than 5%.

[17] According to MONE statistics, the number of high school students in urban areas rose from 2.27 to 2.88 million from the 2000-01 school year to the 2003-04 school year, implying a 27% increase compared to the 10.5% increase in the preceding 3-year interval.

[18] This module has been commonly used as a part of the Multiple Indicator Cluster Surveys (MICS) and the Demographic and Health Surveys (DHS) in many developing-country contexts.

tus of her child in each of the 10 development indicators. These indicators include various measures to characterize whether the child is adequately developed in each of the following four domains: readiness to learn, literacy and numeracy, social-emotional development, and physical development. Literacy-numeracy measures among 3- and 4-year-olds are considered to be more likely to reflect social/cultural norms around early education than cognitive capacity, and physical development measures reflect severe developmental setbacks and children's health status (McCoy et al., 2016). Readiness to learn refers to child's self-regulating ability to learn (Greenberg and Abenavoli, 2017), and social-emotional development refers to the ability to control aggressive behaviors, avoid distraction, and get along with peers.[19] In our empirical analysis, we explore whether and how mothers' exposure to the educational reform of interest affected child development in each of these four areas. In addition, we use the Early Childhood Development Index (ECDI), a commonly used measure of early child development, which takes the value of one when a child demonstrates adequate development in at least three of the four domains (and, hence, is considered developmentally on track) and zero otherwise.

For each child aged 24-59 months, the 2018 TDHS also elicits information about learning activities. We observe whether anyone older than 15 in the household conducts the following activities with the child in the last three days preceding the survey: 1) reading books or looking at picture books, 2) telling stories, 3) singing songs, 4) taking the kid outside of the home, 5) playing with the kid, and 6) spending time with the kid naming, counting, or

[19]Development in readiness to learn is drawn upon a child's ability in the following two tasks: 1) following simple directions on how to do something correctly, and 2) when given something to do, being able to do it independently. A child with an affirmative answer for at least one of these two tasks is considered as developed in this domain. To measure development in literacy and numeracy, the survey asks whether the child can 1) identify or name at least ten letters of the alphabet, 2) read at least four simple, popular words, or 3) know the name and recognize the symbol of all numbers from 1 to 10. A child demonstrating ability in at least two of these three indicators is considered as developed in literacy-numeracy skills. The social-emotional development is measured based on the following three behaviors: 1) getting along well with other children, 2) not kicking, biting, or hitting other children or adults, and 3) not getting distracted easily. A child demonstrating adequate development in at least two of these three indicators is considered as developed in terms of social-emotional aspects. Finally, a child demonstrating adequate ability in at least one of the following two indicators is considered as physically developed: 1) picking up a small object with two fingers, like a stick or a rock from the ground, and 2) not being sometimes too sick to play.

drawing things. We also observe whether each activity is conducted by the mother, father, or any other adult. Using this information, we create several variables to understand whether the compulsory schooling reform affects the involvement of fathers and mothers in learning activities differently.

The TDHS provides several variables about the presence of learning materials and supervision, which we analyze as potential channels for early child development. We observe the number of children's books owned by a child and whether the child plays with store-bought items, home-made toys, or any other objects at home. As indicators of supervision, we observe the number of days in the last week child is left alone longer than one hour at home, the number of days left with any other child under age 10, and whether the child is attending daycare or kindergarten.

The TDHS also provides a detailed set of demographic characteristics for mothers and children, which we use as control variables in our regression analysis. As mother characteristics, we control for the birth month, birth region, type of childhood residence, mother tongue, and education of grandmothers. As child characteristics, we use dummies for the interaction of child sex and birth order as well as for child age (in 6-month intervals). Lastly, the data provide information about educational attainment, use of formal childcare services, employment status, and age of mothers and their partners. We analyze the effect of the educational reform on the middle school completion status and employment in the last 12 months of each parent, as well as on the gaps in age and schooling between spouses.

When defining our sample, we first restrict the data to the mothers born in the eight-year window around January 1987 (the cutoff date to be eligible for the extension of compulsory schooling). Then, we employ two main samples for our empirical analysis: i) women with 24- to 59-month-old children, these women's last-born 24- to 59-month-old child, and this child's father—called sample A—and ii) women with 36- to 59-month-old children, these women's last-born 36- to 59-month-old child, and this child's father—called sample B.[20]

[20]Here, we assume that the mothers' partners are fathers. In the sample, 97.8% of the women are married. Among the children of these married women with a partner, we cannot reach the father line number for only

The use of two separate samples arises from the fact that while the information on early childhood development outcomes is for 36–59-month-old children, the other outcomes are for 24–59-month-olds. While we restrict the child samples to the youngest child in the analyzed age group of each woman,[21] we also use samples of all children in these age groups to check the robustness of our findings. We conduct certain analyses at the mother level (such as the policy impact on education), most at the child level (such as impacts on early childhood development indicators), and some at the father level (such as the reduced-form impacts on father outcomes).

3.1 Sample Statistics

Table 1 provides summary statistics; early childhood development outcomes are for sample A, and the remaining outcomes are for sample B. According to our indicators, a large fraction of children in the analyzed sample demonstrates adequate physical development (98.7%), readiness to learn (96.7%), and social-emotional development (73.9%), whereas only 13.7% satisfy the development criteria in literacy and numeracy.

Mothers conduct more activities with children than fathers (on average, 3.5 vs. 1.7 out of six activities analyzed). Mothers are also much more likely to conduct at least four activities as a measure of adequate attention. The most common types of activities are taking the kid outside of the home or playing with the kid for both parents, and the gap between mothers and fathers is relatively smaller in these activities (in favor of mothers). On the other hand, compared to fathers, mothers are at least twice as likely to do other activities with children.

Table 1 shows that most children in the sample have access to learning materials. About half have at least three books at home, the majority have a toy of all kinds, and almost the entire sample has a shop-made toy (94.2%). Also, only 8.5% of the children are subject to

3.98%. Out of the 3.98%, the survey explicitly states that the father is not in the household for 3.43%, and this information is missing for the remaining.

[21] We prefer the specification with the restriction to one child because it is more compatible with the assumption of independent observations in cross-sectional analysis.

inadequate care (i.e., either left alone or under the supervision of another kid). The fraction of children who attend daycare centers is also low (9.2%).

4 Methodology

Our identification method exploits the month-year of birth cutoff in women's exposure to the reform within a regression discontinuity design. In estimating the reduced-form impacts of mother's exposure to the education reform, we use the following sharp RDD specification,

$$y_i = \beta_0 + \beta_1 T_i + I(T_i = 0) f(x_i) + I(T_i = 1) g(x_i) + Z_i \Gamma + u_i \tag{1}$$

where y_i shows the outcome variable for person i. Depending on the outcome, i may refer to the mother, the father, or the child. The treatment variable, T, takes the value of one when the mother's month-year of birth is after January 1987 and zero otherwise. The indicator function, $I(.)$, is one when the statement inside the parenthesis is true and zero otherwise. The functions $f(.)$ and $g(.)$ stand for the time trends in the outcome variable on the left- and right-hand side of the cutoff. The running variable, x, is the month-year of birth, which is normalized at the cutoff value. In equation (1), Z denotes the set of control variables and u stands for the error term; and β_1 shows the reduced-form effect of the mother's policy exposure on the outcome variable. We also measure the effect of mothers' middle school completion status—the newly mandated schooling level with the education reform—using fuzzy RDD (under certain caveats that we discuss shortly). The estimation of the fuzzy RDD is carried out using a 2SLS procedure as follows:

$$D_i = \alpha_0 + \alpha_1 T_i + I(T_i = 0) k(x_i) + I(T_i = 1) l(x_i) + Z_i \Delta + v_i \tag{2}$$

$$y_i = \gamma_0 + \gamma_1 \hat{D}_i + I(T_i = 0) m(x_i) + I(T_i = 1) n(x_i) + Z_i \Theta + w_i \tag{3}$$

Equation 2 illustrates the first stage, where the dummy variable for the status of (at

least) middle school completion (D_i) is regressed on the same set of variables as in equation (1). The second stage, given in equation (3), has the same structure as equation (1)—except that the predicted treatment status from equation (2), $\hat{D}_i$, replaces the assignment to the treatment (T).

In all regressions, the control variables, Z, include the mother's birth-month dummies, dummies for the mother's childhood region of residence (at the 12 NUTS-1 level regions), dummies for the mother's childhood type of location (province center, district center, sub-district or village), dummies for the mother's mother tongue (Turkish, Kurdish, Arabic, and other), and dummies for grandmother schooling (no education, primary incomplete, primary completion, secondary complete, high school graduate, and college graduate). In addition, all regressions in which the dependent variable is defined for children also include dummies for 10 values of birth order and sex interactions (in which the birth order variable is capped above at five) and dummies for children's age in months in 6-month brackets. For variables with missing observations, we use a missing dummy variable. We use the sample weights in the regressions and cluster the standard errors at the level of the mother's month-year of birth, as suggested by Lee and Card (2008).[22]

Hahn et al. (2001) show that, under certain assumptions, the fuzzy RDD identifies the LATE at the cutoff. Hence, the assumptions of the LATE theorem (Imbens and Angrist, 1994) apply to the fuzzy RDD as well. The key assumption here is the exclusion restriction assumption—which requires that the treatment (the compulsory schooling policy) have no direct effect on the outcomes other than through its effect on women's middle school completion, conditional on the covariates in the specification. However, the education policy could also affect women's partners' characteristics and, thereby, their children's outcomes. Here, it is important to distinguish between the causes of changing partner characteristics.

[22]Lee and Card (2008) show that in an RDD with a discrete running variable, inference can be made by defining the difference between the expected value of the outcome variable and the predicted value from a given functional form as a specification error. Since this produces a common variance component across observations for a given value of the running variable, Lee and Card (2008) suggest using clustered standard errors for inference.

First, suppose that the distribution of men's schooling does not change due to the education reform. However, the change in women's schooling could still change the education and other characteristics of men they marry via assortative mating. This case does not challenge the validity of our 2SLS estimates; changing father characteristics constitute a channel in the observed early child development outcomes. However, the education reform could also change the distribution of men's schooling attainment.[23] Unlike the assortative mating channels, this case constitutes a potential failure of the exclusion restriction assumption in the 2SLS estimation of the impact of mother's schooling—although this potential problem is not unique to our context and applies to most other studies aiming to estimate mother's schooling via an instrument. ¡

In the estimation, we use both parametric and nonparametric (local polynomial) approaches. In our parametric approach, we use several alternative bandwidths with split linear trends on each side of the cutoff, but we also check the robustness of our findings to the use of quadratic trends.[24] In particular, we start with an 8-year bandwidth on each side of the cutoff and gradually zoom in around the cutoff by narrowing the bandwidth incrementally one year at a time. Hence, we show the estimates for five different bandwidths from 8 years to 4 years on each side. With our narrowest bandwidth, we still have 96 clusters in our data. In the nonparametric approach, we follow the optimal bandwidth selection method of Calonico et al. (2017), but we also check the robustness using the Imbens and Kalyanaraman (2012) (IK) optimal bandwidths. We view the results of our local polynomial approach only as complementary evidence because the policy effect on women's middle school completion is statistically insignificant (marginally) albeit large in magnitude in this approach.[25]

[23]In fact, in their study about the effect of the compulsory schooling reform on intimate partner violence (IPV), Akyol and Kırdar (2022) find that the reform changes men's schooling attainment.

[24]Gelman and Imbens (2019) suggest using low-order polynomials for trends in RDD.

[25]Lee and Lemieux (2010) argue that "[n]onparametric estimation does not represent a 'solution' to functional form issues raised by RD designs. It is, therefore, helpful to view it as a complement to—rather than a substitute for—parametric estimation."

4.1 Checks of the Identification Assumption

This subsection investigates the fundamental identifying assumption in RDD that potential outcome distributions are smooth around the cutoff. Although this assumption is not directly testable, we conduct the tests commonly used in the literature to assess its plausibility: (i) continuity of the score density around the cutoff and (ii) absence of treatment effects on pre-treatment covariates.

First, we examine the continuity of the score density around the cutoff, which requires that households do not manipulate the running variable to be on one particular side of the cutoff. Such manipulation is unlikely in our context because the running variable (month-year of birth) is determined prior to learning about the policy. Nonetheless, we check potential manipulation more formally using the test developed by Cattaneo et al. (2018), which compares the density of observations on each side of the cutoff. The results in Online Appendix Figure A1 show that the null hypothesis of no difference in the density of treatment and control groups at the cutoff is not rejected at the actual cutoff value.[26]

Second, we check the absence of policy effects on the pre-treatment covariates. In the absence of sorting around the cutoff, we would expect no jump at the cutoff for the pre-treatment covariates. Online Appendix Table A1 gives the results for both sample A and sample B. Out of the 50 variables, the hypothesis of null policy effect fails for 8 with sample (A) and for 5 with sample (B) at the 10 percent statistical significance level. While the failure rate is slightly higher than the expected level with sample (A), it is at the expected level with sample (B). Overall, the estimates indicate no serious concerns about the assumption of the absence of a jump at the cutoff for the pre-treatment covariates.

[26]The p-value is 0.495 for sample A and 0.699 for sample B.

5 Results

5.1 Policy Effect on Mothers' Schooling

We first examine the policy effect on mothers' middle school completion status. Figure 1 illustrates the change in the fraction of women with a middle school degree or higher education over the running variable for samples A and B. Here, we plot the residuals of the dependent variable after controlling for the covariates. As can be seen from the figure, a significant jump exists at the cutoff for both samples. Table 2 presents the corresponding RDD estimates from the estimation of equation (1). Panel (A) shows that the policy increases middle school completion probability by 14 to 20 percentage points for the sample covering women with 24- to 59-month-old children. Similarly, in panel (B), in which the sample includes mothers with 36 to 59-month-old children, the policy increases middle school completion probability by 9 to 15 percentage points; however, in this panel, statistical significance exists at conventional levels for bandwidths of 6 to 8 years. Although the coefficients in panel (B) for 4-year and 5-year bandwidths are statistically insignificant, they are still sizable in magnitude and only somewhat smaller than those in other columns.[27]

In Table 3, panel (I) presents the reduced-form RDD estimates and panel (II) gives the 2SLS (fuzzy RDD) estimates of the impact of middle school completion status. Panel (I-A) demonstrates evidence of a positive impact of mothers' policy exposure on children's readiness to learn. For bandwidths ranging from 4 to 8 years on each side of the cutoff, the reform increases this learning indicator by 4.1 to 7.4 percentage points. This is statistically significant for bandwidths ranging from 5 to 8 years but marginally statistically insignificant with the 4-year bandwidth. The coefficient magnitudes are also lower for narrower bandwidths, which is consistent with the patterns of the policy impact on schooling in Table 2.

[27]The fact that the policy effect on schooling with narrower bandwidths is smaller aligns with the previous literature findings. Kırdar et al. (2018) note that imperfect compliance of the two birth cohorts right around the cutoff (the 1986 and 1987 birth cohorts) due to early and late school start age than the norm. This imperfect compliance results in smaller policy effects as the bandwidth narrows because the relative importance of the two imperfectly-compliant birth cohorts rises in small bandwidths.

The 2SLS estimates in panel (II-A) show that women having at least a middle school degree increases their children's readiness to learn by 20–30 percentage points (except for the widest bandwidth).

Both the reduced-form and 2SLS estimates in Table 3 demonstrate no evidence of an effect on children's literacy and numeracy or their physical development. In addition, as shown in panel (I-D) of Table 3, the reduced-form impact on social-emotional development is positive and large in magnitude. Its magnitude is, in fact, as large or larger than the magnitude of the reduced-form impact on readiness to learn. However, it is not statistically significant at conventional levels. Similarly, the 2SLS estimate in panel (II-D) for social-emotional development is positive and large but statistically insignificant. (Significant room exists for improvement of social-emotional development, as its mean value is 0.739.) Finally, as for social-emotional development, the positive reduced-form and 2SLS coefficients for the early childhood development index (ECDI) are large but imprecisely estimated. With a larger sample size, it seems likely that these estimates would have been statistically significant at conventional levels.[28]

5.2 Understanding the Effects on Children's Readiness to Learn

This section explores the potential channels of the positive impact of women's education on children's readiness to learn and the suggestive positive impact on children's socio-emotional development. Women's exposure to the policy and the resulting increase in school attainment could impact child development in two ways. First, it could alter the human capital production inputs—including parental involvement with children, learning materials at home, and the type of child supervision (the person(s) in charge). In addition, the household environment could change due to the impact of increased women's education on mothers' and fathers' characteristics and marital matching. Second, even when no change occurs in these production inputs, women's schooling attainment could increase the productivity of

[28]Examining the impact heterogeneity for all five development outcomes by the child's gender, we find no notable differences between boys and girls.

the existing inputs. Here, we essentially examine the first channel.

5.2.1 Channels via Parental Support for Learning (Parental Involvement)

First, we examine how mothers' reform exposure changes parental support for learning. In particular, we examine how parental activities (such as reading books; telling stories; singing songs; taking children outside the home; playing with children; spending time with children; naming, counting, or drawing things with children) that promote learning and school readiness, as well as social-emotional development, change as a result of the mother's reform exposure. This analysis is based on the sample of mothers with 24- to 59-month-old children as the questions on parental support are elicited for this sample. (We provide the corresponding results for the sample with 36- to 59-month-old children in the Online Appendix.) Although the results on development indicators in the previous section come from the sample of mothers with 36- to 59-month-old children, we prefer the larger sample primarily because parental involvement with children when they are 24- to 35-month-old would influence their development level at later months. Besides, it provides us with a large sample.

Figure 3 provides the RDD graphs for several indicators of parental involvement. Overall, jumps at the cutoff are more prominent for fathers' involvement indicators. For instance, a clear jump is visible in panel (B) for fathers' total number of activities. The point where the fitted line on the left-hand side of the cutoff lies at the cutoff is not covered by the 95% confidence interval on the right-hand side of the cutoff. The jumps at the cutoff for fathers engaging in four or more activities in panel (G) and in any activity in panel (I) are also large.

Table 4 shows the reduced-form estimates for outcomes regarding parental involvement with children. The number of total activities that fathers engage with their children increases. The statistical evidence for this finding holds for all bandwidths. Quantitatively, fathers engage in 0.5 to 0.6 more activities due to mothers' exposure to the compulsory

schooling reform. This change amounts to about a 30 percent increase, given that fathers on average engage in 1.77 activities. The reduced-form effect on the number of activities mothers engage in is also positive and notable in magnitude (0.17 to 0.34); however, it is statistically insignificant at conventional levels. This might be expected as mothers already engage in, on average, twice as many activities as fathers do. In addition, the number of activities that either parent engages in also increases. This means that the additional activities that fathers engage in are not all the same activities that mothers already do with their children. (In this case, the number of activities that either parent is involved with their child would not change.) This finding also implies that the diversity of parents' activities with their children rises. This increase in the number of activities could come at the expense of the other family members being involved with children. However, Table 4 shows that the number of activities that all adults in the households engage in rises as much or more than that for parents. Moreover, the coefficients for non-parent adult household members are positive but statistically insignificant. These two facts indicate that the increase in the number of activities parents do with their children does not come at the expense of other family members' involvement with the child.

An indicator frequently used as a measure of adequate early stimulation and responsive care is engaging in "four or more activities" with children. Table 4 shows that while mothers' probability of involvement in four or more activities with the child increases, this is not statistically significant at conventional levels. In contrast, there is evidence of an increase in fathers' likelihood of engaging in four or more activities with their children. In addition, Table 4 also shows that the policy increases fathers' engagement with their children at the extensive margin. The probability that fathers conduct any activity with their children increases by 12 to 15 percentage points. Since the mean value of this variable is about 66 percent, the increase amounts to about a 20 percent increase.

Online Appendix Table B1 provides the corresponding 2SLS estimates regarding the impact of mothers' middle school completion status on parental involvement with children.

The results indicate that the mother's completion of at least middle school raises the number of father activities with the child by about 2.4 (for which the mean is 1.8) and the number of different activities either the father or the mother engaged in by about 1 to 1.5 (for which the mean is 3.8).

In order to better understand fathers' and mothers' involvement with their children, we next examine the reduced-form effects on mothers' and fathers' involvement in six separate activities with children: reading books, telling stories, singing songs, taking children out, playing with children, and counting and drawing with children. Figure 4 illustrates the RDD graphs for these activities. We observe jumps at the cutoff for several activities, particularly for those conducted by fathers. These include mothers reading books, fathers reading books, fathers taking the child out, fathers playing with the child, and mothers playing with the child. The jump in the probability of fathers playing with their child is particularly visible. Table 5 shows the RDD estimates of the policy effect. As can be seen from the table, the policy increases the probability of mothers reading books to their children by 9 to 14.5 pp. (Statistical significance at conventional levels exists for 2 of the 5 bandwidths; the coefficients with the other 3 bandwidths are marginally statistically insignificant.) In addition, suggestive evidence exists that the policy raises the probability that mothers play with their children.[29]

The policy effects on fathers' involvement in these activities are, on average, stronger. However, this is not the case for reading books. Although the policy effect on fathers reading books is positive and large in magnitude, particularly with narrow bandwidths, it is not as large as the effect for mothers reading books and is not statistically significant. In contrast, strong evidence exists that the policy effect increases the probability of fathers taking children outside the home and the probability of fathers playing with their children. The reform increases fathers' probability of taking children outside the home by 11.6 to 15.9 pp and fathers' probability of playing with their children by 12.5 to 19. 4 pp. In addition, suggestive evidence exists that fathers become more likely to sing songs with their children.

[29]This is statistically significant for 2 of the 5 bandwidths; for the other 3 bandwidths, however, the coefficients are markedly smaller but not small in absolute magnitude.

(Although this is statistically significant for one of the five bandwidths, the coefficients are large and quite consistent in magnitude across the bandwidths.) At the end of this section, we discuss the potential reasons for the larger increase in fathers' involvement with children than mothers' by examining the changes in fathers' characteristics and differences between mothers and fathers in education and age.[30]

5.2.2 Channels via Learning Materials and Inadequate Supervision

This section explores whether changes in learning materials and supervision play a role in the estimated positive impact on readiness to learn. First, we examine the RDD graphs given in Figure 5. The first row of the figure on outcomes about the existence of books suggests an increase. The jump at the cutoff in Panel (C) plot about the existence of any books is particularly visible. In addition, panel (G) suggests a drop at the cutoff for inadequate supervision.

Table 6 shows that the reduced-form impacts regarding whether there are three or more books, ten or more books, and any books at home are positive across all bandwidths and large. However, the impacts on three or more books and ten or more books are statistically insignificant. In contrast, the estimated positive impact on having any books in the house is statistically significant for 7-year and 8-year bandwidths and large in magnitude across all specifications—as suggested by the RDD graph in panel (C) of Figure 5. In essence, there is suggestive evidence that women's exposure to the reform increases the presence of books in the household. Quantitatively, the 2SLS estimates in Online Appendix Table B3 show that women's completion of at least middle school increases the probability of having any books at home by about 25–40 pp.

We also examine the impact on the presence of toys in the house, which might help children's thinking, learning, and social interaction (Trawick-Smith et al., 2011). Table 6

[30]Online Appendix Table B2 provides the 2SLS estimates of the impact of a mother's middle school completion status on parents' specific activities with their children. The results show that a mother's completion of at least middle school raises the probability of the mother reading to the child by about 40–60 pp and the probability of the father taking the child out by about 50–60 pp.

shows that no evidence exists of an effect of women's reform exposure on the presence of homemade toys or toys from a shop or toys as house objects. Finally, Table 6 illustrates the reduced-form impact on inadequate supervision of children. Inadequate supervision comprises leaving children alone or under the supervision of other young children, as this raises the probability of accidents, neglect, and abuse. The results indicate no evidence of an effect on inadequate supervision.

5.2.3 Channels via Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

The schooling reform increases mothers' schooling, which promotes their children's early learning and school readiness. However, women's exposure to the schooling reform could affect children's outcomes also via changes in their husbands' characteristics. In the context of intimate partner violence, Akyol and Kırdar (2022) find that the same schooling reform's effects on intimate partner violence outcomes in Turkey partly result from the changing partner characteristics with the reform. Hence, we also look at the policy effect on several outcomes related to fathers' and marital match characteristics. In addition, prior studies on the impact of the 1997 reform have shown that exposed cohorts' labor market outcomes are affected (Aydemir and Kirdar, 2017). Moreover, an increase in employment could increase childcare use which is well-established to affect early childhood development (Havnes and Mogstad, 2011; Felfe and Lalive, 2018).[31] Therefore, we also examine how parental labor market outcomes and formal childcare use change.

Figure 6 presents the RDD graphs for the father's middle school completion status, the mother's and father's employment status in the last 12 months, the child's enrollment in formal daycare, the age gap between parents, and the probability that the mother has an education level at least as high as that of the father. Panel (A) of Figure 6 suggests a strong

[31]The literature on the effects of childcare on child development suggests that whether the effects are positive or negative are context-specific, and the quality of childcare and the parents' socioeconomic background matter. See van Huizen and Plantenga (2018) for a review and discussion of the literature.

jump at the cutoff in the probability of the father completing at least middle school. Panels (B) and (C) show no visible jumps in the employment status of either the mother or the father. In contrast, panel (E) shows a drop in the parental age gap and panel (F) suggests a jump in the probability of the mother having an education level as high as or higher than the father's.

As can be seen from the RDD estimates in Table 7, the husbands of women exposed to the policy are on average 4.6 to 7.5 pp more likely to have at least a middle school degree than the husbands of women not exposed to the policy; however, this is not statistically significant at conventional levels. We also examine the policy effect on the mother employment status within the last year and the reduced-form effect on father employment status because such effects would mean that parents have less (or more) potential time to spend with their children. However, Table 7 shows no evidence of effects on mother or father employment. In addition, we explore whether women's exposure to the new policy changes the likelihood of using formal daycare for their children. As shown in Table 7, no evidence of such an effect exists, consistent with the lack of evidence for parental employment outcomes.

The results in Table 7 imply that we cannot rule out an impact on the father's schooling attainment. Although the statistical evidence is weak (given our modest sample size), the magnitude of the estimated impact is large. This impact is important because an increase in the father's schooling would be consistent with our findings regarding the rise in the father's support for the child's learning, as shown in Tables 4 and 5. However, even without more schooling for fathers, we might expect a more educated mother to facilitate other household members to contribute to children's care and education. For instance, a more educated mother might be more likely to remind her husband to spend more time with their children. Such a change would be more likely to occur if women's bargaining power in the household increases. Hence, we also examine the reduced-form impacts on the schooling and age gaps between mothers and fathers in Table 7.

The last two rows of Table 7 show the policy impact on two key determinants of women's

bargaining power: the age gap and the schooling gap with their partners. The impact on the age gap is negative and large for all bandwidths but the narrowest one, indicating a narrowing of the age gap by 0.2 to 0.3 years. However, this impact is not statistically significant at conventional levels. The 2SLS estimates in Online Appendix Table B4 show that the mother's completion of at least middle school decreases the age gap by about 2 years. Although this is also imprecisely estimated, the coefficients for some bandwidths are marginally statistically insignificant. We also explore the impact on the probability of mothers having educational attainment as high as or higher than their husbands. In fact, the impact on this incidence is positive and statistically significant; the probability of the mother having an education level at least as high as the father increases by 10 to 20 percentage points. These findings suggest that the education reform increases women's bargaining power vis-à-vis their husbands, which would increase women's ability to facilitate their husbands' involvement with their children.[32]

5.3 Robustness Checks

5.3.1 Potential Sample Selection

Our analysis is based on samples of women with children of certain ages. In particular, we use two samples: i) women with a child aged 24-59 months (sample A), ii) women with a child aged 36-59 months (sample B). The education reform could change the composition of these groups of women by changing their fertility decisions. For instance, Kırdar et al. (2018) find that the reform changes the probability of ever giving birth by age 17 but not the likelihood of ever giving birth by ages after 17 (as the fertility hazard rates at ages below 17 are lower due to the policy, whereas those at ages 17-18 are higher). Hence, in this subsection, using the sample of all women, we investigate whether the policy changes

[32]Wages are not observed in TDHS. But, using labor force surveys, Aydemir and Kirdar (2017) find significant effects of the compulsory school reform on women's wages but much smaller effects on men's wages in Turkey. This finding is also consistent with increased bargaining power of women as women's share of household income may increase due to the reform.

women's likelihood of being included in our samples. As can be seen from Table 8, the policy effect on being included in either sample is positive across all bandwidths; however, none is statistically significant at conventional levels. The next section presents the nonparametric estimates for potential sample selection.

5.3.2 Nonparametric Results

Here, we provide our nonparametric RDD results based on the CCFT and IK optimal bandwidths for all outcomes of interest. We provide nonparametric results only as a robustness check primarily because our first-stage estimates of the policy impact on mothers' middle school completion status with the state-of-art CCFT approach are statistically insignificant (marginally with sample A) albeit large in magnitude. The lack of statistical significance primarily results from the fact that the CCFT approach typically chooses narrow bandwidths, and the optimal bandwidths for the middle school completion outcome are particularly narrow.[33]

Panel (A) of Table 9 presents the reduced-form nonparametric estimates for potential sample selection and our key outcomes of middle school completion and readiness to learn. The estimates about the policy effect on sample selection are positive but statistically insignificant, as are the parametric estimates. At the same time, the nonparametric coefficients are smaller in magnitude than the parametric estimates. Second, we examine the policy impact on mothers' middle school attainment. The policy increases middle schooling completion by 11 pp for sample A and 9.7 pp for sample B. The bandwidths on the left and right hand-sides are 34 and 33 months with sample A and 33 and 43 months with sample B. It is perhaps unsurprising that the precision is low with these small samples. Nonetheless, the policy impacts on middle school completion with both samples are large in magnitude, albeit not as large as the parametric estimates in Table 2. Finally, panel (A) of Table 9

[33]Narrow bandwidths could be particularly problematic in our setting due to the imperfect compliance among the 1986 and 1987 birth cohorts (two year-of-birth cohorts immediately around the cutoff). Imperfect compliance of these birth cohorts generates much curvature around the cutoff; hence, it is likely to force a narrow bandwidth in the tradeoff between bias and precision.

shows that mothers' exposure to the reform increases children's readiness to learn by 4.7 pp. This magnitude is similar to the parametric estimates with narrow bandwidths in Table 3. Also, as in parametric estimates, the coefficient for social-emotional development is positive and large but statistically insignificant.

Investigating the channels regarding parental involvement with children in Table 9, we see that nonparametric estimates indicate evidence of a positive effect of mothers' reform exposure on the number of total father activities, fathers engaging in four or more activities, fathers engaging in any activity, fathers taking out their children, and mothers reading books to their children—consistent with our parametric estimates. As in parametric estimates, the reduced form nonparametric estimates about the number of total mother activities and the incidence of mothers playing with their children are positive and large but statistically insignificant. However, unlike the parametric estimates, the reduced-form nonparametric estimates reveal statistical evidence of a positive impact on mothers' engagement in any activity, fathers reading books, fathers counting, drawing, and naming with their children, and the availability of homemade toys. Moreover, unlike the parametric estimates, the effect on the availability of ten or more books at home is positive and large but marginally statistically insignificant. Overall, the nonparametric estimates with the CCFT optimal bandwidths regarding parental involvement with children are highly consistent with the parametric estimates.

The nonparametric RDD estimates with the IK optimal bandwidths are provided in Online Appendix Table A2. Overall, the results are highly similar to those with the CCFT optimal bandwidths and the parametric approach. Compared to the CCFT optimal bandwidths, the effect on middle school completion is more precisely estimated, and the effect on readiness to learn is less precisely estimated, although statistical evidence also emerges for readiness to learn with 1.5 optimal bandwidths. In terms of channels, statistically significant positive impacts exist for the total number of father activities, total adult activities, father conducting four or more activities, and father conducting any activity. Regarding specific

activities, evidence of a positive effect exists for the father reading books, the father taking out the child, the mother reading books, and the mother playing with the child. In addition, there is evidence of a rise in the probability of the mother having an education level that is at least as high as the father.

5.3.3 Alternative Samples

Some mothers have more than one children who are 24- to 59-months-old in sample A or 36- to 59-months-old in sample B. In order to have one child for each mother, we restrict the sample to the last-born children of each mother in our main analysis. Here, we remove this restriction and allow the sample to include siblings. The reduced-form parametric RDD estimates with this larger sample are provided in Online Appendix Table A3 (for 8-year bandwidths on each cutoff side). Overall, the results are highly consistent with those in Tables 3 to 7. The reduced-form impact on readiness to learn is smaller (4.5 pp compared to 7.4 pp in Table 3) but remains statistically significant at the 10 percent level. The evidence for the rise in parental involvement with children remains; the estimated coefficients for the total number of activities of mothers, fathers, and both parents are as large as those in Table 4. Moreover, the effects for fathers and both parents are statistically significant. The statistical evidence for the rise in the incidence of specific activities conducted by fathers and mothers exists for fewer activities. Similarly, the statistical evidence on the impact of the existence of books at home is weaker.

Another alternative sample check we conduct regards the analysis of channels via parental support for learning and learning materials. The survey elicits these channels for 24- to 59-month-old children, and, accordingly, our main analysis covers this sample. However, our key outcome variables about early child development are for 36- to 59-month-old children. We kept the sample of 24- to 59-month-old children in our analysis of the channels primarily because parental support for learning and learning materials during 24–35 months would also affect development outcomes at later months. Nonetheless, here, we repeat our

channels analysis with a sample comprising 36- to 59-month-old children only to keep the sample compositions in the analysis of development indicators and their channels the same.

Using the sample of 36- to 59-month-old children, Online Appendix Tables C1 to C4 replicate our main findings in Tables 4 to 7. Overall, the patterns of the results are similar. However, the coefficients are generally less precisely estimated, which is expected given the smaller sample size. In addition, the magnitudes of the coefficients indicating positive effects on parental support for learning also become somewhat smaller, although they remain large. In contrast, the magnitudes of the coefficients of learning materials and fathers' middle school completion status are similar.

5.3.4 Alternative Specifications

Our parametric RDD analysis started with 8-year bandwidths on each side of the cutoff and gradually zoomed in around the cutoff incrementally by one year at each step until we had 4-year bandwidths on each side. This analysis used linear polynomials on each side of the cutoff. Here, we assess our findings' robustness to using quadratic polynomials with the same set of bandwidths. We replicate our main results in Tables 2 to 7 in Online Appendix Tables D1 to D7 using quadratic trends. Overall, the results are quite robust. As expected, with narrow bandwidths of 4 or 5 years on each side of the cutoff, the results are sometimes volatile with quadratic trends. However, evidence of a policy impact on women's middle school completion remains. The statistical evidence on early child development indicators becomes somewhat weaker. In contrast, the statistical evidence regarding the changes in parental involvement persists. So does the evidence suggesting a rise in women's bargaining power. Finally, the suggestive evidence about the rise in learning materials also remains.

Lastly, we check the robustness of our findings to the exclusion of control variables. In particular, we keep only the biological characteristics of children that are critical determinants of development, such as age, gender, and birth order, but drop all other socioeconomic factors. Using such a specification, we replicate our main estimates in Tables 2 to 7 in Online

Appendix Tables E1 to E6. The results change minimally. Essentially, all our main findings remain.

6 Conclusions

This paper examines the effect of maternal education on early childhood outcomes when children are between 24 to 59 months and explores the potential mechanisms through which maternal education may affect early childhood development. The empirical strategy exploits a major compulsory schooling reform in Turkey that raised years of schooling from 5 to 8 years. The fact that the reform affected a large group and led to a substantial increase in their education level improves the generalizability of our results, especially for emerging economies where the average education level is low.

We find that the reform significantly increased mothers' schooling attainment and improved children's readiness to learn. In addition, there is suggestive evidence of a positive impact on children's social-emotional development. We examine the potential channels using the unique feature of our data that provides detailed information on parental activities with children and a rich set of family environment characteristics during early childhood. The results show that parents, particularly fathers, spend more time with their children, and the variety of activities parents engage with their children rises. In terms of material investments, we find suggestive evidence of an increase in learning materials at home, such as books.

Our findings highlight the increasing paternal involvement with children in response to being married to more educated women as a potential channel to improve early childhood development. This may be driven by the increased bargaining power of women that induces higher paternal time investments or a selection effect where more educated mothers match with fathers who are more prone to making such investments. In fact, exploring father outcomes, we find evidence of a reduction in the schooling gap between partners and suggestive

evidence of a reduction in the age gap, implying an increase in women's bargaining power. We also find suggestive evidence of a rise in fathers' schooling consistent with assortative mating.

Readiness to learn and socio-emotional development reflect general skills and behaviors strongly related to later life outcomes. Our results show that maternal education affects the formation of these pre-academic skills among children as young as 36 to 59 months. Thus, intergenerational correlation in skills and education outcomes begins with divergence in skill formation in the early years. Our findings highlight the role of parental involvement in explaining this divergence and point to policies such as counseling and at-home interventions to improve parenting skills as a potentially efficient way to improve skill formation and reduce skill gaps.

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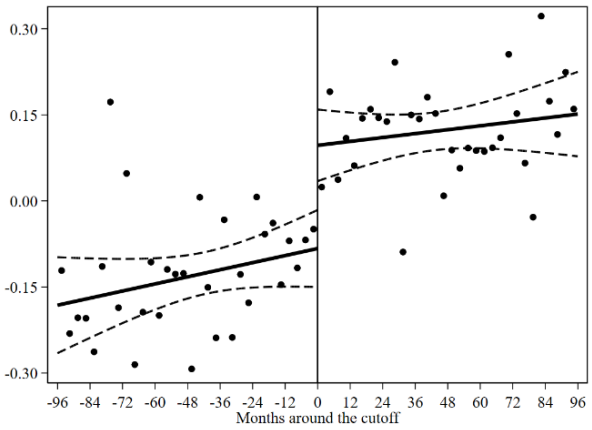
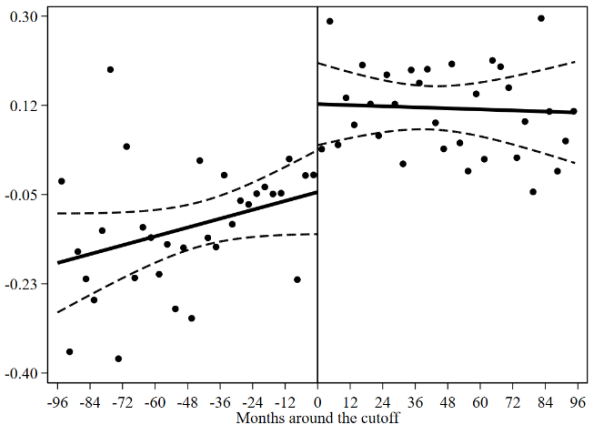
Figures

Figure 1. RDD Graphs for Middle School Completion

(a) Sample A: Women with 24- to 59-month-old children



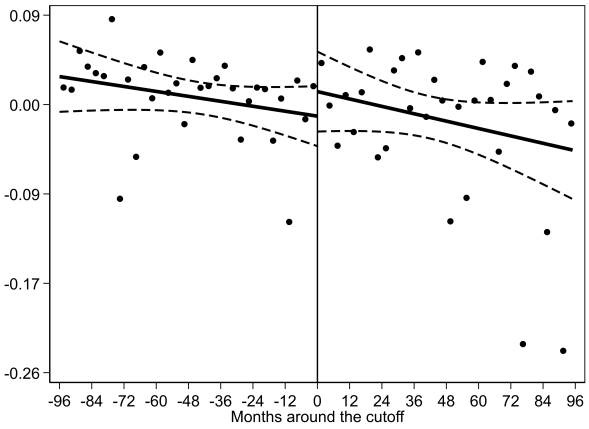
(b) Sample B: Women with 36- to 59-month-old children



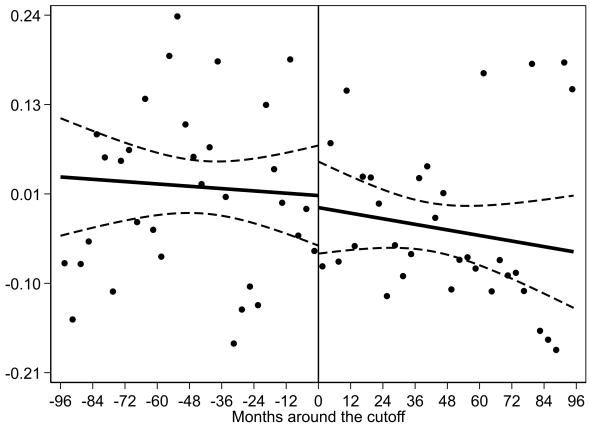
Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 months in panel (A) and women who have at least one child aged 36-59 months in panel (B). The cutoff is at 1987 January, and the running variable is month-year of birth. The plots present the residuals of women's middle school completion status after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, and dummies for the grandmother's schooling levels. Linear time trends are fit on either side of the cutoff.

Figure 2. RDD Graphs for Early Child Development Indicators

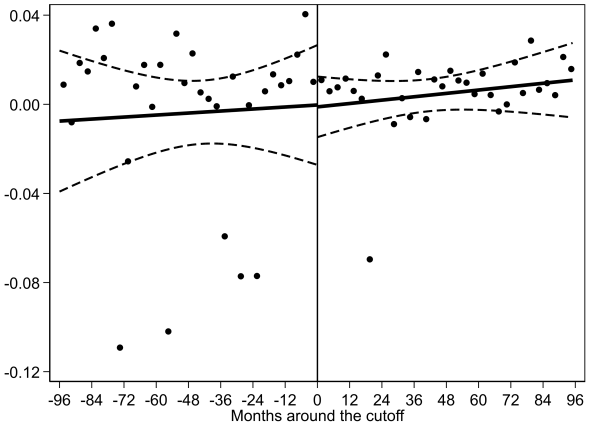
(a) Readiness to Learn



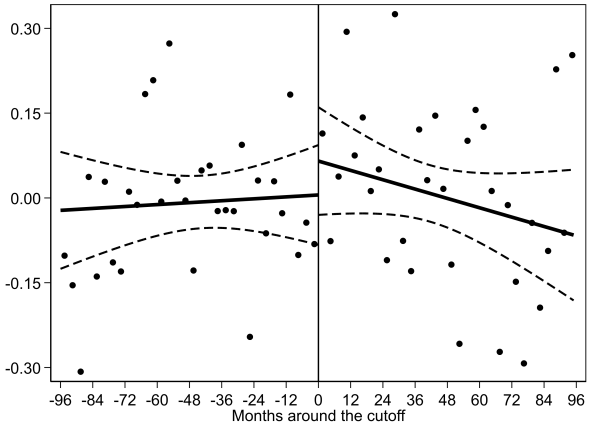
(b) Literacy



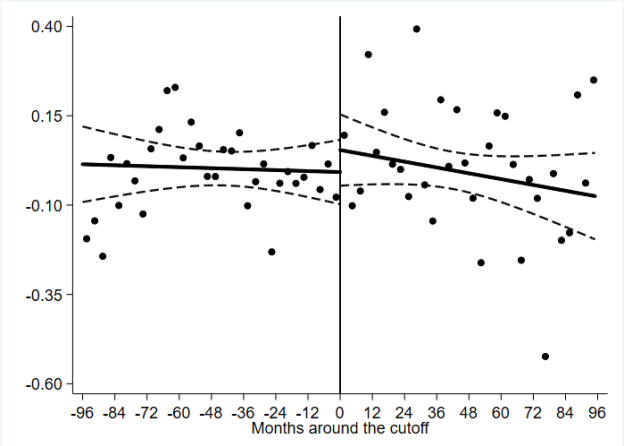
(c) Physical Development



(d) Social-emotional Development

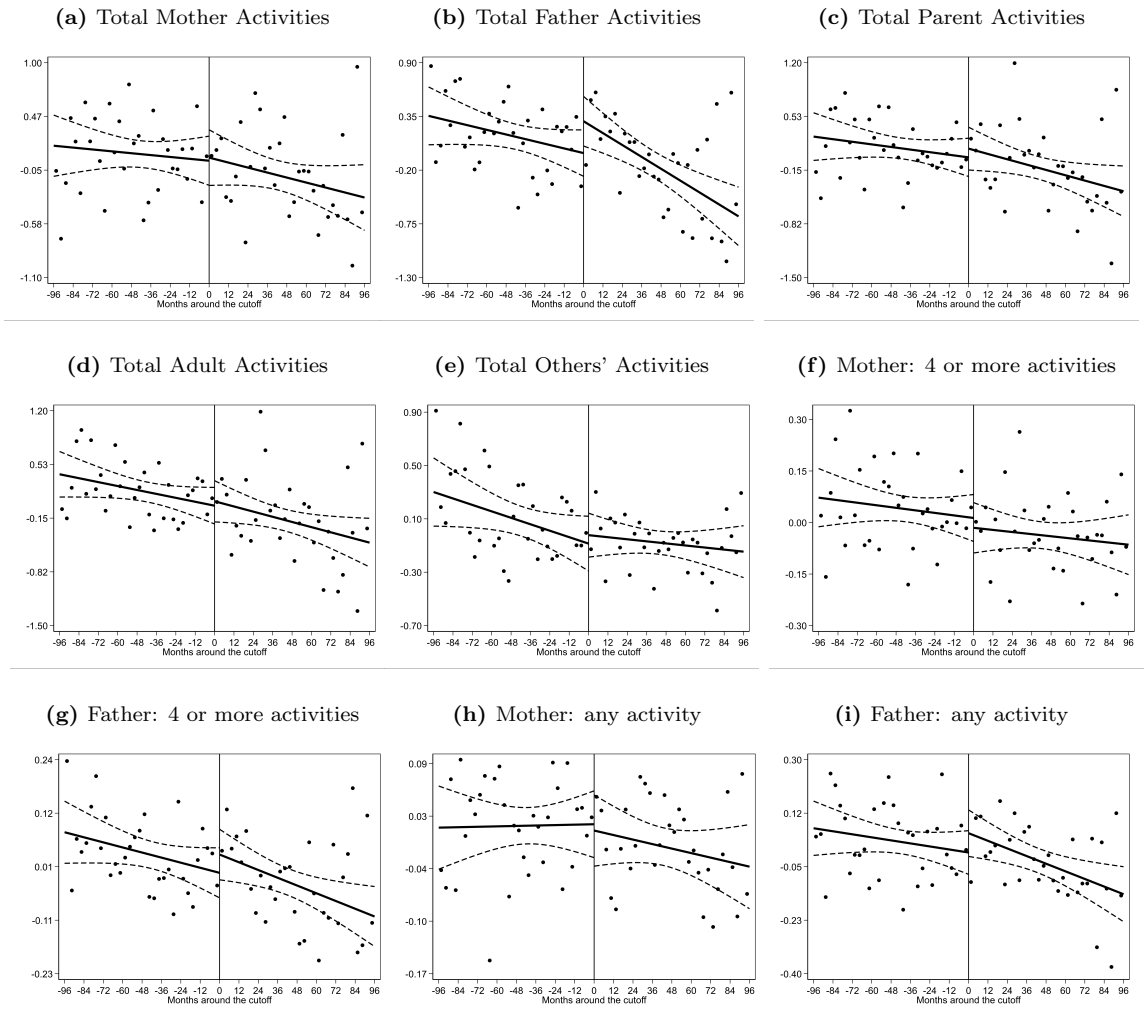


(e) Early Childhood Development Index



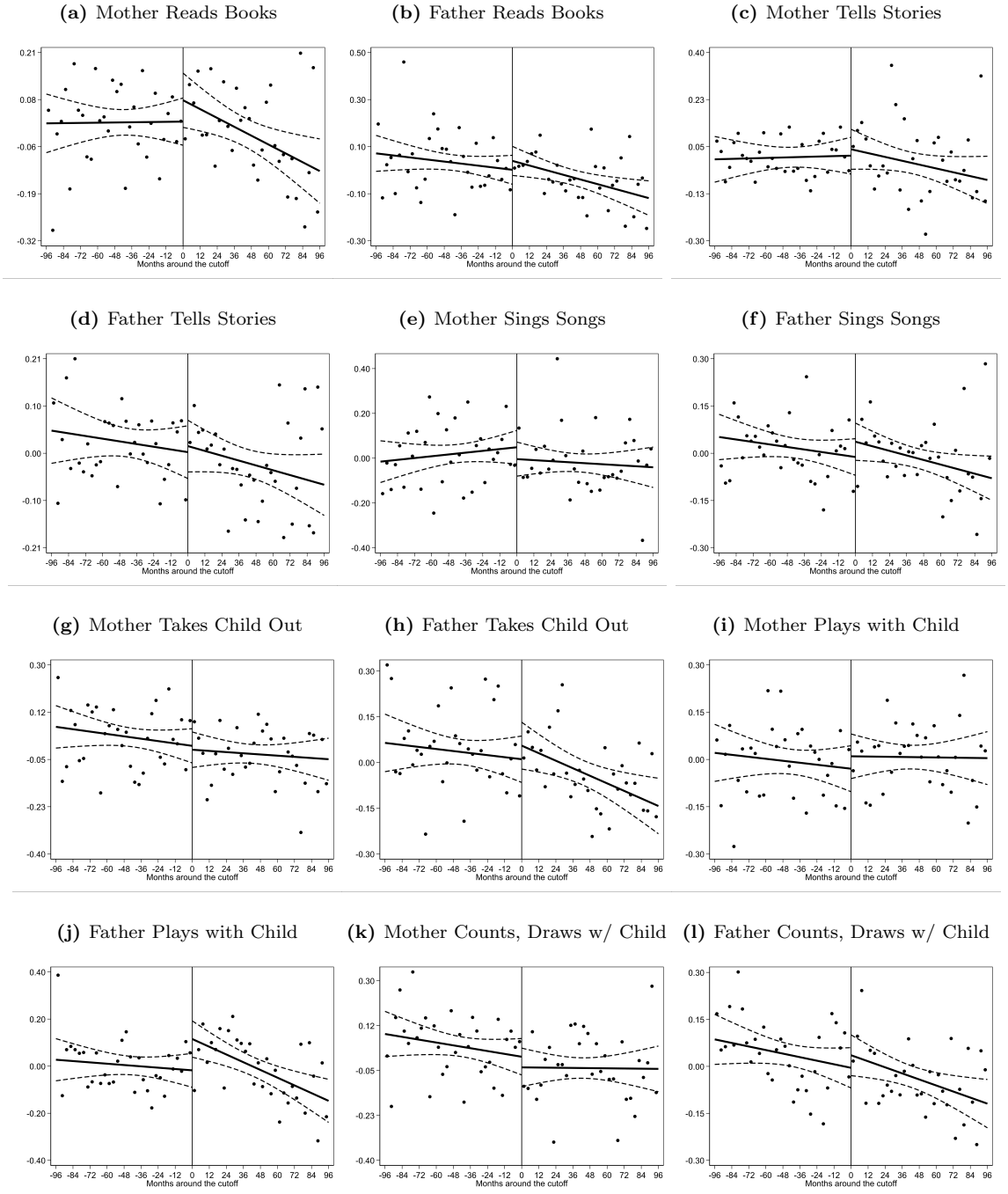
Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken. The cutoff is at 1987 January, and the running variable is month-year of birth. The plots present the residuals of the specified variables after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. Linear time trends are fit on either side of the cutoff.

Figure 3. RDD Graphs for Parental Involvement with Children



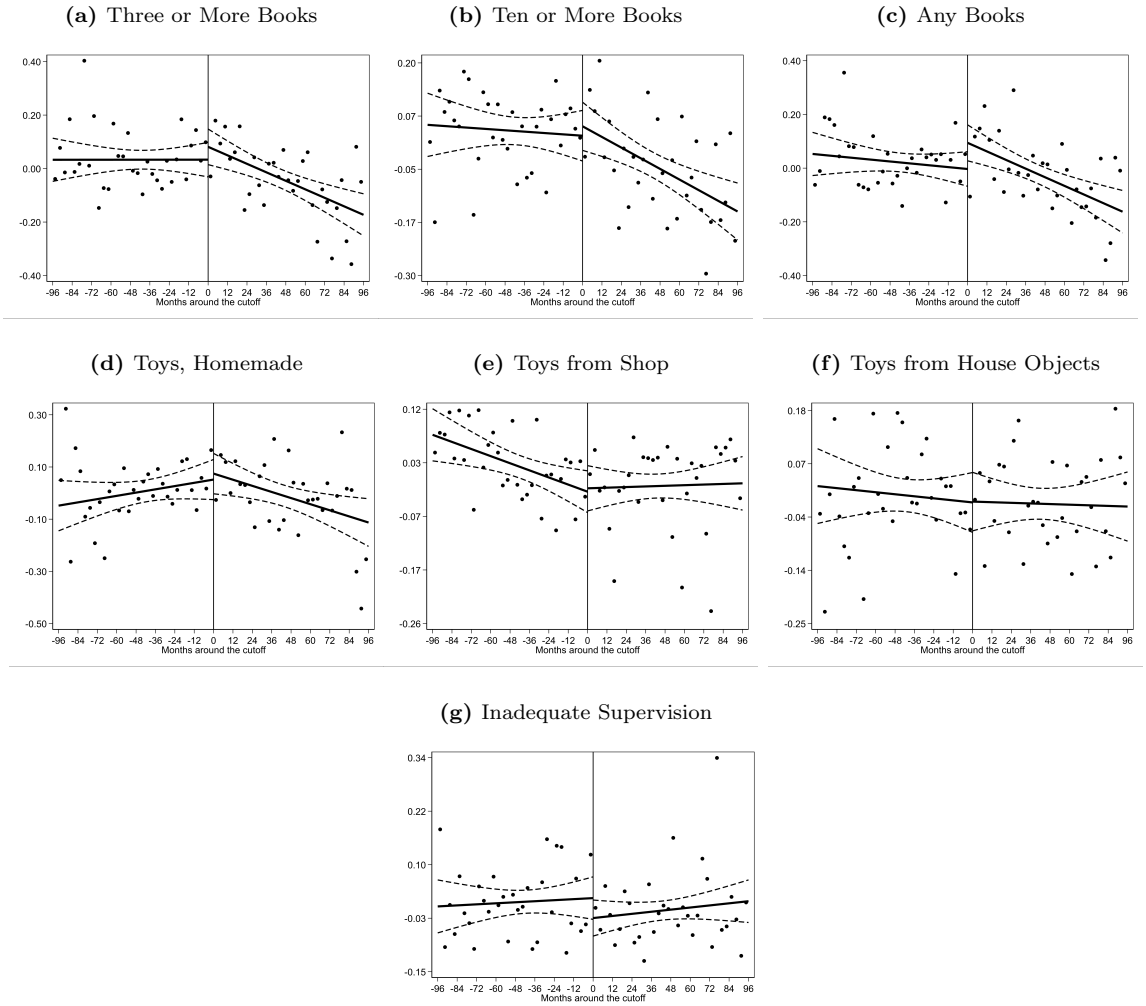
Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The cutoff is at 1987 January, and the running variable is month-year of birth. The plots the residuals of the specified variables after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. Linear time trends are fit on either side of the cutoff.

Figure 4. RDD Graphs for Specific Parental Activities with Children



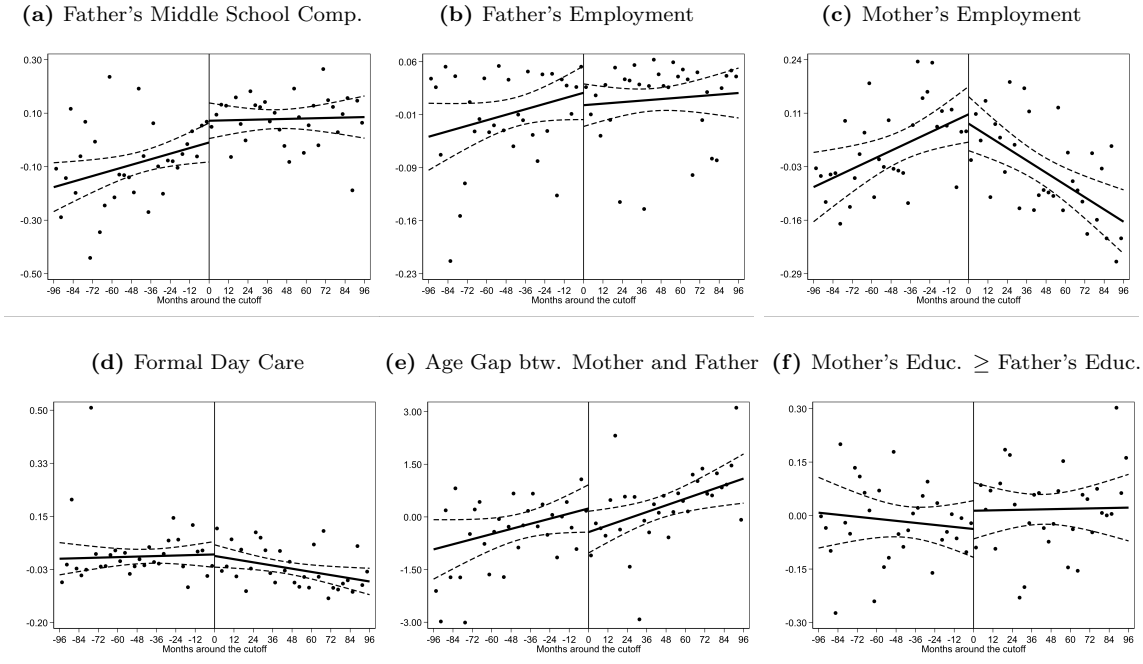
Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The cutoff is at 1987 January, and the running variable is month-year of birth. The plots the residuals of the specified variables after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. Linear time trends are fit on either side of the cutoff.

Figure 5. RDD Graphs for Learning Materials and Inadequate Supervision



Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The cutoff is at 1987 January, and the running variable is month-year of birth. The plots the residuals of the specified variables after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. Linear time trends are fit on either side of the cutoff.

Figure 6. RDD Graphs for Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age



Notes: The data come from the 2018 Turkish Demographic Health Survey. Employment refers to employment in the last 12 months. The sample includes women who have at least one child aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The cutoff is at 1987 January, and the running variable is month-year of birth. The plots the residuals of the specified variables after regressing it on the following set of control variables: birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. Linear time trends are fit on either side of the cutoff.

Tables

Table 1. Descriptive Statistics

Child Development Indicators (36-59 months)	Mean	*The number of activities conducted by*	Mean	S.D.
Readiness to learn	0.967	Mother	3.583	(1.901)
Literacy and numeracy	0.137	Father	1.770	(1.820)
Social-emotional development	0.739	Parents	3.824	(1.908)
Physical development	0.987	Adults in the household	4.268	(1.732)
Early childhood development	0.727	Non-parents in the household	0.644	(1.177)
Ownership of Learning Materials and Supervision		*Activity Status of Parents*	*Mother*	*Father*
Three or more books	0.474		Mean	Mean
Ten or more books	0.264	Any activity conducted	0.926	0.656
Any book	0.596	At least four activities conducted	0.551	0.188
Home-made toys	0.652	Reading books or looking at picture books	0.457	0.232
Toys from shop	0.942	Telling stories	0.434	0.198
Toys from house objects	0.843	Singing songs	0.637	0.176
Inadequate care	0.085	Taking the kid outside of home	0.825	0.465
Day care	0.092	Playing with the kid	0.689	0.456
		Naming, counting, or drawing things	0.605	0.275
Parental Education and Employment				
Mother graduated from middle school	0.595	*Differences in Spousal Characteristics*	Mean	S.D.
Mother employed in the last 12 months	0.273	Age gap (father - mother)	4.267	(3.854)
Father graduated from middle school	0.688	Mother has same or more education	0.554	(0.497)
Father employed in the last 12 months	0.968			

Notes: The 2018 Turkey Demographic and Health Survey. The sample include the children of mothers born in the eight-year window around January 1987 (the cutoff date to be eligible for the extension of compulsory schooling). Also, for each mother, our sample is restricted to her youngest child in the specific age group. The statistics display the mean of the specified outcome, while the standard deviations for the number of activities are reported in the parenthesis. While the statistics for early child development are for 36–59-month-old kids (N=606), the other statistics are for those aged 24–59-month-olds (N=966). For some outcomes, the number of observations is slightly smaller because of missing data.

Table 2. Policy Effect on Mothers' Middle School Completion Status

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
A) Sample A (Women with 24- to 59-month-old children)					
Policy	0.190***	0.199***	0.187***	0.168**	0.139*
	[0.055]	[0.057]	[0.062]	[0.066]	[0.072]
Observations	966	901	811	693	578
B) Sample B (Women with 36- to 59-month-old children)					
Policy	0.152**	0.150**	0.133*	0.092	0.109
	[0.069]	[0.073]	[0.075]	[0.080]	[0.090]
Observations	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 months or 36-59 months as shown in each panel. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, and dummies for the grandmother's schooling levels. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 3. Reduced-Form and 2SLS Effects on Early Child Development Indicators

	Bandwidth (years) on each side of the cutoff				
	8	*7*	*6*	*5*	*4*
I) Reduced-Form Estimates					
	A) Readiness to Learn				
Mother's Policy Exposure	0.074**	0.057*	0.058*	0.051*	0.041
	[0.031]	[0.029]	[0.033]	[0.031]	[0.031]
Observations	606	568	515	429	362
	B) Literacy and Numeracy				
Mother's Policy Exposure	-0.049	-0.016	0.003	0.012	-0.047
	[0.066]	[0.068]	[0.075]	[0.085]	[0.093]
Observations	594	558	506	421	354
	C) Physical Development				
Mother's Policy Exposure	-0.003	-0.002	-0.016	-0.012	-0.024
	[0.020]	[0.019]	[0.020]	[0.020]	[0.023]
Observations	604	566	513	428	362
	D) Social-emotional Development				
Mother's Policy Exposure	0.034	0.074	0.067	0.088	0.077
	[0.088]	[0.091]	[0.094]	[0.101]	[0.115]
Observations	590	553	501	416	349
	E) Early Childhood Development Index				
Mother's Policy Exposure	0.055	0.081	0.074	0.064	0.036
	[0.083]	[0.088]	[0.090]	[0.093]	[0.108]
Observations	575	540	489	406	342
II) 2SLS Estimates					
	A) Readiness to Learn				
Mother's Middle School	0.374*	0.281	0.265	0.292	0.200
Completion Status	[0.198]	[0.174]	[0.176]	[0.220]	[0.171]
Observations	606	568	515	429	362
F-stat	11.64	11.45	12.09	6.713	7.108
	B) Literacy and Numeracy				
Mother's Middle School	-0.230	-0.070	0.014	0.062	-0.200
Completion Status	[0.299]	[0.293]	[0.305]	[0.414]	[0.360]
Observations	594	558	506	421	354
F-stat	13.68	13.91	15.20	8.934	10.34
	C) Physical Development				
Mother's Middle School	-0.013	-0.011	-0.073	-0.072	-0.114
Completion Status	[0.095]	[0.088]	[0.088]	[0.110]	[0.104]
Observations	604	566	513	428	362
F-stat	11.82	11.47	11.90	6.228	7.108
	D) Social-emotional Development				
Mother's Middle School	0.164	0.338	0.294	0.479	0.352
Completion Status	[0.400]	[0.393]	[0.391]	[0.544]	[0.499]
Observations	590	553	501	416	349
F-stat	12.78	12.85	13.16	6.998	7.785
	E) Early Childhood Development Index				
Mother's Middle School	0.242	0.341	0.295	0.321	0.146
Completion Status	[0.345]	[0.343]	[0.338]	[0.437]	[0.399]
Observations	575	540	489	406	342
F-stat	15.43	15.95	16.57	9.242	11.45

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the mother's policy exposure dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the reduced form specifications also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The 2SLS regressions include the same set of control variables except for mother's policy exposure. In the 2SLS regressions, mother's middle school completion status is instrumented by mother's policy exposure status. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 4. Reduced-Form Effects on Parental Activities with Children

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Total Mother Activities				
Mother's Policy Exposure	0.170	0.277	0.336	0.323	0.171
	[0.202]	[0.209]	[0.230]	[0.240]	[0.271]
No Obs.	966	901	811	693	578
	Total Father Activities				
Mother's Policy Exposure	0.566***	0.607***	0.633***	0.581**	0.495*
	[0.202]	[0.220]	[0.228]	[0.244]	[0.259]
No Obs.	966	901	811	693	578
	Total Parent Activities				
Mother's Policy Exposure	0.263	0.389*	0.418*	0.377*	0.149
	[0.190]	[0.199]	[0.220]	[0.224]	[0.254]
No Obs.	966	901	811	693	578
	Total Adult Activities				
Mother's Policy Exposure	0.291	0.445**	0.441**	0.394*	0.310
	[0.192]	[0.195]	[0.215]	[0.221]	[0.248]
No Obs.	966	901	811	693	578
	Total Others' Activities				
Mother's Policy Exposure	0.177	0.216	0.153	0.150	0.297
	[0.134]	[0.140]	[0.151]	[0.161]	[0.183]
No Obs.	966	901	811	693	578
	Mother: 4 or more activities				
Mother's Policy Exposure	-0.026	-0.004	0.019	0.038	0.017
	[0.060]	[0.065]	[0.071]	[0.072]	[0.081]
No Obs.	951	887	799	683	569
	Father: 4 or more activities				
Mother's Policy Exposure	0.088**	0.081*	0.092*	0.065	0.024
	[0.043]	[0.045]	[0.047]	[0.050]	[0.051]
No Obs.	951	887	799	683	569
	Mother: Any activity				
Mother's Policy Exposure	0.024	0.041	0.037	0.025	0.023
	[0.034]	[0.034]	[0.036]	[0.037]	[0.041]
No Obs.	966	901	811	693	578
	Father: Any activity				
Mother's Policy Exposure	0.125**	0.151***	0.136**	0.123**	0.141**
	[0.052]	[0.054]	[0.055]	[0.061]	[0.061]
No Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 5. Reduced-Form Effects on Specific Parental Activities with Children

	Bandwidth (years) around the cutoff					*Bandwidth (years) around the cutoff*				
	8	*7*	*6*	*5*	*4*	*8*	*7*	*6*	*5*	*4*
	Father Reads Books					**Mother Reads Books**				
Mother's Policy Exposure	0.035	0.025	0.050	0.080	0.070	0.089	0.101*	0.102	0.145**	0.133
	[0.056]	[0.059]	[0.063]	[0.067]	[0.073]	[0.058]	[0.060]	[0.063]	[0.071]	[0.080]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Tells Stories					**Mother Tells Stories**				
Mother's Policy Exposure	0.016	0.015	0.011	0.021	0.005	0.023	0.019	0.036	0.064	0.047
	[0.056]	[0.060]	[0.066]	[0.072]	[0.078]	[0.061]	[0.066]	[0.069]	[0.075]	[0.081]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Sings Songs					**Mother Sings Songs**				
Mother's Policy Exposure	0.083	0.089	0.101*	0.072	0.073	-0.038	-0.020	-0.003	-0.031	-0.045
	[0.055]	[0.058]	[0.061]	[0.066]	[0.070]	[0.062]	[0.066]	[0.072]	[0.073]	[0.076]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Takes Child Out					**Mother Takes Child Out**				
Mother's Policy Exposure	0.124**	0.116*	0.140**	0.147**	0.159**	0.002	-0.001	-0.010	-0.024	-0.022
	[0.059]	[0.062]	[0.064]	[0.071]	[0.072]	[0.052]	[0.050]	[0.056]	[0.060]	[0.063]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Plays with Child					**Mother Plays with Child**				
Mother's Policy Exposure	0.194***	0.192***	0.186***	0.151**	0.125*	0.054	0.039	0.100*	0.115*	0.061
	[0.053]	[0.055]	[0.059]	[0.065]	[0.068]	[0.056]	[0.059]	[0.057]	[0.060]	[0.066]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Counts, Draws with Child					**Mother Counts, Draws with Child**				
Mother's Policy Exposure	0.076	0.093	0.069	0.048	-0.004	-0.015	0.020	0.003	-0.051	-0.102
	[0.061]	[0.066]	[0.068]	[0.075]	[0.081]	[0.065]	[0.067]	[0.074]	[0.080]	[0.086]
No Obs.	951	887	799	683	569	951	887	799	683	569

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 6. Reduced-Form Effects on Learning Materials and Inadequate Supervision

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Three or More Books				
Mother's Policy Exposure	0.056	0.064	0.060	0.050	0.024
	[0.048]	[0.051]	[0.053]	[0.057]	[0.061]
No. Obs.	965	901	811	693	578
	Ten or More Books				
Mother's Policy Exposure	0.054	0.055	0.044	0.037	0.019
	[0.050]	[0.052]	[0.056]	[0.061]	[0.068]
No. Obs.	965	901	811	693	578
	Any Books				
Mother's Policy Exposure	0.098*	0.111**	0.076	0.065	0.047
	[0.051]	[0.053]	[0.056]	[0.061]	[0.067]
No. Obs.	965	901	811	693	578
	Toys, Homemade				
Mother's Policy Exposure	-0.002	-0.031	-0.002	0.021	0.080
	[0.057]	[0.060]	[0.063]	[0.065]	[0.069]
No. Obs.	954	892	803	685	573
	Toys from Shop				
Mother's Policy Exposure	0.009	0.020	0.006	-0.000	-0.021
	[0.027]	[0.029]	[0.032]	[0.036]	[0.039]
No. Obs.	965	901	811	693	578
	Toys from House Objects				
Mother's Policy Exposure	-0.024	-0.015	0.006	0.033	0.051
	[0.053]	[0.055]	[0.057]	[0.064]	[0.073]
No. Obs.	965	901	811	693	578
	Inadequate Supervision				
Mother's Policy Exposure	0.016	0.008	0.016	0.031	0.032
	[0.036]	[0.039]	[0.043]	[0.049]	[0.052]
No. Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 7. Reduced-Form Effects on Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Partner's Middle School Completion				
Mother's Policy Exposure	0.072	0.061	0.046	0.075	0.062
	[0.059]	[0.062]	[0.067]	[0.072]	[0.078]
No. Obs.	946	882	796	680	567
	Partner's Employment in the Last 12 Months				
Mother's Policy Exposure	-0.014	-0.022	-0.029	-0.039	-0.039
	[0.022]	[0.022]	[0.024]	[0.026]	[0.026]
No. Obs.	942	880	791	677	563
	Mother's Employment in the Last 12 Months				
Mother's Policy Exposure	0.001	0.004	-0.012	-0.008	-0.001
	[0.059]	[0.062]	[0.064]	[0.070]	[0.079]
No. Obs.	966	901	811	693	578
	Formal Day Care				
Mother's Policy Exposure	-0.016	-0.017	-0.031	-0.018	-0.025
	[0.041]	[0.043]	[0.045]	[0.047]	[0.052]
No. Obs.	964	900	810	692	577
	Age Gap between Mother and Father				
Mother's Policy Exposure	-0.361	-0.219	-0.192	-0.234	0.111
	[0.486]	[0.495]	[0.514]	[0.515]	[0.525]
No. Obs.	943	881	792	679	565
	Mother's Education $\geq$ Father's Education				
Mother's Policy Exposure	0.114*	0.142**	0.159**	0.146*	0.172**
	[0.064]	[0.067]	[0.069]	[0.078]	[0.079]
No. Obs.	963	898	808	691	577

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 months. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth and dummies for the grandmother's schooling levels. For the Formal Day Care variable additional controls, dummies for birth order and gender interaction and dummies for six-months interval of child's age, are also included. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 8. Potential Sample Selection

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
A) Having at least one kid aged between 24-59 months					
Policy	0.030	0.045	0.050	0.049	0.031
	[0.036]	[0.039]	[0.042]	[0.045]	[0.048]
No. Obs.	3,498	3,099	2,649	2,188	1,752
B) Having at least one kid aged between 36-59 months					
Policy	0.020	0.041	0.040	0.038	0.038
	[0.027]	[0.029]	[0.032]	[0.033]	[0.035]
No. Obs.	3,498	3,099	2,649	2,188	1,752

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 or 36-59 months as shown in each panel. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, and dummies for the grandmother's schooling levels. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table 9. Nonparametric Reduced Form Estimates, CCFT Optimal Bandwidths

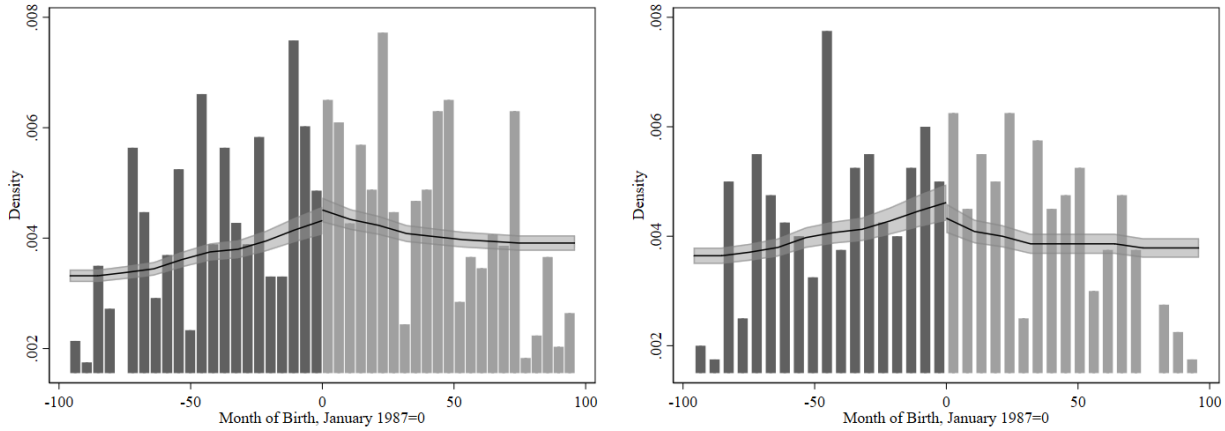
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Robust Estimate	S.E.	No Obs.	BW loc. poly. left of cutoff	BW loc. poly. right of cutoff	BW bias left of cutoff	BW bias left of cutoff
A) Main Outcomes							
Selection 1 (has 24-59-month-old child)	0.026	(0.047)	7,260	85.73	78.75	116.8	128.8
Selection 2 (has 36-59-month-old child)	0.026	(0.030)	7,260	57.21	55.12	90.11	100.2
Middle School Completion 1 (sample A)	0.110	(0.084)	1,179	34.00	33.44	62.39	50.44
Middle School Completion 2 (sample B)	0.097	(0.102)	750	32.96	42.64	68.16	63.24
Readiness to Learn	0.047*	(0.028)	737	41.94	25.14	70.89	35.32
Social-emotional Development	0.122	(0.104)	719	35.81	39.21	57.94	66.27
Early Childhood Development Index	0.062	(0.096)	702	45.47	35.64	86.63	53.94
B) Parental Involvement							
Total mother activities	0.378	(0.350)	1,179	36.37	33.62	68.48	53.99
Total father activities	0.559**	(0.233)	1,179	43.94	44.64	83.48	74.46
Total parent activities	0.405	(0.325)	1,179	33.36	29.80	66.48	50.01
Total adult activities	0.391	(0.322)	1,179	28.36	36.67	53.98	61.12
Total others' activities	0.266	(0.177)	1,179	29.11	36.59	58.93	56.26
Mother four or more activities	0.032	(0.107)	1,163	37.87	40.22	72.40	68.74
Father four or more activities	0.130***	(0.049)	1,163	36.36	35.39	57.82	76.78
Mother any activity	0.137***	(0.035)	1,179	44.67	19.41	77.41	35.86
Father any activity	0.196***	(0.061)	1,179	32.07	37.25	59.96	56.13
C) Details of Parental Involvement							
Father read books	0.146**	(0.064)	1,163	40.89	34.73	72.37	55.31
Father told stories	0.007	(0.077)	1,163	47.13	51.04	78.81	84.68
Father sang songs with child	0.009	(0.064)	1,163	47.36	27.95	91.09	45.28
Father took out	0.256***	(0.069)	1,163	23.40	43.39	71.30	49.45
Father played with child	0.059	(0.069)	1,163	34.34	37.28	67.90	60.03
Father counted, drew with child	0.206**	(0.103)	1,163	29.99	26.36	56.90	47.21
Mother read books	0.246***	(0.079)	1,163	31.98	40.71	59.54	73.74
Mother told stories	0.080	(0.089)	1,163	43.75	31.06	83.37	50.47
Mother sang songs with child	-0.251***	(0.082)	1,163	28.67	35.98	63.92	63.21
Mother took out	0.056	(0.076)	1,163	37.76	26.70	67.89	42.36
Mother played with child	0.102	(0.073)	1,163	35.70	36.05	55.60	58.71
Mother counted, drew with child	-0.044	(0.123)	1,163	32.05	38.53	60.54	66.14
D) Learning Materials and Inadequate Supervision							
Three or more books	-0.028	(0.074)	1,178	28.77	30.76	61.98	51.77
Ten or more books	0.104	(0.070)	1,178	39.76	48.75	81.00	70.87
Any books	0.038	(0.073)	1,178	42.76	44.96	82.67	76.09
Homemade toys	0.187***	(0.066)	1,164	32.44	30.64	60.15	51.75
Toys from store	-0.023	(0.039)	1,177	26.04	25.68	48.28	48.45
House objects as toys	-0.050	(0.073)	1,177	33.72	26.33	41.45	55.43
Inadequate care	0.080	(0.061)	1,179	31.33	32.30	67.46	52.26
E) Father Schooling, Mother and Father Employment, Formal Daycare Use, and Mother-Father Gaps in Schooling and Age							
Father's middle school graduation	-0.012	(0.082)	1,154	42.00	42.30	90.39	70.84
Father employed (last 12 months)	-0.035*	(0.019)	1,151	35.77	23.05	39.91	71.23
Mother employed (last 12 months)	0.100	(0.084)	1,179	24.60	30.59	50.82	51.97
Formal day care	0.044	(0.058)	1,174	26.77	41.48	68.29	52.38
Age Gap between Mother and Father	0.252	(0.673)	1,152	37.06	37.17	65.05	56.85
Mother's Educ. ¿= Father's Educ.	0.136	(0.089)	1,175	28.87	32.24	51.23	60.27

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 or 36-59 months as shown in each panel. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, and dummies for the grandmother's schooling levels. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Online Appendix A

Figure A1. Estimated Density of the Running Variable and the Cattaneo-Jansson-Ma Tests

(a) Mothers with at least one kid aged between 24-59 months **(b)** Mothers with at least one kid aged between 36-59 months



Notes: Test results Figure A: T=0.6824, p-value: 0.4950. Test results Figure B: T=-0.3864, p-value: 0.6992

Table A1. Check of Discontinuity at the Cutoff for Other Covariates

	Bandwidth = 96			
	A) 24-59-month-olds		B) 36-59-month-olds	
	RD Effect	p-value	RD Effect	p-value
Mother Tongue: Turkish	0.020	0.743	-0.029	0.685
Mother Tongue: Kurdish	-0.005	0.928	0.011	0.875
Mother Tongue: Arabic	0.029	0.105	0.026	0.314
Mother Tongue: Other	-0.044	0.062	-0.008	0.750
Childhood Region: Village	0.107	0.075	0.090	0.276
Childhood Region: District	0.055	0.274	0.048	0.566
Childhood Region: Province	-0.151	0.012	-0.148	0.045
Istanbul Region (TR1)	-0.022	0.600	-0.018	0.753
West Marmara Region (TR2)	-0.030	0.137	-0.015	0.578
Aegean Region (TR3)	-0.045	0.422	-0.084	0.170
East Marmara Region (TR4)	-0.022	0.528	-0.003	0.951
West Anatolia Region (TR5)	0.004	0.911	-0.034	0.434
Mediterranean Region (TR6)	0.032	0.341	0.024	0.638
Central Anatolia Region (TR7)	0.024	0.471	-0.017	0.696
West Black Sea Region (TR8)	0.078	0.028	0.116	0.017
East Black Sea Region (TR9)	0.044	0.068	0.035	0.232
Northeast Anatolia Region (TRA)	0.008	0.820	0.038	0.368
Central East Anatolia Region (TRB)	-0.016	0.670	-0.024	0.642
Southeast Anatolia Region (TRC)	-0.045	0.341	-0.027	0.688
Region Missing	-0.012	0.431	0.010	0.537
Grandma Educ: No Educ	0.001	0.989	0.013	0.875
Grandma Educ: Prim. Incomplete	-0.037	0.330	-0.049	0.394
Grandma Educ: Prim. Complete	0.134	0.032	0.123	0.185
Grandma Educ: Secondary Complete	-0.035	0.168	-0.010	0.702
Grandma Educ: High School Complete	-0.037	0.178	-0.077	0.016
Grandma Educ: University	-0.031	0.269	-0.004	0.870
Grandma Educ: Missing	0.004	0.769	0.005	0.841
Mother Birth Month: January	0.096	0.340	0.152	0.184
Mother Birth Month: February	0.041	0.672	0.049	0.600
Mother Birth Month: March	0.005	0.955	0.015	0.886
Mother Birth Month: April	0.012	0.870	0.037	0.664
Mother Birth Month: May	0.038	0.670	0.007	0.945
Mother Birth Month: June	-0.019	0.834	-0.086	0.292
Mother Birth Month: July	0.004	0.951	-0.065	0.404
Mother Birth Month: August	-0.044	0.664	-0.022	0.831
Mother Birth Month: September	0.027	0.766	0.020	0.831
Mother Birth Month: October	-0.060	0.499	-0.041	0.602
Mother Birth Month: November	-0.033	0.647	-0.054	0.500
Mother Birth Month: December	-0.068	0.350	-0.013	0.833
Age of the Kid (in months)	0.419	0.773	-0.179	0.894
Boy, First Kid	-0.065	0.137	-0.067	0.242
Boy, Second Kid	-0.074	0.167	-0.065	0.407
Boy, Third Kid	0.101	0.015	0.105	0.083
Boy, Forth Kid	0.072	0.023	0.075	0.096
Boy, Fifth Kid	0.017	0.399	-0.003	0.880
Girl, First Kid	-0.019	0.713	-0.042	0.485
Girl, Second Kid	-0.028	0.563	-0.061	0.273
Girl, Third Kid	0.001	0.978	0.021	0.698
Girl, Forth Kid	-0.009	0.766	0.028	0.215
Girl, Fifth Kid	0.005	0.757	0.008	0.700

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 months in panel (A) and 36-59 months in panel (B). The estimates in each column come from a separate regression using the sample defined for 8-year bandwidths. In addition to the policy dummy, the regressions include split linear time trends on either side of the cutoff where the running variable is month-year of birth. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table A2. Nonparametric Reduced Form Estimates, IK Optimal Bandwidths

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	BW	S.E.	0.5 BW	S.E.	1.5 BW	S.E.	No Obs.	BW
A) Main Outcomes								
Selection 1 (has 24-59-month-old child)	0.048	(0.032)	0.031	(0.041)	0.046*	(0.026)	7,260	144.1
Selection 2 (has 36-59-month-old child)	0.028	(0.023)	0.033	(0.029)	0.008	(0.019)	7,260	151.4
Middle School Completion 1 (sample A)	0.171***	(0.060)	0.111	(0.076)	0.192***	(0.053)	1,179	86.31
Middle School Completion 2 (sample B)	0.101	(0.093)	0.077	(0.153)	0.093	(0.080)	750	41.43
Readiness to Learn	0.044	(0.029)	0.060	(0.074)	0.051*	(0.028)	737	50.79
Social-emotional Development	0.061	(0.085)	0.082	(0.101)	0.048	(0.077)	719	105.6
Early Childhood Development Index	0.069	(0.083)	0.033	(0.104)	0.049	(0.074)	702	89.72
B) Parental Involvement								
Total mother activities	0.262	(0.219)	0.313	(0.286)	0.245	(0.191)	1,179	76.48
Total father activities	0.547**	(0.234)	0.732**	(0.301)	0.591***	(0.218)	1,179	47.27
Total parent activities	0.278	(0.220)	0.377	(0.308)	0.336*	(0.191)	1,179	64.00
Total adult activities	0.392**	(0.190)	0.301	(0.238)	0.277	(0.169)	1,179	97.54
Total others' activities	0.262	(0.172)	0.165	(0.244)	0.226	(0.145)	1,179	52.84
Mother four or more activities	0.037	(0.073)	0.017	(0.094)	0.014	(0.064)	1,163	57.08
Father four or more activities	0.077*	(0.043)	0.138**	(0.063)	0.083**	(0.040)	1,163	66.52
Mother any activity	0.047	(0.040)	0.054	(0.065)	0.020	(0.035)	1,179	44.03
Father any activity	0.135**	(0.058)	0.193**	(0.089)	0.135**	(0.053)	1,179	44.60
C) Details of Parental Involvement								
Father read books	0.115*	(0.065)	0.166*	(0.096)	0.091	(0.060)	1,163	45.64
Father told stories	0.017	(0.070)	-0.002	(0.088)	0.017	(0.063)	1,163	53.37
Father sang songs with child	0.062	(0.060)	0.018	(0.077)	0.088	(0.057)	1,163	51.56
Father took out	0.156***	(0.058)	0.200***	(0.068)	0.135**	(0.054)	1,163	72.11
Father played with child	0.083	(0.085)	0.173	(0.155)	0.084	(0.064)	1,163	33.94
Father counted, drew with child	0.065	(0.067)	0.075	(0.089)	0.065	(0.055)	1,163	85.22
Mother read books	0.128**	(0.061)	0.188**	(0.075)	0.106*	(0.055)	1,163	77.38
Mother told stories	0.031	(0.066)	0.050	(0.083)	0.054	(0.057)	1,163	83.02
Mother sang songs with child	-0.139*	(0.077)	-0.262**	(0.110)	-0.056	(0.067)	1,163	41.75
Mother took out	-0.027	(0.059)	0.020	(0.078)	-0.014	(0.051)	1,163	61.15
Mother played with child	0.093*	(0.053)	0.095	(0.061)	0.078	(0.050)	1,163	78.08
Mother counted, drew with child	-0.063	(0.092)	-0.003	(0.133)	-0.040	(0.076)	1,163	48.95
D) Learning Materials and Inadequate Supervision								
Three or more books	0.043	(0.051)	0.011	(0.080)	0.053	(0.045)	1,178	75.78
Ten or more books	0.045	(0.054)	0.113	(0.069)	0.054	(0.048)	1,178	78.58
Any books	0.059	(0.059)	0.034	(0.086)	0.085*	(0.050)	1,178	78.07
Homemade toys	0.030	(0.056)	0.142**	(0.063)	0.010	(0.053)	1,164	79.31
Toys from store	0.004	(0.030)	-0.033	(0.033)	-0.002	(0.026)	1,177	98.41
House objects as toys	0.003	(0.072)	-0.050	(0.108)	0.008	(0.059)	1,177	52.82
Inadequate care	0.046	(0.052)	0.047	(0.059)	0.031	(0.047)	1,179	39.30
E) Father Schooling, Mother and Father Employment, Formal Daycare Use, and Mother-Father Gaps in Schooling and Age								
Partner's middle school graduation	0.030	(0.079)	0.036	(0.109)	0.048	(0.066)	1,154	50.18
Partner employed (last 12 months)	-0.020	(0.020)	-0.038*	(0.021)	-0.005	(0.020)	1,151	111.90
Mother employed (last 12 months)	0.005	(0.071)	0.076	(0.087)	0.003	(0.061)	1,179	59.43
Formal day care	-0.008	(0.053)	0.061	(0.078)	-0.018	(0.045)	1,174	47.76
Age Gap between Mother and Father	0.061	(0.468)	0.132	(0.706)	-0.123	(0.443)	1,152	52.46
Mother's Educ. ¿= Father's Educ.	0.159**	(0.072)	0.113	(0.091)	0.151**	(0.066)	1,175	54.06

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women with children aged 36-59 months for the following outcomes: selection 2, middle school completion 2, and readiness to learn. For all other outcomes, the sample includes women with children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken; hence, one child corresponds to each woman. We use IK optimal bandwidths given in columns (9). Covariates and sample weights are used in the regressions. Covariates include birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The covariates in optimal bandwidth selection for mother's middle school completion , selection, father characteristics and marriage characteristics do not include dummies for birth order and gender interaction and dummies for six-months interval of child's age. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table A3. Reduced-Form Estimates without a Restriction to Last-Born Children

	Coef.	S.E.	No Obs.
A) Main Outcomes			
Readiness to Learn	0.045*	[0.023]	927
Literacy and Numeracy	-0.029	[0.053]	911
Physical Development	-0.013	[0.018]	925
Social-emotional Development	0.005	[0.073]	903
Early Childhood Development Index	0.019	[0.068]	880
B) Parental Involvement			
Total mother activities	0.316	[0.197]	1,359
Total father activities	0.415**	[0.184]	1,359
Total parent activities	0.338*	[0.194]	1,359
Total adult activities	0.287	[0.195]	1,359
Total others' activities	0.024	[0.136]	1,359
Mother four or more activities	0.020	[0.052]	1,340
Father four or more activities	0.048	[0.040]	1,340
Mother any activity	0.034	[0.034]	1,359
Father any activity	0.070	[0.049]	1,359
C) Details of Parental Involvement			
Father read books	0.003	[0.046]	1,340
Father told stories	0.002	[0.050]	1,340
Father sang songs with child	0.078*	[0.046]	1,340
Father took out	0.070	[0.056]	1,340
Father played with child	0.151***	[0.055]	1,340
Father counted, drew with child	0.082	[0.055]	1,340
Mother read books	0.058	[0.051]	1,340
Mother told stories	0.029	[0.060]	1,340
Mother sang songs with child	0.028	[0.053]	1,340
Mother took out	0.019	[0.046]	1,340
Mother played with child	0.086	[0.054]	1,340
Mother counted, drew with child	0.063	[0.062]	1,340
D) Learning Materials and Inadequate Supervision			
Three or more books	0.032	[0.044]	1,358
Ten or more books	0.055	[0.048]	1,358
Any books	0.032	[0.049]	1,358
Homemade toys	0.031	[0.058]	1,346
Toys from store	0.004	[0.032]	1,357
House objects as toys	-0.016	[0.050]	1,357
Inadequate care	0.006	[0.029]	1,359

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months in panel (A) and children aged 24-59 months in all other panels. The estimates in each column come from a separate regression using 8-year bandwidths around the cutoff. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Online Appendix B - Remaining 2SLS Estimates

Table B1. 2SLS Estimates for Specific Parental Activities with Children

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Total Mother Activities				
Mother's Middle School	0.721	1.124	1.299	1.328	0.796
Completion Status	[0.836]	[0.854]	[0.902]	[0.992]	[1.218]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Total Father Activities				
Mother's Middle School	2.399***	2.469***	2.445***	2.390**	2.309*
Completion Status	[0.871]	[0.915]	[0.892]	[0.996]	[1.238]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Total Parent Activities				
Mother's Middle School	1.116	1.580*	1.617*	1.551*	0.695
Completion Status	[0.791]	[0.828]	[0.867]	[0.927]	[1.127]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Total Adult Activities				
Mother's Middle School	1.233	1.810**	1.703**	1.619*	1.445
Completion Status	[0.819]	[0.845]	[0.868]	[0.943]	[1.155]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Total Other's Activities				
Mother's Middle School	0.751	0.878	0.590	0.616	1.386
Completion Status	[0.580]	[0.580]	[0.575]	[0.645]	[0.874]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Mother: 4 or more activities				
Mother's Middle School	-0.110	-0.016	0.074	0.158	0.079
Completion Status	[0.250]	[0.257]	[0.273]	[0.289]	[0.357]
Observations	951	887	799	683	569
F-stat	27.05	27.78	27.66	21.05	12.97
	Father: 4 or more activities				
Mother's Middle School	0.374**	0.333*	0.363**	0.269	0.114
Completion Status	[0.179]	[0.179]	[0.182]	[0.198]	[0.225]
Observations	951	887	799	683	569
F-stat	27.05	27.78	27.66	21.05	12.97
	Mother: Any activity				
Mother's Middle School	0.100	0.168	0.142	0.103	0.106
Completion Status	[0.144]	[0.142]	[0.141]	[0.153]	[0.194]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02
	Father: Any activity				
Mother's Middle School	0.531**	0.612***	0.527**	0.507**	0.659**
Completion Status	[0.228]	[0.235]	[0.221]	[0.252]	[0.319]
Observations	966	901	811	693	578
F-stat	27.40	28.36	28.96	21.10	13.02

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months in panel (A) and children aged 24-59 months in all other panels. The estimates in each column come from a separate regression using 8-year bandwidths around the cutoff. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table B2. 2SLS Estimates for Specific Parental Activities with Children

	Bandwith (years) around the cutoff					*Bandwith (years) around the cutoff*				
	8	*7*	*6*	*5*	*4*	*8*	*7*	*6*	*5*	*4*
	Father Reads Books					**Mother Reads Books**				
Mother's Middle School	0.151	0.105	0.199	0.332	0.327	0.380	0.417*	0.403*	0.599**	0.619*
Completion Status	[0.229]	[0.232]	[0.237]	[0.266]	[0.319]	[0.237]	[0.236]	[0.238]	[0.283]	[0.350]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97
	Father Tells Stories					**Mother Tells Stories**				
Mother's Middle School	0.069	0.064	0.043	0.086	0.022	0.097	0.080	0.141	0.267	0.221
Completion Status	[0.233]	[0.238]	[0.251]	[0.287]	[0.347]	[0.252]	[0.261]	[0.263]	[0.300]	[0.362]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97
	Father Sings Songs					**Mother Sings Songs**				
Mother's Middle School	0.353	0.367	0.400*	0.296	0.339	-0.163	-0.083	-0.010	-0.128	-0.208
Completion Status	[0.234]	[0.239]	[0.240]	[0.265]	[0.315]	[0.257]	[0.263]	[0.274]	[0.290]	[0.344]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97
	Father Takes Child Out					**Mother Takes Child Out**				
Mother's Middle School	0.528**	0.477*	0.553**	0.611**	0.740**	0.009	-0.003	-0.039	-0.099	-0.101
Completion Status	[0.248]	[0.250]	[0.246]	[0.293]	[0.364]	[0.214]	[0.201]	[0.210]	[0.231]	[0.268]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97
VARIABLES	**Father Plays with Child**					**Mother Plays with Child**				
Mother's Middle School	0.826***	0.790***	0.734***	0.625**	0.581*	0.232	0.161	0.395*	0.478*	0.285
Completion Status	[0.250]	[0.256]	[0.250]	[0.264]	[0.312]	[0.227]	[0.232]	[0.222]	[0.250]	[0.296]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97
	Father Counts, Draws with Child					**Mother Counts, Draws with Child**				
Mother's Middle School	0.322	0.384	0.274	0.200	-0.019	-0.065	0.081	0.011	-0.211	-0.476
Completion Status	[0.250]	[0.264]	[0.259]	[0.293]	[0.360]	[0.269]	[0.268]	[0.283]	[0.320]	[0.405]
Observations	951	887	799	683	569	951	887	799	683	569
F-Stat	27.05	27.78	27.66	21.05	12.97	27.05	27.78	27.66	21.05	12.97

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. Mother's middle school completion status is instrumented by mother's policy exposure status. The control variables include split linear time trends on either side of the cutoff where the running variable is month-year of birth, birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table B3. 2SLS Estimates for Learning Materials and Inadequate Supervision

	Bandwith (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Three or More Books				
Mother's Middle School	0.236	0.259	0.233	0.204	0.112
Completion Status	[0.194]	[0.200]	[0.198]	[0.226]	[0.267]
Observations	965	901	811	693	578
F-Stat	27.91	28.36	28.96	21.10	13.02
	Ten or More Books				
Mother's Middle School	0.227	0.222	0.170	0.153	0.088
Completion Status	[0.208]	[0.208]	[0.207]	[0.239]	[0.297]
Observations	965	901	811	693	578
F-Stat	27.91	28.36	28.96	21.10	13.02
	Any Books				
Mother's Middle School	0.413*	0.451**	0.295	0.266	0.220
Completion Status	[0.215]	[0.220]	[0.207]	[0.240]	[0.292]
Observations	965	901	811	693	578
F-Stat	27.91	28.36	28.96	21.10	13.02
	Toys, Homemade				
Mother's Middle School	-0.009	-0.123	-0.007	0.083	0.364
Completion Status	[0.234]	[0.233]	[0.227]	[0.239]	[0.295]
Observations	954	892	803	685	573
F-Stat	26.87	28.11	29.86	22.45	13.16
	Toys from Shop				
Mother's Middle School	0.038	0.080	0.024	-0.001	-0.100
Completion Status	[0.111]	[0.115]	[0.117]	[0.143]	[0.178]
Observations	965	901	811	693	578
F-Stat	27.91	28.36	28.96	21.10	13.02
	Toys from House Objects				
Mother's Middle School	-0.101	-0.061	0.023	0.135	0.237
Completion Status	[0.217]	[0.216]	[0.214]	[0.252]	[0.324]
Observations	965	901	811	693	578
F-Stat	27.91	28.36	28.96	21.10	13.02
	Inadequate Supervision				
Mother's Middle School	0.067	0.034	0.062	0.129	0.151
Completion Status	[0.147]	[0.153]	[0.161]	[0.194]	[0.230]
Observations	966	901	811	693	578
F-Stat	27.40	28.36	28.96	21.10	13.02

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. Mother's middle school completion status is instrumented by mother's policy exposure status. The control variables include split linear time trends on either side of the cut-off where the running variable is month-year of birth, birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grand-mother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table B4. 2SLS Estimates for Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Partner's Middle School Completion				
Mother's Middle School	0.354	0.280	0.232	0.418	0.402
Completion Status	[0.281]	[0.275]	[0.321]	[0.381]	[0.466]
Observations	946	882	796	680	567
F-Stat	13.58	14.28	10.33	7.500	4.584
	Partner's Employment in the Last 12 Months				
Mother's Middle School	-0.069	-0.108	-0.151	-0.233	-0.302
Completion Status	[0.111]	[0.115]	[0.144]	[0.191]	[0.278]
Observations	942	880	791	677	563
F-Stat	12.19	11.90	8.577	5.937	3.067
	Mother's Employment in the Last 12 Months				
Mother's Middle School	0.007	0.020	-0.065	-0.048	-0.007
Completion Status	[0.301]	[0.302]	[0.341]	[0.409]	[0.547]
Observations	966	901	811	693	578
F-Stat	11.79	12.03	9.033	6.480	3.688
	Formal Day Care				
Mother's Middle School	-0.070	-0.070	-0.119	-0.072	-0.117
Completion Status	[0.171]	[0.173]	[0.171]	[0.189]	[0.238]
Observations	964	900	810	692	577
F-Stat	26.91	28.35	28.94	21.09	13.01
	Age Gap between Mother and Father				
Mother's Middle School	-2.058	-1.599	-1.950	-2.800	-1.496
Completion Status	[1.874]	[1.850]	[1.796]	[1.839]	[2.083]
Observations	943	881	792	679	565
F-Stat	27.58	27.93	27.78	20.31	12.40
	Mother's Education Level $\geq$ Father's Education Level				
Mother's Middle School	0.576**	0.653**	0.710***	0.697**	0.879**
Completion Status	[0.262]	[0.270]	[0.268]	[0.332]	[0.396]
Observations	963	898	808	691	577
F-Stat	27.48	28.38	28.91	20.97	13.03

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. Mother's middle school completion status is instrumented by mother's policy exposure status. The control variables include split linear time trends on either side of the cutoff where the running variable is month-year of birth, birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Online Appendix C - Channels with a Sample of 36- to 59-month-old Children

Table C1. Reduced-Form Effects on Parental Activities with Children

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Total Mother Activities				
Mother's Policy Exposure	0.129	0.240	0.328	0.369	0.186
	[0.248]	[0.255]	[0.265]	[0.288]	[0.336]
No Obs.	614	576	523	436	367
	Total Father Activities				
Mother's Policy Exposure	0.327	0.306	0.400	0.306	0.127
	[0.241]	[0.264]	[0.263]	[0.298]	[0.352]
No Obs.	614	576	523	436	367
	Total Parent Activities				
Mother's Policy Exposure	0.187	0.316	0.351	0.343	0.067
	[0.225]	[0.234]	[0.245]	[0.266]	[0.306]
No Obs.	614	576	523	436	367
	Total Adult Activities				
Mother's Policy Exposure	0.166	0.281	0.326	0.286	0.058
	[0.231]	[0.237]	[0.252]	[0.271]	[0.290]
No Obs.	614	576	523	436	367
	Total Others' Activities				
Mother's Policy Exposure	0.162	0.138	0.098	0.078	0.133
	[0.164]	[0.176]	[0.188]	[0.177]	[0.201]
No Obs.	614	576	523	436	367
	Mother: 4 or more activities				
Mother's Policy Exposure	0.023	0.059	0.100	0.140*	0.130
	[0.071]	[0.074]	[0.076]	[0.082]	[0.091]
No Obs.	614	576	523	436	367
	Father: 4 or more activities				
Mother's Policy Exposure	0.089	0.083	0.110*	0.069	0.031
	[0.055]	[0.057]	[0.057]	[0.065]	[0.074]
No Obs.	614	576	523	436	367
	Mother: Any activity				
Mother's Policy Exposure	-0.004	0.004	-0.018	-0.042	-0.071
	[0.046]	[0.047]	[0.049]	[0.053]	[0.059]
No Obs.	614	576	523	436	367
	Father: Any activity				
Mother's Policy Exposure	0.084	0.085	0.069	0.052	0.008
	[0.073]	[0.075]	[0.082]	[0.093]	[0.102]
No Obs.	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table C2. Reduced-Form Effects on Specific Parental Activities with Children

	Bandwith (years) around the cutoff					*Bandwith (years) around the cutoff*				
	8	*7*	*6*	*5*	*4*	*8*	*7*	*6*	*5*	*4*
	Father Reads Books					**Mother Reads Books**				
Mother's Policy Exposure	0.012	0.011	0.035	0.098	0.086	0.010	0.041	0.042	0.097	0.082
	[0.066]	[0.069]	[0.071]	[0.078]	[0.086]	[0.077]	[0.079]	[0.082]	[0.092]	[0.099]
Observations	614	576	523	436	367	614	576	523	436	367
	Father Tells Stories					**Mother Tells Stories**				
Mother's Policy Exposure	0.024	0.017	0.013	0.025	-0.010	0.059	0.064	0.085	0.172**	0.151*
	[0.058]	[0.059]	[0.062]	[0.070]	[0.081]	[0.071]	[0.075]	[0.076]	[0.078]	[0.089]
Observations	614	576	523	436	367	614	576	523	436	367
	Father Sings Songs					**Mother Sings Songs**				
Mother's Policy Exposure	-0.003	-0.007	0.022	-0.052	-0.075	-0.079	-0.043	0.001	0.002	-0.047
	[0.059]	[0.063]	[0.066]	[0.073]	[0.081]	[0.075]	[0.078]	[0.084]	[0.090]	[0.095]
Observations	614	576	523	436	367	614	576	523	436	367
	Father Takes Child Out					**Mother Takes Child Out**				
Mother's Policy Exposure	0.074	0.032	0.051	0.058	0.040	0.014	-0.003	-0.035	-0.063	-0.060
	[0.074]	[0.078]	[0.084]	[0.097]	[0.104]	[0.069]	[0.066]	[0.071]	[0.076]	[0.085]
Observations	614	576	523	436	367	614	576	523	436	367
	Father Plays with Child					**Mother Plays with Child**				
Mother's Policy Exposure	0.141**	0.133**	0.153**	0.089	0.036	0.066	0.066	0.144*	0.156*	0.094
	[0.060]	[0.065]	[0.070]	[0.081]	[0.088]	[0.074]	[0.077]	[0.073]	[0.081]	[0.097]
Observations	614	576	523	436	367	614	576	523	436	367
	Father Counts, Draws with Child					**Mother Counts, Draws with Child**				
Mother's Policy Exposure	0.080	0.119	0.127	0.089	0.049	0.059	0.114	0.090	0.005	-0.033
	[0.076]	[0.083]	[0.082]	[0.095]	[0.108]	[0.081]	[0.082]	[0.090]	[0.100]	[0.108]
Observations	614	576	523	436	367	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table C3. Reduced-Form Effects on Learning Materials and Inadequate Supervision

	Bandwith (years around the cutoff				
	8	*7*	*6*	*5*	*4*
	Three or More Books				
Mother's Policy Exposure	0.084	0.114	0.134*	0.126	0.090
	[0.066]	[0.070]	[0.076]	[0.084]	[0.096]
No. Obs.	614	576	523	436	367
	Ten or More Books				
Mother's Policy Exposure	0.083	0.081	0.112	0.109	0.089
	[0.080]	[0.082]	[0.088]	[0.097]	[0.110]
No. Obs.	614	576	523	436	367
	Any Books				
Mother's Policy Exposure	0.070	0.108	0.070	0.048	0.036
	[0.067]	[0.070]	[0.074]	[0.084]	[0.093]
No. Obs.	614	576	523	436	367
	Toys, Homemade				
Mother's Policy Exposure	-0.066	-0.080	-0.046	0.004	0.029
	[0.073]	[0.078]	[0.081]	[0.088]	[0.092]
No. Obs.	608	570	518	431	363
	Toys from Shop				
Mother's Policy Exposure	-0.016	-0.013	-0.038	-0.047	-0.059
	[0.036]	[0.038]	[0.040]	[0.045]	[0.046]
No. Obs.	614	576	523	436	367
	Toys from House Objects				
Mother's Policy Exposure	-0.073	-0.034	-0.040	0.030	0.063
	[0.073]	[0.077]	[0.077]	[0.086]	[0.098]
No. Obs.	614	576	523	436	367
	Inadequate Supervision				
Mother's Policy Exposure	0.026	0.025	0.020	0.033	0.014
	[0.042]	[0.043]	[0.046]	[0.055]	[0.058]
No. Obs.	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table C4. Reduced-Form Effects on Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Partner's Middle School Completion				
Mother's Policy Exposure	0.050	0.058	0.047	0.043	0.069
	[0.082]	[0.086]	[0.092]	[0.098]	[0.102]
No. Obs.	603	565	514	429	361
	Partner's Employment in the Last 12 Months				
Mother's Policy Exposure	-0.015	-0.021	-0.040	-0.059*	-0.050
	[0.029]	[0.030]	[0.033]	[0.034]	[0.034]
No. Obs.	594	558	506	423	355
	Mother's Employment in the Last 12 Months				
Mother's Policy Exposure	0.045	0.022	0.017	0.019	-0.017
	[0.079]	[0.082]	[0.084]	[0.087]	[0.098]
No. Obs.	614	576	523	436	367
	Formal Day Care				
Mother's Policy Exposure	-0.024	-0.032	-0.060	-0.025	-0.035
	[0.056]	[0.059]	[0.059]	[0.063]	[0.067]
No. Obs.	612	575	522	435	366
	Age Gap between Mother and Father				
Mother's Policy Exposure	0.185	0.231	0.247	0.428	1.089
	[0.672]	[0.701]	[0.713]	[0.700]	[0.693]
No. Obs.	594	558	506	424	356
	Mother's Education Level $\geq$ Father's Education Level				
Mother's Policy Exposure	0.072	0.110	0.138	0.125	0.172
	[0.088]	[0.091]	[0.094]	[0.104]	[0.111]
No. Obs.	611	573	520	434	366

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Online Appendix D - Parametric Results with Quadratic Trends

Table D1. Policy Effect on Mothers' Middle School Completion Status

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
A) Sample A (Women with 24- to 59-month-old children)					
Policy	0.201**	0.172**	0.157*	0.160*	0.148
	[0.080]	[0.082]	[0.090]	[0.096]	[0.107]
Observations	966	901	811	693	578
B) Sample B (Women with 36- to 59-month-old children)					
Policy	0.120	0.115	0.088	0.150	0.149
	[0.098]	[0.099]	[0.105]	[0.118]	[0.128]
Observations	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D2. Reduced-Form and 2SLS Effects on Early Child Development Indicators

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
I) Reduced-Form Estimates					
	A) Readiness to Learn				
Mother's Policy Exposure	0.049	0.053	0.059	0.028	0.049
	[0.040]	[0.039]	[0.040]	[0.040]	[0.037]
Observations	606	568	515	429	362
	B) Literacy and Numeracy				
Mother's Policy Exposure	0.070	0.025	0.000	-0.088	-0.119
	[0.101]	[0.106]	[0.115]	[0.129]	[0.136]
Observations	594	558	506	421	354
	C) Physical Development				
Mother's Policy Exposure	-0.022	-0.028	-0.022	-0.049*	-0.056
	[0.020]	[0.023]	[0.026]	[0.026]	[0.034]
Observations	604	566	513	428	362
	D) Social-emotional Development				
Mother's Policy Exposure	0.151	0.102	0.085	0.062	0.114
	[0.117]	[0.117]	[0.123]	[0.129]	[0.140]
Observations	590	553	501	416	349
	E) Early Childhood Development				
Mother's Policy Exposure	0.144	0.071	0.029	-0.013	0.014
	[0.111]	[0.112]	[0.115]	[0.121]	[0.135]
Observations	575	540	489	406	342
II) 2SLS Estimates					
	A) Readiness to Learn				
Mother's Middle School	0.216	0.224	0.331	0.116	0.185
Completion Status	[0.210]	[0.204]	[0.325]	[0.185]	[0.180]
Observations	606	568	515	429	362
F-stat	6.565	7.183	3.286	4.882	6.007
	B) Literacy and Numeracy				
Mother's Middle School	0.268	0.092	0.001	-0.292	-0.365
Completion Status	[0.384]	[0.373]	[0.487]	[0.392]	[0.372]
Observations	594	558	506	421	354
F-stat	9.708	10.84	5.881	9.146	10.71
	C) Physical Development				
Mother's Middle School	-0.097	-0.118	-0.121	-0.195	-0.210
Completion Status	[0.090]	[0.100]	[0.151]	[0.129]	[0.153]
Observations	604	566	513	428	362
F-stat	6.415	7.068	3.331	5.417	6.007
	D) Social-emotional Development				
Mother's Middle School	0.592	0.405	0.449	0.249	0.397
Completion Status	[0.487]	[0.477]	[0.683]	[0.512]	[0.505]
Observations	590	553	501	416	349
F-stat	8.207	7.750	3.544	5.223	6.883
	E) Early Childhood Development				
Mother's Middle School	0.489	0.243	0.123	-0.039	0.040
Completion Status	[0.385]	[0.374]	[0.461]	[0.349]	[0.354]
Observations	575	540	489	406	342
F-stat	12.11	11.73	6.364	10.14	12.45

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D3. Reduced-Form Effects on Parental Activities with Children

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Total Mother Activities				
Mother's Policy Exposure	0.499*	0.345	0.283	0.310	0.503
	[0.289]	[0.313]	[0.334]	[0.366]	[0.394]
No Obs.	966	901	811	693	578
	Total Father Activities				
Mother's Policy Exposure	0.682**	0.594*	0.627*	0.546	0.334
	[0.281]	[0.303]	[0.340]	[0.376]	[0.409]
No Obs.	966	901	811	693	578
	Total Parent Activities				
Mother's Policy Exposure	0.502*	0.272	0.192	0.172	0.374
	[0.266]	[0.283]	[0.304]	[0.337]	[0.357]
No Obs.	966	901	811	693	578
	Total Adult Activities				
Mother's Policy Exposure	0.592**	0.341	0.323	0.297	0.378
	[0.267]	[0.280]	[0.296]	[0.316]	[0.365]
No Obs.	966	901	811	693	578
	Total Others' Activities				
Mother's Policy Exposure	0.232	0.202	0.298	0.254	0.162
	[0.189]	[0.199]	[0.198]	[0.222]	[0.249]
No Obs.	966	901	811	693	578
	Mother: 4 or more activities				
Mother's Policy Exposure	0.061	0.036	0.025	0.041	0.075
	[0.090]	[0.100]	[0.107]	[0.119]	[0.132]
No Obs.	951	887	799	683	569
	Father: 4 or more activities				
Mother's Policy Exposure	0.098*	0.094	0.084	0.112	0.111
	[0.055]	[0.059]	[0.064]	[0.072]	[0.078]
No Obs.	951	887	799	683	569
	Mother: Any activity				
Mother's Policy Exposure	0.056	0.028	0.019	0.043	0.100*
	[0.048]	[0.047]	[0.049]	[0.049]	[0.054]
No Obs.	966	901	811	693	578
	Father: Any activity				
Mother's Policy Exposure	0.158**	0.112	0.168**	0.175*	0.086
	[0.070]	[0.075]	[0.078]	[0.093]	[0.089]
No Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split quadratic time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D4. Reduced-Form Effects on Specific Parental Activities with Children

	Bandwidth (years) around the cutoff					*Bandwidth (years) around the cutoff*				
	8	*7*	*6*	*5*	*4*	*8*	*7*	*6*	*5*	*4*
	Father Reads Books					**Mother Reads Books**				
Mother's Policy Exposure	0.093	0.121	0.127	0.094	0.102	0.180**	0.181**	0.208**	0.169	0.203*
	[0.072]	[0.075]	[0.080]	[0.093]	[0.087]	[0.080]	[0.088]	[0.092]	[0.106]	[0.113]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Tells Stories					**Mother Tells Stories**				
Mother's Policy Exposure	0.033	0.003	0.010	-0.008	-0.042	0.064	0.083	0.081	0.055	0.076
	[0.090]	[0.097]	[0.108]	[0.118]	[0.128]	[0.088]	[0.094]	[0.101]	[0.105]	[0.112]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Sings Songs					**Mother Sings Songs**				
Mother's Policy Exposure	0.095	0.076	0.031	0.028	-0.043	-0.009	-0.050	-0.096	-0.102	-0.135
	[0.076]	[0.080]	[0.082]	[0.099]	[0.103]	[0.088]	[0.096]	[0.101]	[0.103]	[0.107]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Takes Child Out					**Mother Takes Child Out**				
Mother's Policy Exposure	0.164**	0.196**	0.225***	0.247**	0.188*	-0.037	-0.039	-0.031	-0.009	0.084
	[0.075]	[0.080]	[0.086]	[0.100]	[0.107]	[0.072]	[0.073]	[0.081]	[0.087]	[0.103]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Plays with Child					**Mother Plays with Child**				
Mother's Policy Exposure	0.113	0.096	0.092	0.050	-0.069	0.125*	0.146*	0.090	0.053	0.079
	[0.076]	[0.083]	[0.089]	[0.096]	[0.111]	[0.072]	[0.078]	[0.075]	[0.087]	[0.097]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Counts, Draws with Child					**Mother Counts, Draws with Child**				
Mother's Policy Exposure	0.054	0.003	0.037	0.009	0.050	-0.032	-0.121	-0.125	-0.058	-0.011
	[0.090]	[0.096]	[0.102]	[0.109]	[0.131]	[0.095]	[0.098]	[0.106]	[0.124]	[0.139]
No Obs.	951	887	799	683	569	951	887	799	683	569

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy (mother's policy exposure status) and split quadratic time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D5. Reduced-Form Effects on Learning Materials and Inadequate Supervision

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Three or More Books				
Mother's Policy Exposure	0.048	0.018	0.037	0.066	0.042
	[0.068]	[0.072]	[0.076]	[0.085]	[0.091]
No. Obs.	965	901	811	693	578
	Ten or More Books				
Mother's Policy Exposure	0.033	0.011	0.026	0.039	0.073
	[0.070]	[0.076]	[0.079]	[0.085]	[0.099]
No. Obs.	965	901	811	693	578
	Any Books				
Mother's Policy Exposure	0.063	0.023	0.066	0.077	0.057
	[0.074]	[0.077]	[0.085]	[0.093]	[0.098]
No. Obs.	965	901	811	693	578
	Toys, Homemade				
Mother's Policy Exposure	0.035	0.128	0.153*	0.170*	0.186*
	[0.081]	[0.082]	[0.087]	[0.089]	[0.102]
No. Obs.	954	892	803	685	573
	Toys from Shop				
Mother's Policy Exposure	-0.003	-0.023	-0.032	-0.064	-0.025
	[0.036]	[0.038]	[0.040]	[0.042]	[0.050]
No. Obs.	965	901	811	693	578
	Toys from House Objects				
Mother's Policy Exposure	0.052	0.047	0.061	0.002	-0.103
	[0.072]	[0.077]	[0.086]	[0.095]	[0.102]
No. Obs.	965	901	811	693	578
	Inadequate Supervision				
Mother's Policy Exposure	0.036	0.065	0.076	0.077	0.100
	[0.060]	[0.066]	[0.067]	[0.070]	[0.072]
No. Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split quadratic time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D6. Reduced-Form Effects on Learning Materials and Inadequate Supervision

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Three or More Books				
Mother's Policy Exposure	0.048	0.018	0.037	0.066	0.042
	[0.068]	[0.072]	[0.076]	[0.085]	[0.091]
No. Obs.	965	901	811	693	578
	Ten or More Books				
Mother's Policy Exposure	0.033	0.011	0.026	0.039	0.073
	[0.070]	[0.076]	[0.079]	[0.085]	[0.099]
No. Obs.	965	901	811	693	578
	Any Books				
Mother's Policy Exposure	0.063	0.023	0.066	0.077	0.057
	[0.074]	[0.077]	[0.085]	[0.093]	[0.098]
No. Obs.	965	901	811	693	578
	Toys, Homemade				
Mother's Policy Exposure	0.035	0.128	0.153*	0.170*	0.186*
	[0.081]	[0.082]	[0.087]	[0.089]	[0.102]
No. Obs.	954	892	803	685	573
	Toys from Shop				
Mother's Policy Exposure	-0.003	-0.023	-0.032	-0.064	-0.025
	[0.036]	[0.038]	[0.040]	[0.042]	[0.050]
No. Obs.	965	901	811	693	578
	Toys from House Objects				
Mother's Policy Exposure	0.052	0.047	0.061	0.002	-0.103
	[0.072]	[0.077]	[0.086]	[0.095]	[0.102]
No. Obs.	965	901	811	693	578
	Inadequate Supervision				
Mother's Policy Exposure	0.036	0.065	0.076	0.077	0.100
	[0.060]	[0.066]	[0.067]	[0.070]	[0.072]
No. Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split quadratic time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth, dummies for the grandmother's schooling levels, dummies for birth order and gender interaction and dummies for six-months interval of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table D7. Reduced-Form Effects on Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Mother's Employment in the Last 12 Months				
Mother's Policy Exposure	-0.018	-0.026	-0.001	-0.002	0.015
	[0.080]	[0.087]	[0.089]	[0.101]	[0.114]
No. Obs.	966	901	811	693	578
	Formal Day Care				
Mother's Policy Exposure	0.008	0.004	0.013	0.004	0.040
	[0.054]	[0.056]	[0.060]	[0.068]	[0.080]
No. Obs.	964	900	810	692	577
	Age Gap between Mother and Father				
Mother's Policy Exposure	-0.079	-0.230	-0.236	-0.226	-0.634
	[0.563]	[0.605]	[0.618]	[0.662]	[0.750]
No. Obs.	943	881	792	679	565
	Mother's Education $\geq$ Father's Education				
Mother's Policy Exposure	0.272***	0.259**	0.226**	0.292**	0.262**
	[0.091]	[0.100]	[0.106]	[0.119]	[0.128]
No. Obs.	963	898	808	691	577

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes women who have at least one child aged 24-59 months. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split quadratic time trends on either side of the cutoff where the running variable is month-year of birth, the regressions also control for birth-month dummies, dummies for whether the childhood region was a village, district center or province center, dummies for whether the mother tongue is Turkish, Kurdish, or Arabic, dummies for the NUTS-1 region of birth and dummies for the grandmother's schooling levels. For the Formal Day Care variable additional controls, dummies for birth order and gender interaction and dummies for six-months interval of child's age, are also included. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Online Appendix E - Parametric Results with only Essential Control Variables

Table E1. Policy Effect on Mothers' Middle School Completion Status

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
A) Sample A (Women with 24- to 59-month-old children)					
Policy	0.139**	0.144**	0.159**	0.161**	0.156*
	[0.063]	[0.067]	[0.072]	[0.077]	[0.087]
Observations	966	901	811	693	578
B) Sample B (Women with 36- to 59-month-old children)					
Policy	0.103	0.107	0.115	0.123	0.155
	[0.087]	[0.093]	[0.100]	[0.110]	[0.125]
Observations	614	576	523	436	367

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. The regressions control for the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table E2. Reduced-Form and 2SLS Effects on Early Child Development Indicators

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
I) Reduced-Form Estimates					
	A) Readiness to Learn				
Mother's Policy Exposure	0.077**	0.066**	0.067*	0.074**	0.063*
	[0.033]	[0.033]	[0.036]	[0.036]	[0.036]
Observations	606	568	515	429	362
	B) Literacy and Numeracy				
Mother's Policy Exposure	-0.033	-0.007	0.024	0.058	0.002
	[0.066]	[0.067]	[0.073]	[0.085]	[0.091]
Observations	594	558	506	421	354
	C) Physical Development				
Mother's Policy Exposure	0.000	-0.001	-0.005	0.004	-0.002
	[0.028]	[0.028]	[0.029]	[0.028]	[0.024]
Observations	604	566	513	428	362
	D) Social-emotional Development				
Mother's Policy Exposure	0.013	0.051	0.049	0.077	0.065
	[0.087]	[0.090]	[0.093]	[0.099]	[0.111]
Observations	590	553	501	416	349
	E) Early Childhood Development				
Mother's Policy Exposure	0.039	0.071	0.075	0.089	0.070
	[0.081]	[0.085]	[0.087]	[0.093]	[0.103]
Observations	575	540	489	406	342
II) 2SLS Estimates					
	A) Readiness to Learn				
Mother's Middle School	0.384*	0.316	0.267	0.303	0.237
Completion Status	[0.228]	[0.210]	[0.177]	[0.199]	[0.181]
Observations	606	568	515	429	362
F-stat	7.725	7.521	11.04	8.294	7.105
	B) Literacy and Numeracy				
Mother's Middle School	-0.154	-0.031	0.086	0.219	0.007
Completion Status	[0.304]	[0.292]	[0.261]	[0.323]	[0.297]
Observations	594	558	506	421	354
F-stat	9.506	9.430	14.27	10.85	10.19
	C) Physical Development				
Mother's Middle School	0.001	-0.005	-0.019	0.015	-0.009
Completion Status	[0.138]	[0.135]	[0.112]	[0.117]	[0.088]
Observations	604	566	513	428	362
F-stat	7.770	7.438	10.93	7.761	7.105
	D) Social-emotional Development				
Mother's Middle School	0.064	0.231	0.188	0.310	0.245
Completion Status	[0.412]	[0.399]	[0.347]	[0.406]	[0.418]
Observations	590	553	501	416	349
F-stat	8.201	8.402	11.78	8.328	7.003
	E) Early Childhood Development				
Mother's Middle School	0.173	0.294	0.263	0.334	0.233
Completion Status	[0.350]	[0.345]	[0.302]	[0.352]	[0.341]
Observations	575	540	489	406	342
F-stat	10.16	10.56	15.54	10.97	10.27

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 36-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions control only for child's biological outcomes: dummies for interactions of birth order and gender and dummies for six-month intervals of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table E3. Reduced-Form Effects on Parental Activities with Children

	Bandwidth (years) around the cutoff				
	8	*7*	*6*	*5*	*4*
	Total Mother Activities				
Mother's Policy Exposure	0.161	0.248	0.343*	0.390*	0.292
	[0.195]	[0.196]	[0.204]	[0.213]	[0.236]
No Obs.	966	901	811	693	578
	Total Father Activities				
Mother's Policy Exposure	0.529**	0.557**	0.562**	0.659**	0.660**
	[0.222]	[0.238]	[0.256]	[0.279]	[0.300]
No Obs.	966	901	811	693	578
	Total Parent Activities				
Mother's Policy Exposure	0.263	0.356*	0.419**	0.470**	0.279
	[0.187]	[0.191]	[0.203]	[0.216]	[0.223]
No Obs.	966	901	811	693	578
	Total Adult Activities				
Mother's Policy Exposure	0.337*	0.442**	0.468**	0.551**	0.460*
	[0.192]	[0.195]	[0.212]	[0.218]	[0.243]
No Obs.	966	901	811	693	578
	Total Others' Activities				
Mother's Policy Exposure	0.202	0.221	0.145	0.193	0.296
	[0.149]	[0.153]	[0.164]	[0.186]	[0.194]
No Obs.	966	901	811	693	578
	Mother: 4 or more activities				
Mother's Policy Exposure	-0.046	-0.024	0.001	0.027	0.002
	[0.060]	[0.063]	[0.066]	[0.070]	[0.077]
No Obs.	951	887	799	683	569
	Father: 4 or more activities				
Mother's Policy Exposure	0.075	0.071	0.085	0.082	0.064
	[0.046]	[0.049]	[0.053]	[0.056]	[0.058]
No Obs.	951	887	799	683	569
	Mother: Any activity				
Mother's Policy Exposure	0.036	0.047	0.044	0.037	0.033
	[0.030]	[0.030]	[0.033]	[0.034]	[0.039]
No Obs.	966	901	811	693	578
	Father: Any activity				
Mother's Policy Exposure	0.119**	0.138**	0.105*	0.126*	0.150**
	[0.054]	[0.057]	[0.059]	[0.065]	[0.069]
No Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions control only for child's biological outcomes: dummies for interactions of birth order and gender and dummies for six-month intervals of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table E4. Reduced-Form Effects on Specific Parental Activities with Children

	Bandwidth (years) around the cutoff					*Bandwidth (years) around the cutoff*				
	8	*7*	*6*	*5*	*4*	*8*	*7*	*6*	*5*	*4*
	Father Reads Books					**Mother Reads Books**				
Mother's Policy Exposure	0.019	0.011	0.032	0.083	0.085	0.080	0.087	0.107*	0.147**	0.148*
	[0.059]	[0.062]	[0.065]	[0.072]	[0.072]	[0.060]	[0.063]	[0.064]	[0.069]	[0.078]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Tells Stories					**Mother Tells Stories**				
Mother's Policy Exposure	0.030	0.040	0.049	0.082	0.073	0.027	0.029	0.064	0.104	0.098
	[0.062]	[0.066]	[0.072]	[0.081]	[0.091]	[0.064]	[0.067]	[0.071]	[0.076]	[0.085]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Sings Songs					**Mother Sings Songs**				
Mother's Policy Exposure	0.071	0.075	0.088	0.068	0.085	-0.026	-0.011	0.002	0.005	-0.022
	[0.054]	[0.057]	[0.062]	[0.070]	[0.075]	[0.061]	[0.064]	[0.070]	[0.073]	[0.080]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Takes Child Out					**Mother Takes Child Out**				
Mother's Policy Exposure	0.123*	0.104	0.120	0.151*	0.172**	-0.007	-0.015	-0.020	-0.036	-0.038
	[0.067]	[0.070]	[0.073]	[0.077]	[0.082]	[0.051]	[0.052]	[0.056]	[0.062]	[0.066]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Plays with Child					**Mother Plays with Child**				
Mother's Policy Exposure	0.175***	0.172***	0.156***	0.138**	0.127*	0.044	0.033	0.096	0.111*	0.082
	[0.051]	[0.054]	[0.057]	[0.060]	[0.068]	[0.060]	[0.064]	[0.059]	[0.064]	[0.070]
No Obs.	951	887	799	683	569	951	887	799	683	569
	Father Counts, Draws with Child					**Mother Counts, Draws with Child**				
Mother's Policy Exposure	0.070	0.092	0.058	0.062	0.021	-0.028	0.004	-0.020	-0.070	-0.117
	[0.065]	[0.070]	[0.073]	[0.077]	[0.087]	[0.063]	[0.066]	[0.070]	[0.076]	[0.079]
No Obs.	951	887	799	683	569	951	887	799	683	569

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken. The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions control only for child's biological outcomes: dummies for interactions of birth order and gender and dummies for six-month intervals of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table E5. Reduced-Form Effects on Learning Materials and Inadequate Supervision

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Three or More Books				
Mother's Policy Exposure	0.053	0.061	0.074	0.078	0.061
	[0.054]	[0.058]	[0.061]	[0.066]	[0.069]
No. Obs.	965	901	811	693	578
	Ten or More Books				
Mother's Policy Exposure	0.043	0.049	0.052	0.065	0.043
	[0.054]	[0.056]	[0.059]	[0.062]	[0.064]
No. Obs.	965	901	811	693	578
	Any Books				
Mother's Policy Exposure	0.109**	0.120**	0.103*	0.115*	0.097
	[0.050]	[0.052]	[0.055]	[0.060]	[0.066]
No. Obs.	965	901	811	693	578
	Toys, Homemade				
Mother's Policy Exposure	-0.006	-0.037	-0.007	0.025	0.065
	[0.063]	[0.066]	[0.070]	[0.076]	[0.082]
No. Obs.	954	892	803	685	573
	Toys from Shop				
Mother's Policy Exposure	0.012	0.020	0.013	0.007	-0.020
	[0.028]	[0.030]	[0.032]	[0.034]	[0.036]
No. Obs.	965	901	811	693	578
	Toys from House Objects				
Mother's Policy Exposure	-0.026	-0.012	-0.001	0.025	0.045
	[0.052]	[0.054]	[0.057]	[0.063]	[0.070]
No. Obs.	965	901	811	693	578
	Inadequate Supervision				
Mother's Policy Exposure	0.017	0.006	0.011	0.024	0.029
	[0.039]	[0.041]	[0.045]	[0.052]	[0.054]
No. Obs.	966	901	811	693	578

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions control only for child's biological outcomes: dummies for interactions of birth order and gender and dummies for six-month intervals of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.

Table E6. Reduced-Form Effects on Father Schooling, Mother and Father Employment, Formal Day-Care Use, and Mother-Father Gaps in Schooling and Age

	Bandwidth (years) around the cutoff				
	8	***7***	***6***	***5***	***4***
	Mother's Employment in the Last 12 Months				
Mother's Policy Exposure	-0.026	-0.021	-0.033	-0.023	-0.028
	[0.063]	[0.066]	[0.070]	[0.074]	[0.082]
No. Obs.	966	901	811	693	578
	Partner's Middle School Completion				
Mother's Policy Exposure	0.049	0.043	0.039	0.069	0.053
	[0.065]	[0.069]	[0.076]	[0.078]	[0.086]
No. Obs.	946	882	796	680	567
	Partner's Employment in the Last 12 Months				
Mother's Policy Exposure	-0.009	-0.014	-0.016	-0.020	-0.021
	[0.020]	[0.021]	[0.021]	[0.022]	[0.021]
No. Obs.	942	880	791	677	563
	Formal Day Care				
Mother's Policy Exposure	-0.032	-0.037	-0.031	-0.015	-0.028
	[0.043]	[0.046]	[0.049]	[0.050]	[0.054]
No. Obs.	964	900	810	692	577
	Age Gap between Mother and Father				
Mother's Policy Exposure	-0.631	-0.527	-0.426	-0.499	-0.151
	[0.469]	[0.489]	[0.478]	[0.469]	[0.506]
No. Obs.	943	881	792	679	565
	Mother's Education Level $\geq$ Father's Education Level				
Mother's Policy Exposure	0.136**	0.161**	0.181**	0.174**	0.197**
	[0.067]	[0.071]	[0.073]	[0.080]	[0.089]
No. Obs.	963	898	808	691	577

Notes: The data come from the 2018 Turkish Demographic Health Survey. The sample includes children aged 24-59 months. If a woman has more than one child in this age group, only the last born is taken.The estimates in each column come from a separate regression using the sample defined according to the bandwidths specified in the column headings. In addition to the policy dummy and split linear time trends on either side of the cutoff where the running variable is month-year of birth, the regressions control only for child's biological outcomes: dummies for interactions of birth order and gender and dummies for six-month intervals of child's age. The regressions are weighted using the sample weights. Standard errors are clustered at the month-year of birth level. Statistical significance *** at the 1 percent level, ** at the 5 percent level, * at the 10 percent level.