
Infants in the Child Welfare System: Epidemiology and Development

Fred Wulczyn and Zach Martinez
Center for State Foster Care Data
Chapin Hall Center for Children
University of Chicago

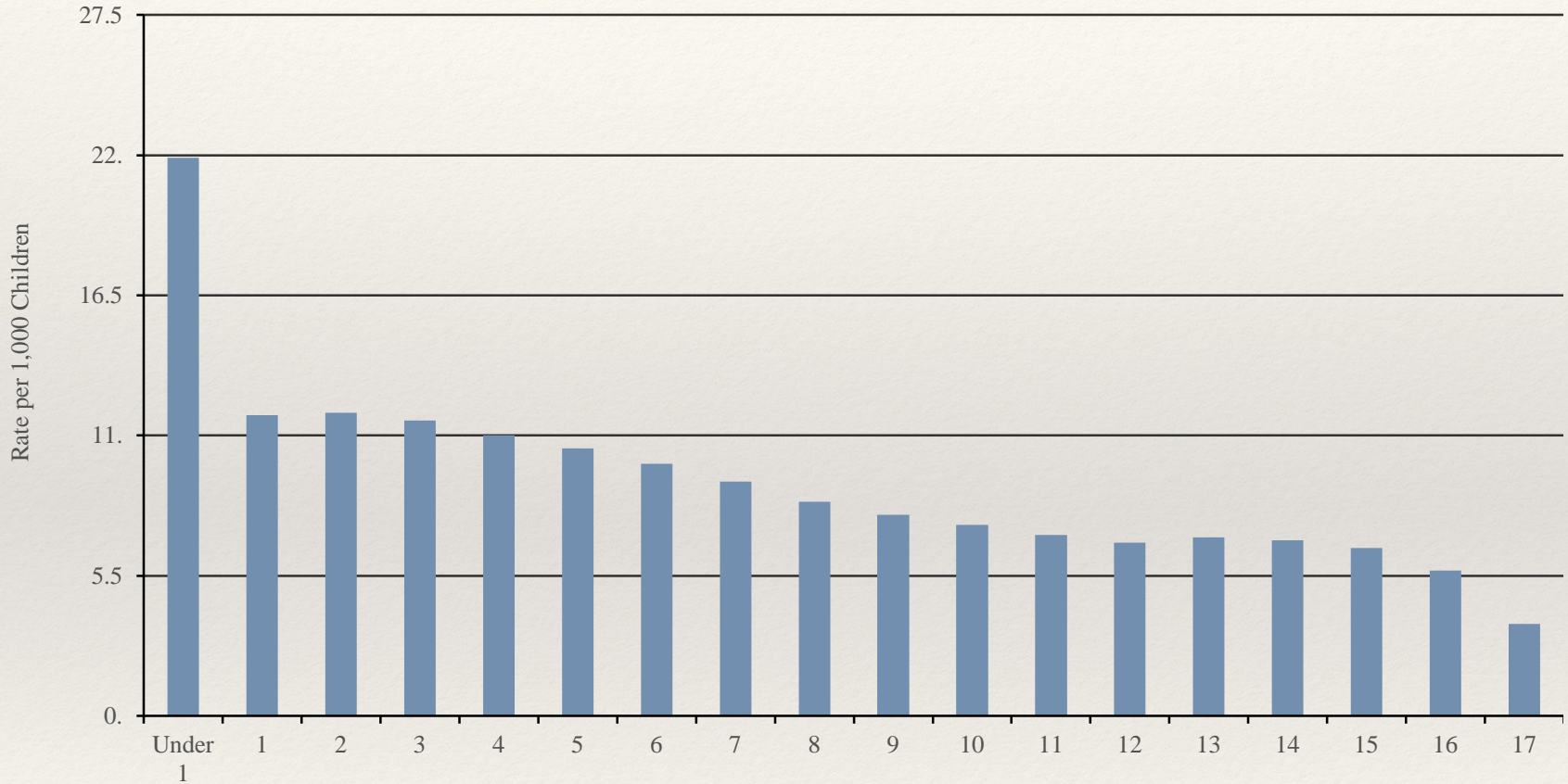
*Interventions for Young Children in Foster Care
Center for the Developing Child
Harvard University
June 19 and 20, 2014*

Overview

1. The Infant's System Experience
2. Unique Characteristics of the Infant Population
3. Developmental Trajectories
4. Interpreting the results – the findings are not meant to provide specific point estimates that describe what is true in your state or locality. Rather, the evidence is meant to show, relative to children of other ages, the extent to which infants represent a unique population within the larger child welfare system from a risk perspective.

The point estimates will differ from place to place, from one time to another. What it means to have experiences with the child welfare system as a young child will endure unless steps are taken to improve caregiving early in life.

Rate of Maltreatment by Age



Demographic Profile of First-ever Maltreatment Investigations

Age	Total	African American	Hispanic	Other	White
Total	20,171	6,823	684	4,515	8,149
Under 1 Year	2,534	1,242	57	470	765
1 to 5	6,246	2,138	135	1,522	2,451
6 to 12	7,540	2,452	333	1,709	3,046
13 to 18	3,382	845	133	718	1,686
Total	100%	34%	3%	22%	40%
Under 1 Year	100%	49%	2%	19%	30%
1 to 5	100%	34%	2%	24%	39%
6 to 12	100%	33%	4%	23%	40%
13 to 18	100%	25%	4%	21%	50%

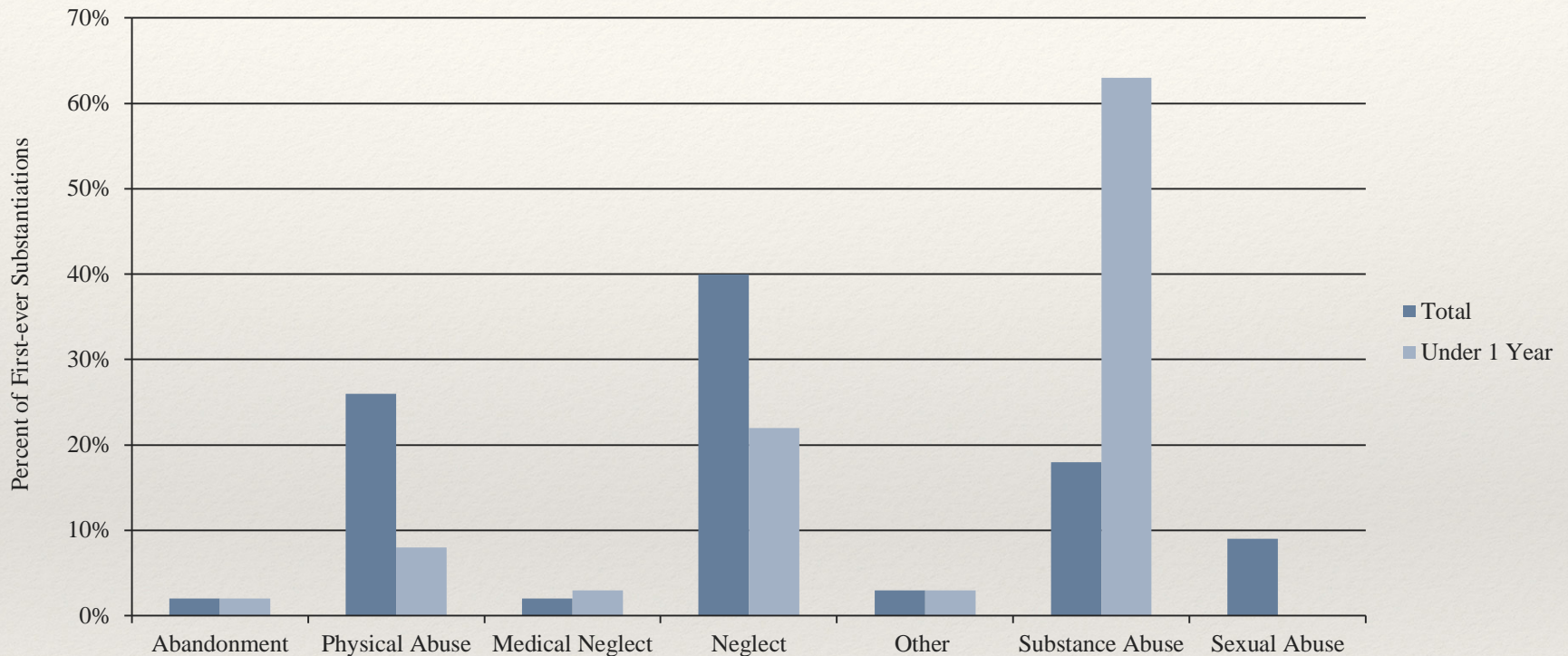
African Americans make up a larger proportion of infants investigated for maltreatment than they do of the investigation population in general.

Demographic Profile of First-ever Substantiated Investigations

Age	Total	African American	Hispanic	Other	White
Total	4,239	1,833	165	965	1,276
Under 1 Year	1,098	663	23	177	235
1 to 5	1,179	483	43	273	380
6 to 12	1,287	488	71	324	404
13 to 18	599	171	27	169	232
Total	100%	43%	4%	23%	30%
Under 1 Year	100%	60%	2%	16%	21%
1 to 5	100%	41%	4%	23%	32%
6 to 12	100%	38%	6%	25%	31%
13 to 18	100%	29%	5%	28%	39%

African Americans make up a larger proportion of infants with substantiated investigations than they do of substantiated investigations in general.

First-ever Substantiated Allegations by Age and Allegation Type



When investigations of infants are substantiated, it is often for reasons of substance use on the part of parents.

First-ever Substantiated Allegations by Age and Allegation Type

Age	Total	Abandonment	Physical Abuse	Medical Neglect	No Neglect Allegation	Other	Substance Abuse	Sexual Abuse
Total	4,239	67	1,107	85	1,715	1	115	396
Under 1 Year	1,098	21	85	35	238	0	29	1
1 to 5	1,179	23	240	19	766	0	36	60
6 to 12	1,287	13	475	25	557	0	31	169
13 to 18	599	9	288	5	126	1	17	149
Total	100%	2%	26%	2%	40%	0%	3%	9%
Under 1 Year	100%	2%	8%	3%	22%	0%	3%	0%
1 to 5	100%	2%	20%	2%	65%	0%	3%	5%
6 to 12	100%	1%	37%	2%	43%	0%	2%	13%
13 to 18	100%	2%	48%	1%	21%	0%	3%	25%

Probability of Placement following Substantiated Maltreatment

Model : Main Effects, Adjusting for Siblings

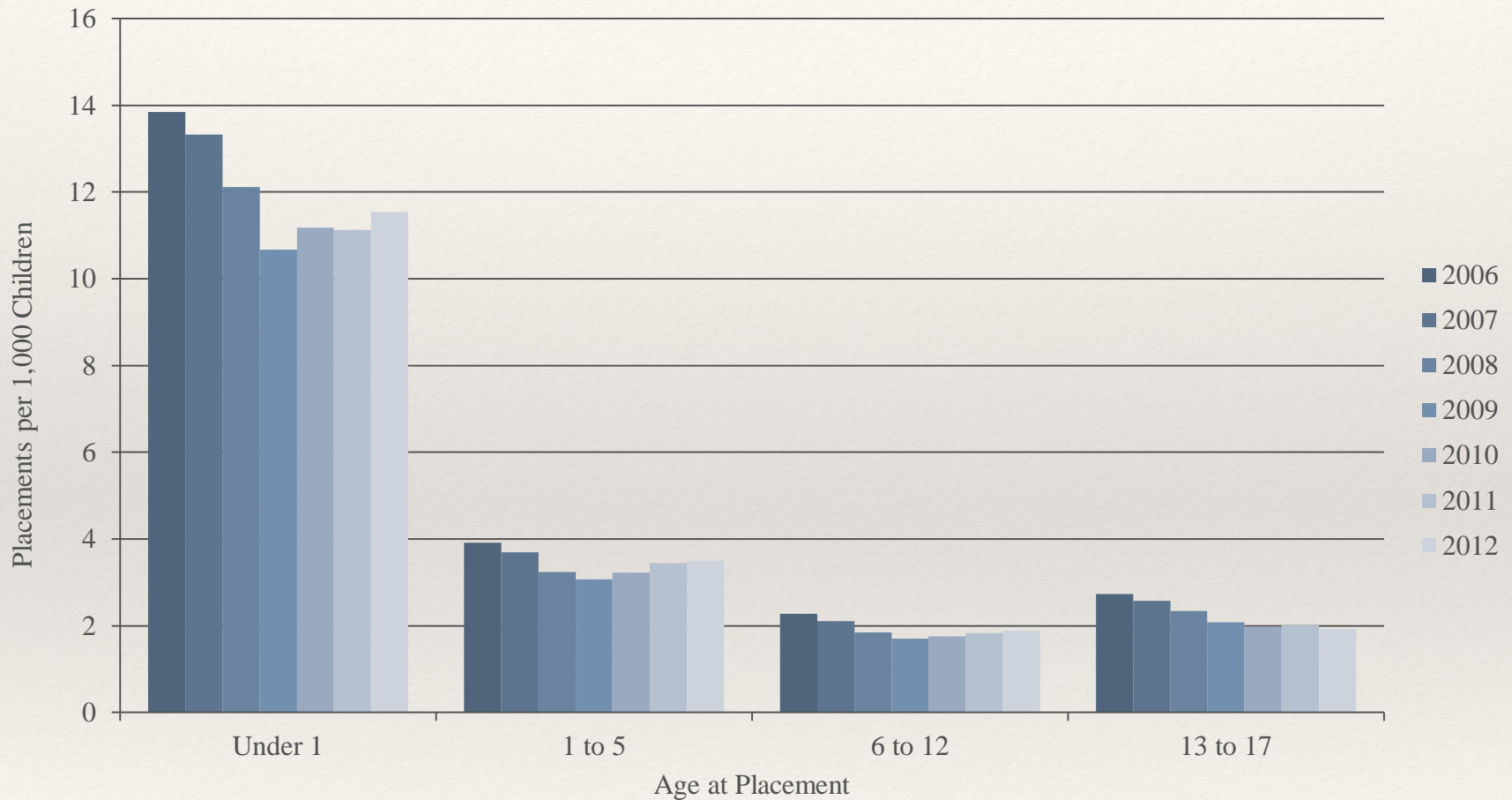
Parameter	β	S.E.	Chi-Square	Odds Ratio	95% CI	
Intercept	-1.82	0.18	98.88 ^c			
Age						
Under 1	1.08	0.16	46.26 ^c	2.95	2.16	4.03
1 to 5	0.01	0.15	0	1.01	0.75	1.35
6 to 12	-0.46	0.15	9.12 ^b	0.63	0.47	0.85
13 to 17	-	-	-	-	-	-
Race/Ethnicity						
African American	0.33	0.11	9.54 ^b	1.39	1.13	1.7
Hispanic	0.63	0.21	8.96 ^b	1.87	1.24	2.82
Other Race/Ethnicity	-0.08	0.12	0.46	0.92	0.72	1.17
<i>White</i>	-	-	-	-	-	-
Maltreatment type						
Substantiated Physical Abuse	-0.74	0.12	36.83 ^c	0.48	0.38	0.61
Substantiated Medical Neglect	0.05	0.26	0.04	1.05	0.63	1.76
Substantiated Substance Abuse	0.53	0.13	17.03 ^c	1.69	1.32	2.17
Substantiated Sexual Abuse	-1.3	0.24	28.90 ^c	0.27	0.17	0.44
Substantiated Abandonment	0.71	0.27	6.88 ^b	2.04	1.2	3.49
<i>Substantiated Neglect</i>	-	-	-	-	-	-
Urbanicity						
Non-Urban County	0.47	0.18	6.75 ^b	1.59	1.12	2.27
Non-Primary Urban County	0.16	0.11	2.22	1.18	0.95	1.46
<i>Primary Urban County</i>	-	-	-	-	-	-
Siblings	0.82	0.09	83.10 ^c	2.27	1.91	2.71

The odds of an infant being placed into out of home care after a substantiated allegation of maltreatment is 2.95 times higher than for a teenager.

Children who have an older sibling that was previously involved in the child welfare system are 2.27 times as likely to be placed after a substantiated investigation than those who do not.

^a Significant at the .05 level; ^b Significant at the .01 level; ^c Significant at the .001 level.

Placement Rate per 1,000 by Entry Year and Age at Entry

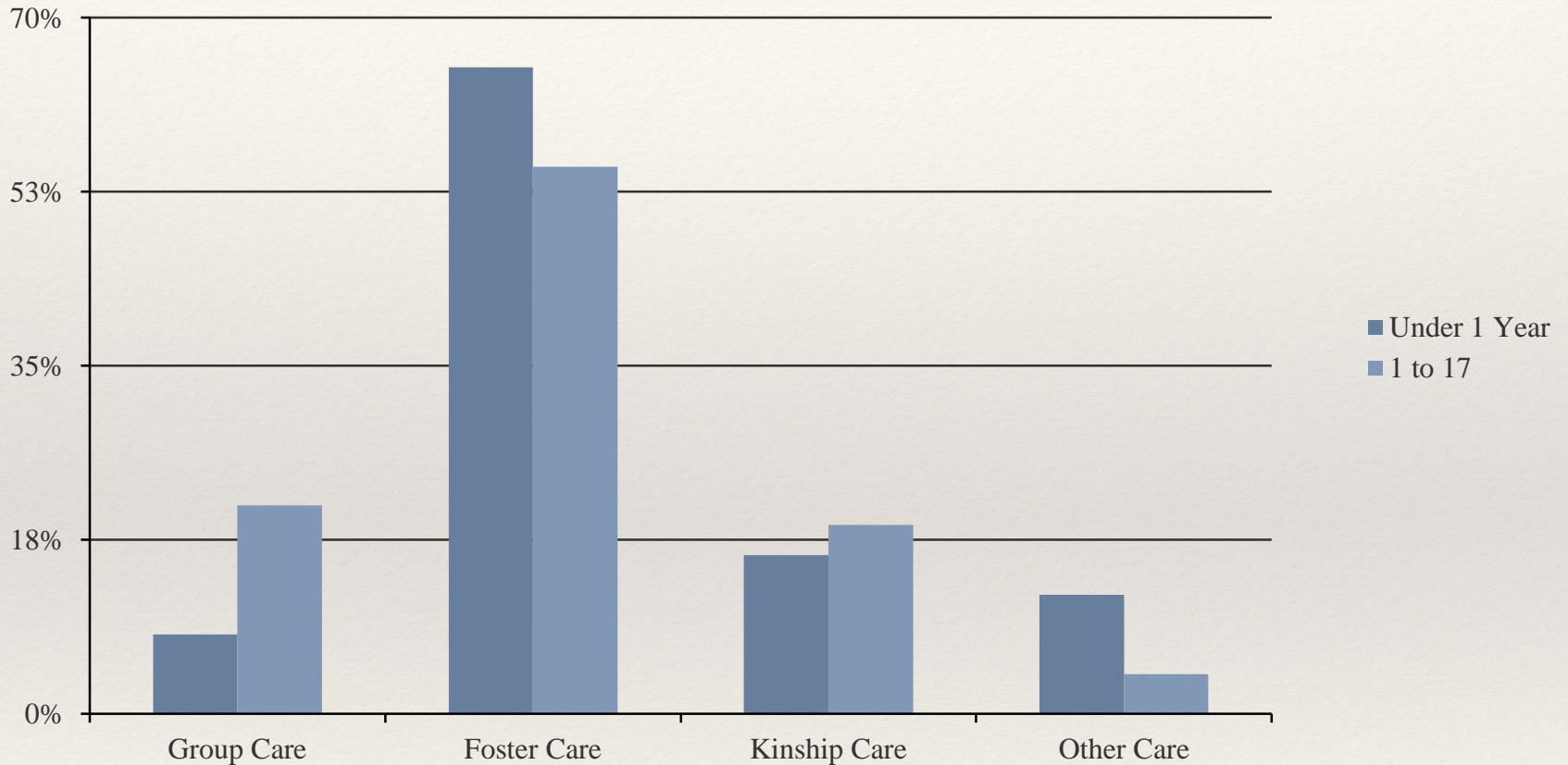


Placement Rate per 1,000 by Entry Year and Age at Entry

Year	<u>Age at Placement</u>			
	Under 1	1 to 5	6 to 12	13 to 17
2006	13.85	3.92	2.28	2.73
2007	13.32	3.69	2.1	2.58
2008	12.11	3.24	1.84	2.34
2009	10.67	3.07	1.7	2.08
2010	11.18	3.22	1.76	1.97
2011	11.13	3.45	1.83	2.02
2012	11.54	3.5	1.89	1.92

Infants are placed at a significantly higher rate than any other age group.

First Placement Type by Age at Entry



First Placement Type by Age at Entry

Age	Total	Group Care	Foster Care	Kinship Care	Other Care
Total	212,441	38,960	122,074	39,696	11,711
Under 1 Year	47,246	3,576	30,491	7,513	5,666
1 to 17	165,195	35,384	91,583	32,183	6,045
Total	100%	18%	57%	19%	6%
Under 1 Year	100%	8%	65%	16%	12%
1 to 17	100%	21%	55%	19%	4%

When placed in foster care, older children are more likely than infants to enter directly to congregate care and kinship care; infants are more likely to enter directly to non-kinship foster care and ‘other care’ placements. ‘Other care’ is made up of emergency care or hospital care.

Quartile Duration in days by Age at Admission

Percent Exited	Under 1	1 to 17
25%	167	74
50%	423	272
75%	715	603
Observations	47,246	165,195

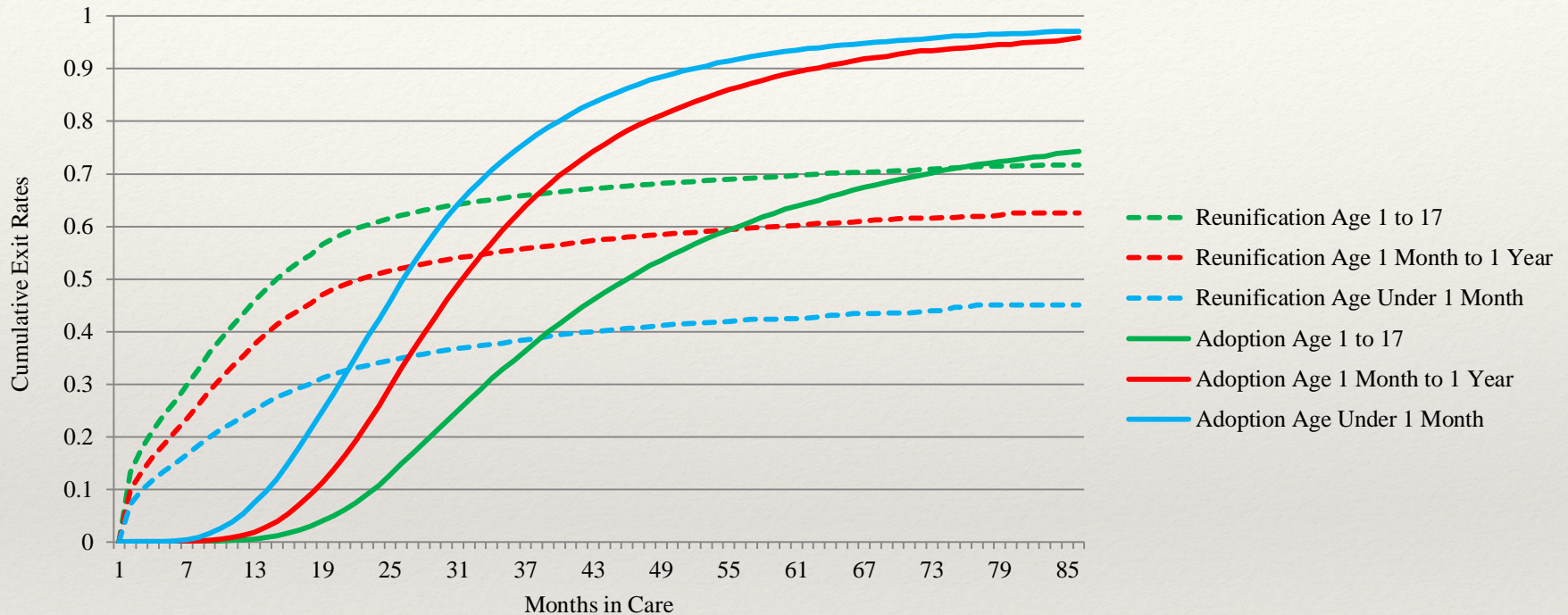
Children entering foster care as infants stay in care longer than children entering at older ages.

Quartile Duration in days by Age at Admission

Percent Exited	Age at First Admission		
	Under 1 Month	1 Month to 1 Year	1 to 17 Years
25%	218	125	74
50%	468	376	272
75%	727	699	603
Observations	22,711	24,535	165,195

Length of stay differences are even more pronounced for children who are placed within 30 days of birth. Children placed at age 1 month or younger stay in care considerably longer than all other children.

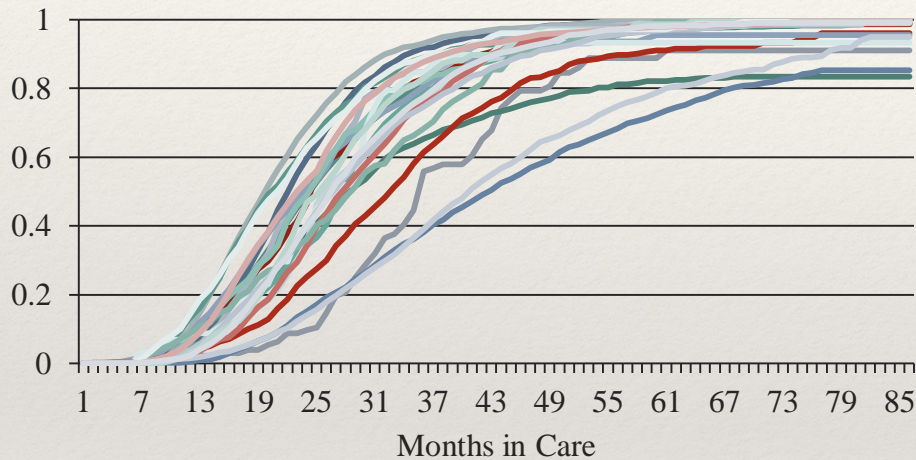
Cumulative Exit Rates by Exit Type and Age at Entry



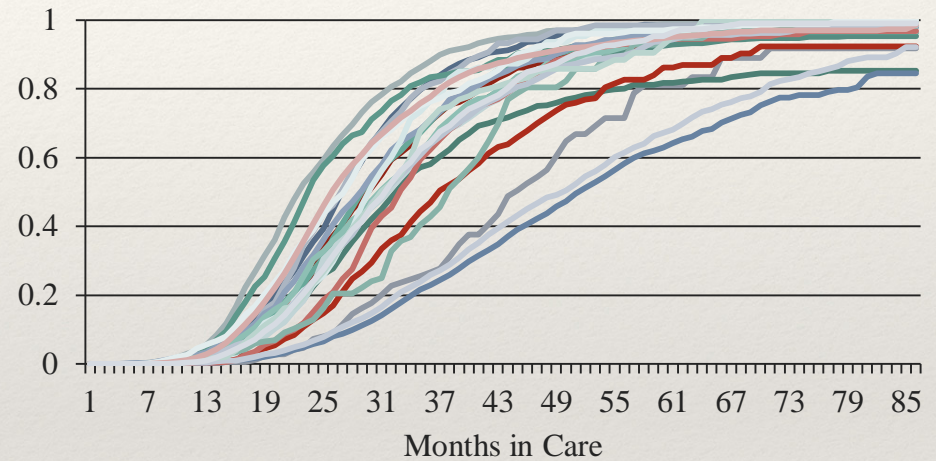
While infants tend to have much longer lengths of stay than older children, the differences are in part due to differences in the likelihood of adoption, which generally takes longer than reunification. Infants are adopted faster than older children; infants reunify slower than older children.

Cumulative Rate of Adoption by State

Adoption of Children Under Age 1 Month



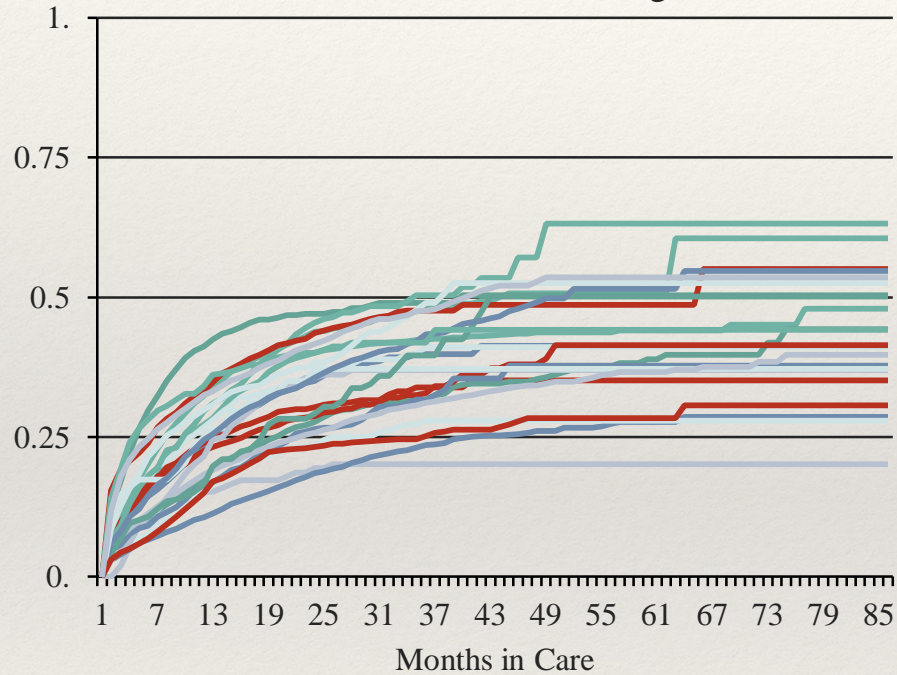
Adoption of Children Age 1 Month to 1 Year



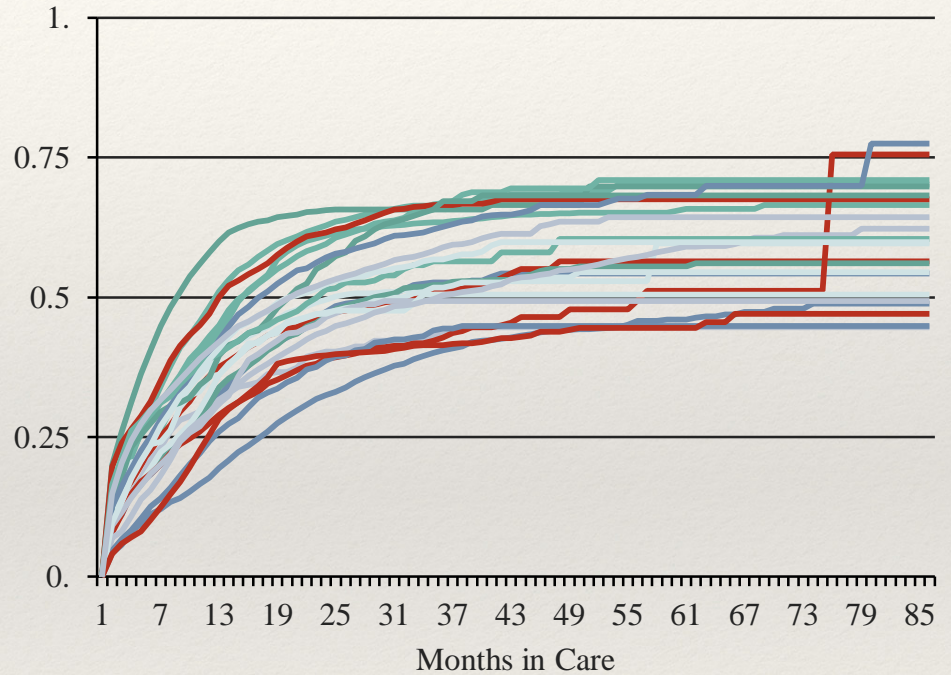
Variation in state performance is an important factor.

Cumulative Rate of Reunification by State

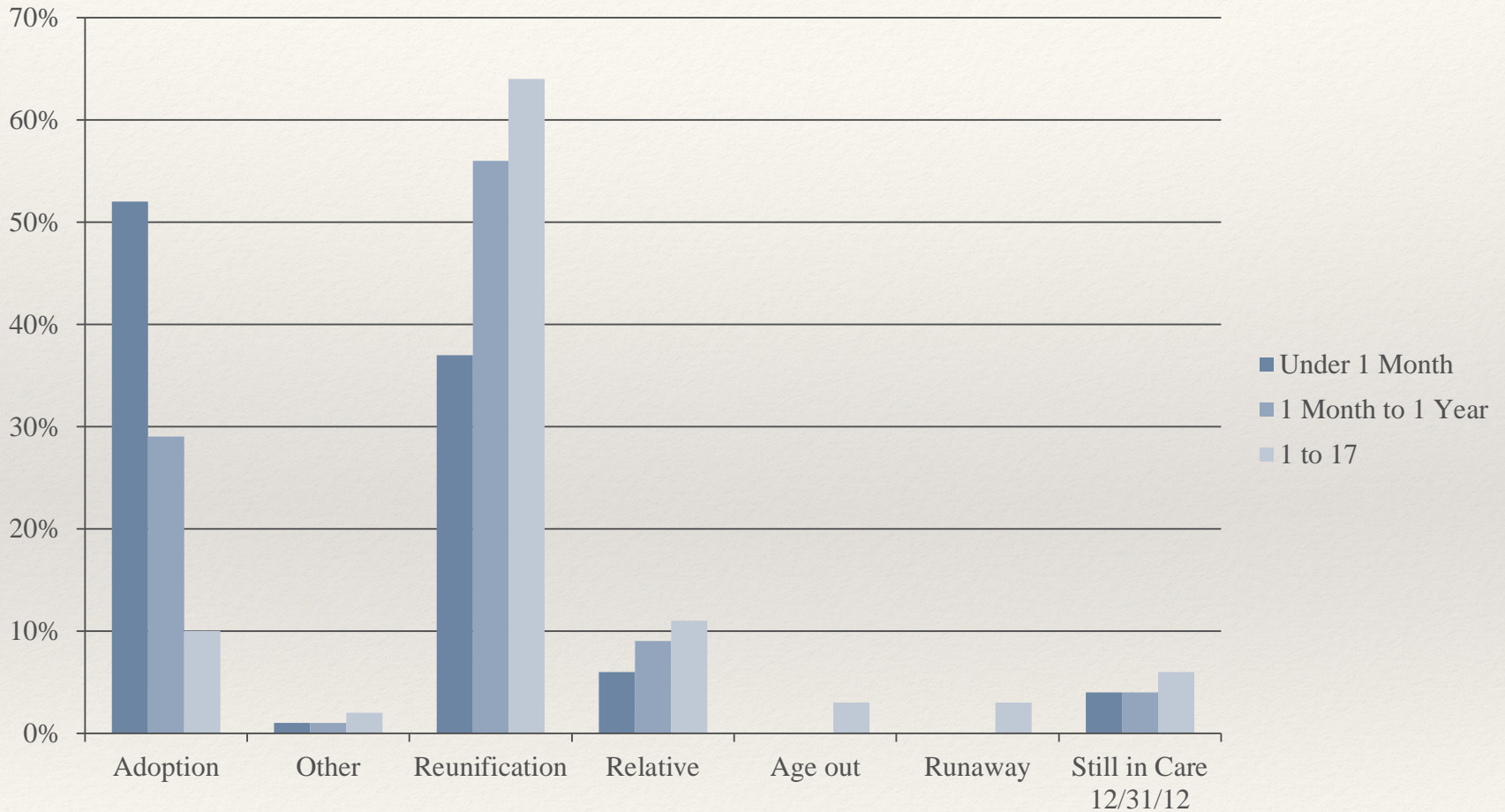
Reunification of Children Under Age 1 Month



Reunification of Children Age 1 Month to 1 Year



Exit Type by Age at Placement

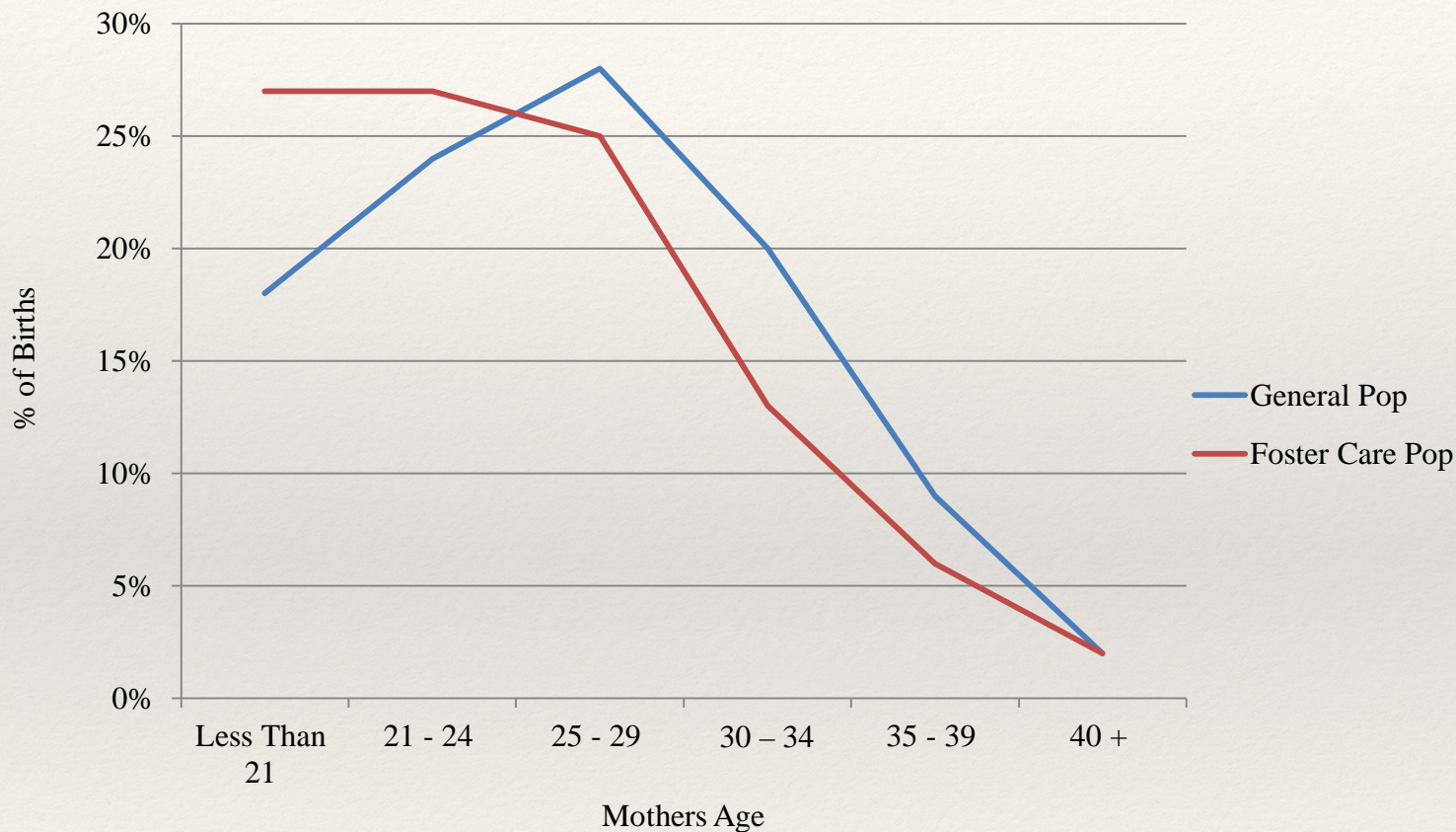


Exit Type by Age at Placement

Age	Total	Adoption	Other	Reunification	Relative	Age out	Runaway	Still in Care 12/31/12
Total	212,441	36,279	3,546	127,966	21,445	5,589	5,505	12,111
Under 1 Month	22,711	11,859	269	8,304	1,406	0	0	873
1 Month to 1 Year	24,535	7,127	280	13,750	2,307	0	0	1,071
1 to 17	165,195	17,293	2,997	105,912	17,732	5,589	5,505	10,167
Total	100%	17%	2%	60%	10%	3%	3%	6%
Under 1 Month	100%	52%	1%	37%	6%	0%	0%	4%
1 Month to 1 Year	100%	29%	1%	56%	9%	0%	0%	4%
1 to 17	100%	10%	2%	64%	11%	3%	3%	6%

Age and exit type are strongly related. Adoption is much more likely for children who enter care under the age of 1; children entering care under the age of 1 month the most likely to be adopted.

Births by Age of Mother and Placement Status



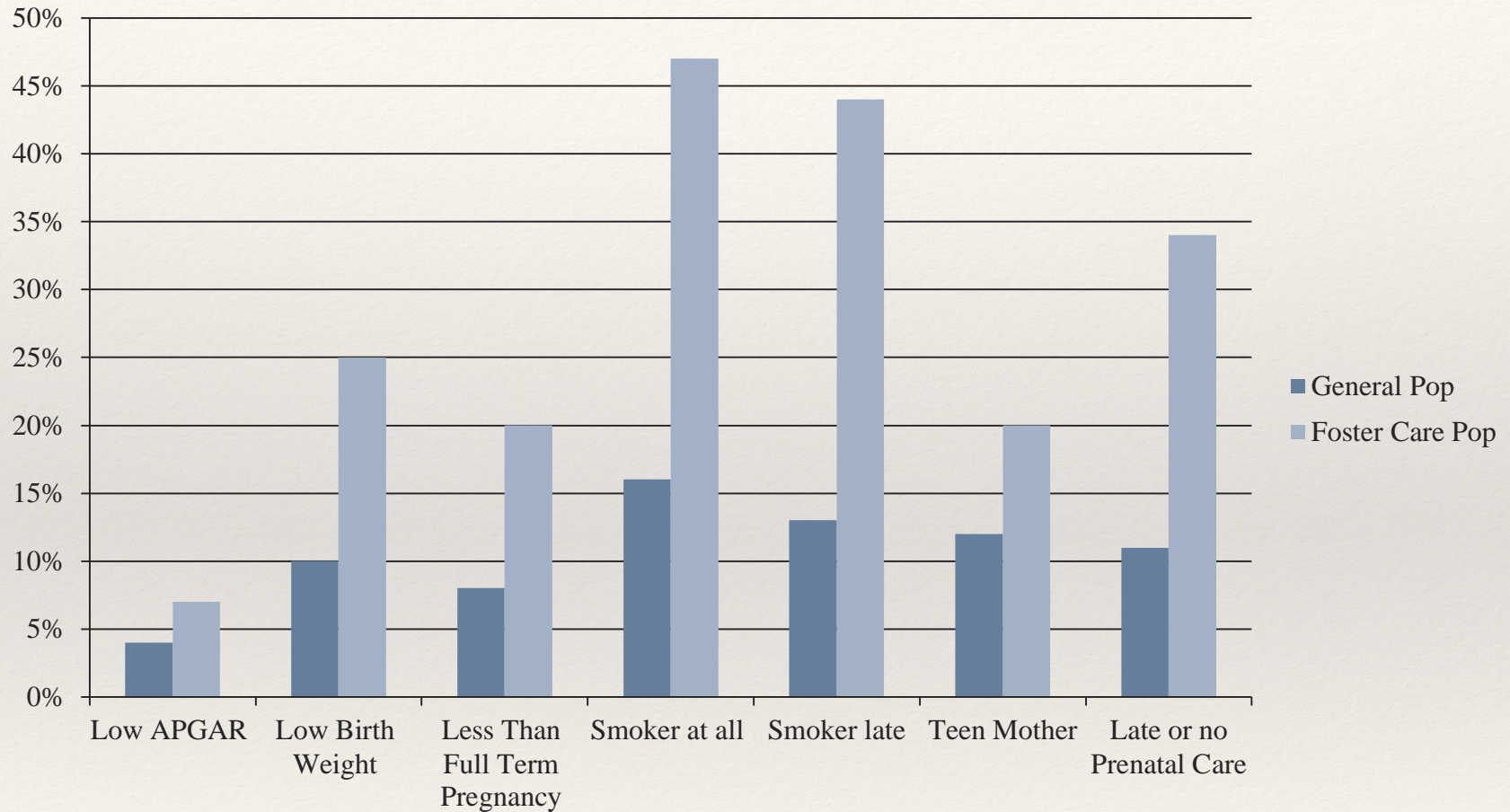
Births by Age of Mother and Placement Status

Mother Age	General Pop	Foster Care Pop
Total	793,204	6,125
Less Than 21	140,946	1,659
21 - 24	187,851	1,647
25 - 29	225,742	1,512
30 - 34	156,483	798
35 - 39	67,778	387
40 +	14,404	122
Total	100%	100%
Less Than 21	18%	27%
21 - 24	24%	27%
25 - 29	28%	25%
30 - 34	20%	13%
35 - 39	9%	6%
40 +	2%	2%

42% of all births in the general population were born to a mother under the age of 25.

54% of infants placed in foster care were born to mothers under the age of 25.

Status at Birth by Placement Status: Children Placed as Infants



Status at Birth by Placement Status: Children Placed as Infants

Birth Outcomes	General Pop	Foster care Pop
All Births	793,204	6,125
Low APGAR	29,972	451
Low Birth Weight	77,190	1,521
Full Term Pregnancy	728,139	4,902
Smoker at all	123,675	2,906
Smoker late	100,449	2,671
Teen Mother	96,054	1,242
Late or no Prenatal Care	86,324	2,071
All Births	100%	100%
Low APGAR	4%	7%
Low Birth Weight	10%	25%
Full Term Pregnancy	92%	80%
Smoker at all	16%	47%
Smoker late	13%	44%
Teen Mother	12%	20%
Late or no Prenatal Care	11%	34%

Infants placed in foster care are more likely than children in the general population to have serious risk factors at birth.









Battelle Developmental Inventory (BDI) and Preschool Language Scores (PLS) at Baseline by Placement Type: Infant Subsample of NSCAW I

Placement Setting	<u>Cognitive</u> BDI Score	<u>Preschool language</u> (PLS) Score
All children	46.8	98.2
Foster care	46.3	93.7*
Kinship care	48.9	95.0
Group care	44.3	92.2
Adoption	48.8	96.5
At home	46.6	99.6*

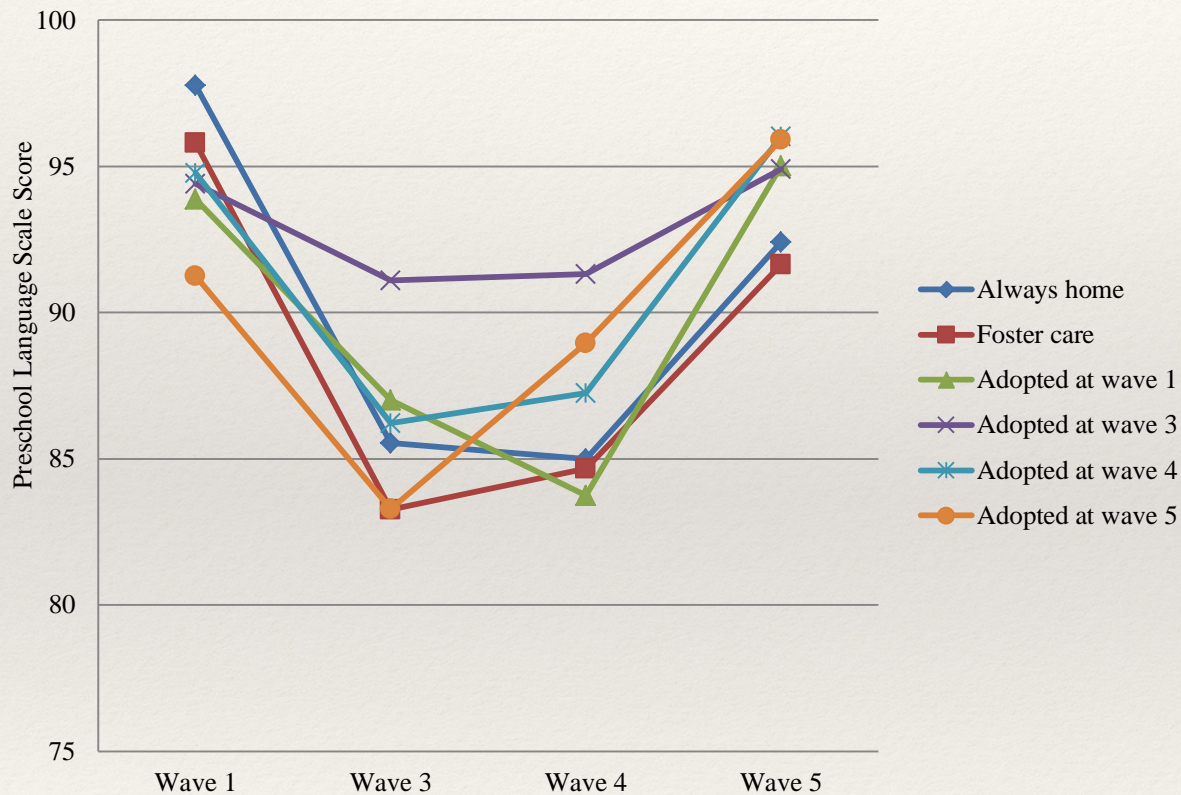
* indicates significant difference between the two scores

At the NSCAW baseline assessment, children placed at home scored significantly better on the PLS than children placed in foster care. Otherwise, PLS and BDI scores were fairly comparable across placement types.

Developmental Trajectories of Infants in the Child Welfare System

Developmental Indicators	<u>Baseline</u>	<u>Wave 3</u>	<u>Wave 4</u>	<u>Wave 5</u>	Trend Lines
	Percent	Percent	Percent	Percent	
Preschool Language Scale - 3					
Above normal	18%	9%	7%	16%	
Normal	57%	46%	41%	50%	
1-2 std dev. Below mean	22%	26%	35%	17%	
over 2 std dev below mean	3%	19%	16%	17%	
Battelle Developmental Inventory BDI					
Above normal	9%	9%	3%		
Normal	61%	62%	53%		
1-2 std dev. Below mean	13%	12%	23%		
over 2 std dev below mean	17%	17%	21%		
Kaufman Brief Intelligence Test K-BIT					
Above normal				4%	
Normal				72%	
1-2 std dev. Below mean				19%	
over 2 std dev below mean				5%	

Mean PLS Score by Wave and Time of Adoption: Infant Subsample of NSCAW I



Between Wave 1 and Wave 5, all children's PLS scores dip and then rebound.

At Wave 1, the best performing children were those that remained in their homes; but at Wave 5, their PLS scores are lower than all children except for those who spent the entire period in foster care.

Children adopted at Wave 5 had the lowest PLS scores at the outset, but were among the highest scorers at Wave 5.

Mean PLS Score by Wave and Time of Adoption: Infant Subsample of NSCAW I

Time of Adoption	Wave of Survey			
	Wave 1	Wave 3	Wave 4	Wave 5
Always home	97.8 ^{ab}	85.5 ^d	85.0 ^{hi}	92.4 ^l
Foster care	95.8 ^c	83.3 ^e	84.7 ^{jk}	91.6 ^m
Adopted at wave 1	93.9	87.0	83.7	95.0
Adopted at wave 3	94.4	91.1 ^{defg}	91.3 ^{hj}	94.9
Adopted at wave 4	94.8 ^a	86.2 ^f	87.2	96.0 ^{lm}
Adopted at wave 5	91.3 ^{bc}	83.3 ^g	89.0 ^{ik}	95.9

Significance level: $p < 0.01$ for b,e,h,j ; $p < 0.05$ for c,d,g; and $p < 0.1$ for a,f,i,k,l,m.

Children who were adopted improved their language skills by Wave 5, regardless of when they were adopted.

Developmental Scores at Wave 5 By Time of Adoption: Infant Subsample of NSCAW

Adoption Status of Children	<u>Kaufman Brief Intelligence Test</u>			<u>Woodcock-Johnson III Test of Achievement</u>		
	Vocabulary	Matrices	Total KBIT	Letter- Word	Passage	Applied Problem
Always home	90.9 ^{ab}	94.0 ^e	91.8 ^{ij}	99.3 ^{nop}	97.3 ^v	90.3 ^x
Foster care	90.9 ^{cd}	92.6 ^{fg}	90.8 ^{klm}	100.3 ^{qr}	96.9 ^w	89.5 ^{yz}
Adopted at wave 1	94.0	95.4	94.1	92.2 ^{stu}	94.8	82.1 ^{ABC}
Adopted at wave 3	95.3 ^{ac}	97.5 ^{efh}	96.0 ^{ik}	103.6 ^{ns}	100.2 ^{vw}	95.0 ^{xyA}
Adopted at wave 4	95.6 ^{bd}	93.4 ^h	93.9 ^l	103.9 ^{oqt}	99.0	92.7 ^B
Adopted at wave 5	93.8	97.0 ^g	95.2 ^{jm}	103.6 ^{pru}	99.2	93.6 ^{zC}

Significance level: p <0.01 for b,d,l,j,k,m,n,p; p<0.05 for a,c,f,g,l,o,s,t,u,x,y,A; <0.1 for e,h,q,r,v,w,z,B,C.

Mean Home Environment Scores at Wave 5 by Adoption Status: Infant Subsample of NSCAW I

HOME score by Placement Outcomes at Wave 5

Score on Home Environment	At Home	Foster Care	Kin adoption	Non-kin adoption	Other adoption	All children
Cognitive stimulation	10.2	11.7	12.2	12.5	11.7	10.7
Emotional support	9.3	9.5	9.4	10.2	10	9.4
Total Score	19.5	21.2	21.6	22.7	21.7	20.1

HOME score by Adoption Status (timing)

Score on Home Environment	Always Home	Foster Care	W1 adoption	W3 adoption	W4 adoption	W5 adoption	All children
Cognitive stimulation	10.2	10.8	13	12	12.2	12.2	10.7
Emotional support	9.2	9.4	9.3	10	9.6	10	9.4
Total Score	19.4	20.2	22.2	22	21.8	22.2	20.1

The homes of children who were living at home were generally less stimulating and offered less emotional support than the homes of children in other living arrangements.