

**Table A1. Descriptive statistics by sample inclusion criterion**

	Birth Sample	Birth and 2-month Sample	Birth through 1- year Sample	Birth through 2- year Sample	Analysis Sample
<i>Child characteristics:</i>					
Boy	0.514	0.512	0.510	0.507	0.508
Child sex missing	0.001	0.000	0.000	0.000	0.000
Low birthweight	0.050	0.049	0.047	0.046	0.038
Twin birth	0.031	0.032	0.032	0.032	0.017
First child	0.455	0.456	0.456	0.456	0.454
Number of siblings	0.817 (1.006)	0.803 (0.987)	0.792 (0.966)	0.784 (0.947)	0.784 (0.943)
Siblings data missing	0.010	0.010	0.010	0.009	0.009
<i>Household characteristics:</i>					
Mother's age (at 2-month interview)	31.347 (29.710)	30.925 (4.986)	31.148 (4.842)	31.347 (4.721)	31.379 (4.690)
Mother age missing	0.000	0.000	0.000	0.000	0.000
Single mother	0.044	0.048	0.037	0.031	0.029
Family structure missing	0.114	0.023	0.023	0.022	0.022
Less than baccalaureate	0.072	0.079	0.064	0.054	0.051
Baccalaureate	0.000	0.000	0.000	0.000	0.000
Greater than baccalaureate	0.528	0.582	0.620	0.650	0.658
Mother education missing	0.099	0.007	0.003	0.001	0.001
Mother employed	0.643	0.708	0.738	0.760	0.767
Mother employment missing	0.100	0.008	0.003	0.001	0.001
Equivalentized HH income	1641.269 (947.700)	1641.296 (994.875)	1682.552 (990.347)	1712.289 (989.208)	1720.476 (935.336)
Income missing	0.141	0.053	0.033	0.024	0.022
Own home	0.421	0.464	0.509	0.537	0.545
Own home missing	0.203	0.121	0.077	0.058	0.054
Immigrant mother	0.121	0.109	0.097	0.086	0.081
Second-generation mother	0.099	0.108	0.105	0.102	0.100
French native mother	0.780	0.783	0.799	0.812	0.819
Happy w/ pregnancy timing	0.754	0.755	0.758	0.759	0.762
Wanted pregnancy sooner	0.117	0.121	0.125	0.129	0.129
Wanted pregnancy later	0.096	0.094	0.089	0.086	0.085
Did not want pregnancy	0.025	0.023	0.021	0.019	0.018
Pregnancy reaction missing	0.009	0.007	0.007	0.007	0.007
Preference for crèche (at 2- month interview)	0.126	0.139	0.147	0.151	0.153
Preference for parental care (at 2-month interview)	0.568	0.625	0.636	0.634	0.632
<i>Contextual characteristics:</i>					
Female employment rate					
41% to 59%	0.328	0.326	0.318	0.311	0.310
>59% to 62%	0.317	0.321	0.321	0.324	0.326
>62% to 71%	0.344	0.343	0.350	0.354	0.354
Missing	0.012	0.011	0.011	0.011	0.010
Unemployment rate					
4.5% to 8.5%	0.304	0.311	0.323	0.330	0.333
>8.5% to 10%	0.360	0.357	0.357	0.357	0.355
>10% to 16.5%	0.332	0.328	0.316	0.310	0.308
Missing	0.004	0.004	0.004	0.003	0.003
Percent reduction in sample	--	9.2%	13.7%	11.5%	4.7%
Observations	18,146	16,466	14,209	12,574	11,987

Note: Proportion or mean (and standard deviation) presented.

**Table A2. Comparison of IV results with alternative specifications of crèche supply**

	Language		Motor Skills		Behavior	
	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE
<i>A: Instruments are ln crèche supply and spring birth (primary specification)</i>						
<i>Second stage</i>						
Crèche	0.333* (0.165)	0.344+ (0.199)	0.099 (0.167)	0.050 (0.208)	-0.358* (0.166)	-0.248 (0.206)
<i>First stage</i>						
Ln crèche supply	0.041*** (0.003)	0.038*** (0.003)	0.041*** (0.003)	0.038*** (0.003)	0.041*** (0.003)	0.038*** (0.003)
Spring birth	0.030** (0.009)	0.031*** (0.009)	0.028** (0.009)	0.031** (0.010)	0.030** (0.009)	0.032*** (0.009)
First-stage F	108.30	116.02	108.39	106.98	107.99	115.82
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.002	0.009	0.840	0.972	0.018	0.085
<i>B: Instruments are crèche supply and spring birth</i>						
<i>Second stage</i>						
Crèche	0.345* (0.155)	0.402* (0.196)	0.317* (0.161)	0.310 (0.208)	-0.360* (0.156)	-0.229 (0.203)
<i>First stage</i>						
Crèche supply	0.006*** (0.000)	0.005*** (0.000)	0.006*** (0.000)	0.005*** (0.000)	0.006*** (0.000)	0.005*** (0.000)
Spring birth	0.030*** (0.009)	0.032*** (0.009)	0.029** (0.009)	0.031** (0.010)	0.030*** (0.009)	0.032*** (0.009)
First-stage F	111.88	95.82	105.24	87.08	111.70	95.73
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.001	0.006	0.133	0.322	0.014	0.088
<i>C: Instruments are inverse hyperbolic sine crèche supply and spring birth</i>						
<i>Second stage</i>						
Crèche	0.332* (0.167)	0.338+ (0.200)	0.080 (0.169)	0.030 (0.209)	-0.359* (0.169)	-0.229 (0.203)
<i>First stage</i>						
Crèche supply	0.033*** (0.002)	0.031*** (0.002)	0.033*** (0.002)	0.031*** (0.002)	0.033*** (0.002)	0.031*** (0.002)
Spring birth	0.030** (0.009)	0.031*** (0.009)	0.028** (0.009)	0.031** (0.010)	0.030** (0.009)	0.032*** (0.009)
First-stage F	106.97	115.80	107.29	106.87	106.66	95.73
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.002	0.009	0.891	0.990	0.019	0.088
<i>D: Instruments are cube roots crèche supply and spring birth</i>						
<i>Second stage</i>						
Crèche	0.335* (0.164)	0.344+ (0.197)	0.091 (0.165)	0.043 (0.205)	-0.355* (0.165)	-0.247 (0.204)
<i>First stage</i>						
Crèche supply	0.046*** (0.003)	0.042*** (0.003)	0.046*** (0.003)	0.042*** (0.003)	0.046*** (0.003)	0.042*** (0.003)
Spring birth	0.030** (0.009)	0.031*** (0.009)	0.028** (0.009)	0.031** (0.010)	0.030** (0.009)	0.032*** (0.009)
First-stage F	112.90	119.19	113.33	109.86	112.58	118.99
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.001	0.009	0.858	0.979	0.018	0.084
<i>E: Instrument is ln crèche supply*spring birth (primary specification)</i>						
<i>Second stage</i>						
Crèche	1.074** (0.341)	1.026* (0.417)	0.246 (0.384)	0.210 (0.416)	-0.565 (0.406)	-0.509 (0.421)
<i>First stage</i>						
Crèche suppl*spring Birth	0.028*** (0.004)	0.026*** (0.004)	0.028*** (0.004)	0.026*** (0.005)	0.028*** (0.004)	0.026*** (0.004)

First-stage F	46.27	34.10	44.04	32.90	46.35	34.19
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.009	0.526	0.620	0.158	0.228
<i>F: Instrument is crèche supply*spring birth</i>						
<i>Second stage</i>						
Crèche	1.072*** (0.303)	1.109** (0.402)	0.413 (0.354)	0.393 (0.398)	-0.562 (0.364)	-0.534 (0.405)
<i>First stage</i>						
Crèche suppl* spring birth	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)	0.004*** (0.001)
First-stage F	54.47	33.76	50.94	32.34	54.53	33.81
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.003	0.247	0.328	0.118	0.188
<i>G: Instrument is inverse hyperbolic sine of crèche supply*spring birth</i>						
<i>Second stage</i>						
Crèche	1.077** (0.345)	1.023* (0.419)	0.233 (0.388)	0.198 (0.418)	-0.566 (0.410)	-0.508 (0.424)
<i>First stage</i>						
Crèche suppl* spring birth	0.023*** (0.003)	0.021*** (0.004)	0.023*** (0.003)	0.021*** (0.004)	0.023*** (0.003)	0.021*** (0.004)
First-stage F	45.38	33.92	43.23	32.74	45.45	34.01
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.010	0.551	0.642	0.162	0.232
<i>H: Instrument is cube roots of crèche supply*spring birth</i>						
<i>Second stage</i>						
Crèche	1.077** (0.338)	1.030* (0.414)	0.243 (0.381)	0.208 (0.412)	-0.564 (0.403)	-0.509 (0.418)
<i>First stage</i>						
HIS crèche supply* spring birth	0.031*** (0.005)	0.029*** (0.005)	0.031*** (0.005)	0.029*** (0.005)	0.031*** (0.005)	0.029*** (0.005)
First-stage F	46.84	34.59	44.74	33.44	46.91	34.68
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.008	0.528	0.619	0.156	0.225

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors are adjusted for intra-cluster correlation among children born in the same hospital in models that do not include birth hospital fixed effects. All models control for the full set of child, mother, and contextual covariates listed in Table 2.

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).

**Table A3. Descriptive statistics by birth quarter**

	Not Born in Spring	Born in Spring	t-test	Born in Summer	Born in Fall	Born in Winter
<i>Childcare type at age 1:</i>						
Crèche	0.160	0.202	***	0.158 <sup>a</sup>	0.164 <sup>a</sup>	0.159 <sup>a</sup>
Parental care	0.344	0.329		0.360 <sup>a</sup>	0.329 <sup>b</sup>	0.346
Assistante Maternelle	0.421	0.405		0.405	0.435 <sup>ab</sup>	0.423
Nanny in child's home	0.019	0.017		0.019	0.021	0.017
Informal care	0.055	0.047		0.058	0.051	0.055
<i>Child characteristics:</i>						
Boy	0.506	0.516		0.511	0.517	0.492 <sup>c</sup>
Low birthweight	0.037	0.045		0.039	0.033	0.040 <sup>a</sup>
Twin birth	0.017	0.016		0.020	0.014	0.016
First child	0.433	0.440		0.424	0.435	0.439
Younger sibling	0.075	0.101	***	0.073 <sup>a</sup>	0.069 <sup>a</sup>	0.082 <sup>ac</sup>
<i>Household characteristics:</i>						
Mother's age (at 2-month interview)	31.415 (4.714)	31.174 (4.546)	*	31.428 (4.663)	31.347 <sup>a</sup> (4.711)	31.466 (4.758)
Less than baccalaureate	0.166	0.163		0.163	0.156	0.177 <sup>c</sup>
Baccalaureate	0.413	0.399		0.418	0.404	0.416
Greater than baccalaureate	0.422	0.439		0.419	0.440 <sup>a</sup>	0.407 <sup>c</sup>
Equivalized income (Euros/month)	1818.444 (1262.517)	1841.811 (1239.923)		1840.690 (1379.368)	1819.957 (1378.134)	1798.345 (1026.222)
Income missing	0.017	0.024	*	0.019	0.016	0.017 <sup>a</sup>
Ever single mother	0.038	0.039		0.040	0.037	0.037
Immigrant mother	0.081	0.080		0.080	0.079	0.084
Second-generation mother	0.100	0.105		0.092	0.106	0.101
French native mother	0.819	0.814		0.828	0.815	0.815
Foreign language at home	0.044	0.036		0.048 <sup>a</sup>	0.042	0.043
Non-working	0.218	0.191	*	0.208	0.218 <sup>a</sup>	0.225 <sup>a</sup>
Working full time	0.471	0.503	*	0.487	0.473 <sup>ab</sup>	0.456 <sup>a</sup>
Working part time	0.311	0.306		0.305	0.309	0.318
Working private sector	0.452	0.450		0.453	0.451	0.451
Working public sector	0.274	0.304	**	0.281	0.270 <sup>a</sup>	0.272 <sup>a</sup>
Self-employed/other	0.056	0.056		0.058	0.060	0.051
Preference for crèche	0.149	0.173	**	0.147 <sup>a</sup>	0.148 <sup>a</sup>	0.152 <sup>a</sup>
Happy w/ pregnancy timing	0.775	0.759		0.782	0.751 <sup>b</sup>	0.747 <sup>ab</sup>
Wanted pregnancy sooner	0.115	0.132	*	0.117	0.135 <sup>ab</sup>	0.141 <sup>ab</sup>
Wanted pregnancy later	0.088	0.084		0.078	0.089	0.085
Did not want pregnancy	0.020	0.018		0.017	0.017	0.019
Pregnancy reaction missing	0.007	0.002	*	0.006	0.008 <sup>a</sup>	0.008 <sup>a</sup>
Moved in first year	0.160	0.185	**	0.150 <sup>a</sup>	0.160 <sup>b</sup>	0.169 <sup>a</sup>
Mother reported motor skills	0.110	0.110		0.106	0.121	0.103 <sup>c</sup>
<i>Contextual characteristics:</i>						
Female employment rate						
41% to 59%	0.313	0.291	+	0.304	0.320	0.314 <sup>a</sup>
>59% to 62%	0.323	0.342		0.320	0.321	0.327
>62% to 71%	0.353	0.357		0.366	0.348	0.348
Missing	0.011	0.010		0.010	0.011	0.010
Unemployment rate						
4.5% to 8.5%	0.332	0.343		0.346	0.322	0.329 <sup>b</sup>
>8.5% to 10%	0.354	0.360		0.345	0.360	0.357
>10% to 16.5%	0.311	0.294		0.306	0.315	0.312
Missing	0.003	0.003		0.003	0.004	0.002
<i>Instruments:</i>						
Spring birth	--	--		--	--	--
Local crèche supply (per 100 < age 3)	11.687 (10.658)	11.905 (10.598)		11.668 (10.541)	11.538 (10.658)	11.840 (10.757)
Local crèche supply* spring birth	--	11.905 (10.598)		--	--	--
Percent of sample	85.2	14.8		26.0	28.4	30.9

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Observations	10223	1764	3112	3410	3701
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Note: 11,987 observations for families with no missing data on at least one outcome variable (language, motor skills, or behavior). Proportion or mean (and standard deviation) presented.

<sup>a</sup>Differs from “Born in Spring” at  $p < .05$ .

<sup>b</sup>Differs from “Born in Summer” at  $p < .05$ .

<sup>c</sup>Differs from “Born in Fall” at  $p < .05$ .

**Table A4. Descriptive statistics by Crèche supply and Crèche supply\*spring birth**

	Crèche supply = 0	Crèche supply = 1-15	Crèche supply > 16	Crèche supply* spring birth = 0	Crèche supply* spring birth = 1-15	Crèche supply* spring birth > 16
<i>Childcare type at age 1:</i>						
Crèche	0.068	0.164 <sup>a</sup>	0.254 <sup>ab</sup>	0.156	0.214 <sup>a</sup>	0.297 <sup>ab</sup>
Parental care	0.351	0.364	0.315 <sup>ab</sup>	0.343	0.366	0.304 <sup>ab</sup>
Assistante Maternelle	0.520	0.406 <sup>a</sup>	0.344 <sup>ab</sup>	0.429	0.364 <sup>a</sup>	0.303 <sup>ab</sup>
Nanny in child's home	0.006	0.009	0.039 <sup>ab</sup>	0.018	0.007 <sup>a</sup>	0.037 <sup>ab</sup>
Informal care	0.055	0.057	0.049	0.053	0.050	0.059
<i>Child characteristics:</i>						
Boy	0.524	0.493 <sup>a</sup>	0.506	0.507	0.477	0.547 <sup>b</sup>
Low birthweight	0.037	0.045	0.033 <sup>b</sup>	0.037	0.043	0.051
Twin birth	0.014	0.022 <sup>a</sup>	0.014 <sup>b</sup>	0.016	0.026	0.011 <sup>b</sup>
First child	0.397	0.428 <sup>a</sup>	0.472 <sup>ab</sup>	0.432	0.407	0.497 <sup>ab</sup>
Younger sibling	0.069	0.082 <sup>a</sup>	0.085 <sup>a</sup>	0.076	0.087	0.121 <sup>ab</sup>
<i>Household characteristics:</i>						
Mother's age (at 2-month interview)	31.092 (4.541)	31.016 (4.735)	31.948 <sup>ab</sup> (4.723)	31.377 (4.695)	31.017 (4.487)	31.747 <sup>b</sup> (4.766)
Less than baccalaureate	0.182	0.182	0.136 <sup>ab</sup>	0.166	0.178	0.134 <sup>ab</sup>
Baccalaureate	0.492	0.420 <sup>a</sup>	0.331 <sup>ab</sup>	0.415	0.409	0.337 <sup>ab</sup>
Greater than baccalaureate	0.326	0.397 <sup>a</sup>	0.533 <sup>ab</sup>	0.419	0.414	0.530 <sup>ab</sup>
Equivalized income (Euros/month)	1682.752 (965.244)	1711.407 (905.944)	2039.446 <sup>ab</sup> (1658.533)	1814.756 (1287.823)	1728.325 (822.615)	2025.921 <sup>ab</sup> (1070.311)
Income missing	0.014	0.020	0.020	0.018	0.024	0.026
Ever single mother	0.020	0.048 <sup>a</sup>	0.045 <sup>a</sup>	0.037	0.044	0.054 <sup>a</sup>
Immigrant mother	0.029	0.096 <sup>a</sup>	0.112 <sup>ab</sup>	0.079	0.094	0.110 <sup>a</sup>
Second-generation mother	0.063	0.117 <sup>a</sup>	0.118 <sup>a</sup>	0.098	0.135 <sup>a</sup>	0.123 <sup>a</sup>
French native mother	0.908	0.787 <sup>a</sup>	0.770 <sup>ab</sup>	0.824	0.771 <sup>a</sup>	0.767 <sup>a</sup>
Foreign language at home	0.016	0.044 <sup>a</sup>	0.065 <sup>ab</sup>	0.043	0.041	0.045
Non-working	0.179	0.237 <sup>a</sup>	0.223 <sup>a</sup>	0.214	0.207	0.217
Working full time	0.482	0.464	0.482	0.474	0.489	0.500
Working part time	0.339	0.300 <sup>a</sup>	0.295 <sup>a</sup>	0.312	0.304	0.283
Working private sector	0.465	0.444	0.447	0.453	0.439	0.438
Working public sector	0.298	0.275 <sup>a</sup>	0.265 <sup>a</sup>	0.277	0.311	0.267
Self-employed/other	0.058	0.044 <sup>a</sup>	0.065 <sup>b</sup>	0.056	0.043	0.078 <sup>ab</sup>
Preference for crèche	0.755	0.762	0.767	0.760	0.769	0.783
Happy w/ pregnancy timing	0.145	0.120 <sup>a</sup>	0.123 <sup>a</sup>	0.131	0.116	0.109
Wanted pregnancy sooner	0.079	0.093 <sup>a</sup>	0.082	0.084	0.091	0.082
Wanted pregnancy later	0.019	0.019	0.016	0.017	0.024	0.020
Did not want pregnancy	0.002	0.005	0.012 <sup>ab</sup>	0.007	0.000	0.006
Pregnancy reaction missing	0.085	0.156 <sup>a</sup>	0.208 <sup>ab</sup>	0.147	0.179 <sup>a</sup>	0.222 <sup>ab</sup>
Moved in first year	0.144	0.179 <sup>a</sup>	0.169 <sup>a</sup>	0.161	0.195 <sup>a</sup>	0.193 <sup>a</sup>
Mother reported motor skills	0.088	0.128 <sup>a</sup>	0.112 <sup>ab</sup>	0.109	0.135	0.108
<i>Contextual characteristics:</i>						
Female employment rate						
41% to 59%	0.350	0.369	0.223 <sup>ab</sup>	0.314	0.354 <sup>a</sup>	0.199 <sup>ab</sup>
>59% to 62%	0.369	0.314 <sup>a</sup>	0.299 <sup>a</sup>	0.326	0.332	0.321
>62% to 71%	0.273	0.308 <sup>a</sup>	0.464 <sup>ab</sup>	0.350	0.309 <sup>a</sup>	0.464 <sup>ab</sup>
Missing	0.008	0.009	0.014 <sup>ab</sup>	0.010	0.005	0.016
Unemployment rate						
4.5% to 8.5%	0.385	0.325 <sup>a</sup>	0.296 <sup>ab</sup>	0.336	0.323	0.301
>8.5% to 10%	0.287	0.286	0.475 <sup>ab</sup>	0.350	0.296 <sup>a</sup>	0.489 <sup>ab</sup>
>10% to 16.5%	0.324	0.384 <sup>a</sup>	0.228 <sup>ab</sup>	0.311	0.376 <sup>a</sup>	0.210 <sup>ab</sup>
Missing	0.003	0.005	0.001 <sup>ab</sup>	0.003	0.005	0.000
<i>Instruments:</i>						
Spring birth	0.142	0.152	0.148	0.050	--	--
Local crèche supply (per 100 < age 3)	--	10.127 (3.556)	23.235 <sup>b</sup> (6.844)	11.106 (10.696)	10.323 (3.545)	23.231 <sup>ab</sup> (6.920)

Local crèche supply*	--	1.567	3.427 <sup>b</sup>	--	10.323	23.231 <sup>b</sup>
spring birth	--	(3.953)	(8.656)	--	(3.545)	(6.920)
Percent of sample	31.4	32.2	36.4	89.7	4.9	5.4
Observations	3767	3854	4366	10758	585	644

Note: 11,987 observations for families with no missing data on at least one outcome variable (language, motor skills, or behavior). Proportion or mean (and standard deviation) presented.

<sup>a</sup>Differs from “0” at p<.05.

<sup>b</sup>Differs from “1-15” at p<.05.

**Table A5. Reduced form estimates**

	Language		Motor Skills		Behavior	
	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE
<i>A: Full sample</i>						
<i>Instruments are ln crèche supply and spring birth</i>						
Ln crèche supply	0.009 (0.007)	0.008 (0.008)	0.004 (0.007)	0.002 (0.008)	-0.012+ (0.007)	-0.006 (0.008)
Spring birth	0.078** (0.024)	0.072** (0.025)	0.005 (0.024)	0.001 (0.026)	-0.059* (0.027)	-0.055* (0.026)
Joint sign. (p-value)	0.002	0.009	0.840	0.972	0.018	0.085
<i>Instrument is crèche supply*spring birth</i>						
Ln crèche supply *spring birth	0.030*** (0.008)	0.026** (0.010)	0.007 (0.011)	0.005 (0.011)	-0.016 (0.011)	-0.013 (0.011)
<i>B: Employed-mother sample</i>						
<i>Instruments are ln crèche supply and spring birth</i>						
Ln crèche supply	0.007 (0.008)	0.006 (0.009)	0.003 (0.008)	-0.001 (0.009)	-0.015* (0.008)	-0.007 (0.009)
Spring birth	0.092*** (0.027)	0.088** (0.027)	0.016 (0.026)	0.019 (0.029)	-0.071* (0.028)	-0.065* (0.028)
Joint sign. (p-value)	0.002	0.004	0.780	0.808	0.003	0.052
<i>Instruments are ln crèche supply and spring birth</i>						
Ln crèche supply *spring birth	0.038*** (0.010)	0.035** (0.011)	0.013 (0.012)	0.013 (0.012)	-0.020+ (0.012)	-0.015 (0.012)
<i>C: Non-employed-mother sample</i>						
<i>Instruments are ln crèche supply and spring birth</i>						
Ln crèche supply	0.020 (0.018)	0.018 (0.021)	0.010 (0.017)	0.013 (0.020)	0.002 (0.018)	-0.012 (0.022)
Spring birth	0.022 (0.065)	0.016 (0.067)	-0.042 (0.064)	-0.056 (0.064)	-0.009 (0.065)	-0.011 (0.071)
Joint sign. (p-value)	0.495	0.649	0.685	0.546	0.984	0.845
<i>Instruments are ln crèche supply and spring birth</i>						
Ln crèche supply *spring birth	0.004 (0.025)	0.001 (0.027)	-0.016 (0.026)	-0.016 (0.026)	-0.001 (0.025)	-0.007 (0.028)

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors in the IV models, which do not include birth hospital fixed effects, are adjusted for intra-cluster correlation among children born in the same hospital. All models control for the full set of child, mother, and contextual covariates listed in Table 2, as well as birth hospital fixed effects. First stage instruments are local crèche supply and child born in spring (relative to summer, fall, and winter).

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).



**Table A6. Comparison of alternative instruments**

	Language		Motor Skills		Behavior	
	Without Birth	With Birth	Without Birth	With Birth	Without Birth	With Birth
	Hospital FE	Hospital FE	Hospital FE	Hospital FE	Hospital FE	Hospital FE
<i>A: Instruments are in crèche supply and spring birth (primary specification)</i>						
<i>Second stage</i>						
Crèche	0.333*	0.344+	0.099	0.050	-0.358*	-0.248
	(0.165)	(0.199)	(0.167)	(0.208)	(0.166)	(0.206)
<i>First stage</i>						
Ln crèche supply	0.041***	0.038***	0.041***	0.038***	0.041***	0.038***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Spring birth	0.030**	0.031***	0.028**	0.031**	0.030**	0.032***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
First-stage F	108.30	116.02	108.39	106.98	107.99	115.82
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.002	0.009	0.840	0.972	0.018	0.085
<i>B: Instruments are in crèche supply, spring birth and in crèche supply*spring birth</i>						
<i>Second stage</i>						
Crèche	0.331*	0.336+	0.113	0.076	-0.321+	-0.205
	(0.162)	(0.195)	(0.165)	(0.204)	(0.164)	(0.202)
<i>First stage</i>						
Ln crèche supply	0.038***	0.035***	0.038***	0.035***	0.038***	0.035***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Spring birth	0.000	0.001	-0.004	-0.002	0.000	0.001
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Ln crèche supply *spring birth	0.015**	0.016*	0.017**	0.017**	0.016**	0.016*
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
First-stage F	72.59	77.52	72.93	71.65	72.39	77.39
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.003	0.023	0.846	0.884	0.018	0.100
<i>C: Instrument is in crèche supply*spring birth (primary specification)</i>						
<i>Second stage</i>						
Crèche	1.074**	1.026*	0.246	0.210	-0.565	-0.509
	(0.341)	(0.417)	(0.384)	(0.416)	(0.406)	(0.421)
<i>First stage</i>						
Crèche supply* spring birth	0.028***	0.026***	0.028***	0.026***	0.028***	0.026***
	(0.004)	(0.004)	(0.004)	(0.005)	(0.004)	(0.004)
First-stage F	46.27	34.10	44.04	32.90	46.35	34.19
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.009	0.526	0.620	0.158	0.228
<i>D: Instruments are crèche supply median and spring birth</i>						
<i>Second stage</i>						
Crèche	0.584**	0.688*	0.381+	0.372	-0.389+	-0.264
	(0.190)	(0.269)	(0.201)	(0.278)	(0.200)	(0.274)
<i>First stage</i>						
Crèche supply median	0.097***	0.077***	0.097***	0.078***	0.097***	0.077***
	(0.010)	(0.008)	(0.011)	(0.009)	(0.010)	(0.008)
Spring birth	0.031***	0.032***	0.030**	0.032**	0.031***	0.033***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
First-stage F	50.90	50.66	48.30	47.36	50.95	50.69
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.000	0.003	0.162	0.385	0.033	0.103
<i>E: Instruments are crèche supply median, spring birth, and crèche supply median*spring birth</i>						
<i>Second stage</i>						
Crèche	0.580**	0.679*	0.392+	0.396	-0.378+	-0.252
	(0.189)	(0.267)	(0.201)	(0.277)	(0.199)	(0.273)
<i>First stage</i>						
Crèche supply median	0.094***	0.074***	0.095***	0.075***	0.094***	0.074***
	(0.010)	(0.009)	(0.011)	(0.009)	(0.010)	(0.009)
Spring birth	0.024*	0.025*	0.024*	0.025*	0.024*	0.025*

	(0.010)	(0.010)	(0.011)	(0.011)	(0.010)	(0.010)
Crèche supply	0.020	0.020	0.016	0.019	0.020	0.020
med.*spring birth	(0.018)	(0.021)	(0.019)	(0.021)	(0.018)	(0.021)
First-stage F	34.10	33.84	32.31	31.65	34.13	33.87
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.001	0.010	0.200	0.384	0.059	0.194

*F: Instrument is crèche supply median\*spring birth*

*Second stage*

Crèche	0.976**	1.040*	0.621	0.642	-0.531	-0.533
	(0.344)	(0.512)	(0.435)	(0.527)	(0.435)	(0.522)

*First stage*

Crèche supply*	0.098***	0.080***	0.094***	0.079***	0.098***	0.080***
Spring birth	(0.015)	(0.017)	(0.016)	(0.018)	(0.015)	(0.017)
First-stage F	39.79	21.15	34.43	19.56	39.83	21.17
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.002	0.030	0.155	0.217	0.213	0.307

*G: Instruments are >0 crèche supply and spring birth*

*Second stage*

Crèche	0.353+	0.330	-0.103	-0.157	-0.360+	-0.281
	(0.190)	(0.213)	(0.191)	(0.223)	(0.190)	(0.221)

*First stage*

Crèche supply > 0	0.101***	0.100***	0.102***	0.100***	0.101***	0.099***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Spring birth	0.030**	0.031***	0.029**	0.031**	0.030**	0.031***
	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)	(0.009)
First-stage F	97.09	112.65	99.12	104.89	96.78	112.43
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.002	0.011	0.795	0.762	0.030	0.082

*H: Instruments are >0 crèche supply, spring birth, and >0 crèche supply \*spring birth*

*Second stage*

Crèche	0.343+	0.312	-0.084	-0.124	-0.307	-0.222
	(0.185)	(0.208)	(0.189)	(0.218)	(0.188)	(0.217)

*First stage*

Crèche supply > 0	0.095***	0.093***	0.095***	0.092***	0.095***	0.093***
	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)
Spring birth	-0.001	-0.000	-0.006	-0.005	-0.001	-0.001
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
Crèche supply > 0* spring birth	0.045**	0.046**	0.050**	0.052**	0.045**	0.046**
	(0.016)	(0.017)	(0.016)	(0.017)	(0.016)	(0.017)
First-stage F	65.69	75.41	68.19	70.55	65.50	75.27
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.005	0.029	0.878	0.816	0.026	0.077

*I: Instrument is >0 crèche supply\*spring birth*

*Second stage*

Crèche	1.092**	1.000*	0.124	0.097	-0.563	-0.499
	(0.372)	(0.429)	(0.408)	(0.428)	(0.431)	(0.434)

*First stage*

Crèche supply*	0.074***	0.070***	0.074***	0.071***	0.074***	0.070***
Spring birth	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)
First-stage F	40.52	33.64	39.32	32.95	40.60	33.74
K-P LM <sup>a</sup>	0.000	0.000	0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>	0.001	0.014	0.763	0.823	0.186	0.252

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors are adjusted for intra-cluster correlation among children born in the same hospital in models that do not include birth hospital fixed effects. All models control for the full set of child, mother, and contextual covariates listed in Table 2.

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).

**Table A7. OLS and IV results with no controls**

	OLS		IV: Crèche Supply & Spring		IV: Crèche Supply*Spring	
	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE
<i>A: Language</i>						
Crèche	0.275*** (0.023)	0.256*** (0.022)	0.504*** (0.117)	0.428* (0.168)	0.952*** (0.246)	0.961** (0.350)
First-stage F			140.79	150.09	65.83	43.87
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.000	0.001	0.000	0.004
<i>B: Motor skills</i>						
Crèche	0.105*** (0.023)	0.088*** (0.026)	0.110 (0.118)	0.106 (0.170)	0.135 (0.299)	0.121 (0.354)
First-stage F			141.98	146.30	64.20	42.55
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.581	0.737	0.654	0.735
<i>C: Behavior</i>						
Crèche	-0.087*** (0.023)	-0.071** (0.025)	-0.357** (0.112)	-0.214 (0.170)	-0.486+ (0.292)	-0.427 (0.347)
First-stage F			140.61	149.97	65.91	43.94
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.002	0.105	0.093	0.221

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors from models that do not include birth hospital fixed effects are adjusted for intra-cluster correlation among children born in the same hospital. First stage instruments are (1) local crèche supply and child born in spring (relative to summer, fall, and winter) and (2) the local crèche supply\*child born in spring interaction.

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).

**Table A8. OLS and IV results, robustness checks**

	Language		Motor Skills		Behavior	
	OLS with Birth		OLS with Birth		OLS with Birth	
	Hospital FE.	IV	Hospital FE.	IV	Hospital FE.	IV
<i>A: Parental preference for crèche at 2-month interview</i>						
<i>Preference for crèche</i>						
Crèche	0.085+	0.039	0.088	0.283	-0.101+	-0.385+
	(0.047)	(0.221)	(0.058)	(0.257)	(0.054)	(0.217)
First-stage F		32.91		29.42		32.91
K-P LM <sup>a</sup>		0.000		0.000		0.000
A-R Wald <sup>b</sup>		0.731		0.499		0.201
Observations	1,828	1,828	1,726	1,726	1,828	1,828
<i>No preference for crèche</i>						
Crèche	0.217***	0.415+	0.119***	0.031	-0.063*	-0.359+
	(0.028)	(0.216)	(0.032)	(0.206)	(0.032)	(0.204)
First-stage F		87.01		86.14		86.75
K-P LM <sup>a</sup>		0.000		0.000		0.000
A-R Wald <sup>b</sup>		0.003		0.960		0.023
Observations	10,158	10,158	9,464	9,464	10,155	10,155
<i>B: Moved by age 1</i>						
<i>Moved</i>						
Crèche	0.235***	-0.362	0.108	-0.184	0.017	-0.452
	(0.063)	(0.520)	(0.072)	(0.513)	(0.070)	(0.476)
First-stage F		16.44		15.74		16.44
K-P LM <sup>a</sup>		0.000		0.000		0.000
A-R Wald <sup>b</sup>		0.707		0.710		0.563
Observations	1,967	1,967	1,792	1,792	1,967	1,967
<i>Did not move</i>						
Crèche	0.172***	0.434*	0.111***	0.157	-0.076**	-0.361*
	(0.026)	(0.184)	(0.029)	(0.177)	(0.029)	(0.179)
First-stage F		98.66		95.20		98.29
K-P LM <sup>a</sup>		0.000		0.000		0.000
A-R Wald <sup>b</sup>		0.000		0.661		0.019
Observations	10,019	10,019	9,398	9,398	10,016	10,016

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors from models that do not include birth hospital fixed effects are adjusted for intra-cluster correlation among children born in the same hospital. All models control for the full set of child, mother, and contextual covariates listed in Table 2. OLS models also control for birth hospital fixed effects. First stage instruments are local crèche supply and child born in spring (relative to summer, fall, and winter).

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).

**Table A9. OLS and IV results for falsification outcomes**

	OLS		IV: Crèche Supply & Spring		IV: Crèche Supply*Spring	
	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE	Without Birth Hospital FE	With Birth Hospital FE
<i>A: Birthweight</i>						
Crèche	-0.014 (0.028)	-0.020 (0.026)	-0.190 (0.173)	-0.169 (0.196)	-0.311 (0.365)	-0.304 (0.409)
First-stage F			106.59	113.84	44.91	34.04
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.388	0.564	0.392	0.465
<i>B: 1-minute APGAR score</i>						
Crèche	-0.006 (0.025)	-0.024 (0.027)	0.097 (0.192)	-0.067 (0.191)	0.258 (0.398)	0.281 (0.418)
First-stage F			106.02	114.64	42.56	32.48
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.597	0.426	0.519	0.504
<i>C: 5-minute APGAR score</i>						
Crèche	0.021 (0.026)	0.022 (0.027)	0.033 (0.190)	0.046 (0.207)	0.212 (0.395)	0.430 (0.444)
First-stage F			105.60	114.35	43.76	33.16
K-P LM <sup>a</sup>			0.000	0.000	0.000	0.000
A-R Wald <sup>b</sup>			0.499	0.313	0.592	0.335

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroscedasticity robust standard error) presented. Standard errors from models that do not include birth hospital fixed effects are adjusted for intra-cluster correlation among children born in the same hospital. All models control for the full set of child, mother, and contextual covariates listed in Table 2. OLS models also control for birth hospital fixed effects. First stage instruments are (1) local crèche supply and child born in spring (relative to summer, fall, and winter) and (2) the local crèche supply\*child born in spring interaction.

+ p<.10, \* p<.05, \*\* p<.01, \*\*\* p<.001.

<sup>a</sup>Kleibergen-Papp underidentification test, rank LM statistic (p-value).

<sup>b</sup>Anderson-Rubin weak instrument robustness test, Wald statistic (p-value).

**Table A10. OLS results by child characteristics**

	Language	Motor Skills	Behavior
<i>A: Parity</i>			
<i>Higher-order child</i>			
Crèche	0.198*** (0.035)	0.093* (0.040)	-0.086* (0.040)
Observations	6,429	6,003	6,427
<i>First child</i>			
Crèche	0.163*** (0.033)	0.125*** (0.038)	-0.047 (0.037)
Observations	5,447	5,084	5,446
<i>B: Child sex</i>			
<i>Girl</i>			
Crèche	0.169*** (0.031)	0.131*** (0.038)	-0.053 (0.041)
Observations	5,901	5,502	5,899
<i>Boy</i>			
Crèche	0.190*** (0.036)	0.095* (0.038)	-0.063+ (0.038)
Observations	6,085	5,688	6,084

Note: 11,986 observations for language, 11,190 for motor skills, and 11,983 for behavior. Coefficient (and White-Huber heteroskedasticity robust standard error) presented. All models control for the full set of child, mother, and contextual covariates listed in Table 2, as well as birth hospital fixed effects.

+  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .