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Child Protection and Child Outcomes: Measuring the Effects of Foster Care.

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Joseph J. Doyle

Institutions: Massachusetts Institute of Technology

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Table A1: Summary Statistics

Variable	Delinquency Sample				Teen Motherhood Sample				Employment and Earnings Sample				
	Mean	Std Dev	Max	Min	Mean	Std Dev	Max	Min	Mean	Std Dev	Max	Min	
Foster Care Placement	0.27	0.44	0	1	0.21	0.40	0	1	0.23	0.42	0	1	
Initial physician	0.12	0.33	0	1	0.10	0.29	0	1	0.10	0.30	0	1	
Reporter school	0.13	0.33	0	1	0.16	0.37	0	1	0.14	0.35	0	1	
police	0.13	0.34	0	1	0.17	0.38	0	1	0.19	0.39	0	1	
family	0.29	0.46	0	1	0.22	0.42	0	1	0.22	0.42	0	1	
neighbor	0.06	0.23	0	1	0.07	0.25	0	1	0.06	0.24	0	1	
other government	0.09	0.29	0	1	0.11	0.32	0	1	0.14	0.34	0	1	
anonymous	0.15	0.35	0	1	0.14	0.34	0	1	0.13	0.33	0	1	
other reporter	0.03	0.16	0	1	0.03	0.17	0	1	0.03	0.16	0	1	
Age at Report	age	11.3	2.5	5	15	11.1	2.8	4	15	12.4	2.5	6	16
Sex	boy	0.47	0.50	0	1	0.00	0.00	0	0	0.48	0.50	0	1
Race	white	0.11	0.31	0	1	0.42	0.49	0	1	0.42	0.49	0	1
African American	0.76	0.43	0	1	0.49	0.50	0	1	0.49	0.50	0	1	
Hispanic	0.12	0.32	0	1	0.08	0.27	0	1	0.07	0.26	0	1	
other race/ethnicity	0.01	0.10	0	1	0.01	0.11	0	1	0.01	0.11	0	1	
Allegation	physical abuse	0.17	0.38	0	1	0.19	0.39	0	1	0.20	0.40	0	1
substantial risk of harm	0.24	0.43	0	1	0.31	0.46	0	1	0.29	0.45	0	1	
other abuse	0.02	0.15	0	1	0.02	0.14	0	1	0.02	0.15	0	1	
lack of supervision	0.37	0.48	0	1	0.30	0.46	0	1	0.30	0.46	0	1	
environmental neglect	0.15	0.36	0	1	0.13	0.33	0	1	0.13	0.33	0	1	
other neglect	0.04	0.20	0	1	0.05	0.21	0	1	0.07	0.25	0	1	
Location	Cook County	1.00	0.00	1	1	0.47	0.50	0	1	0.47	0.50	0	1
Outcome	delinquency	0.17	0.38	0	1
teen motherhood	.	.	.	.	0.35	0.48	0	1	.	.	.	.
fraction of quarters working	.	.	.	.	.	.	.	.	0.32	0.41	0	1
quarterly earnings	.	.	.	.	.	.	.	.	1044	2134	0	64227
Observations		15039			20091				30415				

Table A2: C.M. Assignment & Characteristics of Children Placed in Foster Care (R=1)

	Sample		
	Delinquency (1)	Teen Motherhood (2)	Employment (3)
A. Dep. Variable: CM Removal Differential			
F-statistic of joint significance	0.85	1.05	1.05
p-value	0.750	0.391	0.386
Mean of Dep. Var.	0.0095	0.0116	0.0070
Number of Case Managers	387	649	782
Observations	4077	4127	6876
B. Dep. Variable: Placement with a Relative			
Case Manager Removal Differential	0.026 (0.109)	0.014 (0.103)	-0.025 (0.141)
Mean of Dep. Var.	0.64	0.53	0.47
Observations	4077	4127	6876
C. Dep. Variable: Years in Foster Care			
Case Manager Removal Differential	-0.965 (0.806)	-0.193 (0.816)	-0.064 (0.930)
Mean of Dep. Var.	5.17	4.13	3.71
Observations	4077	4127	6876

Panel A: Statistics from a regression of the case manager removal differential on full controls analogous to Table 3.

F-statistic uses standard errors clustered at the case manager level.

Panel B: Marginal effects from a probit model are reported.

Panel C: OLS coefficients are reported.

Panels B & C: No controls are used, as the tests aim to compare raw child characteristics across case managers.

Standard errors are clustered at the case manager level.

Table A3: Child Characteristics and CM Assignment (all variables & samples)

Dependent Variable:		Delinquency Sample			Teen Motherhood Sample			Employment Sample			
		Case Manager Removal Differential			Case Manager Removal Differential			Case Manager Removal Differential			
Variable		Coeff.	t	p-value	Coeff.	t	p-value	Coeff.	t	p-value	
Initial Reporter (Other Reporter Excluded)	physician	-0.006	-0.81	0.416	0.005	1.02	0.309	-0.001	-0.23	0.816	
	school	-0.005	-0.74	0.457	-0.001	-0.21	0.836	-0.002	-0.51	0.608	
	police	-0.008	-1.11	0.269	0.006	1.14	0.255	-0.004	-1.10	0.272	
	family	-0.003	-0.52	0.605	0.000	0.02	0.98	-0.004	-1.16	0.246	
	neighbor	-0.005	-0.73	0.464	0.006	1.11	0.268	-0.004	-0.94	0.349	
	other government	-0.007	-0.96	0.339	0.002	0.32	0.752	-0.004	-0.94	0.350	
	anonymous	-0.007	-1.07	0.287	0.000	-0.04	0.97	-0.005	-1.41	0.160	
Age at Report (Youngest age Excluded)	age 5	.	.	.	-0.006	-0.57	0.566	.	.	.	
	age 6	0.005	0.41	0.679	-0.006	-0.58	0.561	.	.	.	
	age 7	0.012	1.07	0.284	-0.007	-0.65	0.518	0.008	1.23	0.219	
	age 8	0.009	0.90	0.367	-0.010	-0.98	0.326	0.009	1.47	0.142	
	age 9	0.015	1.42	0.156	-0.009	-0.9	0.368	0.010	1.55	0.123	
	age 10	0.008	0.72	0.470	-0.011	-1.07	0.284	0.010	1.55	0.121	
	age 11	0.009	0.94	0.346	-0.013	-1.33	0.185	0.010	1.61	0.109	
	age 12	0.010	0.99	0.324	-0.010	-1.06	0.29	0.011	1.66	0.097	
	age 13	0.013	1.26	0.207	-0.012	-1.26	0.208	0.012	1.98	0.048	
	age 14	0.009	0.91	0.366	-0.012	-1.18	0.238	0.011	1.80	0.072	
	age 15	0.009	0.89	0.373	-0.008	-0.85	0.397	0.013	1.99	0.047	
	age 16	.	.	.	.	.	.	0.012	1.93	0.053
	Sex	boy	-0.002	-1.20	0.232	.	.	.	-0.001	-1.24	0.215
	Race/Ethnicity (Other race Excluded)	white	-0.014	-1.32	0.186	0.000	-0.02	0.982	0.002	0.43	0.670
		African American	-0.015	-1.22	0.224	-0.006	-0.76	0.447	0.002	0.31	0.753
		Hispanic	-0.012	-0.88	0.377	0.009	0.94	0.348	0.003	0.48	0.632
Allegation (Other neglect Excluded)	physical abuse	-0.002	-0.43	0.668	-0.004	-0.99	0.322	0.004	1.99	0.047	
	substantial risk of harm	-0.006	-0.94	0.348	-0.005	-1.08	0.283	0.004	1.47	0.142	
	other abuse	0.003	0.43	0.670	-0.001	-0.22	0.826	0.001	0.27	0.788	
	lack of supervision	-0.005	-0.98	0.325	-0.005	-1.05	0.296	0.003	1.31	0.191	
	environmental neglect	-0.007	-1.29	0.199	0.000	0.01	0.996	0.001	0.18	0.857	
Location	Cook County	.	.	.	0.006	0.77	0.442	0.001	0.17	0.863	
Year Indicators	fiscal year=1991	0.002	0.16	0.871	0.003	0.27	0.786	0.010	1.51	0.132	
	fiscal year=1992	-0.002	-0.17	0.865	0.002	0.2	0.838	0.009	1.62	0.105	
	fiscal year=1993	-0.004	-0.30	0.762	0.003	0.29	0.771	0.005	0.91	0.365	
	fiscal year=1994	-0.008	-0.67	0.504	-0.003	-0.28	0.783	0.003	0.62	0.532	
	fiscal year=1995	-0.007	-0.61	0.539	-0.003	-0.37	0.709	0.004	0.93	0.350	
	fiscal year=1996	-0.011	-1.07	0.286	-0.002	-0.24	0.812	0.001	0.22	0.824	
	fiscal year=1997	-0.007	-0.69	0.493	-0.006	-0.68	0.497	0.002	0.51	0.613	
	fiscal year=1998	-0.002	-0.19	0.853	-0.001	-0.06	0.955	0.003	0.65	0.517	
	fiscal year=1999	0.000	0.04	0.967	-0.001	-0.16	0.871	0.004	0.92	0.358	
	fiscal year=2000	.	.	.	0.002	0.23	0.816	.	.	.	
	month=1	-0.003	-0.58	0.562	0.002	0.41	0.681	-0.002	-0.69	0.490	
	month=2	.	.	.	.	.	.	.	.	.
	month=3	-0.005	-1.20	0.231	-0.002	-0.38	0.701	0.000	0.00	0.998	
	month=4	-0.005	-1.08	0.281	-0.008	-1.91	0.057	-0.004	-1.64	0.102	
	month=5	-0.001	-0.18	0.859	-0.006	-1.56	0.12	-0.004	-1.56	0.119	
	month=6	-0.004	-0.88	0.379	-0.004	-0.97	0.332	-0.005	-1.64	0.101	
	month=7	0.000	0.01	0.992	0.001	0.14	0.891	0.000	-0.00	1.000	
	month=8	-0.001	-0.22	0.829	-0.002	-0.57	0.57	-0.003	-1.25	0.213	
	month=9	0.002	0.39	0.697	0.004	1.04	0.298	0.001	0.40	0.687	
month=10	0.004	0.83	0.410	0.002	0.39	0.7	0.001	0.50	0.616		
month=11	0.001	0.20	0.838	-0.002	-0.43	0.668	-0.002	-0.66	0.507		
month=12	-0.005	-1.04	0.300	-0.001	-0.35	0.724	-0.002	-0.89	0.372		
Mean of Dep. Var.		0.0001			-0.0007			-0.0007			
S.D. of Dep. Var.		0.0921			0.1035			0.0729			
F-statistic		0.84			1.07			0.96			
p-value		0.75			0.34			0.54			
Observations	Case Managers	409			705			815			
	Children	15039			20091			30415			

t-statistics and F-statistics are calculated using standard errors clustered by case manager;

Table A4: Removal & Long-Term Outcomes: Juvenile Delinquency (all covariates)

Dependent Variable:		Foster Care Placement			Juvenile Delinquency						
		Model:			Probit			IV Probit			
		Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	
Key Explanatory Variables	Case Manager	0.27	0.05	0.00							
	Removal Differential Foster Care Placement				0.00	0.01	0.91	0.35	0.14	0.01	
Initial Reporter (Other Reporter Excluded)	physician	0.10	0.03	0.00	0.00	0.02	0.84	-0.02	0.02	0.38	
	school	-0.02	0.03	0.43	0.00	0.02	0.89	0.00	0.02	1.00	
	police	0.14	0.03	0.00	0.02	0.02	0.33	-0.01	0.03	0.56	
	family	0.05	0.03	0.06	0.00	0.02	0.92	-0.01	0.02	0.51	
	neighbor	0.02	0.03	0.53	0.01	0.03	0.77	0.00	0.03	0.98	
	other government	0.07	0.03	0.03	0.03	0.02	0.17	0.01	0.02	0.65	
	anonymous	-0.06	0.03	0.02	0.01	0.02	0.65	0.03	0.02	0.26	
Age at Report (Youngest age Excluded)	age 6	0.05	0.05	0.21	0.06	0.05	0.18	0.04	0.05	0.40	
	age 7	0.05	0.04	0.18	0.10	0.05	0.03	0.08	0.05	0.13	
	age 8	0.02	0.04	0.66	0.13	0.05	0.01	0.12	0.05	0.02	
	age 9	0.03	0.04	0.44	0.13	0.05	0.00	0.12	0.05	0.02	
	age 10	0.03	0.04	0.42	0.17	0.06	0.00	0.15	0.05	0.00	
	age 11	0.02	0.04	0.55	0.19	0.06	0.00	0.18	0.05	0.00	
	age 12	0.00	0.04	0.97	0.22	0.06	0.00	0.21	0.05	0.00	
	age 13	-0.02	0.04	0.63	0.23	0.06	0.00	0.23	0.06	0.00	
	age 14	-0.04	0.04	0.32	0.23	0.06	0.00	0.23	0.06	0.00	
	age 15	-0.07	0.03	0.08	0.12	0.05	0.01	0.14	0.05	0.01	
	age 16										
	Sex	boy	-0.01	0.01	0.14	0.19	0.01	0.00	0.19	0.01	0.00
	Race/Ethnicity (Other race Excluded)	white	0.00	0.05	0.95	-0.07	0.03	0.02	-0.07	0.03	0.02
		African American	0.11	0.04	0.02	-0.02	0.04	0.54	-0.05	0.04	0.22
		Hispanic	-0.03	0.05	0.50	-0.07	0.03	0.02	-0.07	0.03	0.02
	Allegation (Other neglect Excluded)	physical abuse	-0.07	0.02	0.00	-0.01	0.02	0.68	0.01	0.02	0.51
substantial risk of harm		0.00	0.02	0.88	-0.03	0.01	0.04	-0.03	0.02	0.05	
other abuse		-0.09	0.02	0.00	-0.02	0.02	0.44	0.01	0.03	0.84	
lack of supervision		0.00	0.02	0.89	-0.02	0.02	0.19	-0.03	0.02	0.13	
environmental neglect		-0.08	0.02	0.00	-0.02	0.02	0.24	0.00	0.02	0.99	
Location	Cook County										
Year Indicators	fiscal year=1991	0.48	0.07	0.00	0.12	0.03	0.00	0.15	0.08	0.07	
	fiscal year=1992	0.48	0.07	0.00	0.10	0.03	0.00	0.13	0.08	0.10	
	fiscal year=1993	0.43	0.07	0.00	0.09	0.03	0.00	0.13	0.08	0.08	
	fiscal year=1994	0.34	0.07	0.00	0.08	0.03	0.00	0.16	0.07	0.02	
	fiscal year=1995	0.29	0.07	0.00	0.05	0.03	0.06	0.13	0.07	0.04	
	fiscal year=1996	0.19	0.07	0.01	0.04	0.03	0.12	0.15	0.07	0.02	
	fiscal year=1997	0.11	0.07	0.10	0.04	0.03	0.09	0.17	0.07	0.01	
	fiscal year=1998	0.10	0.07	0.15	0.03	0.03	0.29	0.16	0.07	0.02	
	fiscal year=1999	0.02	0.07	0.79				0.13	0.06	0.04	
	fiscal year=2000				-0.09	0.02	0.01				
	month=1	0.00	0.02	0.93	-0.01	0.01	0.74	-0.01	0.02	0.76	
	month=2	-0.02	0.02	0.35	-0.02	0.02	0.19	-0.02	0.02	0.38	
	month=3	-0.03	0.02	0.14	0.00	0.01	0.82	0.01	0.02	0.65	
month=4	-0.03	0.02	0.19	-0.02	0.01	0.28	-0.01	0.02	0.66		
month=5	-0.08	0.02	0.00	0.00	0.01	0.82	0.02	0.02	0.25		
month=6	-0.06	0.02	0.00	-0.01	0.01	0.72	0.01	0.02	0.41		
month=7											
month=8	0.01	0.02	0.54	-0.04	0.01	0.01	-0.04	0.01	0.01		
month=9	0.04	0.02	0.08	-0.02	0.01	0.21	-0.03	0.02	0.06		
month=10	0.00	0.02	0.84	0.00	0.01	0.72	-0.01	0.01	0.72		
month=11	-0.02	0.02	0.40	0.00	0.01	0.97	0.01	0.02	0.69		
month=12	0.03	0.02	0.23	-0.01	0.01	0.65	-0.01	0.01	0.44		
Chi-squared (1) stat.	17.9										
Mean of Dep. Var.	0.27			0.17							
Observations	15039			15039							

Marginal effects and standard errors clustered at the case manager level are reported.

Table A5: Removal & Long-Term Outcomes: Teen Motherhood (all covariates)

Dependent Variable:		Foster Care Placement			Teen Motherhood						
		Model:			Probit			IV Probit			
		Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	
Key Explanatory Variables	Case Manager	0.20	0.03	0.00							
	Removal Differential Foster Care Placement				0.09	0.01	0.00	0.29	0.17	0.09	
Initial Reporter (Other Reporter Excluded)	physician	0.05	0.02	0.03	0.00	0.02	1.00	-0.01	0.03	0.70	
	school	-0.01	0.02	0.48	0.01	0.02	0.78	0.01	0.02	0.74	
	police	0.10	0.02	0.00	0.00	0.02	0.93	-0.02	0.03	0.48	
	family	0.02	0.02	0.26	0.01	0.02	0.67	0.00	0.02	0.87	
	neighbor	-0.01	0.02	0.60	0.01	0.02	0.75	0.01	0.02	0.70	
	other government	0.05	0.02	0.01	0.02	0.02	0.32	0.01	0.03	0.61	
	anonymous	-0.04	0.02	0.04	-0.01	0.02	0.66	0.00	0.02	0.90	
Age at Report (Youngest age Excluded)	age 5	0.00	0.03	0.93	0.18	0.07	0.01	0.18	0.07	0.01	
	age 6	0.01	0.04	0.80	0.25	0.07	0.00	0.24	0.07	0.00	
	age 7	0.02	0.03	0.52	0.31	0.07	0.00	0.30	0.07	0.00	
	age 8	0.00	0.03	0.97	0.39	0.06	0.00	0.39	0.06	0.00	
	age 9	0.00	0.03	0.93	0.46	0.06	0.00	0.46	0.06	0.00	
	age 10	0.01	0.03	0.85	0.49	0.05	0.00	0.48	0.05	0.00	
	age 11	0.01	0.03	0.68	0.56	0.04	0.00	0.55	0.05	0.00	
	age 12	0.00	0.03	0.90	0.60	0.04	0.00	0.60	0.04	0.00	
	age 13	-0.02	0.03	0.52	0.65	0.03	0.00	0.64	0.04	0.00	
	age 14	-0.02	0.03	0.57	0.67	0.03	0.00	0.66	0.03	0.00	
	age 15	-0.06	0.03	0.06	0.69	0.03	0.00	0.69	0.03	0.00	
	Sex	boy									
	Race/Ethnicity (Other race Excluded)	white	-0.01	0.03	0.74	0.08	0.04	0.04	0.08	0.04	0.05
		African American	0.08	0.03	0.01	0.22	0.04	0.00	0.20	0.04	0.00
		Hispanic	-0.05	0.03	0.11	0.18	0.04	0.00	0.18	0.04	0.00
Allegation (Other neglect Excluded)	physical abuse	-0.10	0.01	0.00	-0.01	0.02	0.77	0.02	0.03	0.51	
	substantial risk of harm	-0.10	0.01	0.00	-0.01	0.02	0.42	0.01	0.02	0.79	
	other abuse	-0.09	0.01	0.00	0.01	0.03	0.74	0.03	0.04	0.38	
	lack of supervision	-0.08	0.01	0.00	0.01	0.02	0.55	0.03	0.02	0.24	
	environmental neglect	-0.12	0.01	0.00	0.02	0.02	0.33	0.05	0.03	0.12	
Location	Cook County	0.06	0.01	0.00	-0.04	0.01	0.00	-0.05	0.01	0.00	
Year Indicators	fiscal year=1991	0.36	0.04	0.00	0.50	0.02	0.00	0.56	0.05	0.00	
	fiscal year=1992	0.37	0.04	0.00	0.46	0.02	0.00	0.53	0.06	0.00	
	fiscal year=1993	0.32	0.04	0.00	0.41	0.03	0.00	0.49	0.06	0.00	
	fiscal year=1994	0.22	0.03	0.00	0.37	0.03	0.00	0.47	0.05	0.00	
	fiscal year=1995	0.17	0.03	0.00	0.32	0.03	0.00	0.43	0.05	0.00	
	fiscal year=1996	0.11	0.03	0.00	0.29	0.03	0.00	0.41	0.04	0.00	
	fiscal year=1997	0.06	0.03	0.05	0.22	0.03	0.00	0.36	0.04	0.00	
	fiscal year=1998	0.02	0.03	0.45	0.19	0.03	0.00	0.33	0.05	0.00	
	fiscal year=1999	0.02	0.03	0.45	0.06	0.03	0.06	0.21	0.05	0.00	
	fiscal year=2000	-0.06	0.04	0.23	-0.13	0.04	0.00	0.15	0.05	0.00	
	month=1										
	month=2	-0.01	0.02	0.49	-0.02	0.02	0.16	-0.02	0.02	0.20	
	month=3	-0.03	0.01	0.09	-0.02	0.02	0.28	-0.01	0.02	0.44	
month=4	-0.02	0.01	0.21	-0.04	0.02	0.04	-0.03	0.02	0.07		
month=5	-0.05	0.01	0.00	-0.03	0.02	0.07	-0.02	0.02	0.32		
month=6	-0.07	0.01	0.00	-0.02	0.02	0.20	-0.01	0.02	0.72		
month=7	0.01	0.02	0.68	0.01	0.02	0.45	0.01	0.02	0.51		
month=8	0.00	0.01	0.79	0.01	0.02	0.74	0.01	0.02	0.78		
month=9	0.01	0.02	0.52	0.00	0.02	0.92	0.00	0.02	0.95		
month=10	0.01	0.02	0.60	-0.03	0.02	0.08	-0.03	0.02	0.07		
month=11	-0.02	0.01	0.24	-0.02	0.02	0.16	-0.02	0.02	0.24		
month=12	0.00	0.02	0.78	-0.03	0.02	0.11	-0.03	0.02	0.10		
	Chi-squared (1) stat.	34.2									
	Mean of Dep. Var.	0.21			0.35						
	Observations	20091			20091						

Marginal effects and standard errors clustered at the case manager level are reported.

Table A6: Removal & Long-Term Outcomes: Employment (all covariates)

Dependent Variable:		Foster Care Placement			Fraction of Quarters Working						
		Model:			OLS			2SLS			
		Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	
Key Explanatory Variables	Case Manager	0.30	0.04	0.00							
	Removal Differential Foster Care Placement				0.00	0.01	0.76	-0.15	0.11	0.18	
Initial Reporter (Other Reporter Excluded)	physician	0.07	0.02	0.00	0.01	0.02	0.51	0.02	0.02	0.25	
	school	0.01	0.02	0.37	0.00	0.02	0.97	0.00	0.02	0.87	
	police	0.11	0.02	0.00	0.00	0.02	0.81	0.02	0.02	0.31	
	family	0.04	0.02	0.01	0.02	0.02	0.20	0.03	0.02	0.11	
	neighbor	0.00	0.02	0.98	0.00	0.02	0.96	0.00	0.02	0.95	
	other government	0.09	0.02	0.00	0.01	0.02	0.48	0.03	0.02	0.20	
	anonymous	-0.03	0.02	0.09	0.00	0.02	0.83	0.00	0.02	0.95	
Age at Report (Youngest age Excluded)	age 7	-0.01	0.03	0.68	0.01	0.03	0.83	0.00	0.03	0.89	
	age 8	-0.01	0.03	0.76	0.00	0.02	0.88	0.00	0.02	0.84	
	age 9	-0.01	0.03	0.65	0.03	0.02	0.27	0.02	0.02	0.31	
	age 10	0.00	0.03	0.98	0.04	0.02	0.12	0.04	0.02	0.12	
	age 11	0.00	0.03	0.99	0.04	0.02	0.08	0.04	0.02	0.08	
	age 12	0.00	0.03	0.88	0.04	0.02	0.11	0.04	0.02	0.12	
	age 13	-0.02	0.03	0.64	0.04	0.02	0.07	0.04	0.02	0.08	
	age 14	-0.02	0.03	0.56	0.04	0.02	0.07	0.04	0.02	0.08	
	age 15	-0.03	0.03	0.33	0.06	0.02	0.01	0.05	0.02	0.02	
	age 16	-0.05	0.03	0.15	0.06	0.02	0.02	0.05	0.02	0.03	
	Sex	boy	-0.01	0.00	0.10	-0.07	0.00	0.00	-0.07	0.00	0.00
	Race/Ethnicity (Other race Excluded)	white	-0.02	0.02	0.52	0.04	0.02	0.07	0.04	0.02	0.09
		African American	0.06	0.02	0.01	-0.06	0.02	0.01	-0.05	0.03	0.04
		Hispanic	-0.06	0.03	0.03	0.03	0.03	0.32	0.02	0.03	0.51
	Allegation (Other neglect Excluded)	physical abuse	-0.18	0.01	0.00	0.04	0.01	0.00	0.01	0.02	0.58
		substantial risk of harm	-0.17	0.01	0.00	0.04	0.01	0.00	0.01	0.02	0.54
other abuse		-0.18	0.02	0.00	0.02	0.02	0.21	-0.01	0.03	0.83	
lack of supervision		-0.13	0.01	0.00	0.03	0.01	0.01	0.01	0.02	0.73	
environmental neglect		-0.21	0.01	0.00	0.01	0.01	0.52	-0.02	0.03	0.35	
Location	Cook County	0.08	0.01	0.00	-0.03	0.01	0.00	-0.02	0.01	0.09	
Year Indicators	fiscal year=1991	0.29	0.02	0.00	0.00	0.03	0.97	0.05	0.04	0.28	
	fiscal year=1992	0.29	0.02	0.00	0.01	0.03	0.79	0.05	0.04	0.21	
	fiscal year=1993	0.25	0.02	0.00	-0.01	0.03	0.84	0.03	0.04	0.38	
	fiscal year=1994	0.18	0.02	0.00	-0.01	0.03	0.70	0.02	0.03	0.58	
	fiscal year=1995	0.14	0.02	0.00	-0.02	0.03	0.55	0.01	0.03	0.85	
	fiscal year=1996	0.09	0.02	0.00	0.00	0.03	0.92	0.02	0.03	0.55	
	fiscal year=1997	0.05	0.01	0.00	0.00	0.03	0.88	0.01	0.03	0.65	
	fiscal year=1998	0.05	0.02	0.01	0.00	0.03	0.97	0.01	0.03	0.77	
	fiscal year=1999	0.02	0.02	0.20	-0.01	0.03	0.73	-0.01	0.03	0.82	
	fiscal year=2000										
	month=1	0.01	0.01	0.71	-0.02	0.01	0.17				
	month=2							0.02	0.01	0.20	
	month=3	-0.02	0.01	0.27	0.01	0.01	0.67	0.02	0.01	0.12	
	month=4	-0.02	0.01	0.20	0.01	0.01	0.37	0.02	0.01	0.05	
	month=5	-0.05	0.01	0.00	0.00	0.01	0.98	0.01	0.01	0.56	
	month=6	-0.05	0.01	0.00	0.00	0.01	0.74	0.01	0.01	0.37	
	month=7	0.00	0.01	0.91	-0.01	0.01	0.69	0.01	0.01	0.37	
month=8	0.02	0.01	0.11	-0.01	0.01	0.57	0.01	0.01	0.30		
month=9	0.02	0.01	0.08	-0.01	0.01	0.38	0.01	0.01	0.41		
month=10	0.01	0.01	0.27	0.00	0.01	0.71	0.02	0.01	0.06		
month=11	0.01	0.01	0.62	-0.01	0.01	0.57	0.01	0.01	0.39		
month=12	0.00	0.01	0.94	-0.02	0.01	0.19	0.00	0.01	0.94		
constant	0.12	0.05	0.01	0.31	0.04	0.00	0.31	0.05	0.00		
Chi-squared (1) stat.	55.0										
Mean of Dep. Var.	0.23			0.320							
Observations	30415			30415							

Standard errors clustered by case manager.

Table A7: Removal & Long-Term Outcomes: Earnings (all covariates)

Dependent Variable:		Foster Care Placement			Quarterly Earnings						
		Model:			OLS			2SLS			
		Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	Coefficient	S.E.	p-value	
Key Explanatory Variables	Case Manager	0.30	0.04	0.00							
	Removal Differential Foster Care Placement				-50.4	30.6	0.10	-1295.6	626.3	0.04	
Initial Reporter (Other Reporter Excluded)	physician	0.07	0.02	0.00	-5.1	87.5	0.95	79.9	100.4	0.43	
	school	0.01	0.02	0.37	-89.2	83.8	0.29	-71.8	87.7	0.41	
	police	0.11	0.02	0.00	-57.7	81.4	0.48	78.0	109.4	0.48	
	family	0.04	0.02	0.01	11.7	80.6	0.88	62.4	88.2	0.48	
	neighbor	0.00	0.02	0.98	-107.1	94.9	0.26	-107.8	100.2	0.28	
	other government	0.09	0.02	0.00	0.6	89.6	1.00	111.4	109.3	0.31	
	anonymous	-0.03	0.02	0.09	-79.5	83.3	0.34	-117.5	88.8	0.19	
Age at Report (Youngest age Excluded)	age 7	-0.01	0.03	0.68	173.4	77.5	0.03	159.7	86.6	0.07	
	age 8	-0.01	0.03	0.76	201.5	72.9	0.01	192.8	81.4	0.02	
	age 9	-0.01	0.03	0.65	477.8	72.6	0.00	462.9	84.2	0.00	
	age 10	0.00	0.03	0.98	619.1	76.6	0.00	623.9	85.4	0.00	
	age 11	0.00	0.03	0.99	714.5	73.9	0.00	718.8	84.4	0.00	
	age 12	0.00	0.03	0.88	794.2	72.8	0.00	792.1	82.1	0.00	
	age 13	-0.02	0.03	0.64	898.0	75.7	0.00	883.9	83.5	0.00	
	age 14	-0.02	0.03	0.56	1019.7	75.4	0.00	1000.6	83.7	0.00	
	age 15	-0.03	0.03	0.33	1190.3	81.9	0.00	1155.7	90.7	0.00	
	age 16	-0.05	0.03	0.15	1263.1	85.1	0.00	1210.2	94.4	0.00	
	Sex	boy	-0.01	0.00	0.10	-83.4	25.5	0.00	-93.5	26.1	0.00
	Race/Ethnicity (Other race Excluded)	white	-0.02	0.02	0.52	-8.9	147.0	0.95	-27.6	147.2	0.85
		African American	0.06	0.02	0.01	-513.6	148.4	0.00	-436.8	157.5	0.01
		Hispanic	-0.06	0.03	0.03	27.0	165.4	0.87	-40.3	165.1	0.81
	Allegation (Other neglect Excluded)	physical abuse	-0.18	0.01	0.00	211.6	56.7	0.00	-9.4	122.9	0.94
		substantial risk of harm	-0.17	0.01	0.00	221.7	52.9	0.00	14.5	117.2	0.90
other abuse		-0.18	0.02	0.00	159.7	97.2	0.10	-69.3	154.4	0.65	
lack of supervision		-0.13	0.01	0.00	182.9	57.1	0.00	21.1	99.8	0.83	
environmental neglect		-0.21	0.01	0.00	113.0	60.2	0.06	-144.5	141.8	0.31	
Location	Cook County	0.08	0.01	0.00	137.4	31.2	0.00	236.2	61.4	0.00	
Year Indicators	fiscal year=1991	0.29	0.02	0.00	994.2	113.9	0.00	1359.9	225.2	0.00	
	fiscal year=1992	0.29	0.02	0.00	983.7	112.3	0.00	1350.8	223.2	0.00	
	fiscal year=1993	0.25	0.02	0.00	754.1	111.0	0.00	1064.2	199.3	0.00	
	fiscal year=1994	0.18	0.02	0.00	641.1	106.3	0.00	864.0	159.0	0.00	
	fiscal year=1995	0.14	0.02	0.00	526.9	106.7	0.00	697.6	141.8	0.00	
	fiscal year=1996	0.09	0.02	0.00	548.9	108.1	0.00	658.7	127.4	0.00	
	fiscal year=1997	0.05	0.01	0.00	400.3	107.8	0.00	463.9	116.8	0.00	
	fiscal year=1998	0.05	0.02	0.01	223.6	100.4	0.03	281.4	109.1	0.01	
	fiscal year=1999	0.02	0.02	0.20	95.4	108.1	0.38	123.2	114.7	0.28	
	fiscal year=2000										
	month=1	0.01	0.01	0.71	-52.5	67.1	0.43				
	month=2							46.6	69.8	0.50	
	month=3	-0.02	0.01	0.27	14.6	67.1	0.83	41.8	65.5	0.52	
month=4	-0.02	0.01	0.20	87.0	72.3	0.23	110.2	72.1	0.13		
month=5	-0.05	0.01	0.00	-1.6	63.9	0.98	-19.5	74.5	0.79		
month=6	-0.05	0.01	0.00	-75.7	66.9	0.26	-94.3	72.3	0.19		
month=7	0.00	0.01	0.91	64.0	72.5	0.38	112.7	67.2	0.09		
month=8	0.02	0.01	0.11	47.9	65.3	0.46	121.3	63.8	0.06		
month=9	0.02	0.01	0.08	9.2	61.7	0.88	86.1	64.0	0.18		
month=10	0.01	0.01	0.27	40.4	64.4	0.53	106.0	62.4	0.09		
month=11	0.01	0.01	0.62	-7.2	66.0	0.91	47.0	63.3	0.46		
month=12	0.00	0.01	0.94	-72.7	61.6	0.24	-25.7	60.4	0.67		
constant	0.12	0.05	0.01	-363.0	214.0	0.09	-263.1	224.5	0.24		
Chi-squared (1) stat.	55.0										
Mean of Dep. Var.	0.23			1044							
Observations	30415			30415							

Standard errors clustered by case manager.

Table A8: Comparisons across Propensity Score Quartiles

A. Dependent Variable: Delinquency

P(Placed) Quartile	Mean Placement	Mean Dep. Var	Test of covariate balance		Probit		IV Probit		
			F-statistic	p-value	Marginal Eff. of Placement	S.E.	Chi-Sq. (1)	Marginal Eff. of Placement	S.E.
1	0.075	0.142	1.97	0.0001	-0.019	(0.019)	0.01	.	
2	0.197	0.172	1.67	0.0022	-0.016	(0.015)	20.21	0.531	(0.190)***
3	0.304	0.179	1.52	0.0114	0.011	(0.014)	6.42	-0.011	(0.238)
4	0.509	0.191	2.59	0.0000	-0.003	(0.013)	16.36	0.234	(0.141)*

B. Dependent Variable: Teen Motherhood

P(Placed) Quartile	Mean Placement	Mean Dep. Var	Test of covariate balance		Probit		IV Probit		
			F-statistic	p-value	Marginal Eff. of Placement	S.E.	Chi-Sq. (1)	Marginal Eff. of Placement	S.E.
1	0.057	0.293	2.06	0.0000	0.062	(0.031)*	10.07	0.667	(0.212)***
2	0.126	0.336	1.30	0.0485	0.053	(0.022)*	5.33	0.187	(0.556)
3	0.221	0.374	1.37	0.0201	0.068	(0.018)**	15.59	0.146	(0.238)***
4	0.420	0.408	2.70	0.0000	0.128	(0.016)**	17.55	-0.034	(0.203)

C. Dependent Variable: Fraction of Quarters Working

P(Placed) Quartile	Mean Placement	Mean Dep. Var	Test of covariate balance		OLS		2SLS		
			F-statistic	p-value	Coefficient on Placement	S.E.	Chi-Sq. (1)	Coefficient on Placement	S.E.
1	0.069	0.361	2.61	0.0000	-0.012	(0.019)	3.01	.	.
2	0.151	0.331	1.82	0.0000	-0.0002	(0.013)	17.15	-0.324	(0.263)
3	0.250	0.318	1.85	0.0000	-0.0006	(0.011)	25.33	-0.262	(0.174)
4	0.437	0.274	3.45	0.0000	0.008	(0.009)	13.2	-0.188	(0.184)

D. Dependent Variable: Quarterly Earnings

P(Placed) Quartile	Mean Placement	Mean Dep. Var	Test of covariate balance		OLS		2SLS		
			F-statistic	p-value	Coefficient on Placement	S.E.	Chi-Sq. (1)	Coefficient on Placement	S.E.
1	0.069	1085	2.61	0.0000	-135.9	(80.4)*	3.01	.	.
2	0.151	1075	1.82	0.0000	-16.9	(72.7)	17.15	-1946	(1391)
3	0.250	1066	1.85	0.0000	-38.4	(59.6)	25.33	-1740	(856)**
4	0.437	963	3.45	0.0000	-35.8	(52.9)	13.2	-721	(981)

Probit/OLS standard errors are clustered at the family level; IV Probit standard errors clustered at the case manager level.

P(Remove) quartile estimated using a probit model with full controls and three-digit ZIP code indicators.

Given the lack of covariate balance, all models use full controls.

Probit standard errors are clustered at the family level; IV Probit standard errors clustered at the case manager level.

Chi-Squared(1) statistics test the relationship between the instrument and foster care placement.

Observations: Panel A: 15,016; Panel B: 19,922 Panels C & D: 30,199 due to predicted probability estimation.

*=significant at 10%; **=significant at 5%; ***=significant at 1%.

Table A9: Comparisons across Propensity Scores

A. Dependent Variable: Delinquency

P(Remove) Decile	P(Remove)	Delinquency Rate	<u>Test of covariate balance</u>		Marginal Eff. of Placement	Standard Error
			F-statistic	p-value		
1	0.046	0.124	1.55	0.01	0.010	(0.037)
2	0.085	0.152	1.22	0.14	-0.038	(0.027)
3	0.131	0.163	1.02	0.43	-0.031	(0.026)
4	0.177	0.169	1.23	0.13	-0.043	(0.021)*
5	0.241	0.177	1.02	0.44	0.013	(0.022)
6	0.263	0.180	1.22	0.14	0.024	(0.022)
7	0.303	0.178	1.02	0.43	0.005	(0.020)
8	0.397	0.190	1.31	0.07	-0.025	(0.020)
9	0.483	0.203	1.45	0.02	0.021	(0.021)
10	0.586	0.173	1.21	0.16	0.003	(0.018)

Total number of observations: 15,016 due to predicted probability estimation. Standard errors are clustered at the family level. F-statistic calculated using a model predicting foster care placement with full controls including 3-digit ZIP code indicators. Given the lack of covariate balance, probit models use full controls.

*=significant at 10% level, **=significant at 5% level, ***=significant at 1% level.

B. Dependent Variable: Teen Motherhood

P(Remove) Decile	P(Remove)	Teen Motherhood Rate	<u>Test of covariate balance</u>		Marginal Eff. of Placement	Standard Error
			F-statistic	p-value		
1	0.037	0.281	1.90	0.0000	0.004	(0.053)
2	0.063	0.299	1.51	0.0054	0.054	(0.048)
3	0.088	0.318	1.35	0.0291	0.078	(0.041)**
4	0.120	0.320	0.98	0.5191	0.101	(0.035)***
5	0.149	0.353	1.13	0.2124	0.011	(0.032)
6	0.199	0.367	0.96	0.5763	0.047	(0.029)*
7	0.226	0.372	1.08	0.3034	0.075	(0.028)***
8	0.291	0.391	1.29	0.0511	0.123	(0.026)***
9	0.353	0.409	1.11	0.2471	0.142	(0.026)***
10	0.536	0.493	1.66	0.0005	0.111	(0.025)***

Total number of observations: 19,922 due to predicted probability estimation. Standard errors are clustered at the family level. F-statistic calculated using a model predicting foster care placement with full controls including 3-digit ZIP code indicators. Given the lack of covariate balance, probit models use full controls.

*=significant at 10% level, **=significant at 5% level, ***=significant at 1% level.

Table A9: Comparisons across Propensity Scores (continued)

C. Dependent Variable: Fraction of Quarters Employed

P(Remove) Decile	P(Remove)	Mean Employment	<u>Test of covariate balance</u>		Coefficient on Placement	
			F-statistic	p-value	Standard Error	
1	0.048	0.389	2.18	0.0000	-0.032	0.036
2	0.072	0.343	1.80	0.0001	0.009	0.030
3	0.111	0.337	1.30	0.0432	-0.015	0.024
4	0.142	0.332	1.03	0.3990	0.013	0.022
5	0.179	0.329	1.40	0.0137	-0.011	0.019
6	0.212	0.328	0.79	0.9019	-0.008	0.018
7	0.274	0.314	1.21	0.1092	0.020	0.017
8	0.303	0.302	1.16	0.1624	0.015	0.016
9	0.386	0.285	1.10	0.2727	-0.012	0.015
10	0.542	0.251	1.67	0.0002	0.011	0.014

Total number of observations: 30,199 due to predicted probability estimation. Standard errors are clustered at the family level. F-statistic calculated using a model predicting foster care placement with full controls including 3-digit ZIP code indicators. Given the lack of covariate balance, all models use full controls.

*=significant at 10% level, **=significant at 5% level, ***=significant at 1% level.

D. Dependent Variable: Quarterly Earnings

P(Remove) Decile	P(Remove)	Mean Earnings	<u>Test of covariate balance</u>		Coefficient on Placement	
			F-statistic	p-value	Standard Error	
1	0.048	1137	2.18	0.0000	-40.54	154.4
2	0.072	1003	1.80	0.0001	-57.24	130.0
3	0.111	1114	1.30	0.0432	-254.01	104.6**
4	0.142	1036	1.03	0.3990	47.06	115.9
5	0.179	1112	1.40	0.0137	-69.06	113.8
6	0.212	1091	0.79	0.9019	-9.17	95.6
7	0.274	1053	1.21	0.1092	46.76	97.7
8	0.303	1024	1.16	0.1624	-28.72	78.6
9	0.386	992	1.10	0.2727	-153.72	86.1*
10	0.542	911	1.67	0.0002	-28.12	91.0

Total number of observations: 19,922 due to predicted probability estimation. Standard errors are clustered at the family level. F-statistic calculated using a model predicting foster care placement with full controls including 3-digit ZIP code indicators. Given the lack of covariate balance, all models use full controls.

*=significant at 10% level, **=significant at 5% level, ***=significant at 1% level.

Figure A1: Delinquency as a function of $P(z)$

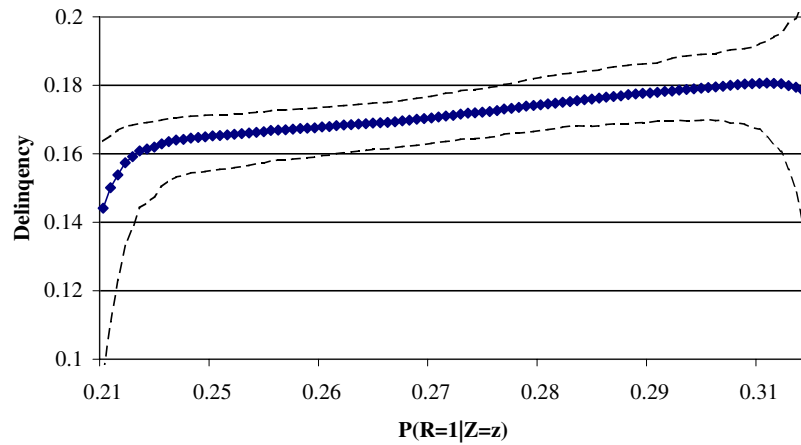


Figure A2: Teen Motherhood as a function of $P(z)$

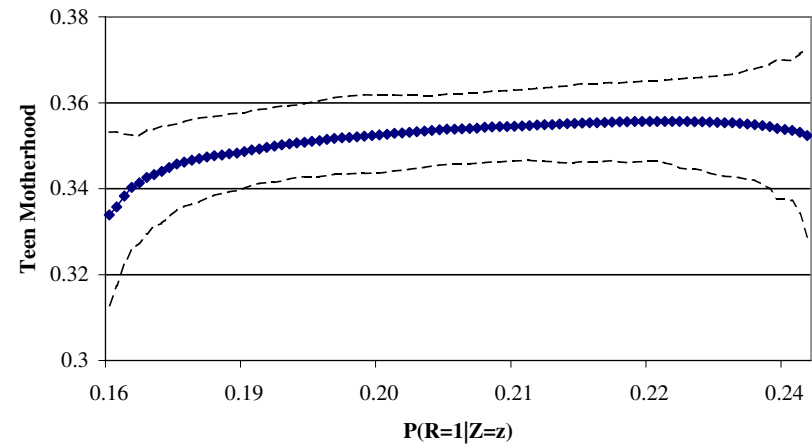


Figure A3: Earnings as a function of $P(z)$

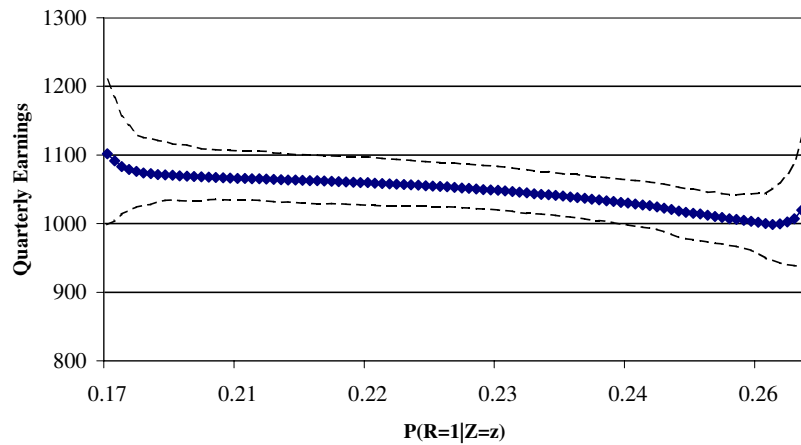
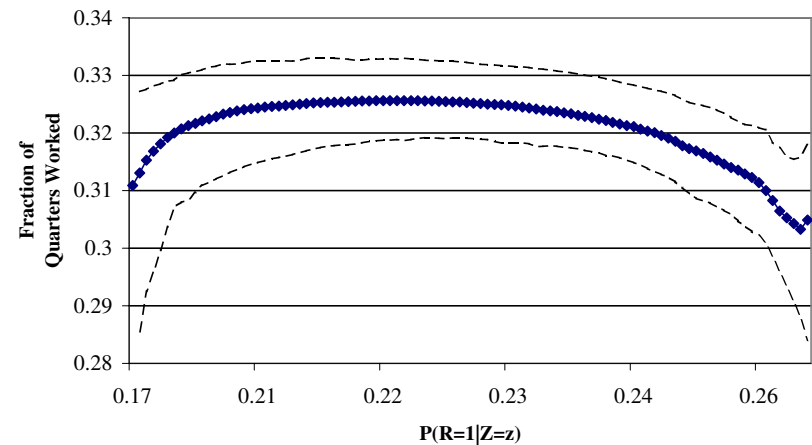


Figure A4: Employment as a function of $P(z)$



Figures report the results of a local quadratic estimator evaluated at each percentile of $P(z)$. 5-95% confidence intervals reported, calculated using a bootstrap with 250 replications, clustered at the case manager level. Bandwidth=0.037.