

**The Trouble with Boys:
Social Influences and the Gender Gap in Disruptive Behavior
By Marianne Bertrand and Jessica Pan
On-Line Appendix Tables**

Appendix Table A1: Definition of Non-Cognitive Skill Measures

<i>Teacher Reported Measures (Each scale is continuous and standardized)</i>		
	Grades Available	Description
Externalizing Problems	Fall-K to Grade 5	Includes acting out behaviors. Five items on this scale rate the frequency with which a child argues, fights, gets angry, acts impulsively, and disturbs ongoing activities
Self-control	Fall-K to Grade 5	Four items that indicate the child's ability to control behavior by respecting the property rights of others, controlling temper, accepting peer ideas for group activities, and responding appropriately to pressure from peers.
Approaches to Learning	Fall-K to Grade 5	Measures behaviors that affect the ease with which children can benefit from the learning environment. Includes 6 items that rate child's attentiveness, task persistence, eagerness to learn, learning independence, flexibility and organization.
Interpersonal Skills	Fall-K to Grade 5	Items rate the child's skill in forming and maintaining friendships, getting along with people who are different, comforting or helping other children, expressing feelings, ideas and opinions in positive ways, and showing sensitivity to the feelings of others.
Internalizing Problems	Fall-K to Grade 5	Four items that ask about the apparent presence of anxiety, loneliness, low self-esteem and sadness.
<i>Parental Reported Measures (Each scale is continuous and standardized)</i>		
	Grades Available	Description
Suspension	Grade 8	How many times was {CHILD} suspended?
Impulsive/Overactive	Fall-K to Grade 1	Two items that ask about children's impulsivity and activity level.
Self-Control	Fall-K to Grade 1	Five items that indicate children's ability to control their behavior.
Approaches to Learning	Fall-K to Grade 1	Includes six items that rate how often a child shows eagerness to learn, interest in a variety of things, creativity, persistence, concentration and responsibility.
Social Interaction	Fall-K to Grade 1	Asks about children's interactions with peers and adults. The three items address children's ease in joining play, ability to make and keep friends, and positively interacting (comforting, helping) with peers.
Sad/Lonely	Fall-K to Grade 1	Four items that ask parents about children's problems with being accepted and liked by others, sadness, loneliness, and low self-esteem.

Appendix Table A2: Parental Input Indices

Parental Inputs/Investments

HOME Index

Based on the average of the following six components. Each variable is recoded into an indicator variable. Individuals with missing responses to a component are deleted case-wise. Cronbach's alpha: 0.536.

Component Description:

- a) Parent reads to child 3 or more times a week (fall-k)
- b) Child has 20 or more books (fall-k)
- c) Visited the library with child in the past month (spring-k)
- d) Gone to a play, concert, or other live show with child in the past month (spring-k)
- e) Visited an art gallery, museum, or historical site with child in the past month (spring-k)
- f) Child participated in an activity outside school hours such as dance lessons, athletic events, organized clubs, music lessons, drama classes, art lessons, organized performing, craft classes or language classes (spring-k)

Emotional Supportiveness (WARMTH Index)

Based on the sum of parental responses to the following questions in Spring-K. Each question was recoded such that 0 indicated the most negative response and 3 indicated the warmest response. The scale had a total score of 39. Individuals with missing components were deleted case-wise. Cronbach's alpha: 0.70.

Is the statement (1) completely true, (2) mostly true, (3) somewhat true, (4) not at all true

- a) Child and I often have warm, close times together
- b) Most of the times I feel that child likes me and wants to be near me
- c) I am usually too busy to joke and play around with child
- d) Even when I'm in a bad mood, I show child a lot of love
- e) By the end of a long day, I find it hard to be warm and loving toward child
- f) I express affection by hugging, kissing and holding child
- g) Being a parent is harder than I thought it would be
- h) Child does things that really bother me
- i) I find myself giving up more of my life to meet child's needs than I ever expected
- j) I feel trapped by my responsibilities as a parent
- k) I am often feel angry with child
- l) Child seems harder to care for than most
- m) I find taking care of a young child more work than pleasure

Discipline Style: Harsh Parental Response if Child Hits them (Spring-K)

Most children get angry at their parents from time to time. If {Child} got so angry that he/she hit you, what would you do? (a) Spank Child (b) Have child take a time out (c) Hit child back (d) discuss what child did wrong (e) ignore it (f) make child do some chores (g) make fun of child (h) make child apologize (i) take away a privilege (j) give child a warning (k) yell at child. Parents who indicated a "yes" answer to (a), (c), (f) and (j) were coded as 1 for having a harsh discipline style.

Child spanked last week (Spring-K)

Sometimes kids mind pretty well and sometimes they don't. About how many times, if any, have you spanked {CHILD} in the past week? Variable recoded into a dummy variable that indicated 1 if child was spanked one or more times in the past week and 0 if never spanked.

Appendix Table A2 (continued): School Environment Variables

Emphasis on Reading and Math (Spring-K):	Minutes per week teacher spent on reading and math. Computed based on answers to the following questions: a) How many times a week do children in your class usually work on lessons or projects in reading (mathematics) b) How many minutes a day do children in your class usually work on lessons or projects in reading (mathematics)
Emphasis on Homework (Spring-K):	Homework should be given to kindergarten children almost every day. Answers range from 1: Strongly Disagree to 5: Strongly agree.
Emphasis on Achievement/Behavior/Cooperation/Following Directions (Spring-K):	How important is each of the following in evaluating the children in your classes? Each response ranges from 1: Not important to 4: Extremely important. The index is constructed based on taking the average of the four answers. a) Individual child's achievement relative to the rest of the class b) Classroom behavior or conduct c) Cooperativeness with other children d) Ability to follow directions
Time spent on Physical Education (Spring-K):	Minutes per week spent on physical education. Computed based on answers to the following questions: a) How many times each week do children in your class usually have physical education? b) How much time each day do children in your class usually spend when they participate in physical education?
Time spent on Recess (Spring-K):	Minutes per week spent on recess. Computed based on answers to the following questions: a) In a typical day, how much time does your child spend in the following activities? Recess b) How many days a week do children have recess?
School has Formal Retention Policy (Spring-K):	Which of the following statements describe your school's grade retention practices or policies? This school has a formal policy (True/False)

Appendix Table A3: Parental Ratings of Non-cognitive Skills

	Girls	Boys	Difference (Girls-Boys)
Impulsiveness			
Fall Kindergarten	-0.141 (0.907)	0.135 (1.065)	-0.275*** [0.045]
Spring Kindergarten	-0.129 (0.926)	0.124 (1.051)	-0.253*** [0.045]
Grade 1	-0.159 (0.899)	0.152 (1.066)	-0.311*** [0.046]
Self-Control			
Fall Kindergarten	0.080 (0.964)	-0.077 (1.027)	0.157*** [0.046]
Spring Kindergarten	0.073 (0.988)	-0.070 (1.007)	0.142*** [0.046]
Grade 1	0.091 (0.941)	-0.087 (1.046)	0.178*** [0.046]
Approaches to Learning			
Fall Kindergarten	0.106 (0.959)	-0.102 (1.027)	0.208*** [0.043]
Spring Kindergarten	0.147 (0.975)	-0.141 (1.004)	0.288*** [0.044]
Grade 1	0.123 (1.000)	-0.118 (0.986)	0.242*** [0.044]
Social Skills			
Fall Kindergarten	0.061 (0.982)	-0.058 (1.014)	0.119*** [0.045]
Spring Kindergarten	0.073 (0.955)	-0.070 (1.037)	0.143*** [0.044]
Grade 1	0.063 (0.955)	-0.060 (1.038)	0.124*** [0.044]
Sad/Lonely			
Fall Kindergarten	0.018 (0.958)	-0.017 (1.038)	0.035 [0.044]
Spring Kindergarten	0.038 (0.973)	-0.036 (1.024)	0.074 [0.046]
Grade 1	-0.029 (0.940)	0.028 (1.054)	-0.058 [0.049]

Notes: Summary statistics are based on the restricted sample of children with non-missing observations for each outcome. Parental ratings are standardized to have a mean of zero and standard deviation one in the weighted sample after imposing the sample restrictions. Please refer to the text for sample restrictions. Observations are weighted using eighth grade parent panel weights (C1_7FP0). Robust standard errors are reported for differences in the means across genders ***significant at 1% **5% *10%.

Appendix Table A4: Relationship between Suspension and Test Scores on Non-Cognitive and Cognitive Skills

	Suspension in Grade 8		Reading Scores		Math Scores	
	<i>Teacher reported non-cognitive skills measured in:</i>					
	Grade 5	Fall-K	Grade 5	Fall-K	Grade 5	Fall-K
Externalizing Behavior	0.089*** [0.013]	0.050*** [0.014]	-0.017 [0.031]	-0.048 [0.031]	-0.018 [0.030]	0.003 [0.031]
Self-Control	-0.017 [0.017]	-0.028* [0.015]	-0.085** [0.043]	-0.058 [0.039]	-0.054 [0.043]	-0.026 [0.041]
Approaches to Learning	0.012 [0.013]	-0.002 [0.014]	0.341*** [0.030]	0.276*** [0.028]	0.350*** [0.031]	0.350*** [0.031]
Interpersonal Skills	-0.035** [0.014]	0.016 [0.015]	0.045 [0.037]	-0.023 [0.034]	-0.006 [0.040]	-0.06 [0.037]
Internalizing Behavior	0.015 [0.011]	-0.007 [0.009]	-0.074*** [0.024]	-0.048** [0.023]	-0.091*** [0.025]	-0.034 [0.022]
Reading	-0.001 [0.012]	-0.018 [0.011]				
Math	-0.013 [0.012]	-0.027** [0.012]				
Background Controls	yes	yes	yes	yes	yes	yes
Observations	5524	5112	5364	5143	5399	5173
R-squared	0.21	0.13	0.29	0.23	0.27	0.25

Notes: Each column is a separate regression of suspension and test scores in grade 8 on measures of non-cognitive and cognitive skills in grade 5 or fall-kindergarten. Background controls include a female dummy, race dummies (black, hispanic, asian, other), age at assessment at Fall-K, age-squared, birthweight, number of older brothers, younger brothers, older sisters, younger sisters and dummies for region and urbanicity. Observations are weighted using grade 8 parent panel weights. Robust standard errors are reported. ***Significant at 1% level, **5% *10%.

Appendix Table A5: Summary Statistics for Home Environment

	Full Sample	Girls	Boys	Difference (Girls-Boys)
Biological mother only	0.186 (0.389)	0.184 (0.388)	0.187 (0.390)	-0.003 [0.018]
Both biological parents	0.710 (0.454)	0.712 (0.453)	0.708 (0.455)	0.004 [0.021]
Other family structure	0.104 (0.306)	0.104 (0.305)	0.105 (0.307)	-0.001 [0.015]
Mother < 20 years at first birth	0.238 (0.426)	0.234 (0.423)	0.241 (0.428)	-0.007 [0.020]
Family SES: First Quintile (Lowest)	0.154 (0.361)	0.138 (0.345)	0.169 (0.374)	-0.031* [0.016]
2nd Quintile	0.189 (0.392)	0.173 (0.378)	0.205 (0.404)	-0.032* [0.018]
3rd Quintile	0.194 (0.396)	0.204 (0.403)	0.186 (0.389)	0.018 [0.017]
4th Quintile	0.229 (0.420)	0.240 (0.427)	0.218 (0.413)	0.021 [0.018]
5th Quintile (highest)	0.234 (0.423)	0.246 (0.431)	0.222 (0.416)	0.024 [0.017]
Parental Input Composite (HOME Index)	0.000 (1.000)	0.087 (0.974)	-0.084 (1.018)	0.170*** [0.042]
Indicator if HOME Index>median	0.292 (0.455)	0.313 (0.464)	0.271 (0.445)	0.041** [0.019]
Components of Parental Input Composite:				
Parent reads to child at least 3 times/week	0.826 (0.379)	0.851 (0.356)	0.802 (0.399)	0.050*** [0.017]
Number of books (1: >=20 books)	0.873 (0.333)	0.892 (0.310)	0.854 (0.353)	0.038** [0.015]
Took child to library in past month (1: Yes)	0.560 (0.496)	0.574 (0.495)	0.546 (0.498)	0.027 [0.021]
Took child to concert in past month (1: Yes)	0.396 (0.489)	0.428 (0.495)	0.366 (0.482)	0.062*** [0.021]
Took child to museum in past month (1: Yes)	0.317 (0.465)	0.323 (0.468)	0.311 (0.463)	0.012 [0.020]
Child participates in at least one extra-curricular activity	0.671 (0.470)	0.694 (0.461)	0.649 (0.477)	0.045** [0.020]
Spanked child last week	0.279 (0.449)	0.264 (0.441)	0.293 (0.455)	-0.029 [0.020]
Emotional Supportiveness Composite (WARMTH Index)				
Indicator if WARMTH Index>median	0.000 (1.000)	0.054 (0.958)	-0.051 (1.036)	0.105** [0.046]
Indicator if WARMTH Index>median	0.488 (0.500)	0.505 (0.500)	0.473 (0.499)	0.032 [0.022]

Components of Emotional Supportiveness Composite (scale of 0 to 3, 0: least warm response and 3: most warm response):

Warm, close time with child	2.704 (0.554)	2.720 (0.531)	2.690 (0.575)	0.030 [0.025]
Child likes me	2.793 (0.464)	2.814 (0.441)	2.773 (0.484)	0.041** [0.020]
Always show child love	2.437 (0.707)	2.426 (0.722)	2.448 (0.691)	-0.022 [0.032]
Express affection	2.420 (0.760)	2.432 (0.753)	2.409 (0.766)	0.023 [0.032]
Too busy to play with child	2.683 (0.652)	2.655 (0.689)	2.710 (0.614)	-0.055** [0.027]
Hard to be warm to child	2.896 (0.388)	2.904 (0.362)	2.888 (0.412)	0.016 [0.016]
Being parent harder than expected	1.398 (1.205)	1.428 (1.210)	1.370 (1.199)	0.058 [0.052]
Child does things to bother me	2.283 (0.789)	2.325 (0.765)	2.243 (0.810)	0.082** [0.033]
Sacrifice to meet child's needs	2.111 (1.076)	2.141 (1.064)	2.083 (1.088)	0.058 [0.046]
Feel trapped as parent	2.753 (0.592)	2.774 (0.548)	2.734 (0.632)	0.041 [0.028]
Often feel angry with child	2.724 (0.516)	2.749 (0.510)	2.701 (0.520)	0.047** [0.023]
Child harder to care for	2.789 (0.596)	2.840 (0.502)	2.740 (0.670)	0.100*** [0.029]
Child is more work than pleasure	2.748 (0.630)	2.775 (0.568)	2.723 (0.684)	0.052* [0.030]
Average from Kindergarten to Grade 3:				
Parental Input Composite	0.000 (1.000)	0.112 (0.954)	-0.107 (1.031)	0.219*** [0.043]
Emotional Supportiveness Composite	0.000 (1.000)	0.082 (0.958)	-0.078 (1.033)	0.159*** [0.046]
Spanked Child Last Week	0.221 (0.313)	0.204 (0.305)	0.237 (0.319)	-0.033** [0.014]

Notes: Summary statistics are based on the restricted sample of children with non-missing observations for each outcome. Please refer to the text for sample restrictions. Observations are weighted by eighth grade parent panel weights (C1_7FP0). Robust standard errors are reported for differences across gender ***significant at 1% level **5 % *10%.

Appendix Table A6: Summary Statistics for Child's Background Characteristics

	Full Sample	Girls	Boys	Difference (Girls-Boys)
White	0.595 (0.491)	0.583 (0.493)	0.607 (0.488)	-0.024 [0.021]
Black	0.160 (0.367)	0.157 (0.364)	0.162 (0.369)	-0.005 [0.019]
Hispanic	0.173 (0.378)	0.178 (0.382)	0.168 (0.374)	0.009 [0.014]
Asian	0.031 (0.173)	0.038 (0.192)	0.024 (0.152)	0.015** [0.007]
Other	0.041 (0.198)	0.044 (0.205)	0.038 (0.192)	0.005 [0.007]
Assessment Age at Fall K (in months)	68.461 (4.293)	68.162 (4.162)	68.748 (4.397)	-0.586*** [0.187]
Birthweight (in pounds)	7.411 (1.332)	7.307 (1.293)	7.511 (1.361)	-0.204*** [0.059]
Number of younger brothers	0.269 (0.501)	0.253 (0.474)	0.284 (0.524)	-0.031 [0.022]
brothers	0.459 (0.706)	0.436 (0.689)	0.480 (0.721)	-0.043 [0.029]
Number of younger sisters	0.254 (0.500)	0.266 (0.523)	0.242 (0.477)	0.024 [0.022]
Number of older sisters	0.430 (0.680)	0.429 (0.679)	0.431 (0.682)	-0.002 [0.027]
Northeast	0.182 (0.386)	0.195 (0.396)	0.171 (0.376)	0.024 [0.015]
Midwest	0.234 (0.424)	0.234 (0.424)	0.234 (0.424)	-0.000 [0.017]
South	0.388 (0.487)	0.368 (0.482)	0.408 (0.491)	-0.039* [0.022]
West	0.195 (0.396)	0.203 (0.402)	0.187 (0.390)	0.016 [0.016]
City	0.356 (0.479)	0.358 (0.479)	0.354 (0.478)	0.003 [0.020]
Suburb/Town	0.431 (0.495)	0.425 (0.495)	0.435 (0.496)	-0.010 [0.022]
Rural	0.214 (0.410)	0.217 (0.412)	0.211 (0.408)	0.006 [0.016]

Notes: Summary statistics are based on the restricted sample of children with non-missing observations for each outcome. Please refer to the text for sample restrictions. Observations are weighted by eighth grade parent panel weights (C1_7FP0). Robust standard errors are reported for differences across gender ***significant at 1% level **5 % level *1% level.

Appendix Table A7: Summary Statistics for School Environment

	Full Sample	Girls	Boys	Difference (Girls-Boys)
Age at Kindergarten Entry	65.531 (4.249)	65.403 (4.302)	65.653 (4.196)	-0.249 [0.178]
Predicted age at Kindergarten Entry	64.434 (3.770)	64.423 (3.803)	64.443 (3.740)	-0.021 [0.184]
Private Kindergarten	0.152 (0.359)	0.162 (0.368)	0.143 (0.351)	0.018 [0.014]
Time spent each week on reading and math (in minutes)	475.686 (208.269)	475.718 (214.044)	475.655 (202.683)	0.063 [9.375]
Agree that daily homework should be given to Kindergarteners (1: Strongly Disagree, 5: Strongly Agree)	2.589 (1.215)	2.577 (1.242)	2.601 (1.188)	-0.024 [0.053]
Evaluate child based on achievement/behavior/cooperativeness	3.288 (0.439)	3.289 (0.442)	3.286 (0.435)	0.004 [0.020]
Time spent each week on physical education (in minutes)	59.595 (51.450)	58.750 (51.910)	60.396 (51.006)	-1.646 [2.376]
Time spent each day on recess (in minutes)	23.955 (11.811)	23.826 (11.919)	24.076 (11.710)	-0.251 [0.571]
School has a formal retention policy	0.515 (0.500)	0.505 (0.500)	0.526 (0.499)	-0.021 [0.023]
Kindergarten Environment Index	0.450 (0.309)	0.444 (0.307)	0.457 (0.312)	-0.013 [0.015]
Average Peer Externalizing Behavior Scores in Class	-0.007 (0.564)	0.010 (0.584)	-0.023 (0.544)	0.033 [0.026]
Average Peer Externalizing Behavior Scores in School	-0.006 (0.329)	-0.008 (0.334)	-0.003 (0.324)	-0.005 [0.014]
Kindergarten Teacher Female	0.985 (0.122)	0.983 (0.131)	0.987 (0.112)	-0.005 [0.005]
All female teachers from Kindergarten to Grade 5	0.788 (0.409)	0.782 (0.413)	0.794 (0.405)	-0.012 [0.019]

Notes: Summary statistics are based on the restricted sample of children with non-missing observations for each outcome. Please refer to the text for sample restrictions. Observations are weighted using eighth grade parent panel weights (C1_7FP0). Robust standard errors are reported for differences in the means across genders ***significant at 1% **5% *10%.

Appendix Table A8: The Home Environment by Gender and Family Structure

	Single Mother			Both Biological Parents			Other Family Structure		
	Girls	Boys	Diff (Girls-Boys)	Girls	Boys	Diff (Girls-Boys)	Girls	Boys	Diff (Girls-Boys)
Mother < 20 at first birth	0.367 (0.483)	0.441 (0.497)	-0.074 [0.055]	0.164 (0.371)	0.159 (0.366)	0.005 [0.020]	0.475 (0.500)	0.437 (0.497)	0.038 [0.074]
Family SES: First Quintile (Lowest)	0.296 (0.457)	0.339 (0.474)	-0.043 [0.052]	0.095 (0.293)	0.124 (0.330)	-0.030* [0.016]	0.153 (0.361)	0.163 (0.370)	-0.010 [0.050]
2nd Quintile	0.231 (0.422)	0.295 (0.457)	-0.063 [0.051]	0.151 (0.359)	0.169 (0.375)	-0.017 [0.018]	0.218 (0.414)	0.291 (0.455)	-0.073 [0.070]
3rd Quintile	0.216 (0.412)	0.177 (0.382)	0.039 [0.044]	0.194 (0.395)	0.178 (0.383)	0.016 [0.019]	0.248 (0.433)	0.251 (0.434)	-0.002 [0.065]
4th Quintile	0.120 (0.325)	0.094 (0.293)	0.025 [0.030]	0.268 (0.443)	0.248 (0.432)	0.020 [0.021]	0.256 (0.437)	0.238 (0.427)	0.017 [0.062]
5th Quintile (highest)	0.137 (0.344)	0.095 (0.294)	0.041 [0.032]	0.292 (0.455)	0.281 (0.449)	0.011 [0.021]	0.125 (0.331)	0.056 (0.230)	0.069* [0.037]
Parental Input Composite (HOME Index)	-0.089 (1.071)	-0.257 (0.995)	0.168 [0.111]	0.248 (0.875)	0.067 (0.962)	0.181*** [0.044]	-0.116 (0.889)	-0.134 (0.900)	0.018 [0.121]
Indicator if HOME Index>median	0.267 (0.443)	0.225 (0.418)	0.042 [0.047]	0.338 (0.473)	0.299 (0.458)	0.040* [0.022]	0.219 (0.414)	0.170 (0.376)	0.049 [0.053]
Components of Parental Input Composite:									
Parent reads to child at least 3 times/week	0.722 (0.449)	0.750 (0.434)	-0.028 [0.050]	0.890 (0.313)	0.828 (0.378)	0.062*** [0.017]	0.815 (0.389)	0.718 (0.451)	0.098 [0.064]
Number of books (1: >=20 books)	0.818 (0.386)	0.723 (0.448)	0.096** [0.047]	0.915 (0.279)	0.884 (0.320)	0.030** [0.015]	0.870 (0.337)	0.885 (0.320)	-0.015 [0.051]
Took child to library in past month (1: Yes)	0.498 (0.501)	0.511 (0.501)	-0.013 [0.056]	0.615 (0.487)	0.561 (0.496)	0.054** [0.023]	0.424 (0.495)	0.508 (0.501)	-0.084 [0.072]
Took child to concert in past month (1: Yes)	0.460 (0.499)	0.374 (0.484)	0.086 [0.055]	0.424 (0.494)	0.371 (0.483)	0.053** [0.023]	0.398 (0.491)	0.316 (0.466)	0.082 [0.072]
Took child to museum in past month (1: Yes)	0.306 (0.461)	0.277 (0.448)	0.030 [0.050]	0.324 (0.468)	0.324 (0.468)	-0.000 [0.023]	0.346 (0.477)	0.284 (0.452)	0.062 [0.072]
Child participates in at least one activity	0.605 (0.489)	0.545 (0.499)	0.060 [0.054]	0.741 (0.438)	0.681 (0.466)	0.060*** [0.022]	0.530 (0.500)	0.620 (0.486)	-0.090 [0.075]
Spanked child last week	0.296 (0.457)	0.422 (0.495)	-0.127** [0.054]	0.257 (0.437)	0.251 (0.433)	0.007 [0.022]	0.256 (0.437)	0.349 (0.478)	-0.093 [0.070]
Emotional Supportiveness (WARMTH Index)	0.117	-0.097	0.214*	0.082	0.023	0.059	0.058	-0.175	0.233

	(0.918)	(1.093)	[0.114]	(0.963)	(1.017)	[0.051]	(1.023)	(1.075)	[0.172]
Indicator if WARMTH Index>median	0.531	0.440	0.090	0.502	0.486	0.016	0.475	0.436	0.038
	(0.500)	(0.497)	[0.056]	(0.500)	(0.500)	[0.024]	(0.500)	(0.497)	[0.074]
Components of Emotional Supportiveness Composite (scale of 0 to 3, 0: least warm response and 3: most warm response):									
Warm, close time with child	2.805	2.672	0.133*	2.707	2.699	0.008	2.655	2.659	-0.004
	(0.503)	(0.663)	[0.073]	(0.525)	(0.548)	[0.026]	(0.603)	(0.588)	[0.099]
Child likes me	2.881	2.798	0.083**	2.794	2.768	0.026	2.838	2.761	0.078
	(0.378)	(0.448)	[0.039]	(0.462)	(0.495)	[0.024]	(0.381)	(0.467)	[0.062]
Always show child love	2.484	2.503	-0.019	2.409	2.432	-0.023	2.439	2.460	-0.021
	(0.736)	(0.615)	[0.067]	(0.702)	(0.699)	[0.035]	(0.824)	(0.767)	[0.145]
Express affection	2.574	2.462	0.112	2.390	2.397	-0.007	2.480	2.395	0.085
	(0.706)	(0.805)	[0.082]	(0.759)	(0.760)	[0.036]	(0.763)	(0.740)	[0.108]
Too busy to play with child	2.615	2.698	-0.084	2.655	2.710	-0.054*	2.719	2.735	-0.016
	(0.778)	(0.646)	[0.080]	(0.678)	(0.603)	[0.029]	(0.586)	(0.635)	[0.089]
Hard to be warm to child	2.918	2.891	0.026	2.902	2.896	0.006	2.891	2.824	0.067
	(0.329)	(0.381)	[0.040]	(0.367)	(0.397)	[0.016]	(0.383)	(0.541)	[0.077]
Being parent harder than expected	1.351	1.306	0.045	1.448	1.388	0.059	1.421	1.355	0.067
	(1.199)	(1.168)	[0.131]	(1.208)	(1.207)	[0.059]	(1.245)	(1.203)	[0.184]
Child does things to bother me	2.374	2.185	0.189**	2.316	2.265	0.051	2.302	2.195	0.106
	(0.734)	(0.870)	[0.086]	(0.771)	(0.802)	[0.038]	(0.778)	(0.739)	[0.108]
Sacrifice to meet child's needs	1.926	2.029	-0.102	2.185	2.129	0.056	2.213	1.860	0.353*
	(1.135)	(1.147)	[0.120]	(1.032)	(1.052)	[0.049]	(1.105)	(1.195)	[0.183]
Feel trapped as parent	2.766	2.699	0.067	2.795	2.742	0.053*	2.647	2.739	-0.092
	(0.628)	(0.734)	[0.078]	(0.507)	(0.598)	[0.028]	(0.643)	(0.658)	[0.120]
Often feel angry with child	2.786	2.685	0.101*	2.754	2.720	0.035	2.643	2.602	0.041
	(0.456)	(0.559)	[0.057]	(0.499)	(0.501)	[0.024]	(0.649)	(0.568)	[0.110]
Child harder to care for	2.906	2.753	0.153**	2.823	2.762	0.061*	2.844	2.566	0.278**
	(0.394)	(0.653)	[0.068]	(0.520)	(0.639)	[0.033]	(0.537)	(0.863)	[0.116]
Child is more work than pleasure	2.740	2.502	0.238**	2.786	2.788	-0.002	2.760	2.675	0.084
	(0.640)	(0.948)	[0.103]	(0.559)	(0.579)	[0.028]	(0.489)	(0.700)	[0.102]
Parental Input Composite (K to G3)	-0.109	-0.388	0.279**	0.210	-0.010	0.220***	-0.279	-0.368	0.088
	(1.034)	(1.048)	[0.112]	(0.897)	(0.997)	[0.046]	(0.882)	(0.955)	[0.128]
Emotional Supportiveness Composite (K to G3)	0.121	-0.219	0.340***	0.086	-0.001	0.087	0.032	-0.361	0.393**
	(0.864)	(1.068)	[0.108]	(0.999)	(1.043)	[0.054]	(1.078)	(1.104)	[0.183]
Spanked Child Last Week (K to G3)	0.246	0.334	-0.088**	0.190	0.204	-0.015	0.225	0.285	-0.060
	(0.337)	(0.361)	[0.039]	(0.292)	(0.298)	[0.015]	(0.328)	(0.337)	[0.052]

Notes: Summary statistics are based on the restricted sample of children with non-missing observations for each outcome. Please refer to the text for sample restrictions.

Observations are weighted by eighth grade parent panel weights (C1_7FP0). Robust standard errors are reported for differences across gender ***significant at 1% level **5 % level *1% level.

Appendix Table A9: Time Spent on Childcare by Mother's Marital Status and Family Structure
Panel A: All Children Less than Five Years Old

	Time Use Survey Respondent Is:			
	Married Mother	Unmarried Mother	Mother in a Couple	Mother Not in a Couple
Son	0	-1.167	0	-1.4
	[0.365]	[0.517]**	[0.364]	[0.635]**
Constant	21.7	18.13	21.233	17.85
	[0.645]***	[0.925]***	[0.637]***	[1.190]***
Observations	9192	2824	9645	2371

Panel B: All Children Less than Three Years Old

	Time Use Survey Respondent Is:			
	Married Mother	Unmarried Mother	Mother in a Couple	Mother Not in a Couple
Son	-0.467	-2.1	-0.233	-2.333
	[0.546]	[0.757]***	[0.486]	[0.912]**
Constant	22.75	18.667	22.05	18.822
	[0.840]***	[1.177]***	[0.743]***	[1.462]***
Observations	5193	1565	5485	1273

Notes: Data source is American Time Use Survey (ATUS) 2003-2010. In Panel A, we restrict the sample to female respondents with at least one child under 5 years old in their roster (In Panel B, we restrict the sample to female respondents with at least one child under 3 years old). Respondents are categorized based on whether or not they are married, as well as based on whether or not they live in a couple. For each activity listed in the activity file, we merge in information about the identity of the children that were present while this activity was performed. This allows us to construct, for each child, the time spent by the respondent (either mother or father) with that child in childcare-related activities, which we label “total child care” and convert into hours per week. We adopt the same definition of “total child care” as that used in Guryan, Hurst and Kearney (2008).

The unit of observation is a child. Each column reports the estimates from a median regression analysis of the total hours spent per week on childcare on a dummy for son, as well as dummies for child age, the number of children under 18 in the same roster and a dummy indicating if the time-use survey was conducted over a weekend. Standard errors are in brackets. ***Significant at 1% level, **5% *10%.

Appendix Table A10: Oaxaca Decomposition by Family Structure

	Both				Both				Both			
	Single Mom	Biological Parents	Diff	% of gap explained	Single Mom	Biological Parents	Diff	% of gap explained	Single Mom	Biological Parents	Diff	% of gap explained
Gender Gap	0.865	0.412	0.453									
	Model (1)				Model (2)				Model (3)			
<i>Difference in Endowments:</i>												
Parental Inputs	0.048	0.004	0.044	9.8%	0.042	0.002	0.040	8.8%	0.029	0.001	0.028	6.2%
Parental Quality					0.042	0.004	0.038	8.4%	0.044	0.002	0.042	9.2%
Externalizing behavior in Fall-K									0.139	0.140	-0.002	-0.3%
Background controls	0.089	0.011	0.078	17.2%	0.073	0.012	0.061	13.4%	0.075	0.013	0.063	13.9%
<i>Difference in Coefficients:</i>												
Parental Inputs	0.215	0.156	0.059	13.0%	0.105	0.129	-0.024	-5.3%	0.148	0.095	0.053	11.7%
Parental Quality					0.329	0.061	0.268	59.1%	0.264	0.067	0.197	43.5%
Externalizing behavior in Fall-K									-0.005	-0.005	0.000	0.0%
	Outcome: Suspension in Grade 8											
	Both				Both				Both			
	Single Mom	Biological Parents	Diff	% of gap explained	Single Mom	Biological Parents	Diff	% of gap explained	Single Mom	Biological Parents	Diff	% of gap explained
Gender Gap	0.274	0.106	0.167									
	Model (1)				Model (2)				Model (3)			
<i>Difference in Endowments:</i>												
Parental Inputs	0.023	0.003	0.020	12.0%	0.020	0.001	0.019	11.2%	0.018	0.001	0.017	9.9%
Parental Quality					0.014	0.003	0.011	6.6%	0.015	0.003	0.012	7.0%
Externalizing behavior in Fall-K									0.024	0.019	0.005	3.0%
Background controls	0.018	0.003	0.015	9.0%	0.011	0.004	0.008	4.6%	0.012	0.004	0.008	4.8%
<i>Difference in Coefficients:</i>												
Parental Inputs	0.085	0.059	0.025	15.2%	0.099	0.046	0.052	31.2%	0.110	0.039	0.071	42.5%
Parental Quality					0.092	0.007	0.086	51.3%	0.081	0.007	0.074	44.1%
Externalizing behavior in Fall-K									-0.003	-0.003	0.000	0.0%

Notes: This table reports results from the Oaxaca decomposition of the relative contributions of endowments and coefficients (returns) in explaining the size of the difference in the gender gap across single mom and two biological parent families. These computations are based on coefficient estimates from the pooled regression (Table 5) and the gender-specific regressions (Tables 6A and 6B for Models 1 and 2, Table 7 for Model 3). Model (1) includes parental inputs (an indicator for less than the median of the HOME index, an indicator for less than the median of the warmth index and spanking child in the last week (all measured at Fall-K)). Model (2) additionally includes proxies for family quality (an indicator for mother's aged less than 20 at first birth and 5 dummies for family SES). Model (3) further includes a variable for the child's teacher reported externalizing behavior in Fall-K. All regressions control for background covariates that include race dummies (black, hispanic, asian, other), age at assessment at Fall-K, age-squared, birthweight, number of older brothers, younger brothers, older sisters, younger sisters and dummies for region and urbanicity. Sample restrictions are identical to Tables 5 and 6.

Appendix Table A11: Does Past Behavior Matter for Parental Inputs?

Panel A	HOME Index (Kindergarten)				HOME Index (Grade 3)				HOME Index (Grade 5)			
	Single Mom		Both Biological Parents		Single Mom		Both Biological Parents		Single Mom		Both Biological	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Externalizing Behavior in Fall-K	0.090	-0.065	-0.055	-0.058	0.006	-0.055	-0.022	-0.030	-0.039	-0.058	-0.048	-0.007
	[0.070]	[0.056]	[0.035]	[0.042]	[0.062]	[0.061]	[0.046]	[0.030]	[0.070]	[0.064]	[0.037]	[0.032]
Home Index (K)					0.406***	0.530***	0.418***	0.458***	0.304***	0.224***	0.314***	0.346***
					[0.055]	[0.053]	[0.034]	[0.031]	[0.056]	[0.085]	[0.033]	[0.031]
Background controls	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Observations	404	347	2,176	2,259	400	344	2,145	2,242	402	344	2,170	2,254
R-squared	0.156	0.174	0.141	0.129	0.259	0.387	0.211	0.253	0.206	0.162	0.170	0.212

Panel B	Parental Warmth Index (Kindergarten)				Parental Warmth Index (Grade 3)			
	Single Mom		Both Biological Parents		Single Mom		Both Biological Parents	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Externalizing Behavior in Fall-K	-0.047	-0.035	-0.099***	-0.177**	-0.175**	0.029	-0.107**	-0.110***
	[0.052]	[0.066]	[0.036]	[0.072]	[0.076]	[0.075]	[0.042]	[0.033]
Warmth Index (K)					0.278***	0.329***	0.447***	0.419***
					[0.061]	[0.070]	[0.036]	[0.035]
Background controls	yes	yes	yes	yes	yes	yes	yes	yes
Observations	390	345	2,183	2,274	376	334	2,155	2,243
R-squared	0.178	0.123	0.034	0.068	0.238	0.210	0.228	0.232

Panel C	Spanked Last Week (Kindergarten)				Spanked Last Week (Grade 3)				Spanked Last Week (Grade 5)			
	Single Mom		Both Biological Parents		Single Mom		Both Biological Parents		Single Mom		Both Biological	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
Externalizing Behavior in Fall-K	0.083***	0.005	0.057***	0.048***	-0.018	-0.006	0.003	0.025	0.037	0.031	0.007	0.035**
	[0.032]	[0.035]	[0.021]	[0.017]	[0.027]	[0.030]	[0.014]	[0.015]	[0.026]	[0.023]	[0.015]	[0.016]
Spanked last week (K)					0.207***	0.222***	0.119***	0.085***	0.139**	0.254***	0.054**	0.025
					[0.070]	[0.068]	[0.030]	[0.033]	[0.058]	[0.062]	[0.026]	[0.027]
Background controls					yes	yes	yes	yes	yes	yes	yes	yes
Observations	404	351	2,195	2,291	404	351	2,179	2,277	404	350	2,190	2,287
R-squared	0.125	0.098	0.048	0.075	0.110	0.177	0.040	0.031	0.231	0.187	0.050	0.034

Notes: Each column in each panel is a separate regression of the relevant outcome (indicated in each column) on externalizing behavior in Fall-K separately by family type and gender. Specifications where the outcome is measured in grade 3 or grade 5 also include controls for the relevant parental input in Fall-K. Background controls include race dummies (black, hispanic, asian, other), age at assessment at Fall-K, age-squared, birthweight, number of older brothers, younger brothers, older sisters, younger sisters and dummies for region and urbanicity. The sample is restricted to those with non-missing observations on family structure, mother's age at firstbirth, family SES, gender, the background covariates, fall-K and grade 5 teacher ratings of externalizing behavior and parental reports of school suspension in eighth grade. Observations are weighted using eighth grade parent panel weights. Robust standard errors reported. ***Significant at 1% level, **5% *10%.