



Making a Difference in the Lives
of Infants and Toddlers and
Their Families: The Impacts of
Early Head Start

Volume I: Final Technical
Report



U.S. Department of Health and Human Services
Administration for Children and Families
Office of Planning, Research and Evaluation
Child Outcomes Research and Evaluation
Administration on Children, Youth and Families
Head Start Bureau



**Making a Difference in the Lives of Infants and Toddlers
and Their Families: The Impacts of Early Head Start**

Volume I: Final Technical Report

June 2002

Child Outcomes Research and Evaluation
Office of Planning, Research, and Evaluation
Administration for Children and Families
And the Head Start Bureau
Administration on Children, Youth and Families
Department of Health and Human Services

TABLE 1

SELECTED KEY GLOBAL IMPACTS ON CHILDREN AND PARENTS WHEN CHILDREN WERE 2 AND 3 YEARS OLD

Outcome	Impacts at Age 2				Impacts at Age 3			
	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a
Child Cognitive and Language Development								
Average Bayley Mental Development Index (MDI)	90.1	88.1	2.0***	14.9	91.4	89.9	1.6**	12.0
Percentage with MDI Below 85	33.6	40.2	-6.6**	-13.5	27.3	32.0	-4.7*	-10.1
CDI Vocabulary Production Score	56.3	53.9	2.4**	10.8	NA	NA	NA	NA
CDI Sentence Complexity Score	8.6	7.7	0.9**	11.4	NA	NA	NA	NA
CDI Percentage Combining Words	81.0	77.9	3.1	7.4	NA	NA	NA	NA
Peabody Picture Vocabulary Test (PPVT-III)								
Standard Score	NA	NA	NA	NA	83.3	81.1	2.1**	13.1
Percent with PPVT-III Below 85	NA	NA	NA	NA	51.1	57.1	-6.0**	-12.1
Child Social-Emotional Development								
Child Behavior Checklist: Aggressive Behavior	9.9	10.5	-0.6**	-10.2	10.6	11.3	-0.7**	-10.8
Bayley Behavior Rating Scale (BRS): Emotional Regulation	3.6	3.6	-0.0	1.4	4.0	4.0	0.0	0.6
Bayley BRS: Orientation/Engagement	3.7	3.6	0.0	0.5	3.9	3.8	0.0	4.0
Child Frustration During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	2.7	2.7	0.0	2.2
Engagement of Parent During Parent-Child Semistructured Play	4.3	4.2	0.1	7.6	4.8	4.6	0.2***	20.3
Engagement of Parent During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	5.0	4.9	0.1	8.8
Negativity Toward Parent During Parent-Child Semistructured Play	1.7	1.8	-0.1	-8.0	1.2	1.3	-0.1**	-13.8
Sustained Attention to Objects During Parent-Child Semistructured Play	5.0	5.0	0.1	6.8	5.0	4.8	0.2***	15.9
Persistence During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	4.6	4.5	0.1	6.3

TABLE 1 (continued)

Outcome	Impacts at Age 2				Impacts at Age 3			
	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a
Parenting Behavior								
Supportiveness During Parent-Child Semistructured Play	4.1	3.9	0.1**	13.5	4.0	3.9	0.1***	14.6
Supportive Presence During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	4.5	4.4	0.1	4.2
Quality of Assistance During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	3.6	3.5	0.1*	9.0
Detachment During Parent-Child Semis-Structured Play	1.4	1.5	-0.1*	-10.4	1.2	1.3	-0.1*	-9.0
Detachment During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	1.6	1.6	-0.0	-0.2
Intrusiveness During Parent-Child Semis-Structured Play	1.9	1.9	0.0	3.0	1.6	1.6	-0.0	-5.5
Intrusiveness During Parent-Child Puzzle Challenge Task	NA	NA	NA	NA	2.7	2.7	-0.1	-5.8
Negative Regard During Parent-Child Semis-Structured Play	1.5	1.5	0.0	3.9	1.3	1.3	-0.0	-1.6
Home Observation for Measurement of the Environment (HOME): Emotional Responsivity	6.2	6.1	0.1*	8.1	NA	NA	NA	NA
HOME: Harshness	NA	NA	NA	NA	0.3	0.3	0.0	2.1
HOME: Warmth	NA	NA	NA	NA	2.6	2.5	0.1*	9.0
HOME: Total Score	26.5	26.1	0.4**	9.8	27.6	27.0	0.5**	10.9
HOME: Support of Language and Learning Parent-Child Play	10.3	10.1	0.2***	11.5	10.6	10.4	0.2**	9.9
Percentage of Parents Who Read to Child Every Day	4.6	4.5	0.1**	11.7	4.4	4.3	0.1*	9.1
Percentage of Parents Who Read to Child at Bedtime	57.9	52.3	5.6**	11.3	56.8	52.0	4.9**	9.7
Percentage of Parents Who Set a Regular Bedtime for Child	29.4	22.6	6.8***	16.0	32.3	29.2	3.1	6.8
HOME: Internal Physical Environment	61.6	55.8	5.9**	11.8	59.4	58.2	1.3	2.5
	NA	NA	NA	NA	7.8	7.8	0.0	-0.3

TABLE 1 (continued)

Outcome	Impacts at Age 2				Impacts at Age 3			
	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a
Parenting Knowledge and Discipline Strategies								
Knowledge of Infant Development Inventory	3.4	3.3	0.1***	12.3	NA	NA	NA	NA
Percentage of Parents Who Use Guards or Gates for Windows	62.7	65.0	-2.3	4.7	NA	NA	NA	NA
Percentage of Parents Who Always Use a Car Seat for Child	NA	NA	NA	NA	69.8	70.8	-0.9	-2.0
Percentage of Parents Who Spanked Child in Previous Week	47.4	52.1	-4.7*	-9.4	46.7	53.8	-7.1***	-14.2
Percentage of Parents Who Suggested Responses to Hypothetical Situations with Child: Prevent or Distract	72.9	66.8	6.1***	12.9	70.6	69.3	1.3	2.8
Percentage of Parents Who Suggested Responses to Hypothetical Situations with Child: Talk and Explain	37.2	31.1	6.1**	12.9	70.7	69.1	1.7	3.6
Percentage of Parents Who Suggested Responses to Hypothetical Situations with Child: Physical Punishment	27.7	29.7	-2.0	-4.3	46.3	51.1	-4.8**	-9.6
Percentage of Parents Who Suggested Only Mild Responses to Hypothetical Situations with Child	43.1	39.1	4.0*	8.2	44.7	40.5	4.2*	8.5
Parent's Physical and Mental Health and Family Functioning								
Family Environment Scale – Family Conflict	1.7	1.7	-0.1**	-11.0	1.7	1.7	0.0	-4.3
Parenting Stress Index : Parental Distress	25.0	25.9	-1.0**	-10.2	24.7	25.5	-0.7	-7.7
PSI : Parent-Child Dysfunctional Interaction	16.9	17.4	-0.6*	-9.4	17.8	17.8	-0.0	-0.2
CIDI-Depression – Average Probability	15.3	15.6	-0.3	-0.8	NA	NA	NA	NA
Center for Epidemiological Studies Depression (CES-D: Short Form)	NA	NA	NA	NA	7.4	7.7	-0.3	-3.7
Parent's Health Status – Average Score	3.5	3.5	0.0	2.3	3.4	3.5	-0.1	-4.9
Child's Health Status – Average Score	3.8	3.9	-0.1	-5.5	4.0	4.0	-0.0	1.5

TABLE 1 (continued)

Outcome	Impacts at Age 2				Impacts at Age 3			
	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a	Program Group Mean	Control Group Mean	Estimated Impact per Participant	Effect Size (Percent) ^a
Parent Self-Sufficiency								
Percentage of Parents Who Ever Participated in an Education or Job Training Program in First 15 Months After Random Assignment	48.4	43.7	4.7**	10.7	NA	NA	NA	NA
Percentage of Parents Who Ever Participated in an Education or Job Training Program in First 26 Months After Random Assignment	NA	NA	NA	NA	60.0	51.4	8.6***	17.2
Total Hours/Week in Education/Training in First 15 Months After Random Assignment	5.3	4.1	1.1***	14.6	NA	NA	NA	NA
Total Hours/Week in Education/Training in First 26 Months After Random Assignment	NA	NA	NA	NA	4.6	3.4	1.2***	18.4
Percentage of Parents Ever Employed in First 15 Months After Random Assignment	72.2	71.9	0.2	0.5	NA	NA	NA	NA
Percentage of Parents Ever Employed in First 26 Months After Random Assignment	NA	NA	NA	NA	86.8	83.4	3.4*	9.0
Average Hours per Week Employed at All Jobs in First 15 Months After Random Assignment	14.6	15.4	-0.8	-5.5	NA	NA	NA	NA
Average Hours per Week Employed at All Jobs in First 26 Months After Random Assignment	NA	NA	NA	NA	17.1	17.1	0.1	0.5
Percentage of Parents Who Received Any Welfare Benefits During First 15 Months After Random Assignment	65.3	64.6	0.7	1.5	NA	NA	NA	NA
Percentage of Parents Who Received Any Welfare Benefits During First 26 Months After Random Assignment	NA	NA	NA	NA	68.1	66.5	1.6	3.5
Percentage of Families with Income Above the Poverty Line at Second Followup	33.8	36.4	-2.5	-7.0	NA	NA	NA	NA
Percentage of Families with Income Above the Poverty Line at Third Followup	NA	NA	NA	NA	42.9	43.3	-0.4	-0.8
Dunst Family Resource Scale at Second Followup	153.1	152.2	0.8	0.6	NA	NA	NA	NA
Dunst Family Resource Scale at Third Followup	NA	NA	NA	NA	154.8	153.8	1.0	5.2
Percentage With Any Births (Not Including Focus Child) Within 24 Months After Random Assignment	NA	NA	NA	NA	22.9	27.1	-4.2*	-9.2

TABLE 1 (*continued*)

SOURCE: Birthday-related child assessments and parent interviews conducted when children were 24 and 36 months old and parent services follow-up interviews conducted 15 and 26 months after random assignment.

NOTE: The impact estimates do not always exactly equal the program group minus the control group means due to rounding. All impact estimates were calculated using regression models, where each site was weighted equally. A participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had been assigned to the program group instead. This unobserved mean was estimated as the difference between the program group mean for participants and the impact per participant. The estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for all program and control group members.

^aThe effect size is calculated by dividing the estimated impact per participant on the outcome measure by the standard deviation of the outcome measure among the control group. Thus, it provides a way of comparing impacts across measures in terms of the size of the program-control difference relative to the standard deviation, expressed as a percentage.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE I.1
KEY EVENTS IN THE HISTORY OF EARLY HEAD START

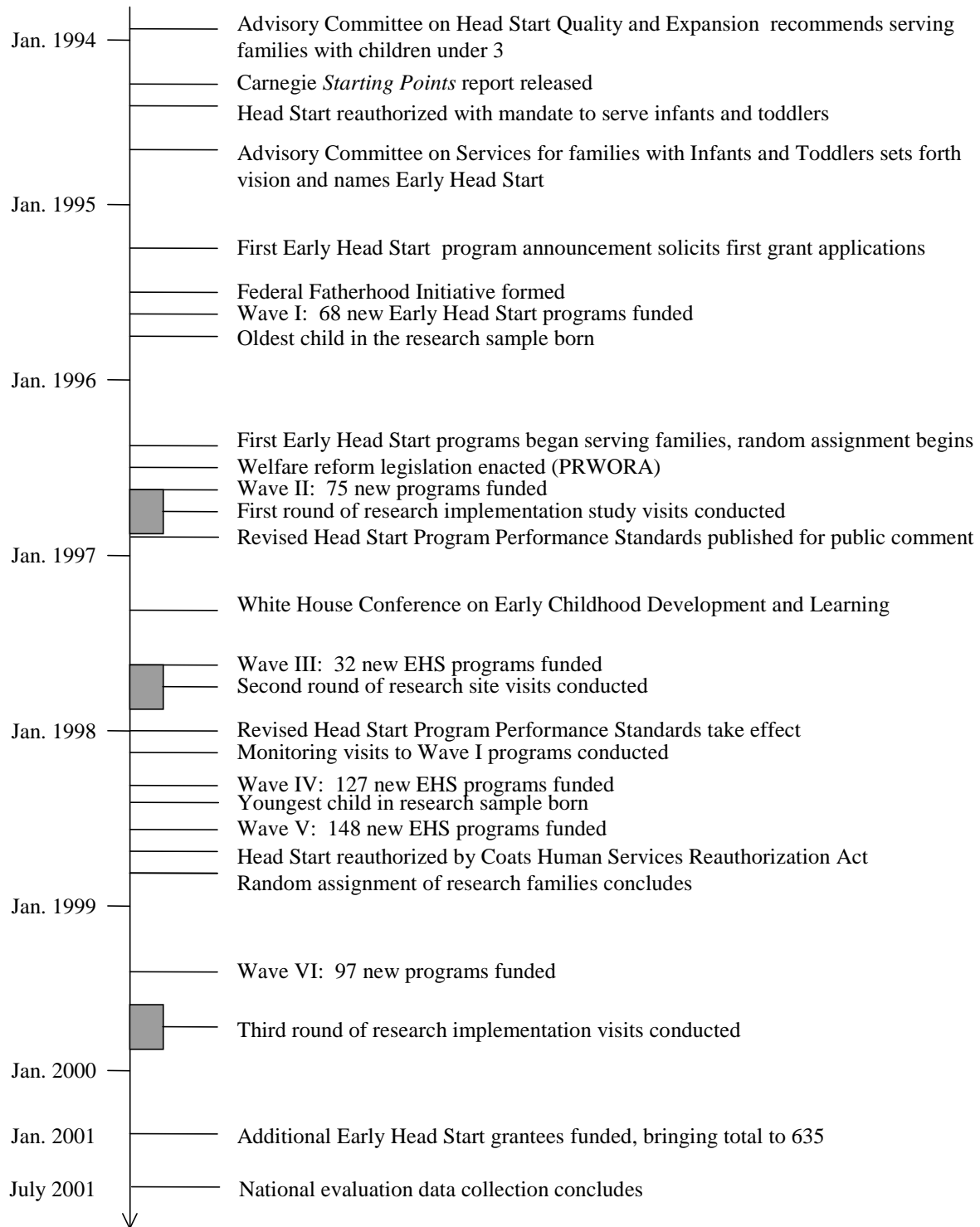


FIGURE I.2

THE EVOLUTION OF PROGRAM APPROACHES OVER TIME

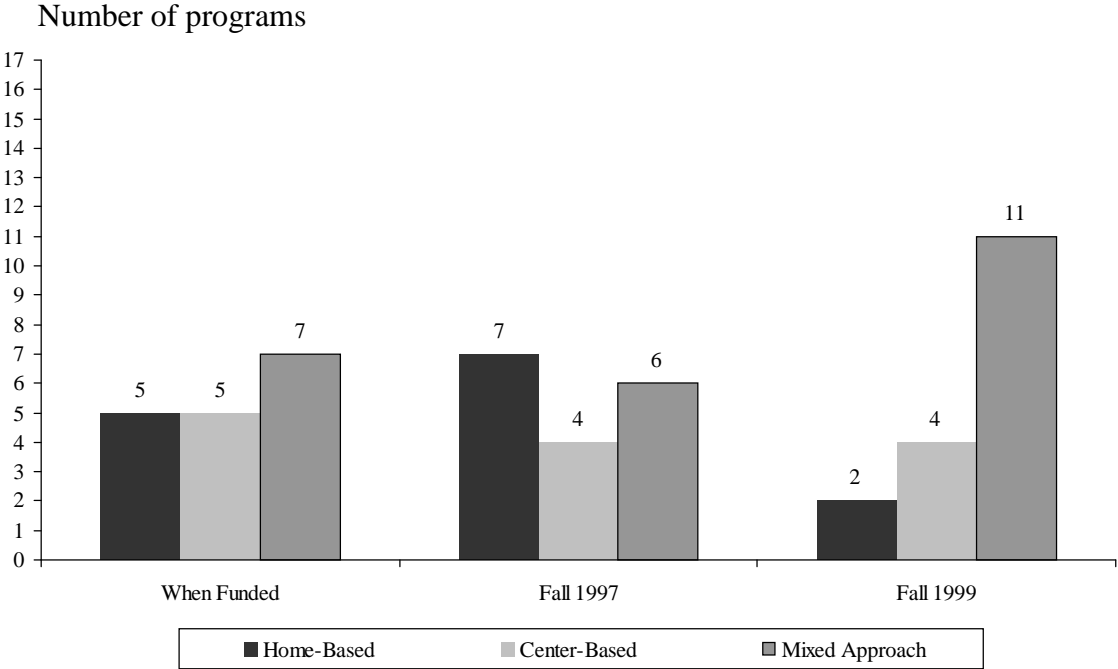


TABLE II.3

RESPONSE RATES TO THE 26-MONTH PSI, 36-MONTH PI AND 36-MONTH ASSESSMENTS, BY SITE
(Percentages)

Site	26-Month PSI			36-Month PI			36-Month Bayley			36-Month Video		
	Program Group	Control Group	Total	Program Group	Control Group	Total	Program Group	Control Group	Total	Program Group	Control Group	Total
1	86	73	79	86	77	81	78	65	72	Group84	69	76
2	62	62	62	70	57	64	55	41	48		44	53
3	76	77	77	76	77	77	56	53	54		59	60
4	60	61	61	88	67	78	65	54	60	60	56	64
5	76	67	71	80	64	72	61	36	48	62	45	52
6	54	57	56	65	65	65	49	46	48	72	42	44
7	62	69	65	51	52	51	46	46	46	59	40	37
8	80	83	81	82	72	77	63	56	60	45	62	65
9	58	52	55	53	49	51	40	35	37	35	27	27
10	61	60	60	61	64	62	61	57	59	68	59	58
11	79	68	74	69	73	71	53	55	54	27	53	54
12	79	61	70	75	67	71	52	46	49	58	46	45
13	74	73	74	82	70	76	60	57	58	55	60	63
14	67	73	70	68	79	73	47	65	55	45	54	50
15	73	75	74	77	76	76	59	62	60	65	63	60
16	78	74	76	77	74	75	75	71	73	47	71	72
17	91	71	81	94	68	81	78	49	64	57	54	68
Total	71	68	70	73	67	70	58	52	55	74	53	55

NOTE: Sites are in random order.

TABLE II.4

RESPONSE RATES TO THE 26-MONTH PSI, 36-MONTH PI AND 36-MONTH ASSESSMENTS,
BY SUBGROUPS DEFINED BY SITE AND FAMILY CHARACTERISTICS
(Percentages)

Site	26-Month PSI		36-Month PI		36-Month Bayley		36-Month Video	
	Program Group	Control Group	Program Group	Control Group	Program Group	Control Group	Program Group	Control Group
Site Characteristics								
Program Approach			*		*		*	*
Center-based	75	67		69	71	56		59
Home-based	69	67		66	56	52		51
Mixed	72	70	83	68	53	51	74	51
Overall Implementation Level	*	*	71	*	*		56	*
Early Implementers	70	71	70	69	58	58	50	56
Later Implementers	78	72		69	64	53		56
Incomplete Implementers	65	60	74	63	52	46	59	44
Family Characteristics at Random Assignment								
Mother's Age at Birth of Focus Child								
Less than 20	71	67	71	66	57	55	56	54
20 or older	71	69	74	69	58	51	59	52
Mother's Education								
Less than grade 12	*	*	*	*				*
Grade 12 or earned a GED	68	66	69	65	57	51	57	51
Greater than grade 12	73	67	78	66	59	51	62	50
	74	75	75	77	58	57	55	60
Race and Ethnicity								
White non-Hispanic	*		*	*	*		*	*
Black non-Hispanic	71	70		73	59	57		59
Hispanic	73	67		66	56	48		48
	70	67	78	62	62	52	60	54
			70				53	
			73				63	

Table II.4 (continued)

Site	26-Month PSI		36-Month PI		36-Month Bayley		36-Month Video	
	Program Group	Control Group	Program Group	Control Group	Program Group	Control Group	Program Group	Control Group
Welfare Receipt	*		*		*		*	*
Received welfare	66	65		66	54	50		48
Did not receive welfare	74	69	77	70	60	53	60	56
Primary Occupation			68	*	*		54	*
Employed	75	66		68	67	52		55
In school or training	71	67	72	66	60	52	60	50
Neither	69	76	80	69	53	53	66	53
Primary Language				*				
English	70	69	70	70	57	54	53	54
Other	72	67		62	61	50		51
Living Arrangements		*	73				57	*
With spouse	73	72	72	72	56	54	60	57
With other adults	72	70	73	67	61	53	61	54
Alone	69	63	76	65	56	51	59	49
Random Assignment Date				*	*			*
Before 10/96	70	66	71	66	56	51	53	51
10/96 to 6/97	71	71	69	68	54	54	53	54
After 6/97	72	67	72	68	64	51	56	53
Total	71	68		67	58	52		53
			78				64	

SOURCE: HSFIS, 26-month PSI, 36-month PI, 26-month Bayley, and 36-month video data.

*Difference between the variable distribution for interview respondents and the full sample of respondents and nonrespondents is statistically significant at the 10 percent level.

TABLE III.1

DURATION OF EARLY HEAD START PARTICIPATION BY PROGRAM FAMILIES,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Implementers	Later Implementers	Incomplete Implementers
Percentage of Families Who Were Enrolled in Early Head Start ^a :					Early		
Less than 1 month	2	1	2	2	2	2	2
1 to less than 6 months	11	18	10	7	9	13	10
6 to less than 12 months	13	13	13	12	13	13	12
12 to less than 18 months	11	11	11	13	10	10	13
18 to less than 24 months	12	9	13	13	12	11	12
24 to less than 30 months	20	22	16	19	22	18	19
30 to less than 36 months	17	12	20	18	18	17	16
36 months or longer	16	14	15	16	13	17	17
Average Number of Months Families Were Enrolled in Early Head Start	21	20	22	23	22	19	22
Sample Size	1,214	252	554	408	455	410	283

SOURCE: Exit interviews conducted near the time of the focus child's third birthday and information on dates of last contact with the family obtained from program staff in Summer 2000. Excludes one site that did not provide a date of last contact for most families.

NOTE: The percentages are average percentages across programs in any given group.

^aBased on the date of the program's last contact with the family as reported by program staff in summer 2000 if the family had left the program by then or if no exit interview was completed, and on the number of months of participation reported by the family in the exit interview if the family left the program after the summer of 2000 and completed an exit interview.

TABLE III.2

LEVELS OF PARTICIPATION IN CORE EARLY HEAD START CHILD DEVELOPMENT SERVICES,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Program Approach			Pattern of Implementation			
	Full Sample	Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Families Who Received:							
At least minimal core services ^a	89	80	91	92	94	88	83
More than minimal core services ^b	87	77	90	90	93	86	80
Percentage of Families Who Received Core Services at the Required Intensity Level for ^c :							
At least 1 follow-up period	66	53	70	70	79	62	56
At least 2 follow-up periods	43	40	47	40	57	37	33
Combined follow-up period	25	26	26	23	37	19	18
Sample Size	940-1,020	166-205	476-478	298-338	310-351	330-359	301-311

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in any given group and are weighted for nonresponse.

^aAt least one Early Head Start home visit and/or at least two weeks of Early Head Start center-based child care.

^bMore than one Early Head Start home visit and/or at least two weeks of Early Head Start center-based child care.

^cWeekly Early Head Start home visits for home-based sites, at least 20 hours per week of Early Head Start center-based child care for center-based sites, and weekly Early Head Start home visits or at least 20 hours per week of Early Head Start center-based child care for mixed-approach sites.

TABLE III.3

LEVELS OF PARTICIPATION IN EARLY HEAD START HOME VISITS,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center-Based	Home-Based	Mixed-Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Families Who Received:							
Any Early Head Start home visits	84	65	90	89	90	84	76
More than 1 Early Head Start home visit	78	46	89	86	82	81	70
Percentage of Families Who Received Early Head Start Home Visits at Least Monthly for:							
At least 1 follow-up period	69	23	86	82	72	71	65
At least 2 follow-up periods	53	12	72	58	56	51	52
Combined follow-up period	32	4	47	34	38	27	32
Percentage of Families Who Received Early Head Start Home Visits at Least Weekly for:							
At least 1 follow-up period	52	5	70	62	56	51	48
At least 2 follow-up periods	31	0	47	34	38	28	27
Combined follow-up period	16	0	26	16	23	12	14
Percentage of Families Who Received Monthly Early Head Start Home Visits Lasting At Least One Hour for:							
At least 1 follow-up period	64	17	80	78	66	64	62
At least 2 follow-up periods	45	6	61	53	52	40	43
Combined follow-up period	25	2	36	29	33	18	24
Percentage of Families Who Received Weekly Early Head Start Home Visits Lasting At Least One Hour for:							
At least 1 follow-up period	48	3	64	60	54	45	45
At least 2 follow-up periods	29	0	43	31	37	24	25
Combined follow-up period	15	0	24	15	21	11	12
Sample Size	1,007-1,029	206-210	470-480	331-339	346-351	353-364	308-314

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

TABLE III.4

LEVELS OF PARTICIPATION IN EARLY HEAD START CENTER-BASED CHILD CARE,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Children:							
Who ever received Early Head Start care	28	71	1 ^b	30	38	27	17
For whom Early Head Start care was the primary arrangement ^a	21	57	1	20	30	18	12
Percentage of Children Who Were In Early Head Start Care For:							
0 hours per week	75	31	99	76	66	76	85
1-9 hours per week	10	25	0	12	12	11	7
10-19 hours per week	7	16	0	8	9	6	4
20-29 hours per week	4	14	0	2	7	4	1
30-39 hours per week	2	6	0	0	3	1	1
40 or more hours per week	2	6	0	1	3	0	1
Average hours per week	4	12	0	3	6	3	2
Average Total Hours That Children Were In Early Head Start Care	450	1,391	9	336	701	347	273
Percentage of Children Who Were in Early Head Start Care For:							
0% of the follow-up period	72	29	99	70	62	74	83
1-19% of the follow-up period	3	4	0	5	4	2	3
20-39% of the follow-up period	3	8	0	6	3	5	4
40-59% of the follow-up period	3	5	0	4	4	3	1
60-79% of the follow-up period	3	7	0	4	5	2	2
80-99% of the follow-up period	7	15	0	8	6	8	4
100% of the follow-up period	9	31	0	4	16	6	3
Sample Size	918-1,010	175-211	444-458	297-341	308-346	316-375	284-302

TABLE III.4 (continued)

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

^aArrangements that children were in for the largest number of hours during the follow-up period.

^bThese child care arrangements were identified by respondents as Early Head Start center-based child care. The arrangements may be slots that were provided by an Early Head Start program through contracts with community providers or slots in another Early Head Start program in the community, or respondents may have reported them as Early Head Start arrangements in error.

TABLE III.5

CHILD CARE ARRANGEMENTS USED BY EARLY HEAD START FAMILIES,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Children:							
Who received any child care	86	93	80	89	87	82	90
Who received any center-based child care	51	79	33	52	56	50	45
Percentage of Children Who Received Care in the Following Number of Arrangements:							
0	14	7	20	11	13	18	10
1	22	15	24	23	21	20	25
2	25	25	24	26	24	23	28
3	20	26	17	20	21	18	21
4 or more	20	27	16	20	21	22	16
Average number of arrangements used	2	3	2	2	2	2	2
Percentage of Children Who Received Care in More than One Arrangement Concurrently							
	52	73	39	53	56	48	50
Percentage of Children Whose Primary Child Care Arrangement Was ^a :							
Not in child care	14	7	20	11	13	19	10
Early Head Start/Head Start	21	57	1	20	30	18	12
Other child care center	17	10	20	17	16	17	19
Nonrelative	14	5	19	14	12	10	22
Parent or stepparent	8	5	9	7	8	5	10
Grandparent or great-grandparent	18	12	19	21	16	20	19
Other relative	8	3	10	9	3	11	8
Parent at school or work	0	0	1	0	1	0	0
Percentage of Children Whose Primary Arrangement Included Care During:							
Evenings	30	25	31	32	31	29	31
Early mornings	49	42	53	50	47	49	52
Weekends	17	11	18	21	15	17	21
Overnight	22	12	33	16	13	37	15
Sample Size	920-988	189-206	410-459	306-323	311-330	330-388	273-293

TABLE III.5 (continued)

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

^aArrangements that children were in for the largest number of hours during the follow up period.

TABLE III.7

OUT-OF-POCKET CHILD CARE EXPENSES AND RECEIPT OF CHILD CARE SUBSIDIES, FOR THE FULL SAMPLE
OF EARLY HEAD START FAMILIES AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Average Total Out-Of-Pocket Child Care Expenses	\$513	\$481	\$469	\$584	\$482	\$398	\$686
Percentage of Families Who Ever Received a Subsidy to Pay for the Focus Child's Care In:							
Any child care arrangement	30	19	37	29	27	27	37
Any child care center	17	16	15	20	18	17	16
An Early Head Start center	4	7	0	7	7	5	1
Sample Size	731-988	165-206	309-459	257-323	251-327	252-388	228-295

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

TABLE III.8

LEVELS OF PARTICIPATION IN PARENTING EDUCATION SERVICES AND PARENT-CHILD GROUP SOCIALIZATION ACTIVITIES,
FOR THE FULL SAMPLE OF EARLY HEAD START FAMILIES AND KEY PROGRAM SUBGROUPS

	Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Families Who Received:							
Any parenting education services	94	88	94	97	98	93	89
Parenting education from a home visitor	85	66	92	90	90	85	78
Parenting education from a case manager	82	65	87	88	86	81	79
Percentage of Families Who Ever Participated In:							
Any group activities for parents/parents and children	71	68	72	71	77	68	66
Parenting education classes	62	60	63	63	70	58	58
Parenting support groups	20	20	21	20	21	21	18
Group socialization activities for parents and children	41	29	45	46	44	45	33
More than one group socialization activity	37	23	42	42	40	42	29
Percentage of Families Who Participated in Group Socialization Activities At Least Monthly During:							
At least 1 follow-up period	26	12	32	30	28	30	21
At least 2 follow-up periods	9	3	14	8	14	9	5
Combined follow-up period	2	0	3	1	4	1	0
Sample Size	956-1,031	193-211	448-481	314-339	327-352	336-365	293-314

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

TABLE III.9

RECEIPT OF CHILD HEALTH SERVICES BY EARLY HEAD START CHILDREN,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Children Who Received Any Health Services	100	100	100	100	100	100	100
Percentage of Children Who Ever Visited:							
A doctor	99	99	99	98	100	98	99
A doctor for a check-up	95	95	96	94	97	93	95
A doctor for treatment of an illness	83	84	76	90	93	80	74
A dentist	29	38	28	24	32	29	24
An emergency room	54	58	53	53	62	46	55
Average Number of Visits To:							
A doctor for a check-up	7	6	7	7	7	6	7
A doctor for treatment of an illness	6	7	6	6	8	5	6
An emergency room	2	2	2	1	2	1	2
Percentage of Children Who Ever Received:							
An immunization	99	99	99	99	99	98	99
Any screening or testing	67	70	62	71	65	64	73
A hearing test	41	52	34	41	38	43	41
A lead test	28	28	27	30	22	23	42
Sample Size	972-1,031	203-211	454-481	313-340	341-352	326-358	304-314

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

TABLE III.10

DISABILITY INDICATORS AND RECEIPT OF EARLY INTERVENTION SERVICES BY EARLY HEAD START CHILDREN,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Implementers	Later Implementers	Incomplete Implementers
Percentage of Children Who Were Ever Reported By Parents to:					Early		
Be eligible for early intervention services	8	8	8	7	7	6	10
Have received early intervention services	6	5	6	4	5	5	7
Percentage of Children Whose Parents Reported Indicators of Disabilities:							
Level 1: Eligibility for early intervention services or first-level diagnosed condition	14	16	14	13	13	12	14
Level 2: Functional limitation or second- level diagnosed condition	18	18	20	18	20	18	15
Percentage of Children Reported by Program Staff to Be Part C-Eligible by Summer 2000	12	14	12	12	15	9	13
Sample Size	1,028-1,075	216-234	427-490	318-358	331-368	301-401	274-304

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse. Level 1 diagnosed conditions indicate eligibility for early intervention services and include a diagnosed hearing problem, severe or profound hearing loss, difficulty hearing or deafness, vision problem, difficulty seeing or blindness, speech problem, mobility problem, mental retardation, emotional disturbance, cleft palate, or a serious condition that showed up at birth or soon after, such as Down Syndrome, Turner's Syndrome, or spina bifida. Level 2 diagnosed conditions, which may indicate eligibility for early intervention services, include crossed eyes or nearsightedness, epilepsy or seizures, hyperactivity, or a developmental delay. Functional limitations include possible hearing and vision problems, communication problems, trouble with arm/hand or leg/foot, and use of special equipment to get around.

TABLE III.13

RECEIPT OF FAMILY DEVELOPMENT SERVICES BY EARLY HEAD START FAMILIES,
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Implementers	Later Implementers	Incomplete Implementers
Percentage of Primary Caregivers Who:					Early		
Attended school or a training program	62	66	55	67	63	57	65
Discussed education with a case manager	72	51	78	79	72	72	72
Percentage of Families Who:							
Received job search assistance	34	33	32	36	33	31	39
Discussed finding a job with a case manager	66	47	71	74	67	66	67
Percentage of Families Who Received Transportation Services	33	29	32	38	34	36	30
Percentage of Families Who Received:							
Any housing assistance	59	56	66	53	59	50	68
Public housing or rent subsidy	42	49	39	40	38	33	57
Help finding housing	23	19	27	21	20	24	26
Energy assistance	22	16	31	17	29	15	23
Emergency housing	4	2	5	4	5	4	2
Sample Size	899-1,032	183-211	424-481	287-340	309-352	323-365	262-314

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment.

NOTE: The percentages are average percentages across programs in the given group and are weighted for survey nonresponse.

TABLE III.14

PROGRAM FAMILIES' ENGAGEMENT IN EARLY HEAD START SERVICES
FOR THE FULL SAMPLE AND KEY PROGRAM SUBGROUPS

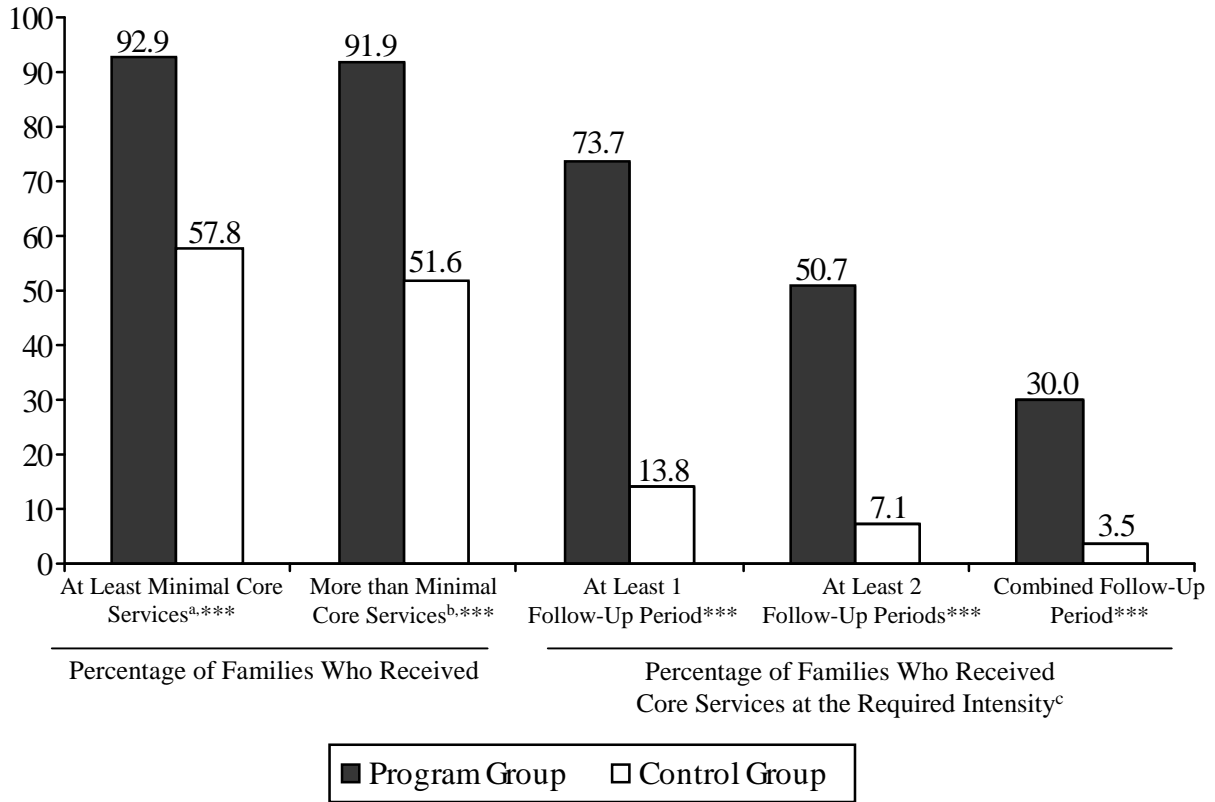
	Full Sample	Program Approach			Pattern of Implementation		
		Center- Based	Home- Based	Mixed- Approach	Early Implementers	Later Implementers	Incomplete Implementers
Percentage of Families Who Were Rated As:							
Consistently highly engaged	37	47	39	38	44	31	37
Engaged at varying levels over time	32	32	29	32	29	38	27
Consistently engaged at a low level	18	7	24	20	19	17	15
Not engaged at all	7	5	8	8	8	7	7
Staff could not recall family's engagement level	6	8	10	3	1	6	14
Sample Size	1,408	306	603	499	521	528	457

SOURCE: Ratings of program engagement provided by program staff in Summer 2000.

NOTE: The percentages are average percentages across programs in any given group.

FIGURE IV.1

IMPACTS ON RECEIPT OF CORE CHILD DEVELOPMENT SERVICES
DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant. The percentage of program families who received core child development services is slightly larger than in Table III.3, because that table includes only home visits and center-based child care provided directly by the Early Head Start programs. Because some control families received these services from other community providers, the percentages here include home visits and center-based child care received from any source. A small percentage of program families also received these services from other community providers.

^aAt least one home visit and/or center-based child care.

^bMore than one home visit and/or at least two weeks of center-based child care.

^cWeekly home visits for home-based sites, at least 20 hours per week of center-based child care for center-based sites, and weekly home visits or at least 20 hours per week of center-based child care for mixed-approach sites.

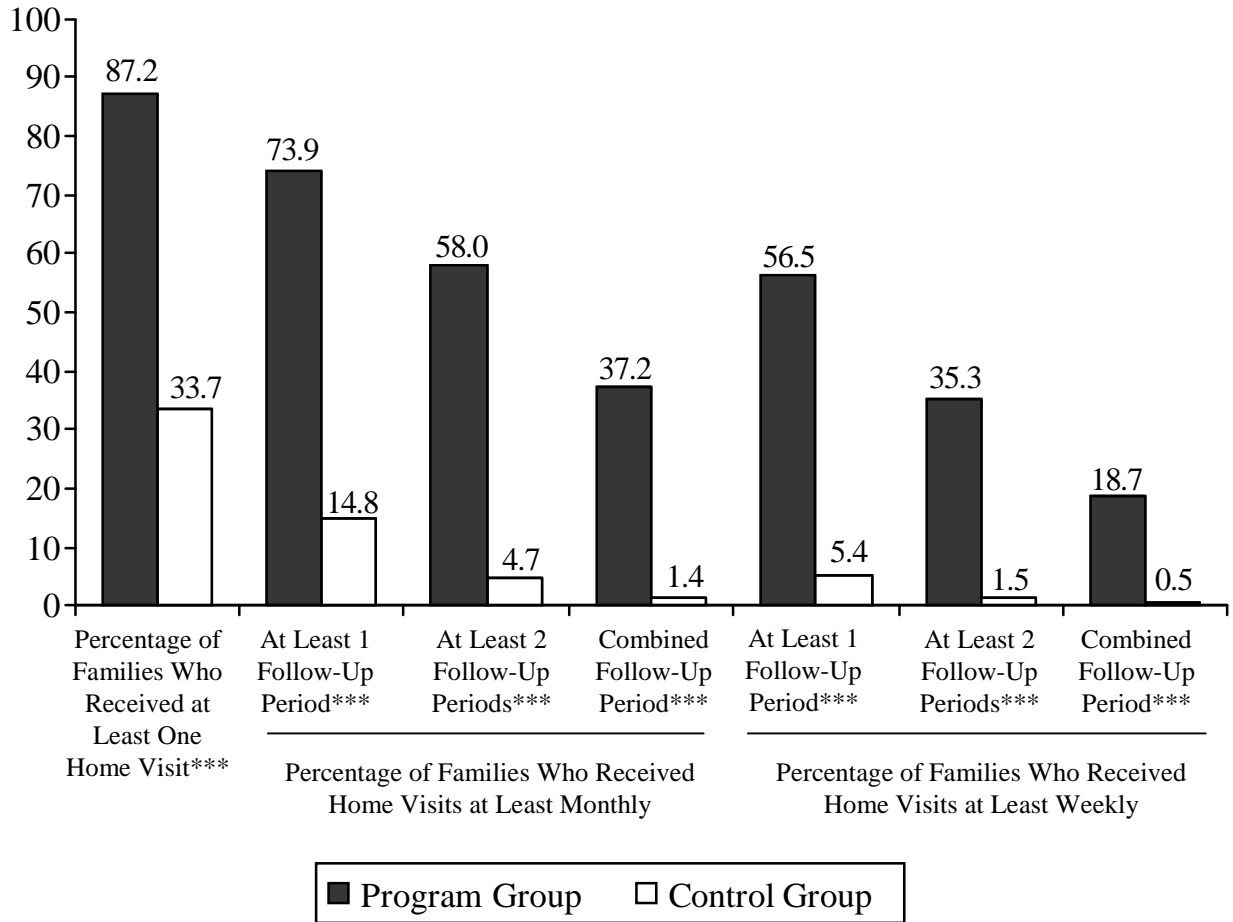
*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.2

IMPACTS ON RECEIPT OF HOME VISITS DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant. The percentage of program families who received home visits is slightly larger than in Table III.4, because that table includes only home visits provided directly by the Early Head Start programs. Because some control families received home visits from other community providers, the percentages reported here include home visits received from any source. A small percentage of program families also received home visits from other community providers.

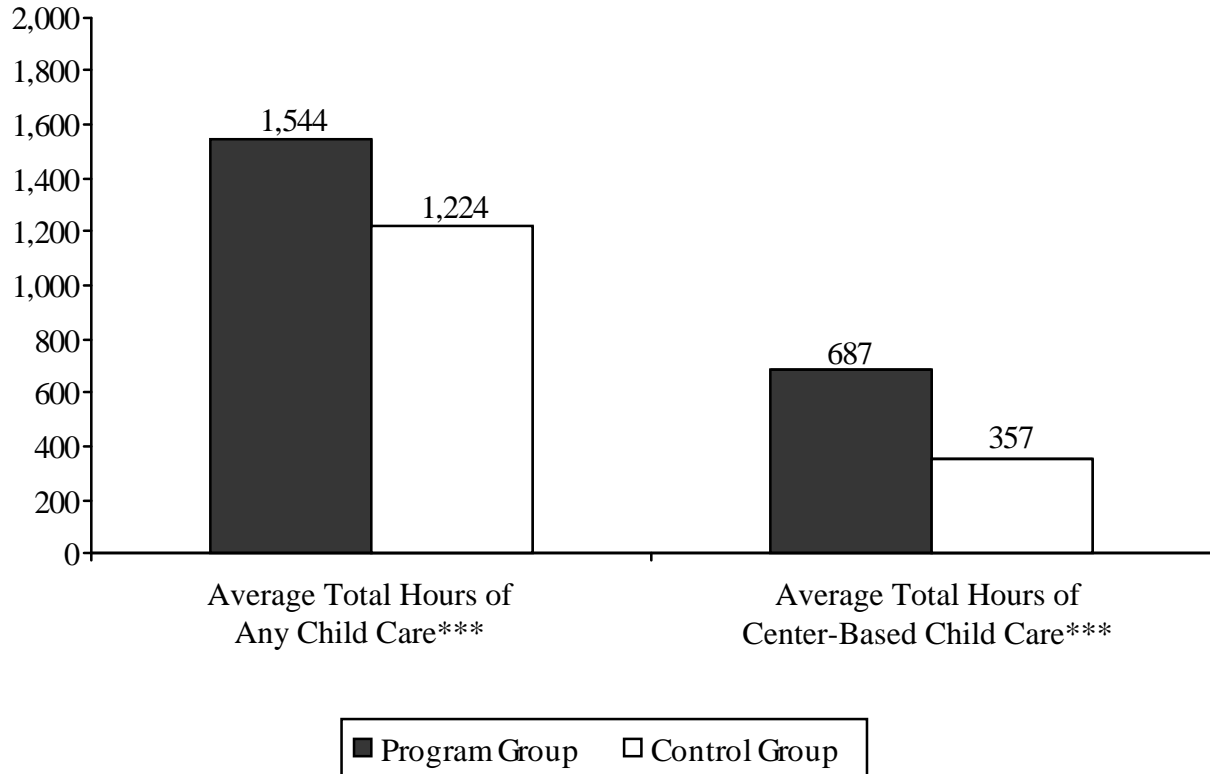
*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.4

IMPACTS ON HOURS OF CHILD CARE USED DURING THE
26-MONTH FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

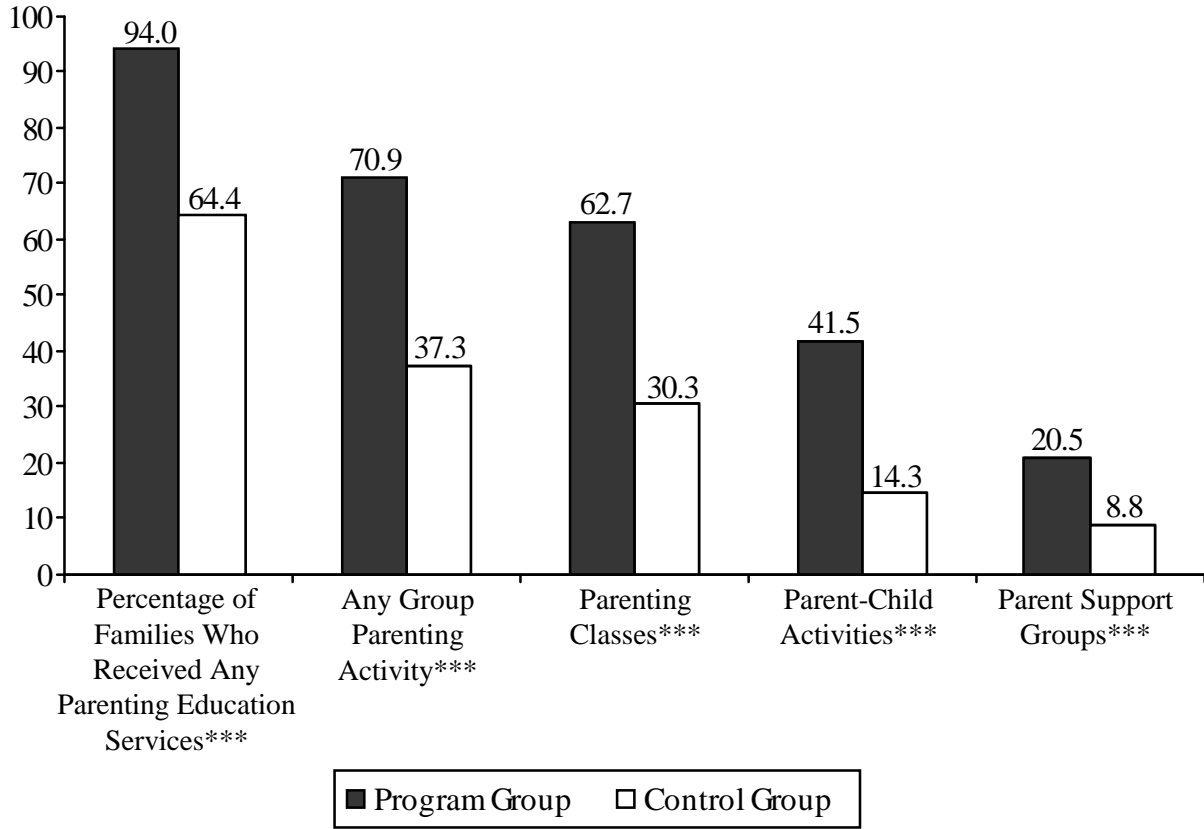
*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.5

IMPACTS ON RECEIPT OF PARENTING EDUCATION SERVICES
DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE IV.2 (continued)

SOURCE: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

NOTE: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

^aPrimary caregivers rated their children's health status on a scale of 1 (poor) to 5 (excellent).

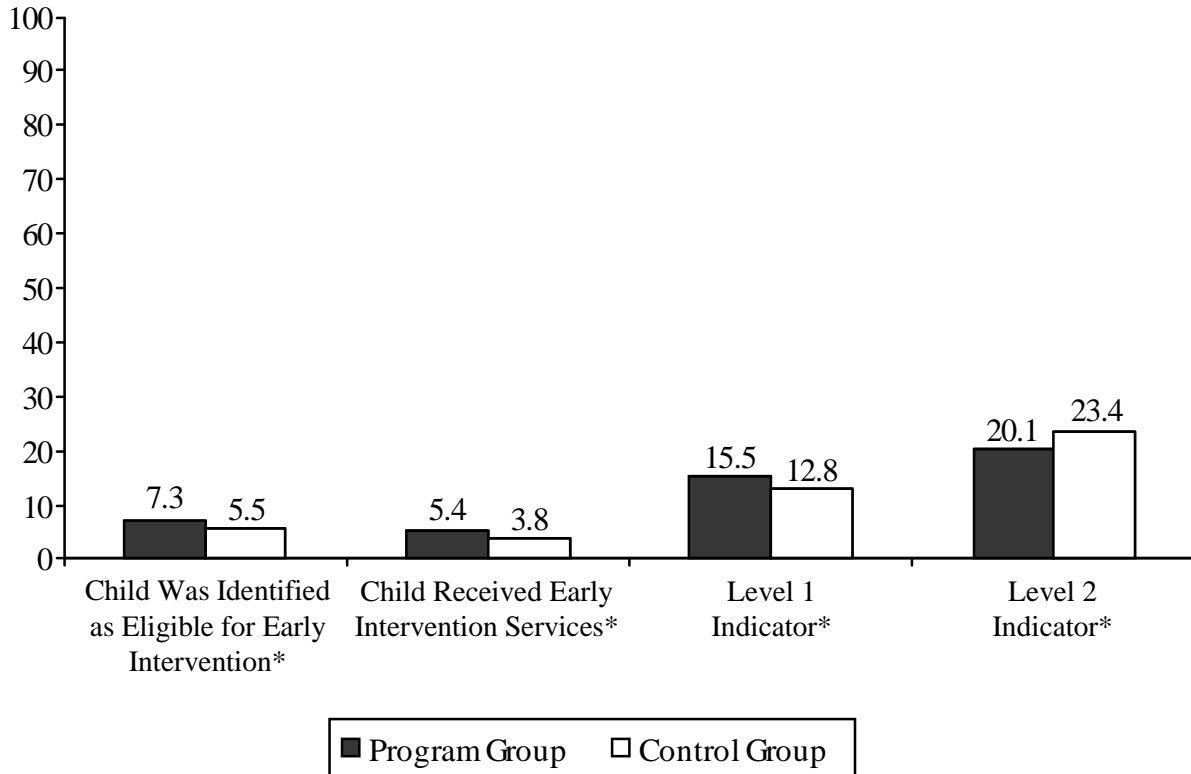
*Significantly different from zero at the .10 level, two-tailed test

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.6

IMPACTS ON EARLY INTERVENTION SERVICES
DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant. Level 1 diagnosed conditions indicate eligibility for early intervention services and include a diagnosed hearing problem, severe or profound hearing loss, difficulty hearing or deafness, vision problem, difficulty seeing or blindness, speech problem, mobility problem, mental retardation, emotional disturbance, cleft palate, or a serious condition that showed up at birth or soon after, such as Down Syndrome, Turner’s Syndrome, or spina bifida. Level 2 diagnosed conditions, which may indicate eligibility for early intervention services, include crossed eyes or nearsightedness, epilepsy or seizures, hyperactivity, or a developmental delay. Functional limitations include possible hearing and vision problems, communication problems, trouble with arm/hand or leg/foot, and use of special equipment to get around.

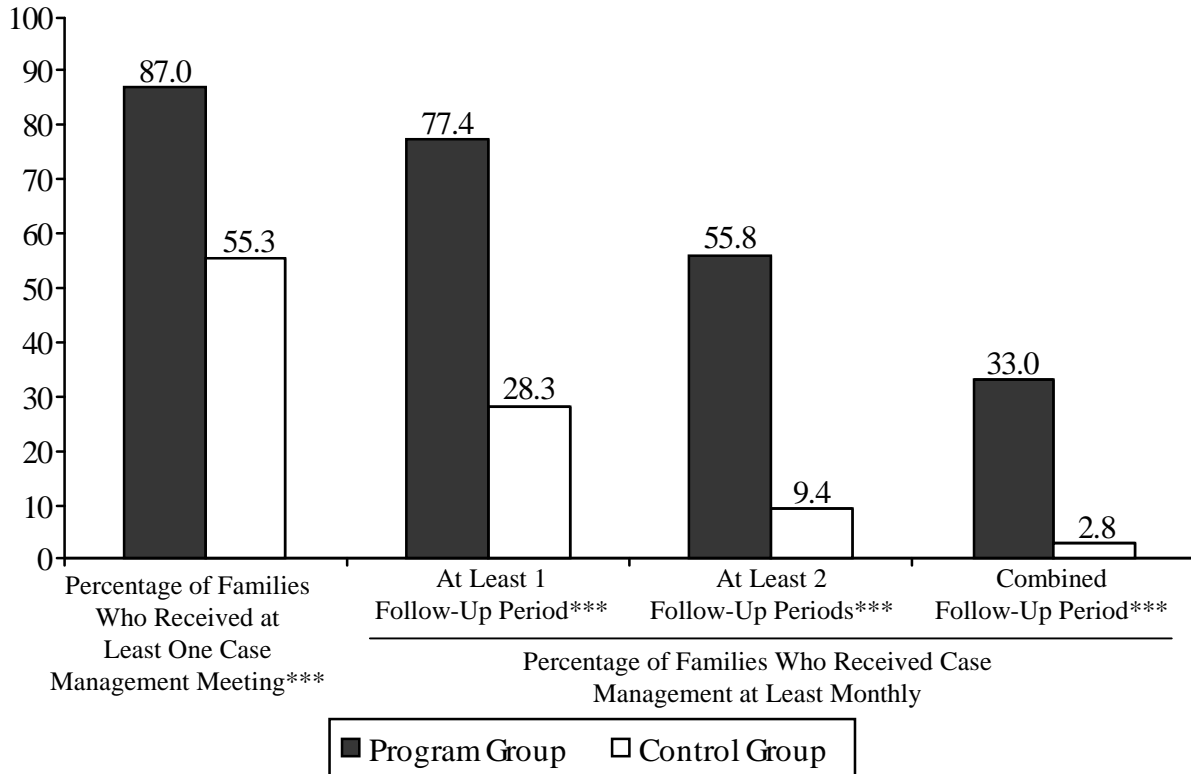
*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.7

IMPACTS ON RECEIPT OF CASE MANAGEMENT SERVICES
DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

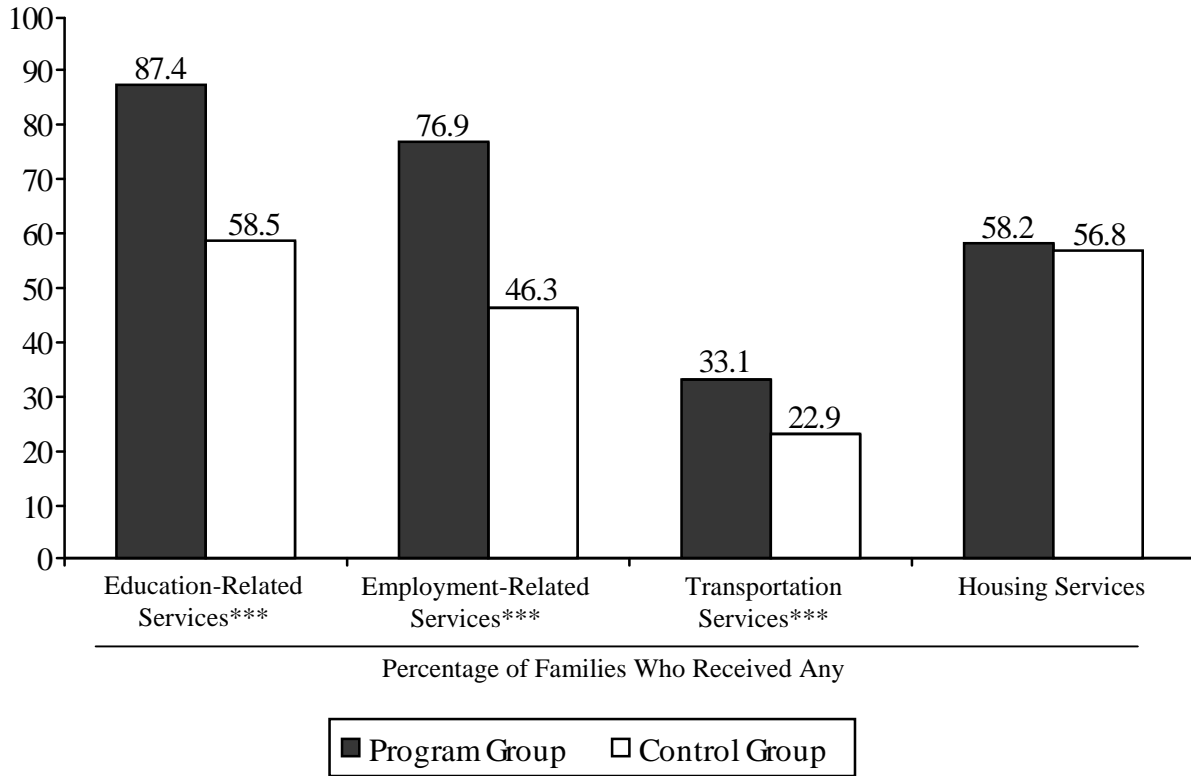
*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.8

IMPACTS ON RECEIPT OF FAMILY DEVELOPMENT SERVICES
DURING THE COMBINED FOLLOW-UP PERIOD



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.9

SELECTED IMPACTS ON SERVICE RECEIPT
BY PROGRAM APPROACH

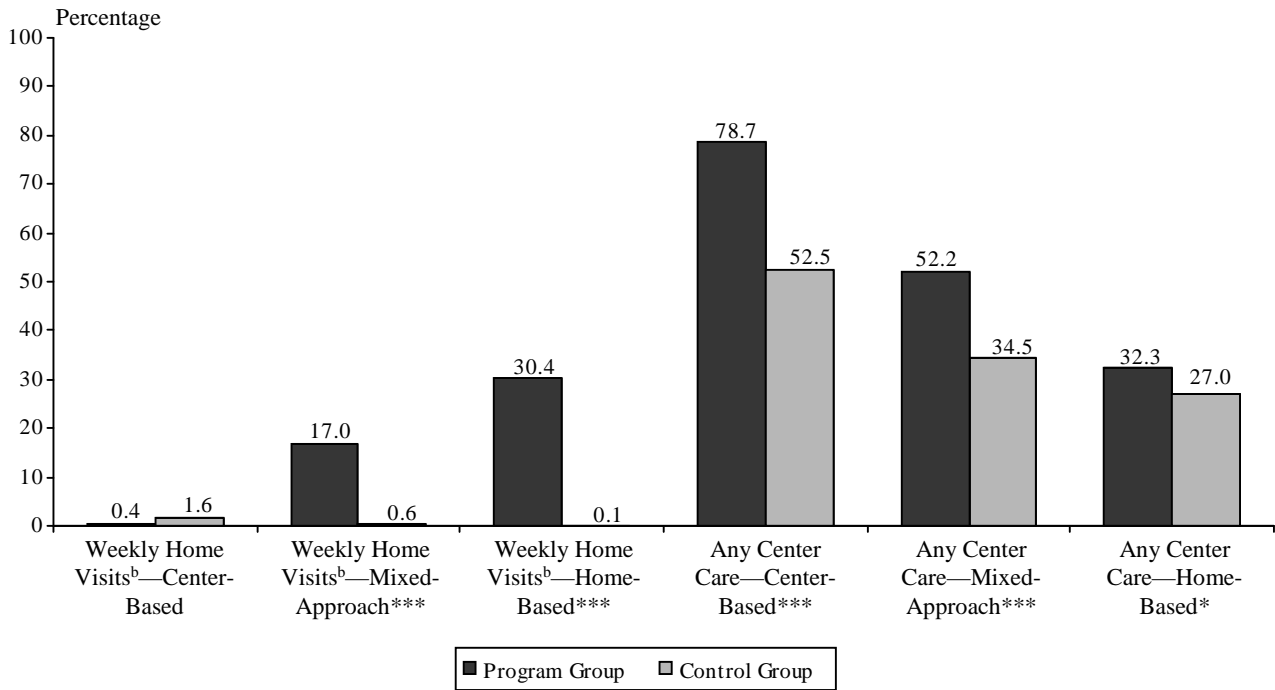
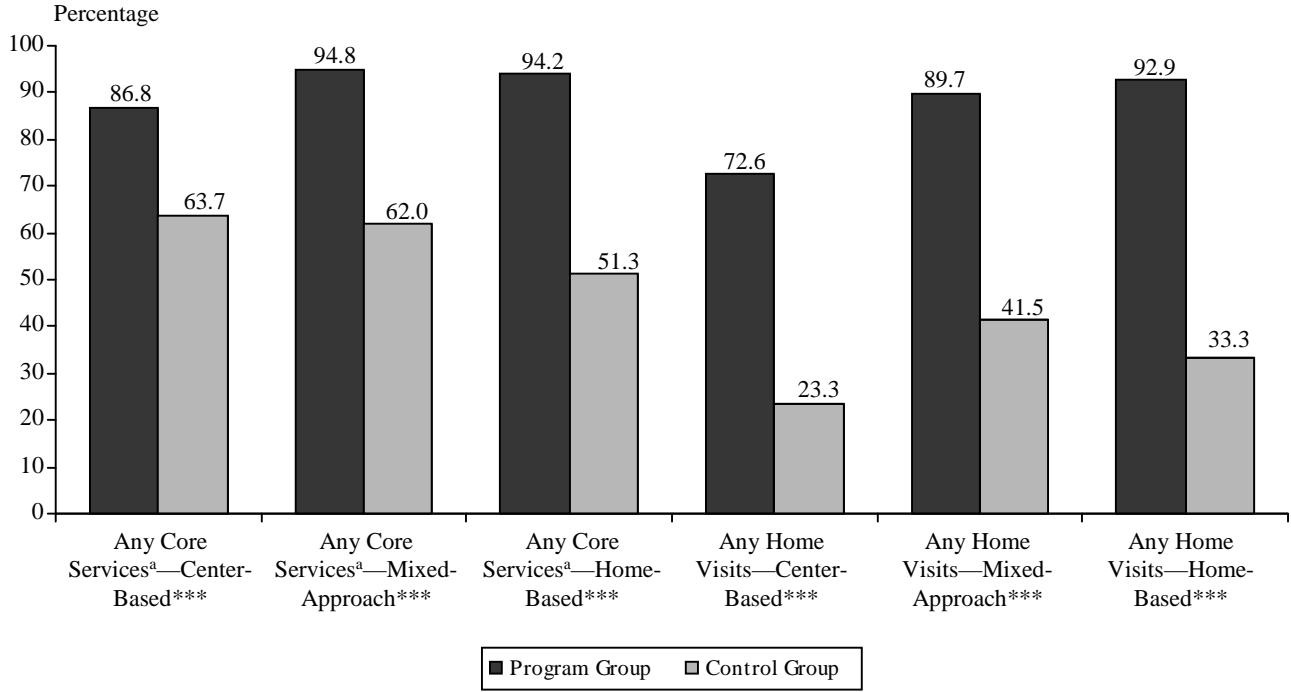
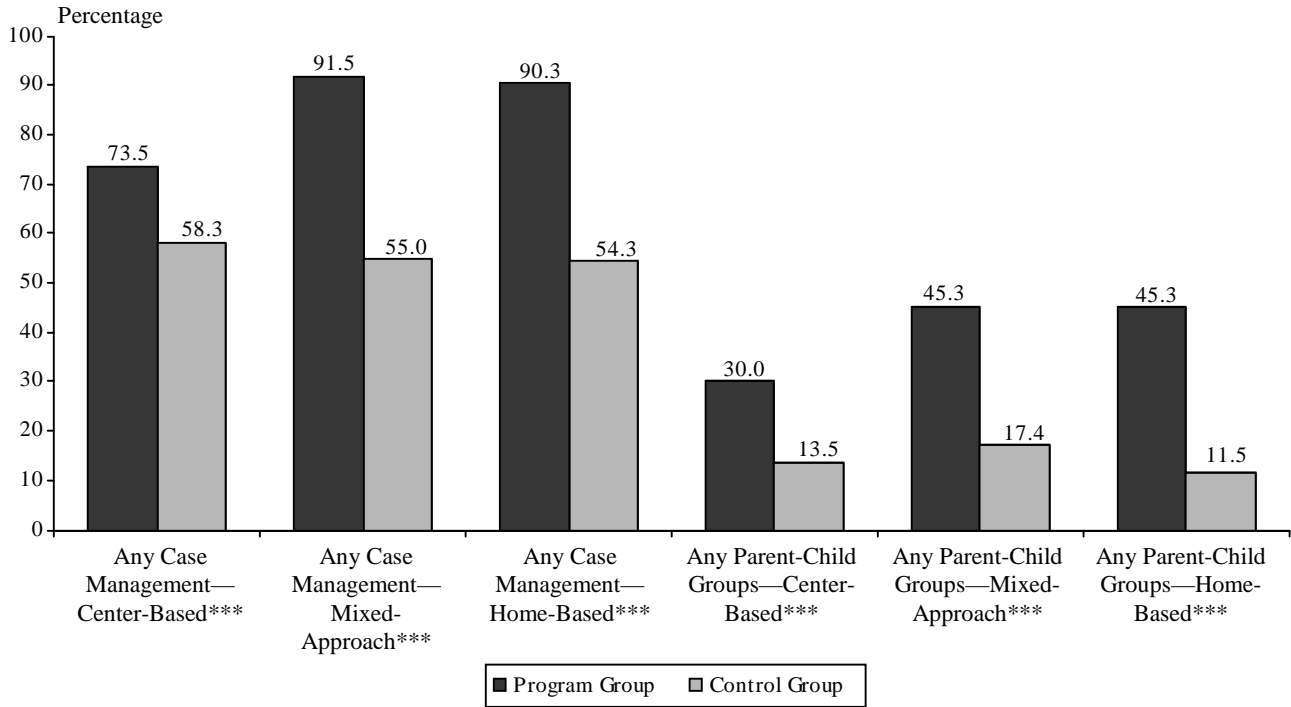


FIGURE IV.9 (continued)



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The difference between program and control families are estimated impacts per eligible applicant.

^aAny home visits or center-based child care.

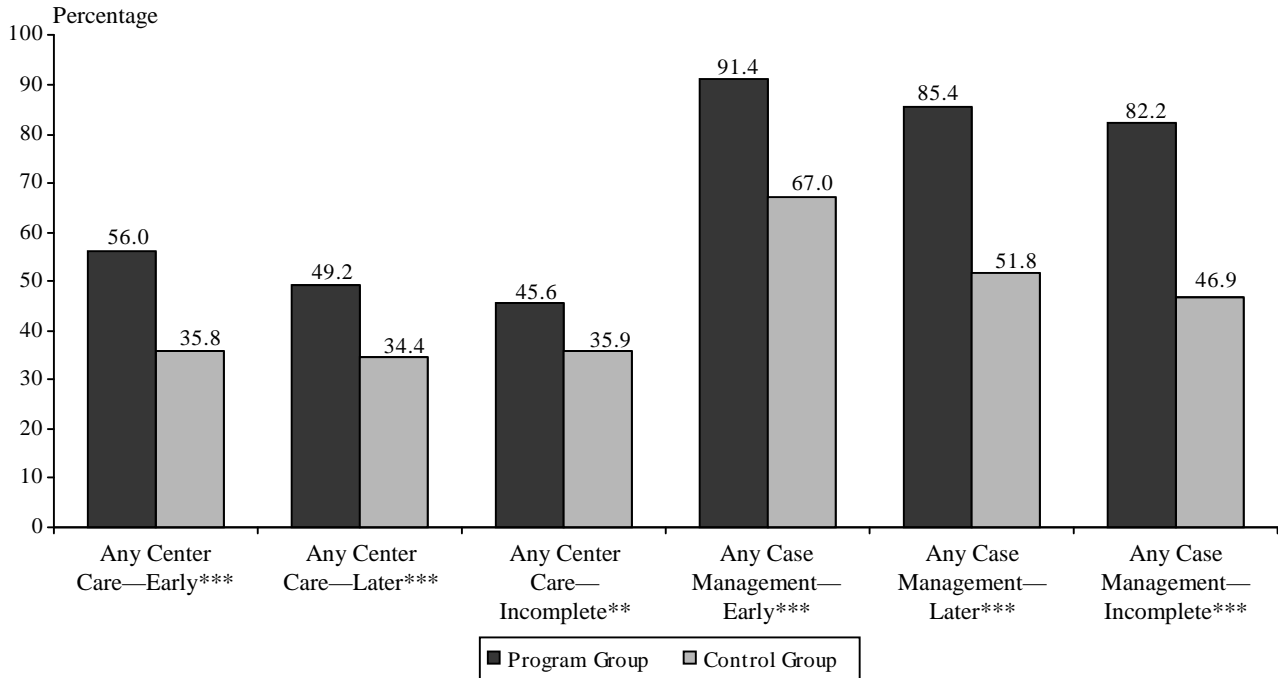
^bWeekly home visits during the combined follow-up period.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.10 (continued)



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The difference between program and control families are estimated impacts per eligible applicant.

^aAny home visits or center-based child care.

^bWeekly home visits or at least 20 hours a week of center-based child care during the combined follow-up period.

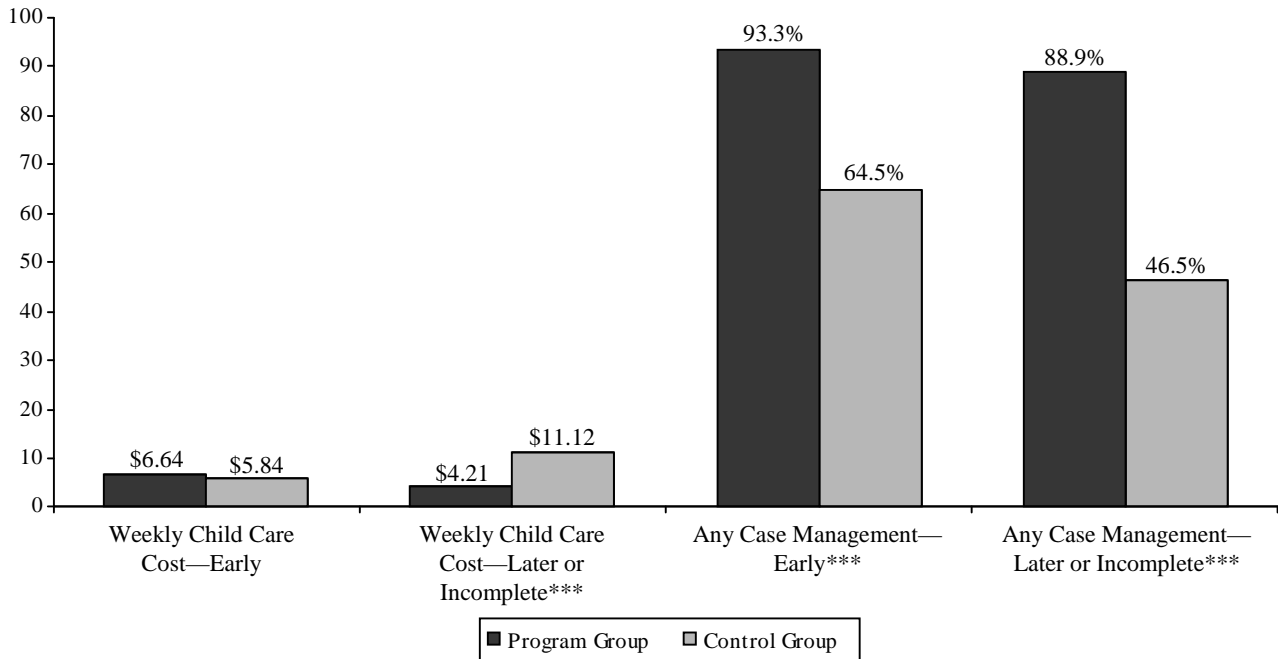
^cWeekly home visits during the combined follow-up period.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.11 (continued)



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The difference between program and control families are estimated impacts per eligible applicant.

^aAny home visits or center-based child care.

^bWeekly home visits or at least 20 hours a week of center-based child care during the combined follow-up period.

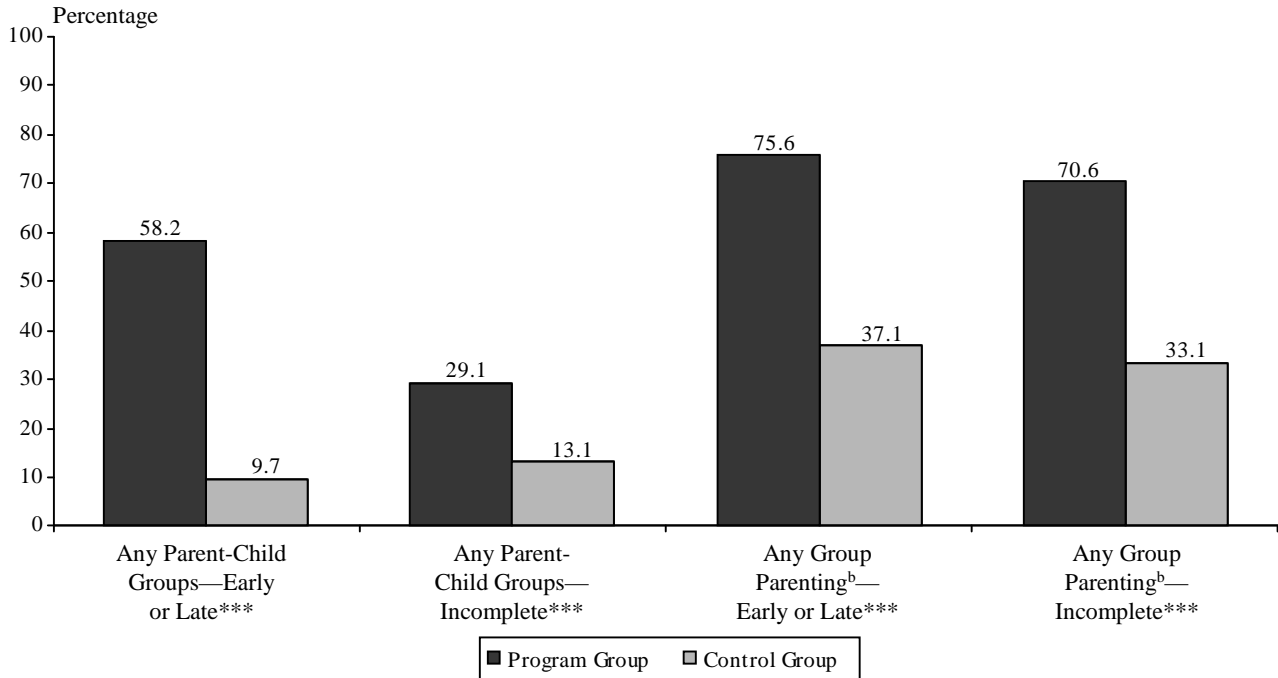
^cWeekly home visits during the combined follow-up periods.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

FIGURE IV.12 (continued)



Source: Parent Services Follow-Up Interviews conducted approximately 7, 16, and 28 months after random assignment.

Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The difference between program and control families are estimated impacts per eligible applicant.

^aAny home visits or center-based child care.

^bAny parent education classes, parent support groups, or parent-child group socialization activities.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE V.4
IMPACTS ON EMOTIONALLY SUPPORTIVE PARENTING

Outcome	Program Group Participants ^a	Control Group ^b	Estimated Impact per Participant ^c	Effect Size ^d
Home Observation for Measurement of the Environment (HOME): Warmth ^e	2.6	2.5	0.1*	9.0
Supportiveness During Parent- Child Semistructured Play ^f	4.0	3.9	0.1***	14.6
Supportive Presence During Parent-Child Puzzle Challenge Task ^g	4.5	4.4	0.1	4.2
Sample Size				
Parent Interview	1,107	1,003	2,110	
Parent-Child Interactions	874	784	1,658	

SOURCE: Parent interviews and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All impact estimates were calculated using regression models, where each site was weighted equally.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities.

^bThe control group mean is the mean for the control group members who would have participated in Early Head Start if they had been assigned to the program group instead. This unobserved mean was estimated as the difference between the program group mean for participants and the impact per participant.

^cThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for all program and control group members.

^dThe effect size was calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact expressed as a percentage of the standard deviation).

^eBehaviors were observed during the HOME assessment and rated on a yes/no scale by the interviewer/assessor.

^fBehaviors were observed during the videotaped parent-child structured play task and coded on a seven-point scale. Supportiveness is a combination of Warm Sensitivity and Positive Regard.

^gBehaviors were observed during the videotaped parent-child puzzle task and coded on a seven-point scale.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.1

IMPACTS ON CHILD OUTCOMES AT AGE 3, BY PROGRAM APPROACH

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Child Cognitive and Language Development												
Bayley Mental Development Index (MDI) Standard Score	89.8	88.9	0.9	7.2	89.3	87.9	1.4	10.9	94.1	92.8	1.2	9.5
Percentage with MDI < 85*** ^d	26.5	36.1	-9.7	-20.7	36.1	38.4	-2.2	-4.8	20.5	22.0	-1.4	-3.1
Peabody Picture Vocabulary Test (PPVT-III) Standard Score	83.2	81.8	1.5	9.1	82.2	78.5	3.7**	22.6	84.6	83.1	1.5	9.1
Percentage with PPVT-III < 85***	52.4	54.7	-2.3	-4.5	56.0	67.7	-11.6**	-23.3	45.6	48.6	-3.0	-6.1
Child Social-Emotional Development												
Engagement of Parent During Parent-Child Semistructured Play	4.9	4.7	0.2	17.4	4.7	4.4	0.3***	29.5	4.8	4.6	0.2**	19.2
Sustained Attention with Objects During Parent-Child Semistructured Play	5.0	5.0	0.0	0.5	5.0	4.7	0.3***	30.8	5.0	4.9	0.1	10.6
Engagement of Parent During Parent-Child Puzzle Challenge Task	5.0	4.9	0.1	8.0	5.0	4.9	0.1	14.2	5.1	5.0	0.1	5.6
Persistence During Parent-Child Puzzle Challenge Task	4.4	4.3	0.1	9.1	4.5	4.4	0.0	3.5	4.7	4.6	0.1	12.0
Bayley Behavioral Rating Scale (BRS): Emotional Regulation	4.0	4.0	0.0	1.1	4.0	4.1	-0.1	-7.9	4.0	4.0	0.0	2.1
Bayley BRS: Orientation/Engagement	3.9	3.9	0.1	9.6	3.9	3.9	-0.1	-9.5	3.9	3.8	0.0	3.4
Negativity Toward Parent During Parent-Child Semistructured Play	1.2	1.4	-0.2**	-27.1	1.3	1.3	-0.1	-15.3	1.3	1.3	-0.0	-6.6
Frustration During Parent-Child Puzzle Challenge Task	2.5	2.7	-0.2	-14.9	2.8	2.7	0.1	10.3	2.7	2.6	0.1	5.9
Child Behavior Checklist—Aggressive Behavior	9.6	10.8	-1.2	-18.1	10.7	11.3	-0.6	-9.3	11.2	11.7	-0.5	-7.8
Child Health Status												
Child's Health Status	3.9	4.1	-0.2	-17.1	4.1	4.1	0.0	2.3	4.0	4.0	-0.0	-4.0
Percentage of Children in Fair or Poor Health***	9.9	6.7	3.2	11.1	5.4	6.0	-0.6	-2.1	9.8	9.6	0.2	0.8
Sample Size												
Bayley	217	172	389		266	257	523		396	350	746	
Parent Interview	254	211	465		351	344	695		502	448	950	
Parent-Child Interactions	227	181	408		251	255	506		396	348	744	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

Table V1.1 (Continued)

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control-group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.2

IMPACTS ON PARENTING OUTCOMES AT AGE 3, BY PROGRAM APPROACH

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Quality of the Home Environment and Parenting: Overall and Physical Environment												
Home Observation for Measurement of the Environment (HOME) Total Score	27.3	26.4	0.9	18.8	27.0	26.4	0.6	11.3	28.3	28.1	0.2	3.5
HOME Internal Physical Environment	7.7	7.5	0.1	8.6	7.7	7.8	-0.1	-3.7	8.0	8.0	-0.0	-1.6
Quality of the Home Environment and Parenting: Emotional Support												
HOME Warmth	2.6	2.4	0.1	15.4	2.4	2.3	0.1	9.3	2.7	2.7	-0.0	-0.8
Supportiveness During Parent-Child Semistructured Play	4.1	4.0	0.1	8.9	4.0	3.8	0.2**	20.8	4.0	3.9	0.1**	15.5
Supportive Presence During Parent-Child Puzzle Challenge Task	4.5	4.5	-0.1	-4.2	4.4	4.2	0.2	14.7	4.6	4.5	0.1	7.3
Quality of the Home Environment and Parenting: Stimulation of Language and Learning												
Percentage of Children with a Regular Bedtime***	58.7	57.0	1.8	3.6	59.3	62.4	-3.1	-6.2	59.3	55.6	3.6	7.4
Percentage of Children Who Follow a Bedtime Routine*	67.1	66.1	1.0	2.2	67.9	66.8	1.1	2.4	72.0	71.0	1.0	2.2
HOME: Support of Language and Learning	10.7	10.5	0.3	13.0	10.3	10.1	0.2	9.2	10.9	10.7	0.2	7.0
Parent-Child Play** ^d	4.6	4.3	0.2*	25.7	4.4	4.2	0.2*	18.1	4.4	4.4	-0.1	-5.5
Quality of Assistance During Parent-Child Puzzle Challenge Task	3.6	3.5	0.0	3.7	3.6	3.3	0.3**	24.8	3.6	3.5	0.0	2.7
Percentage of Parents Who Read to Child Daily***	57.9	50.8	7.0	14.1	59.0	45.0	14.0***	28.0	54.5	55.7	-1.2	-2.4
Percentage of Parents Who Read to Child at Bedtime***	30.6	32.4	-1.7	-3.8	36.7	30.8	5.9	13.0	29.6	25.8	3.8	8.4
Quality of the Home Environment and Parenting: Negative Parenting Behavior												
Detachment During Parent-Child Semistructured Play**	1.2	1.1	0.1	16.2	1.2	1.4	-0.2**	-23.8	1.2	1.3	-0.1	-9.4
Intrusiveness During Parent-Child Semistructured Play	1.5	1.6	-0.1	-13.9	1.6	1.7	-0.0	-3.3	1.6	1.6	-0.1	-6.4
Detachment During Parent-Child Puzzle Challenge Task	1.6	1.6	0.0	4.7	1.7	1.9	-0.2	-16.4	1.6	1.6	-0.0	-3.5
Intrusiveness During Parent-Child Puzzle Challenge Task	2.8	2.7	0.1	4.3	2.8	2.9	-0.1	-10.8	2.5	2.6	-0.1	-8.7
Negative Regard During Parent-Child Semistructured Play	1.3	1.3	0.0	1.2	1.3	1.3	0.0	6.0	1.2	1.3	-0.1	-9.5
HOME Harshness	0.3	0.3	0.0	3.3	0.2	0.2	0.0	1.1	0.3	0.3	0.0	5.6
Percentage of Parents Who Spanked Child in the Past Week***	51.4	61.0	-9.6	-19.2	46.6	57.6	-10.9**	-21.9	44.1	49.6	-5.5	-10.9

Table VI.2 (Continued)

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Knowledge of Child Development, Discipline Strategies, and Safety Practices												
Percentage of Parents Who Usually Use a Car Seat Correctly***	63.0	75.3	-12.3**	-26.8	73.7	71.6	2.2	4.7	70.4	69.4	1.0	2.2
Percentage of Parents Suggesting Physical Punishment as a Discipline Strategy***	52.0	60.6	-8.6	-17.2	43.9	53.5	-9.6**	-19.2	44.9	44.5	0.4	0.8
Percentage of Parents Who Would Use Mild Discipline Only***	36.8	30.9	5.9	11.9	49.2	39.1	10.1***	20.5	45.8	45.9	-0.1	-0.2
Index of Severity of Discipline Strategies	3.6	3.9	-0.2	-14.0	3.2	3.6	-0.4***	-22.6	3.3	3.3	-0.0	-1.8
Sample Size												
Parent Interview	254	211	465		351	344	695		502	448	950	
Parent-Child Interactions	227	181	408		251	251	506		396	348	744	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

- *Significantly different from zero at the .10 level, two-tailed test.
- **Significantly different from zero at the .05 level, two-tailed test.
- ***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.3

IMPACTS ON PARENT PHYSICAL AND MENTAL HEALTH AT THE 36-MONTH ASSESSMENT, BY PROGRAM APPROACH

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Parent Physical and Mental Health												
Parent's Health Status	3.5	3.5	-0.0	-2.5	3.5	3.5	-0.1	-5.3	3.4	3.4	-0.1	-5.9
Parenting Stress Index (PSI) Parental Distress	23.9	25.0	-1.1	-11.7	24.8	25.9	-1.1	-11.2	24.9	26.3	-1.4**	-14.4
PSI Parent-Child Dysfunctional Interaction	17.6	17.2	0.4	7.0	18.1	17.7	0.4	6.7	17.5	18.1	-0.6	-10.4
Center for Epidemiological Studies Depression (CES-D; Short Form)	7.3	7.1	0.2	2.6	7.2	7.8	-0.6	-8.2	7.7	7.9	-0.1	-1.8
CES-D Severe Depressive Symptoms *** ^d	15.8	8.7	7.1*	19.8	14.2	15.3	-1.2	-3.2	14.4	16.1	-1.6	-4.5
Family Environment Scale (FES): Family Conflict	1.6	1.7	-0.1	-11.1	1.7	1.7	-0.0	-4.6	1.7	1.7	-0.0	-0.8
Sample Size												
Parent Interview	254	211	465		351	344	695		502	448	950	
Parent-Child Interactions	227	181	408		251	255	506		396	348	744	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.4

IMPACTS ON SELF-SUFFICIENCY AT 28 MONTHS, BY PROGRAM APPROACH IN 1997

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Education/Job Training												
Ever in Education or Training**** ^d	65.1	61.5	3.6	7.2	65.1	51.3	13.8***	27.7	53.1	45.5	7.6**	15.3
Ever in High School***	13.1	11.6	1.5	5.2	15.1	10.6	4.6*	16.0	12.6	6.8	5.7***	20.1
Ever in ESL Class***	1.5	2.7	-1.3	-8.9	5.0	3.3	1.7	11.9	3.4	2.4	1.0	7.2
Ever in Vocational Program***	19.3	17.9	1.5	3.9	22.7	17.6	5.1	13.6	18.2	15.7	2.5	6.6
Average Hours per Week in Education or Training	5.4	5.0	0.5	7.1	4.2	3.3	0.9*	14.5	4.5	3.0	1.6***	24.3
In Education or Training:												
1 st Quarter***	24.9	29.6	-4.6	-11.2	22.5	19.0	3.4	8.3	21.2	21.6	-0.4	-1.0
2 nd Quarter***	31.4	34.7	-3.3	-7.7	27.1	22.1	5.1	11.8	25.1	22.9	2.2	5.0
3 rd Quarter***	37.7	31.7	6.0	13.6	31.3	24.9	6.5*	14.7	28.2	26.5	1.7	3.8
4 th Quarter***	38.0	31.0	6.9	16.2	31.4	25.0	6.5*	15.1	27.1	22.5	4.6*	10.7
5 th Quarter***	35.5	30.2	5.2	12.1	29.8	27.1	2.8	6.4	28.6	22.9	5.8**	13.4
6 th Quarter***	34.3	27.8	6.5	15.6	27.5	23.2	4.4	10.5	28.7	21.3	7.4***	17.9
7 th Quarter***	31.2	28.7	2.5	6.3	26.5	23.5	3.0	7.5	23.1	17.6	5.5**	13.7
8 th Quarter***	29.3	28.2	1.1	2.9	27.6	20.4	7.2*	18.4	24.3	15.6	8.7***	22.1
Have High School Diploma ***	52.4	13.3	-0.5	-1.5	50.2	48.9	1.3	2.5	49.1	45.7	3.5	6.9
Have GED***	12.8	56.9	-4.6	-9.1	10.1	8.4	1.7	5.5	8.5	11.5	-2.9	-9.2
Employment												
Ever Employed***	91.3	87.3	4.1	10.8	88.6	82.0	6.6**	17.5	83.1	81.8	1.3	3.5
Average Hours/Week Employed	21.6	21.3	0.3	2.1	16.8	15.6	1.2	7.9	14.8	15.1	-0.3	-2.0
Employed in:												
1 st Quarter***	53.4	49.4	4.0	8.2	35.5	35.6	-0.1	-0.2	33.8	36.1	-2.2	-4.6
2 nd Quarter***	59.4	54.5	4.9	9.8	45.3	41.8	3.5	7.0	38.2	42.9	-4.7	-9.5
3 rd Quarter***	63.5	58.9	4.6	9.3	52.8	50.0	2.8	5.7	46.9	50.1	-3.3	-6.5
4 th Quarter***	66.4	63.3	3.1	6.2	56.4	52.6	3.8	7.6	51.9	51.7	0.2	0.3
5 th Quarter***	71.0	66.4	4.6	9.4	60.3	55.1	5.3	10.7	57.7	58.9	-1.2	-2.4
6 th Quarter***	71.3	66.7	4.7	9.5	62.3	55.5	6.8	13.8	61.7	58.2	3.5	7.0
7 th Quarter***	64.0	64.9	-0.9	-1.9	61.2	53.7	7.5*	15.1	57.5	55.0	2.4	4.9
8 th Quarter***	70.4	67.3	3.1	6.4	67.2	56.8	10.4**	21.3	55.9	59.9	-4.0	-8.1
Any Self-Sufficiency-Oriented Activity (Education, Training, or Employment)												
Ever Employed or in Education/Training***	97.7	94.6	3.1	10.1	95.6	90.1	5.5**	18.2	90.5	88.9	1.6	5.4
Average Hours per Week in Any Activity	28.2	26.8	1.4	8.9	21.3	19.2	2.1	13.6	19.9	18.5	1.3	8.5
In Activities in:												
1 st Quarter***	68.0	67.9	0.1	0.2	51.0	48.1	3.0	5.9	47.3	48.4	-1.1	-2.2
2 nd Quarter***	78.9	72.8	6.1	12.3	61.8	54.1	7.7**	15.5	53.4	55.5	-2.1	-4.2
3 rd Quarter***	83.8	76.1	7.6*	16.1	70.4	63.3	7.1*	14.9	62.3	62.9	-0.6	-1.3
4 th Quarter***	86.1	75.9	10.2**	21.4	71.7	64.5	7.2*	15.0	65.2	61.6	3.6	7.6
5 th Quarter***	85.4	78.5	6.8	14.8	73.8	67.1	6.7*	14.5	69.6	67.9	1.7	3.6
6 th Quarter***	88.2	76.3	12.0**	25.5	74.5	65.7	8.8**	18.6	72.9	66.4	6.5**	13.9

TABLE VI.4 (continued)

Outcome	Center-Based Programs				Mixed-Approach Programs				Home-Based Programs			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
7 th Quarter***	81.1	76.1	5.0	10.5	71.7	64.1	7.6*	16.0	66.4	62.7	3.7	7.6
8 th Quarter***	84.8	77.2	7.6	16.3	77.2	65.1	12.1***	25.9	65.2	66.6	-1.4	-3.1
AFDC/TANF Receipt												
Ever Received AFDC/TANF***	32.7	28.6	4.1	8.2	46.8	45.7	1.1	2.2	55.2	52.5	2.7	5.5
Received AFDC/TANF in:												
1 st Quarter***	21.4	18.2	3.2	6.9	32.9	29.6	3.3	7.0	42.2	29.4	2.7	5.8
2 nd Quarter***	28.1	17.8	3.4	7.1	34.5	32.4	2.1	4.5	41.9	42.4	-0.5	-1.1
3 rd Quarter***	19.1	20.8	-1.7	-3.5	36.9	33.0	3.9	8.1	46.2	43.9	2.3	4.7
4 th Quarter***	18.3	17.4	0.8	1.8	30.4	26.5	3.8	8.2	37.2	38.1	-0.9	-1.9
5 th Quarter***	18.0	14.7	3.3	7.2	30.0	27.0	3.0	6.5	36.0	37.8	-1.8	-3.9
6 th Quarter***	19.4	16.0	3.4	7.4	26.6	26.7	-0.0	-0.1	36.4	38.5	-2.1	-4.5
7 th Quarter***	14.4	14.5	-0.0	-0.0	23.1	23.1	-0.1	-0.1	27.4	32.1	-4.7*	-10.8
8 th Quarter***	15.5	13.0	2.5	5.9	19.9	23.6	-3.7	-8.6	27.8	27.8	0.0	0.0
Total AFDC/TANF Benefits (\$)	\$908.1	\$766.6	\$141.6	3.7	\$2,331.2	\$2,111.3	\$219.9	5.7	\$2,675.5	\$2,833.8	-\$158.2	-4.1
Receipt of Other Welfare Benefits												
Ever Received Welfare***	63.0	62.6	0.3	0.7	66.0	64.0	2.0	4.3	72.9	70.5	2.5	5.2
Total Welfare Benefits (\$)	\$3,963.1	\$4,478.1	-\$515.0	-6.8	\$5,422.1	\$5,850.6	-\$428.5	-5.7	\$5,928.6	\$6,088.8	-\$160.3	-2.1
Ever Received Food Stamps***	53.9	53.2	0.7	1.5	58.2	56.5	1.7	3.5	66.7	65.4	1.3	2.6
Total Food Stamp Benefits (\$)	\$1,636.1	\$1,994.3	-\$358.2	-13.2	\$2,151.7	\$2,022.5	\$129.1	4.7	\$2,297.8	\$2,152.5	\$145.3	5.3
Income/Poverty												
Income Above Poverty Level***	47.8	51.0	-3.2	-6.5	41.9	43.5	-1.6	-3.3	41.1	40.8	0.3	0.5
Subsequent Births												
Subsequent Birth by 24 Months After Random Assignment***	15.1	18.9	-3.8	-8.4	24.6	30.5	-5.9	-13.2	26.3	28.4	-2.1	-4.7
Sample Size	230	204	434		358	354	712		488	453	941	

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.5

IMPACTS ON CHILD OUTCOMES AT AGE 3, BY PATTERN OF PROGRAM IMPLEMENTATION

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Child Cognitive and Language Development												
Bayley Mental Development Index (MDI) Standard Score	94.1	92.0	2.2*	16.7	88.2	86.0	2.2**	16.9	92.1	92.1	-0.1	-0.4
Percentage with MDI < 85*** ^d	24.1	27.0	-5.6	-11.9	36.5	43.1	-6.6	-14.2	23.8	25.8	-2.0	-4.3
Peabody Picture Vocabulary Test (PPVT-III) Standard Score	86.0	84.8	1.3	7.9	78.4	75.2	3.3*	20.0	84.8	83.2	1.6	9.9
Percentage with PPVT-III < 85***	43.1	50.5	-7.5	-15.0	65.4	71.2	-5.8	-11.7	46.6	51.9	-5.3	-10.6
Child Social-Emotional Development												
Engagement of Parent During Parent-Child Semistructured Play	4.9	4.8	0.1	11.1	4.7	4.5	0.2**	22.0	4.9	4.5	0.4***	36.7
Sustained Attention with Objects During Parent-Child Semistructured Play	5.1	5.0	0.1	14.3	4.8	4.7	0.1	13.3	5.0	4.8	0.2*	22.0
Engagement of Parent During Parent-Child Puzzle Challenge Task	5.1	5.0	0.1	7.1	4.9	4.9	0.1	5.3	5.1	4.9	0.2	17.5
Persistence During Parent-Child Puzzle Challenge Task	4.7	4.7	-0.0	-2.0	4.4	4.4	0.1	8.3	4.6	4.4	0.2	19.4
Bayley Behavioral Rating Scale (BRS): Emotional Regulation	4.0	4.0	0.0	2.6	4.0	3.9	0.1	9.1	4.0	4.1	-0.1	-10.5
Bayley BRS: Orientation/Engagement	4.0	4.0	0.1	8.5	3.6	3.6	0.1	6.8	3.9	3.9	0.0	0.8
Negativity Toward Parent During Parent-Child Semistructured Play	1.2	1.3	-0.1**	-17.7	1.3	1.3	-0.1	-9.3	1.3	1.3	-0.1	-10.6
Frustration During Parent-Child Puzzle Challenge Task	2.8	2.9	-0.0	-2.3	2.6	2.5	0.2	13.6	2.6	2.6	0.0	0.3
Child Behavior Checklist—Aggressive Behavior	11.1	11.8	-0.7	-11.4	10.8	11.0	-0.2	-3.4	9.8	11.6	-1.8***	-28.2
Child Health Status												
Child's Health Status	4.1	4.1	-0.0	-3.4	4.0	3.9	0.1	10.2	4.0	4.1	-0.1	-10.4
Percentage of Children in Fair or Poor Health***	7.4	6.9	0.4	1.5	8.7	11.4	-2.7	-9.4	8.2	8.1	0.1	0.2
Sample Size												
Bayley	305	298	603		336	277	613		238	204	442	
Parent Interview	388	358	746		418	362	780		301	283	584	
Parent-Child Interactions	306	291	597		348	295	643		220	198	418	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

Table VI.5 (Continued)

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.6

IMPACTS ON PARENTING OUTCOMES AT AGE 3, BY PATTERN OF PROGRAM IMPLEMENTATION

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Quality of the Home Environment and Parenting: Overall and Physical Environment												
Home Observation for Measurement of the Environment (HOME) Total Score	28.3	27.3	1.0**	19.5	26.3	26.1	0.2	3.9	28.3	27.9	0.5	9.2
HOME Internal Physical Environment	7.9	7.7	0.2	12.2	7.7	7.8	-0.2	-11.5	7.9	7.8	0.1	8.1
Quality of the Home Environment and Parenting: Emotional Support												
HOME Warmth	2.5	2.4	0.2**	18.4	2.5	2.4	0.1	7.2	2.7	2.7	0.0	1.0
Supportiveness During Parent-Child Semistructured Play	4.1	4.1	0.0	4.6	3.8	3.6	0.2**	19.9	4.1	3.8	0.2*	22.6
Supportive Presence During Parent-Child Puzzle Challenge Task	4.9	4.8	0.1	10.7	4.1	4.1	0.0	0.6	4.4	4.4	0.0	2.3
Quality of the Home Environment and Parenting: Stimulation of Language and Learning												
Percentage of Children with a Regular Bedtime*** ^d	63.3	63.6	-0.2	-0.4	55.9	51.9	4.0	8.1	59.3	59.9	-0.6	-1.2
Percentage of Children Who Follow a Bedtime Routine***	72.2	70.3	1.9	4.1	66.6	66.3	0.2	0.5	70.0	69.6	0.4	0.9
HOME: Support of Language and Learning	10.8	10.6	0.2	7.8	10.2	9.8	0.3**	16.2	11.0	11.0	0.0	0.2
Parent-Child Play	4.4	4.3	0.1*	13.9	4.4	4.3	0.1	11.6	4.4	4.5	-0.0	-0.7
Quality of Assistance During Parent-Child Puzzle Challenge Task	3.9	3.9	0.1	4.3	3.4	3.2	0.2**	19.7	3.4	3.4	0.0	3.3
Percentage of Parents Who Read to Child Daily***	63.3	52.0	11.3***	22.6	49.5	43.3	6.2	12.3	57.6	58.9	-1.3	-2.7
Percentage of Parents Who Read to Child at Bedtime***	40.9	34.6	6.3	13.9	27.1	20.7	6.5*	14.2	28.1	31.0	-2.8	-6.2
Quality of the Home Environment and Parenting: Negative Parenting Behavior												
Detachment During Parent-Child Semistructured Play	1.2	1.2	0.0	2.0	1.2	1.3	-0.1*	-17.5	1.2	1.2	-0.1	-9.8
Intrusiveness During Parent-Child Semistructured Play	1.4	1.5	-0.1	-6.7	1.7	1.7	-0.0	-2.3	1.7	1.7	-0.1	-7.0
Detachment During Parent-Child Puzzle Challenge Task	1.6	1.6	-0.0	-3.0	1.7	1.7	-0.0	-2.4	1.6	1.7	-0.1	-4.9
Intrusiveness During Parent-Child Puzzle Challenge Task	2.5	2.5	0.0	0.0	2.9	3.1	-0.2*	-16.6	2.6	2.6	-0.0	-1.8
Negative Regard During Parent-Child Semistructured Play	1.3	1.3	0.0	2.4	1.3	1.3	-0.0	-3.5	1.3	1.3	-0.0	-0.4
HOME Harshness**	0.2	0.3	-0.1	-12.1	0.4	0.2	0.1**	20.6	0.3	0.3	-0.0	-1.0
Percentage of Parents Who Spanked Child in the Past Week***	44.0	52.2	-8.1*	-16.3	46.8	55.7	-8.9**	-17.9	49.6	56.7	-7.2	-14.4

Table VI.6 (Continued)

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Knowledge of Child Development, Discipline Strategies, and Safety Practices												
Percentage of Parents Who Usually Use a Car Seat Correctly***	73.3	73.9	-0.5	-1.2	72.3	74.8	-2.5	-5.4	62.3	68.8	-6.5	-14.2
Percentage of Parents Suggesting Physical Punishment as a Discipline Strategy***	31.5	42.0	-10.5***	-20.9	54.4	59.3	-4.9	-9.7	54.2	55.8	-1.6	-3.2
Percentage of Parents Who Would Use Mild Discipline Only***	58.8	49.5	9.3**	18.8	37.3	30.2	7.1*	14.4	36.8	37.9	-1.1	-2.3
Index of Severity of Discipline Strategies	2.9	3.3	-0.4***	-23.3	3.6	3.9	-0.2**	-14.7	3.6	3.6	-0.0	-1.2
Sample Size												
Parent Interview	388	358	746		418	362	780		301	283	584	
Parent-Child Interactions	306	291	597		348	295	643		220	198	418	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.7

IMPACTS ON PARENT PHYSICAL AND MENTAL HEALTH AT THE 36-MONTH ASSESSMENT, BY PATTERN OF PROGRAM IMPLEMENTATION

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Parent Physical and Mental Health												
Parent's Health Status	3.4	3.5	-0.1	-6.7	3.4	3.3	0.1	11.0	3.5	3.6	-0.1	-13.4
Parenting Stress Index (PSI)												
Parental Distress	24.3	25.0	-0.7	-7.7	25.9	26.3	-0.5	-5.0	23.8	25.5	-1.7*	-17.6
PSI Parent-Child Dysfunctional Interaction	18.0	17.6	0.4	6.9	17.8	17.9	-0.2	-2.8	17.4	17.8	-0.5	-7.3
Center for Epidemiological Studies Depression (CES-D; Short Form)	7.6	8.7	-1.1*	-15.5	7.5	7.4	0.1	1.6	7.0	7.1	-0.1	-1.4
CES-D Severe Depressive Symptoms *** ^d	14.9	17.3	-2.4	-6.7	14.5	13.8	0.7	2.1	13.9	13.8	0.1	0.3
Family Environment Scale (FES): Family Conflict	1.7	1.7	-0.0	-8.0	1.7	1.7	0.0	0.5	1.6	1.7	-0.1	-15.2
Sample Size												
Parent Interview	388	358	746		418	362	780		301	283	584	
Parent-Child Interactions	306	291	597		348	295	643		220	198	418	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.8

IMPACTS ON SELF-SUFFICIENCY, BY PATTERN OF IMPLEMENTATION

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Education/Job Training												
Ever in Education or Training*** ^d	60.6	53.2	7.4*	14.8	56.4	51.2	5.1	10.3	63.5	52.0	11.5**	23.0
Ever in High School***	7.4	6.9	0.5	1.7	15.7	11.9	3.8*	13.2	18.5	9.4	9.1***	31.9
Ever in ESL Class***	2.9	3.2	-0.3	-2.4	4.4	3.0	1.3	9.3	3.1	2.2	1.0	6.8
Ever in Vocational Program***	20.5	17.2	3.3	8.7	16.3	17.3	-1.0	-2.7	23.1	18.0	5.1	13.7
Average Hours per Week in Education or Training	3.4	3.1	0.3	4.0	4.5	3.4	1.1**	17.9	6.1	4.2	1.9**	29.8
In Education or Training:												
1 st Quarter***	23.6	19.3	4.4	10.6	21.8	23.0	-1.2	-3.0	21.2	26.0	-4.8	-11.7
2 nd Quarter***	23.6	23.2	0.4	1.0	27.8	24.2	3.6	8.3	30.3	29.1	1.3	2.9
3 rd Quarter***	25.9	23.8	2.1	4.7	30.6	27.3	3.2	7.3	39.0	31.2	7.8*	17.6
4 th Quarter***	28.2	23.5	4.8	11.1	29.1	24.2	4.9	11.5	37.0	29.4	7.6*	17.7
5 th Quarter***	27.1	25.1	2.1	4.8	29.0	25.8	3.3	7.6	36.5	27.9	8.6**	20.0
6 th Quarter***	27.8	24.0	3.7	9.0	25.8	23.7	2.1	5.0	36.2	23.9	12.3***	29.6
7 th Quarter***	22.5	22.5	-0.0	-0.1	24.7	22.9	1.8	4.5	32.6	17.8	14.8***	36.9
8 th Quarter***	22.1	20.0	2.1	5.3	26.0	21.0	5.0	12.7	32.6	18.1	14.5***	37.1
Have High School Diploma ***	56.5	57.0	-0.5	-0.9	37.4	41.4	-4.0	-7.9	58.7	51.6	7.1	14.2
Have GED***	14.0	10.8	3.3	10.3	8.4	6.6	1.8	5.7	7.2	15.4	-8.2**	-25.9
Employment												
Ever Employed***	90.0	84.2	5.8**	15.4	82.3	82.9	-0.6	-1.5	88.0	82.2	5.7	15.3
Average Hours/Week Employed	18.6	17.0	1.6	10.9	15.9	16.9	-1.0	-6.8	16.9	16.8	0.1	0.5
Employed in:												
1 st Quarter***	44.5	43.3	1.2	2.5	37.8	35.9	1.9	4.0	33.7	37.2	-3.5	-7.2
2 nd Quarter***	53.0	49.8	3.2	6.4	42.8	44.3	-1.5	-3.0	39.8	42.5	-2.8	-5.5
3 rd Quarter***	61.8	56.5	5.3	10.6	46.8	50.8	-4.0	-8.0	49.6	50.3	-0.7	-1.4
4 th Quarter***	66.4	58.5	7.9**	15.9	50.5	50.7	-0.3	-0.5	52.9	55.1	-2.3	-4.6
5 th Quarter***	68.9	59.6	9.3***	18.9	58.5	57.2	1.3	2.7	55.9	60.2	-4.4	-8.9
6 th Quarter***	68.1	58.0	10.0**	20.3	59.2	57.3	1.9	3.8	64.7	61.4	3.3	6.7
7 th Quarter***	61.4	57.2	4.2	8.4	60.4	57.6	2.8	5.7	59.5	54.9	4.6	9.2
8 th Quarter***	66.7	60.1	6.6	13.5	61.3	59.9	1.4	2.8	61.7	64.1	-2.3	-4.8
Any Self-Sufficiency-Oriented Activity (Education, Training or Employment)												
Ever Employed or in Education/Training***	94.8	90.8	4.0*	13.1	91.3	89.9	1.3	4.4	96.1	90.2	5.9**	19.4
Average Hours per Week in Any Activity	22.3	20.8	1.5	9.6	21.2	20.7	0.5	3.2	23.8	21.4	2.4	15.3
In Activities in:												
1 st Quarter***	57.8	53.5	4.4	8.8	51.8	50.3	1.5	3.1	49.4	53.9	-4.1	-8.1
2 nd Quarter***	64.3	59.8	4.4	9.0	60.7	57.8	2.9	5.8	61.8	59.2	2.5	5.1
3 rd Quarter***	72.1	69.2	2.9	6.2	64.7	64.3	0.4	0.9	74.9	65.6	9.2**	19.4
4 th Quarter***	77.6	68.0	9.7***	20.2	66.4	63.8	2.6	5.4	73.6	66.0	7.5*	15.8
5 th Quarter***	77.3	71.2	6.1*	13.2	71.5	68.2	3.3	7.2	74.8	68.9	5.9	12.7
6 th Quarter***	77.9	68.9	9.0**	19.1	71.2	66.6	4.5	9.6	82.3	68.3	14.0***	29.8

Table VI.8 (Continued)

Outcome	Early Implementers				Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
7 th Quarter***	71.1	67.9	3.2	6.8	69.4	65.7	3.7	7.7	76.2	62.3	13.8***	28.9
8 th Quarter***	75.1	68.0	7.1*	15.3	70.6	68.2	2.4	5.2	77.4	70.2	7.2	15.4
AFDC/TANF Receipt												
Ever Received AFDC/TANF***	40.1	39.5	0.6	1.2	48.7	44.9	3.8	7.5	53.8	49.1	4.7	9.4
Received AFDC/TANF in:												
1 st Quarter***	29.9	27.3	2.6	5.5	33.9	28.8	5.2*	11.1	38.8	36.9	1.9	3.9
2 nd Quarter***	30.7	27.6	3.1	6.6	33.5	30.0	3.6	7.5	40.3	41.2	-0.9	-1.9
3 rd Quarter***	31.6	28.9	2.7	5.7	35.0	33.7	1.3	2.7	45.5	42.2	3.3	6.9
4 th Quarter***	24.4	24.1	0.3	0.5	29.3	28.4	0.9	1.9	40.1	37.2	2.9	6.3
5 th Quarter***	21.7	25.4	-3.8	-8.2	30.6	26.5	4.1	9.0	38.8	35.9	2.9	6.4
6 th Quarter***	20.2	25.8	-5.6*	-12.2	30.6	27.0	3.6	7.8	38.5	38.8	-0.3	-0.6
7 th Quarter***	17.8	20.2	-2.4	-5.4	25.3	23.0	2.4	5.4	26.4	34.8	-8.4*	-19.2
8 th Quarter***	16.0	19.5	-3.4	-8.1	24.9	21.5	3.4	7.9	26.5	29.7	-3.2	-7.5
Total AFDC/TANF Benefits (\$)	1,992.0	2,151.8	-159.8	-4.1	2,115.9	1,958.4	157.6	4.1	2,391.1	2,416.2	-25.1	-0.7
Receipt of Other Welfare Benefits												
Ever Received Welfare***	66.4	64.3	2.1	4.5	70.0	67.6	2.3	5.0	68.8	65.7	3.2	6.7
Total Welfare Benefits (\$)	5,208.0	5,486.1	-278.1	-3.7	5,309.6	5,627.5	-317.8	-4.2	5,375.8	5,651.6	-275.8	-3.7
Ever Received Food Stamps***	58.1	58.5	-0.4	-0.7	62.7	60.3	-2.4	4.9	62.3	58.8	3.5	7.2
Total Food Stamp Benefits (\$)	2,064.7	2,154.3	-89.6	-3.3	1,987.4	1,867.5	119.9	4.4	2,376.9	2,302.5	74.4	2.7
Income/Poverty												
Income Above Poverty Level***	41.9	44.9	-3.0	-6.1	36.2	43.1	-6.8*	-13.9	52.3	40.3	11.9**	24.2
Subsequent Births												
Subsequent Birth by 24 Months after Random Assignment***	22.0	28.3	-6.4	-14.2	26.5	27.1	-0.6	-1.4	19.6	26.7	-7.1	-15.7
Sample Size	266	367	733		410	374	784		300	270	570	

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.VI.9 (continued)

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.VI.10

IMPACTS ON SELF-SUFFICIENCY AT 28 MONTHS, BY IMPLEMENTATION STATUS FOR HOME-BASED PROGRAMS

Outcome	Early or Late Implementers				Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Education/Job Training								
Ever in Education or Training**** ^d	46.5	46.3	0.2	0.4	63.2	41.6	21.6***	43.2
Ever in High School***	11.1	6.9	4.1*	14.5	14.5	5.3	9.2***	32.3
Ever in ESL Class***	5.7	4.2	1.5	10.6	0.4	-0.1	0.5	3.5
Ever in Vocational Program***	13.1	16.4	-3.3	-8.8	25.8	13.6	12.2**	32.3
Average Hours per Week in Education or Training	3.0	2.6	0.5	7.6	6.6	3.0	3.7***	57.8
In Education or Training:								
1 st Quarter***	18.4	19.3	-0.9	-2.2	25.2	22.0	3.2	7.7
2 nd Quarter***	21.7	19.0	2.7	6.3	29.9	25.5	4.4	10.3
3 rd Quarter***	21.8	23.5	-1.8	-4.0	37.5	28.0	9.5**	21.6
4 th Quarter***	23.4	19.9	3.5	8.1	32.7	23.4	9.3**	21.7
5 th Quarter***	23.9	21.7	2.1	5.0	35.6	22.7	12.9***	30.0
6 th Quarter***	21.5	22.7	-1.2	-2.8	38.6	18.7	19.9***	47.9
7 th Quarter***	19.2	19.3	-0.1	-0.3	28.6	13.6	15.0***	37.3
8 th Quarter***	20.9	15.9	4.9	12.5	29.4	15.7	13.7***	34.8
Have High School Diploma***	39.1	40.2	-1.2	-2.3	62.4	53.3	9.1*	18.2
Have GED***	7.9	6.1	1.9	5.9	9.6	19.2	-9.6**	-30.2
Employment								
Ever Employed***	79.0	80.3	-1.3	-3.6	89.5	83.1	6.4	17.0
Average Hours/Week Employed	13.9	14.3	-0.4	-2.6	16.2	15.9	0.4	2.6
Employed in:								
1 st Quarter***	34.1	33.6	0.5	1.0	33.6	38.2	-4.6	-9.5
2 nd Quarter***	37.1	41.3	-4.1	-8.3	39.4	43.6	-4.2	-8.3
3 rd Quarter***	43.7	48.1	-4.4	-8.8	51.1	52.3	-1.2	-2.5
4 th Quarter***	48.7	48.9	-0.2	-0.3	56.4	53.5	2.9	5.7
5 th Quarter***	55.6	56.7	-1.1	-2.2	61.1	59.8	1.3	2.7
6 th Quarter***	57.7	54.1	3.5	7.2	67.6	63.0	4.6	9.3
7 th Quarter***	57.1	56.7	0.4	0.9	58.6	52.6	6.1	12.3
8 th Quarter***	55.1	58.3	-3.2	-6.5	57.6	62.0	-4.4	-8.9
Any Self-Sufficiency-Oriented Activity (Education, Training, or Employment)								
Ever Employed or in Education/Training***	87.1	87.6	-0.5	-1.6	96.4	88.4	7.9***	26.2
Average Hours per Week in Any Activity	17.5	17.0	0.4	2.8	23.5	19.6	3.9**	24.5
In Activities in:								
1 st Quarter***	44.4	44.9	-0.6	-1.1	51.3	50.5	0.8	1.6
2 nd Quarter***	48.5	51.9	-3.4	-6.8	60.1	57.3	2.8	5.7
3 rd Quarter***	53.9	59.0	-5.0	-10.6	74.0	65.6	8.3*	17.6
4 th Quarter***	60.0	57.6	2.4	5.1	72.7	63.0	9.6**	20.2
5 th Quarter***	65.2	65.2	-0.0	-0.1	76.1	69.3	6.8	14.6
6 th Quarter***	65.9	63.4	2.5	5.2	82.8	68.8	13.9***	29.7
7 th Quarter***	64.0	53.6	0.4	0.9	70.4	60.8	9.6*	20.1
8 th Quarter***	62.6	64.1	-1.6	-3.3	69.7	68.9	0.8	1.8

TABLE E.VI.11

IMPACTS ON CHILD AND FAMILY OUTCOMES AT AGE 3, BY IMPLEMENTATION STATUS OF MIXED APPROACH PROGRAMS

Outcome	Early Implementation				Late or Incomplete Implementation			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Child Cognitive and Language Development								
Bayley Mental Development Index (MDI) Standard Score ^{*d}	93.1	89.5	3.7*	28.3	85.4	86.4	-1.0	-7.7
Percentage with MDI < 85***	27.2	36.4	-9.2	-19.7	45.3	43.6	1.7	3.6
Peabody Picture Vocabulary Test (PPVT)-III Standard Score	85.8	83.4	2.4	14.9	78.3	73.4	4.9	29.8
Percentage with PPVT-III < 85***	45.7	62.6	-16.9**	-33.9	66.2	70.2	-4.0	-8.1
Child Social-Emotional Development								
Engagement of Parent During Parent-Child Semistructured Play	4.9	4.5	0.5***	43.4	4.6	4.4	0.2	19.9
Sustained Attention with Objects During Parent-Child Semistructured Play	5.1	4.7	0.4***	41.7	4.8	4.7	0.2	16.8
Engagement of Parent During Parent-Child Puzzle Challenge Task	5.0	4.9	0.0	3.4	5.0	4.9	0.1	11.5
Persistence During Parent-Child Puzzle Challenge Task	4.6	4.5	0.1	11.6	4.4	4.4	-0.0	-2.0
Bayley Behavioral Rating Scale (BRS): Emotional Regulation	4.0	4.1	-0.1	-15.2	4.0	4.1	-0.1	-15.2
Bayley BRS: Orientation/ Engagement	3.9	4.0	-0.2	-19.7	3.8	4.0	-0.1	-15.7
Negativity Toward Parent During Parent-Child Semistructured Play	1.2	1.4	-0.1	-21.1	1.3	1.3	0.0	2.2
Frustration During Parent-Child Puzzle Challenge Task	2.9	2.9	-0.0	-1.4	2.8	2.5	0.2	17.6
Child Behavior Checklist—Aggressive Behavior	11.0	12.0	-1.0	-14.8	10.3	10.3	-0.1	-0.8
Child Health Status								
Child's Health Status	4.1	4.2	-0.1	-14.2	4.2	4.0	0.2	17.1
Percentage of Children in Fair or Poor Health***	6.3	4.8	1.5	5.4	4.5	7.4	-2.9	-10.2
Quality of the Home Environment and Parenting: Overall and Physical Environment								
Home Observation for Measurement of the Environment (HOME) Total Score	27.8	27.1	0.6	12.8	26.3	26.0	0.3	5.8
HOME Internal Physical Environment	7.7	7.7	0.0	0.7	7.8	7.9	-0.1	-5.6
Parenting Behavior: Emotional Support								
HOME Warmth	2.5	2.3	0.1	13.8	2.4	2.4	0.0	0.7
Supportiveness During Parent-Child Semistructured Play	4.1	3.8	0.3	27.1	3.8	3.6	0.2	18.4
Supportive Presence During Parent-Child Puzzle Challenge Task**	4.8	4.3	0.6***	42.2	4.0	4.0	-0.1	-3.6
Parenting Behavior: Stimulation of Language and Learning								
Percentage of Children with a Regular Bedtime***	58.5	66.1	-7.6	-15.4	59.9	62.0	-2.1	-4.2
Percentage of Children Who Follow a Bedtime Routine***	66.5	62.6	3.9	8.5	69.8	73.2	-3.3	-7.2

TABLE E.VI.11 (continued)

Outcome	Early Implementation				Late or Incomplete Implementation			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
HOME: Support of Language and Learning	10.5	10.3	0.2	8.8	10.1	9.8	0.3	13.9
Parent-Child Play	4.3	4.1	0.2*	24.3	4.5	4.3	0.1	14.8
Quality of Assistance During Parent-Child Puzzle Challenge Task	3.9	3.6	0.3*	27.8	3.3	3.0	0.3*	25.1
Percentage of Parents Who Read to Child Daily***	60.4	37.3	23.1***	46.2	58.0	50.4	7.6	15.2
Percentage of Parents Who Read to Child at Bedtime***	39.0	27.4	11.6	25.5	35.2	32.0	3.2	7.1
Parenting Behavior: Negative Parenting Behavior								
Detachment During Parent-Child Semistructured Play	1.3	1.4	-0.1	-22.1	1.1	1.4	-0.2**	-35.7
Intrusiveness During Parent-Child Semistructured Play	1.5	1.6	-0.1	-7.8	1.8	1.7	0.1	7.0
Detachment During Parent-Child Puzzle Challenge Task	1.6	2.0	-0.4**	-37.2	1.8	2.0	-0.2	-18.8
Intrusiveness During Parent-Child Puzzle Challenge Task*	2.6	2.9	-0.4*	-27.4	2.9	2.8	0.2	13.5
Negative Regard During Parent-Child Semistructured Play	1.4	1.3	0.0	5.6	1.3	1.3	0.1	10.4
HOME Harshness	0.2	0.2	-0.0	-3.2	0.3	0.2	0.1	13.7
Percentage of Parents Who Spanked Child in the Past Week***	42.3	55.5	-13.2*	-26.5	50.7	61.8	-11.1*	-22.2
Knowledge of Safety Practices and Discipline Strategies								
Percentage of Parents Who Usually Use a Car Seat Correctly***	73.8	68.9	4.9	10.8	73.4	77.0	-3.6	-7.9
Percentage of Parents Suggesting Physical Punishment as a Discipline Strategy***	33.0	51.9	-18.9***	-37.8	54.9	58.3	-3.4	-6.8
Percentage of Parents Who Would Use Mild Discipline Only***	60.0	38.9	21.1***	42.8	38.5	35.0	3.5	7.2
Index of Severity of Discipline Strategies**	2.8	3.5	-0.7***	-43.8	3.6	3.7	-0.1	-7.8
Parent Physical and Mental Health								
Parent's Health Status	3.3	3.4	-0.1	-12.9	3.7	3.6	0.1	8.7
Parenting Stress Index (PSI) Parental Distress	24.2	25.3	-1.1	-11.6	25.4	25.7	-0.4	-3.8
PSI Parent-Child Dysfunctional Interaction	17.6	17.9	-0.4	-5.4	18.6	17.0	1.6*	25.2
Center for Epidemiological Studies Depression (CES-D; Short Form)*	7.2	8.5	-1.3	-18.1	7.1	6.1	1.0	14.3
CES-D Severe Depressive Symptoms ***	15.3	14.9	0.4	1.1	13.0	10.6	2.3	6.5
Family Environment Scale (FES): Family Conflict	1.7	1.8	-0.0	-6.7	1.6	1.6	-0.0	-2.4
Sample Size								
Bayley	136	153	289		130	104	234	
Parent Interview	173	182	355		178	162	340	
Parent-Child Interactions	122	139	261		129	116	245	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

TABLE E.VI.11 (continued)

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.VI.12

IMPACTS ON SELF-SUFFICIENCY AT 28 MONTHS, BY IMPLEMENTATION STATUS OF MIXED APPROACH PROGRAMS

Outcome	Early Implementers				Late or Incomplete Implementers			
	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate Per Participant ^b	Effect Size ^c
Education/Job Training								
Ever in Education or Training**** ^d	60.7	44.1	16.6**	33.2	70.1	57.6	12.5**	25.0
Ever in High School***	7.2	6.8	0.4	1.4	23.9	14.1	9.7**	34.1
Ever in ESL Class***	3.0	2.8	0.2	1.4	7.1	4.2	2.9	20.3
Ever in Vocational Program***	22.2	15.4	6.8	18.0	22.8	19.4	3.3	8.9
Average Hours per Week in Education or Training	2.6	2.6	0.0	0.6	5.9	4.2	1.8**	27.5
In Education or Training:								
1 st Quarter***	17.7	12.3	5.3	12.9	27.2	26.7	0.4	1.1
2 nd Quarter***	17.2	14.3	2.9	6.6	37.3	29.2	8.1	18.7
3 rd Quarter***	21.9	19.7	2.2	5.1	40.8	31.1	9.7*	22.0
4 th Quarter***	24.7	21.9	2.8	6.5	38.3	30.0	8.2	19.2
5 th Quarter***	22.6	23.2	-0.6	-1.3	36.8	33.3	3.5	8.1
6 th Quarter***	25.8	22.1	3.7	8.8	29.0	27.3	1.7	4.1
7 th Quarter***	21.9	21.2	0.7	1.8	31.3	24.5	6.8	17.0
8 th Quarter***	22.4	14.3	8.1	20.7	33.0	24.5	8.5	21.7
Have High School Diploma ***	52.1	50.8	1.3	2.7	48.5	45.0	3.5	7.0
Have GED***	14.7	7.4	7.3	23.1	5.7	9.1	-3.4	-10.7
Employment								
Ever Employed***	88.5	78.2	10.3**	27.5	88.4	82.8	5.6	14.9
Average Hours/Week Employed	15.7	12.9	2.8	18.9	17.8	18.8	-1.0	-6.4
Employed in:								
1 st Quarter***	31.7	32.1	-0.3	-0.7	38.8	34.2	4.7	9.6
2 nd Quarter***	43.1	35.5	7.6	15.3	47.5	44.8	2.7	5.5
3 rd Quarter***	52.5	46.2	6.2	12.4	53.1	56.0	-2.9	-5.8
4 th Quarter***	58.6	47.4	11.2*	22.4	54.2	58.2	-4.0	-8.1
5 th Quarter***	61.2	46.7	14.6**	29.6	59.4	61.0	-1.7	-3.4
6 th Quarter***	60.2	49.5	10.7	21.7	64.4	61.2	3.4	6.8
7 th Quarter***	55.5	48.5	7.0	14.1	66.9	57.0	9.9	20.0
8 th Quarter***	63.9	50.2	13.8**	28.2	70.3	62.1	8.3	16.9
Any Self-Sufficiency-Oriented Activity (Education, Training, or Employment)								
Ever Employed or in Education/Training***	93.4	86.4	7.0*	23.1	97.7	91.4	6.3**	20.8
Average Hours per Week in Any Activity	18.7	16.1	2.6	16.6	23.9	23.0	0.9	5.9
In Activities in:								
1 st Quarter***	44.1	40.7	3.4	6.8	57.6	52.8	4.8	9.7
2 nd Quarter***	53.4	43.6	9.9*	20.0	70.2	60.9	9.4*	19.0
3 rd Quarter***	63.3	59.1	4.2	8.8	78.0	68.3	9.7*	20.4
4 th Quarter***	70.5	59.0	11.5**	24.2	73.1	72.0	1.2	2.4
5 th Quarter***	69.5	60.8	8.7	18.9	78.1	72.8	5.3	11.5
6 th Quarter***	70.3	61.8	8.5	18.1	78.1	70.1	8.0	17.0
7 th Quarter***	64.8	59.6	5.2	10.9	78.5	66.7	11.8**	24.6
8 th Quarter***	72.2	57.6	14.6**	31.3	82.1	69.6	12.4**	26.6

TABLE VII.1

IMPACTS ON SERVICE RECEIPT DURING THE FIRST 28 MONTHS, BY PREGNANCY STATUS AT ENROLLMENT

	Pregnant with Focus Child			Not Pregnant with Focus Child		
	Program Group	Control Group	Impact Estimate per Eligible Applicant	Program Group	Control Group	Impact Estimate per Eligible Applicant
Any Services						
Any Key Services*** ^{a,b}	97.8	77.7	20.1***	95.4	81.7	13.7***
Any Home Visits Or Center-Based Child Care***	97.2	52.1	45.1***	92.1	58.4	33.8***
More Than 1 Home Visit or 2 Weeks Center-Based Child Care***	96.9	43.9	53.0***	91.3	53.2	38.1***
Home Visits or Center Care at Required Intensity in at Least 1 Followup***	78.5	8.3	70.2***	72.5	15.9	56.6***
Home Visits or Center Care at Required Intensity in All 3 Followups***	26.9	0.6	26.3***	31.5	4.6	26.9***
Home Visits						
Any Home Visits***	96.7	39.8	56.9***	85.2	31.4	53.8***
Any Child Development Services During Home Visits***	95.9	38.1	57.8***	84.3	29.3	55.0***
Weekly Home Visits, 1st Follow-Up Period***	63.9	6.3	57.6***	42.8	2.6	40.2***
Weekly Home Visits, 2nd Follow-Up Period***	46.2	2.5	43.7***	33.8	2.6	31.2***
Weekly Home Visits, 3rd Follow-Up Period***	34.6	1.1	33.5***	28.2	2.4	25.8***
Weekly Home Visits in At Least 1 Followup***	76.8	7.6	69.2***	53.1	5.3	47.8***
Weekly Home Visits in All 3 Followups***	22.4	0.0	22.4***	18.8	0.7	18.1***
Child Care						
Any Child Care***	85.5	78.3	7.2*	86.9	81.1	5.8***
Any Center-Based Child Care***	41.3	24.4	17.0***	52.2	37.8	14.4***
Average Hours Per Week of Center-Based Care	2.6	1.4	1.2*	6.8	3.6	3.2***
Concurrent Child Care Arrangements***	43.2	36.1	7.0	52.8	47.2	5.6**
Average Weekly Out-of-Pocket Cost of Care	\$2.77	\$2.98	-\$0.21	\$5.11	\$8.50	-\$3.39***
Received a Child Care Subsidy***	36.0	33.2	2.9	30.2	33.5	-3.4
Child Was in Care at 12 Months of Age***	55.0	50.3	4.7	69.6	58.6	11.0***
Child Was in Care at 24 Months of Age***	56.4	49.6	6.9	62.8	53.6	9.2***
Case Management						
Any Case Management Meetings***	96.5	58.5	38.0***	85.8	53.8	32.0***
Weekly Case Management, 1st Follow-Up Period***	63.3	10.6	52.7***	43.6	7.9	35.7***
Weekly Case Management, 2nd Follow-Up Period***	45.7	4.5	41.2***	32.1	6.2	26.0***
Weekly Case Management, 3rd Follow-Up Period***	32.6	4.7	27.9***	29.6	4.1	25.5***
Group Activities						
Any Group Parenting Activities***	77.3	37.1	40.2***	69.4	36.2	33.2***
Any Parent-Child Group Activities**	42.7	9.5	33.2***	42.4	13.7	28.7***

TABLE VII.1 (continued)

	Pregnant with Focus Child			Not Pregnant with Focus Child		
	Program Group	Control Group	Impact Estimate per Eligible Applicant	Program Group	Control Group	Impact Estimate per Eligible Applicant
Early Intervention Services						
Identification of Child's Disability***	5.1	2.7	2.4	8.2	5.4	2.8**
Services for Child With Disability***	3.0	1.7	1.4	5.5	3.5	2.1*
Child Health Services						
Any Child Health Services***	100.0	100.0	0.0	100.0	99.7	0.3*
Any Doctor Visits***	100.0	98.6	1.5*	98.6	98.3	0.3
Any Emergency Room Visits***	62.3	58.3	4.0	52.6	53.5	-1.0
Number of Emergency Room Visits for Injuries	0.3	0.3	-0.0	0.2	0.3	-0.1*
Any Dentist Visits***	17.8	18.9	-1.1	31.5	27.8	3.6
Any Screening Tests***	67.8	70.3	-2.6	65.6	65.9	-0.3
Any Immunizations***	99.5	98.4	1.1	98.5	97.5	0.9
Family Development Services						
Any Education-Related Services***	92.9	60.5	32.4***	86.1	56.9	29.2***
Any Employment-Related Services***	85.2	46.0	39.2***	75.2	46.7	28.5***
Any Family Health Services ^c	100.0	100.0	0.0	100.0	100.0	0.0
Any Family Mental Health Services***	24.0	20.9	3.0	23.1	21.8	1.3
Transportation Assistance***	45.0	23.6	21.5***	30.4	23.2	7.3***
Housing Assistance***	66.5	63.6	2.9	57.4	56.8	0.6
Sample Size	269	278	547	807	733	1,540

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aHome visits, case management, center-based child care, and/or group parenting activities.

^bAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups in the first two columns.

^cThere is no variance across subgroups due to lack of variance in level of services.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.2

IMPACTS ON CHILD AND FAMILY OUTCOMES AT AGE 3, BY PREGNANCY STATUS AT ENROLLMENT

Outcome	Pregnant with Focus Child				Not Pregnant with Focus Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Child Cognitive and Language Development								
Bayley Mental Development Index (MDI) Standard Score	92.2	89.6	2.6**	20.3	91.2	90.6	0.6	4.6
Percentage with MDI < 85*** ^d	25.2	29.6	-4.3	-9.3	28.5	31.0	-2.5	-5.3
Peabody Picture Vocabulary Test (PPVT)-III Standard Score	86.7	86.0	0.7	4.3	82.6	81.1	1.5	9.0
Percentage with PPVT-III < 85***	39.7	46.2	-6.5	-13.1	53.7	55.8	-2.0	-4.1
Child Social-Emotional Development								
Engagement of Parent During Parent-Child Semistructured Play***	5.0	4.4	0.6***	52.2	4.8	4.6	0.2**	15.3
Sustained Attention with Objects During Parent-Child Semistructured Play**	5.1	4.6	0.5***	46.8	5.0	4.8	0.1**	13.2
Engagement of Parent During Parent-Child Puzzle Challenge Task	5.1	4.9	0.3**	30.2	5.0	5.0	0.1	7.6
Persistence During Parent-Child Puzzle Challenge Task*	4.8	4.5	0.3**	29.2	4.6	4.5	0.1	4.7
Bayley Behavioral Rating Scale (BRS): Emotional Regulation	4.0	4.0	0.0	3.3	4.0	4.0	-0.0	-5.0
Bayley BRS: Orientation/ Engagement	4.0	3.9	0.1	14.4	3.9	3.8	0.0	3.0
Negativity Toward Parent During Parent-Child Semistructured Play	1.3	1.4	-0.2**	-26.6	1.2	1.3	-0.1	-9.4
Frustration During Parent-Child Puzzle Challenge Task	2.6	2.6	-0.0	-0.3	2.7	2.7	0.1	0.3
Child Behavior Checklist—Aggressive Behavior	11.2	11.2	0.0	0.4	10.6	11.2	-0.6	-8.9
Child Health Status								
Child's Health Status	4.0	4.2	-0.2	-16.0	4.0	4.0	0.0	2.8
Percentage of Children in Fair or Poor Health***	6.7	5.6	1.0	3.7	8.0	9.2	-1.2	-4.2
Quality of the Home Environment and Parenting: Overall and Physical Environment								
Home Observation for Measurement of the Environment (HOME) Total Score	27.8	27.0	0.8	16.6	27.5	27.0	0.4*	8.9
HOME Internal Physical Environment	7.8	7.8	0.0	1.6	7.8	7.9	-0.1	-6.1
Parenting Behavior: Emotional Support								
HOME Warmth	2.5	2.3	0.2*	19.4	2.6	2.5	0.1*	9.8
Supportiveness During Parent-Child Semistructured Play**	4.1	3.7	0.4***	40.6	4.0	3.9	0.1*	12.0
Supportive Presence During Parent-Child Puzzle Challenge Task*	4.6	4.3	0.4**	28.8	4.5	4.4	0.1	4.5
Parenting Behavior: Stimulation of Language and Learning								
Percentage of Children with a Regular Bedtime***	52.5	57.7	-5.2	-10.5	61.3	58.2	3.1	6.2
Percentage of Children Who Follow a Bedtime Routine***	65.4	72.8	-7.4	-16.0	69.0	68.7	0.3	0.6

TABLE VII.2 (continued)

Outcome	Pregnant with Focus Child				Not Pregnant with Focus Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
HOME: Support of Language and Learning	10.8	10.5	0.3	14.9	10.6	10.3	0.2**	10.4
Parent-Child Play	4.5	4.4	0.1	16.4	4.4	4.4	0.1	6.6
Quality of Assistance During Parent-Child Puzzle Challenge Task	3.6	3.5	0.2	12.6	3.6	3.5	0.1	9.7
Percentage of Parents Who Read to Child Daily***	54.8	59.8	-5.0	-9.9	57.9	53.0	4.9*	9.8
Percentage of Parents Who Read to Child at Bedtime***	28.0	28.7	-0.7	-1.6	32.0	29.4	2.6	5.7
Parenting Behavior: Negative Parenting Behavior								
Detachment During Parent-Child Semistructured Play	1.3	1.4	-0.2**	-25.6	1.2	1.2	-0.0	-6.3
Intrusiveness During Parent-Child Semistructured Play	1.7	1.8	-0.1	-14.5	1.6	1.6	-0.1	-6.3
Detachment During Parent-Child Puzzle Challenge Task	1.6	1.8	-0.1	-15.1	1.6	1.6	0.0	3.3
Intrusiveness During Parent-Child Puzzle Challenge Task	2.7	2.9	-0.2	-13.2	2.6	2.7	-0.1	-5.1
Negative Regard During Parent-Child Semistructured Play	1.4	1.4	0.0	5.1	1.3	1.3	-0.0	-2.1
HOME Harshness	0.4	0.4	-0.0	-2.4	0.3	0.3	0.0	1.5
Percentage of Parents Who Spanked Child in the Past Week***	47.6	58.0	-10.5*	-21.0	46.9	52.3	-5.4*	-10.7
Knowledge of Safety Practices and Discipline Strategies								
Percentage of Parents Who Usually Use a Car Seat Correctly***	64.4	68.0	-3.6	-7.8	70.1	70.0	0.1	0.3
Percentage of Parents Suggesting Physical Punishment as a Discipline Strategy***	51.3	53.4	-2.1	-4.2	46.9	50.5	-3.6	-7.2
Percentage of Parents Who Would Use Mild Discipline Only***	43.5	41.2	2.3	4.7	44.1	41.3	2.9	5.8
Index of Severity of Discipline Strategies	3.5	3.6	-0.1	-7.6	3.4	3.5	-0.1	-7.5
Parent Physical and Mental Health								
Parent's Health Status	3.3	3.5	-0.2	-15.4	3.5	3.5	-0.0	-1.2
Parenting Stress Index (PSI) Parental Distress	24.8	24.2	0.6	6.1	24.9	25.4	-0.5	-4.8
PSI Parent-Child Dysfunctional Interaction	17.9	17.1	0.7	11.5	17.7	17.8	-0.0	-0.7
Center for Epidemiological Studies Depression (CES-D; Short Form)**	8.9	7.5	1.5*	20.7	7.2	7.7	-0.5	-7.6
CES-D Severe Depressive Symptoms ***	19.5	13.4	6.1	17.0	13.4	14.7	-1.4	-3.8
Family Environment Scale (FES): Family Conflict	1.7	1.7	0.1	11.6	1.6	1.7	-0.0	-5.5
Father Presence								
Currently Married To Biological Father ***	26.4	26.7	-0.3	-0.7	34.3	37.6	-3.3	-6.8
Biological Father is Currently Married to, Lives with, or is Boyfriend of Respondent***	40.4	39.6	0.8	1.6	48.9	51.9	-3.0	-6.0
Biological Father Currently Present in Child's Life***	62.8	60.4	2.2	4.8	72.2	72.6	-0.3	-0.7

TABLE VII.2 (continued)

Outcome	Pregnant with Focus Child				Not Pregnant with Focus Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Continuous Biological Father Presence Child Age 14-36 Months***	56.5	68.7	-12.2*	-26.5	67.4	67.8	-0.4	-1.0
No Biological Father Presence Child Age 14-36 Months***	19.5	14.0	5.5	17.4	12.4	11.9	0.4	1.4
Continuous Male Presence Child Age 14-36 Months***	75.1	83.3	-8.2	-22.9	79.5	82.0	-2.5	-7.0
No Male Presence Child Age 14-36 Months***	5.6	1.2	4.5**	36.9	1.5	1.6	-0.0	-0.2
Sample Size								
Bayley	221	215	436		658	564	1,222	
Parent Interview	265	257	522		842	746	1,588	
Parent-Child Interactions	219	208	427		655	576	1,231	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.3

IMPACTS ON SELF-SUFFICIENCY AT 28 MONTHS, BY PREGNANCY STATUS AT ENROLLMENT

Outcome	Pregnant with Focus Child				Not Pregnant with Focus Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Education/Job Training								
Ever in Education or Training**** ^d	67.9	56.0	12.0**	24.0	59.7	49.9	9.7***	19.5
Ever in High School***	21.2	18.6	2.6	9.3	11.8	7.4	4.4***	15.4
Ever in ESL Class***	0.5	-0.1	0.6	4.3	4.2	3.0	1.3	8.8
Ever in Vocational Program***	24.4	18.7	5.7	15.2	19.8	16.4	3.4	9.0
Average Hours per Week in Education or Training	5.4	4.5	0.9	14.8	4.7	3.3	1.4***	22.0
In Education or Training:								
1 st Quarter***	26.0	23.5	2.5	6.1	21.4	22.5	-1.0	-2.5
2 nd Quarter***	28.2	21.0	7.3*	16.8	27.3	26.5	0.8	1.8
3 rd Quarter***	31.3	30.1	1.1	2.6	32.1	26.4	5.7**	12.8
4 th Quarter***	32.2	30.2	2.0	4.8	31.0	24.4	6.6***	15.4
5 th Quarter***	32.5	31.7	0.7	1.7	30.3	24.7	5.6**	13.0
6 th Quarter***	34.5	28.2	6.4	15.3	29.8	22.4	7.3***	17.6
7 th Quarter***	27.1	28.1	-1.1	-2.6	25.7	19.4	6.4***	15.8
8 th Quarter***	28.2	27.4	0.8	2.1	26.4	18.2	8.3***	21.1
Have High School Diploma***	49.4	47.8	1.6	3.1	50.5	49.7	0.7	1.5
Have GED***	10.7	9.6	1.1	3.4	10.3	10.6	-0.3	-1.0
Employment								
Ever Employed***	85.5	81.3	4.2	11.2	86.9	84.0	2.9	7.7
Average Hours/Week Employed	11.9	13.3	-1.4	-9.2	17.9	17.9	-0.0	-0.0
Employed in:								
1 st Quarter***	30.2	29.2	1.0	2.1	40.3	41.9	-1.6	-3.4
2 nd Quarter***	36.8	41.2	-4.4	-8.8	47.5	47.6	-0.2	-0.3
3 rd Quarter***	40.9	46.8	-6.0	-11.9	54.6	54.2	0.3	0.7
4 th Quarter***	46.7	47.0	-0.3	-0.6	58.6	57.1	1.4	2.9
5 th Quarter***	53.0	52.9	0.2	0.3	62.2	61.8	0.4	0.8
6 th Quarter***	56.4	53.1	3.3	6.8	65.0	61.2	3.7	7.6
7 th Quarter***	49.2	50.6	-1.4	-2.9	62.0	57.7	4.4	8.8
8 th Quarter***	53.9	56.0	-2.1	-4.3	64.7	62.3	2.4	5.0
Any Self-Sufficiency-Oriented Activity (Education, Training or Employment)								
Ever Employed or in Education/Training***	94.2	87.9	6.4**	20.9	94.2	90.7	3.5**	11.4
Average Hours per Week in Any Activity	18.0	18.3	-0.3	-1.9	23.2	21.6	1.6*	9.9
In Activities in:								
1 st Quarter***	48.7	45.4	3.3	6.5	53.9	54.6	-0.7	-1.3
2 nd Quarter***	54.7	53.1	1.6	3.3	64.1	60.8	3.3	6.7
3 rd Quarter***	61.3	61.5	-0.2	-0.5	71.4	68.0	3.4	7.2
4 th Quarter***	65.5	62.6	3.0	6.2	73.2	67.4	5.8**	12.2
5 th Quarter***	69.0	68.8	0.2	0.5	74.3	70.7	3.6	7.8
6 th Quarter***	74.4	66.4	8.0*	17.0	77.2	69.5	7.7***	16.5
7 th Quarter***	61.3	63.3	-2.0	-4.1	73.4	65.3	8.1***	16.9
8 th Quarter***	62.9	68.5	-5.7	-12.2	76.0	68.5	7.6***	16.2

TABLE VII.3 (continued)

Outcome	Pregnant with Focus Child				Not Pregnant with Focus Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
AFDC/TANF Receipt								
Ever Received AFDC/TANF***	54.9	54.7	0.2	0.5	45.8	43.0	2.8	5.5
Received AFDC/TANF in:								
1 st Quarter***	34.0	35.8	-1.8	-3.8	34.4	31.0	3.4*	7.2
2 nd Quarter***	37.0	41.8	-4.8	-10.2	34.3	31.6	2.7	5.6
3 rd Quarter***	44.8	41.3	3.6	7.4	34.9	33.9	0.9	2.0
4 th Quarter***	39.6	39.2	0.5	1.0	28.9	28.6	0.3	0.6
5 th Quarter***	38.9	38.5	0.5	1.0	28.1	28.1	-0.0	-0.0
6 th Quarter***	36.3	43.5	-7.3	-15.7	27.6	27.9	-0.3	-0.7
7 th Quarter***	23.4	36.8	-13.4***	-30.4	22.2	23.9	-1.8	-4.0
8 th Quarter***	24.7	32.4	-7.6	-18.0	21.2	21.8	-0.6	-1.4
Total AFDC/TANF Benefits (\$)*	\$2,435	\$2,774	-\$339	-8.8	\$2,096	\$2,133	-\$38	-1.0
Receipt of Other Welfare Benefits								
Ever Received Welfare***	76.4	74.8	1.6	3.4	67.7	65.0	2.7	5.7
Total Welfare Benefits (\$)*	\$6,678	\$6,882	-\$204	-2.7	\$5,258	\$5,407	-\$149	-2.0
Ever Received Food Stamps***	68.3	68.8	-0.5	-1.1	60.6	57.6	3.0	6.1
Total Food Stamp Benefits (\$)	\$2,389	\$2,647	-\$259	-9.5	\$2,130	\$1,976	\$154	5.6
Income/Poverty								
Income Above Poverty Level***	36.0	39.8	-3.8	-7.8	42.5	42.4	0.1	0.3
Subsequent Births								
Subsequent Birth by 24 Months after Random Assignment***	38.9	44.1	-5.2	-11.5	20.6	22.7	-2.0	-4.5
Sample Size	269	278	547		807	733	1,540	

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.4

IMPACTS ON SERVICE RECEIPT DURING THE FIRST 28 MONTHS, BY FOCUS CHILD'S BIRTH ORDER

	Firstborn Child				Later Born Child		
	Program Group	Control Group	Impact Estimate per Eligible Applicant		Program Group	Control Group	Impact Estimate per Eligible Applicant
Any Services							
Any Key Services*** ^{a,b}	95.1	80.5	14.6***		97.6	81.8	15.8***
Any Home Visits Or Center-Based Child Care***	94.0	75.8	18.3***		97.1	76.6	20.5***
More Than 1 Home Visit or 2 Weeks Center-Based Child Care***	92.2	57.7	34.5***		96.2	56.3	40.0***
Home Visits or Center Care at Required Intensity in at Least 1 Followup***	79.7	14.8	64.9***		82.0	14.6	67.5***
Home Visits or Center Care at Required Intensity in All 3 Followups***	30.3	3.2	27.1***		37.9	3.5	34.4***
Home Visits							
Any Home Visits***	86.7	34.0	52.7***		91.0	32.8	58.2***
Any Child Development Services During Home Visits***	85.5	31.9	53.6***		90.8	30.0	60.8***
Weekly Home Visits, 1st Follow-Up Period***	43.7	4.2	39.5***		52.6	2.7	49.8***
Weekly Home Visits, 2nd Follow-Up Period***	33.1	2.7	30.4***		48.0	1.8	46.2***
Weekly Home Visits, 3rd Follow-Up Period***	26.5	3.2	23.3***		38.4	1.0	37.5***
Weekly Home Visits in At Least 1 Followup***	54.8	6.4	48.4***		67.5	4.1	63.4***
Weekly Home Visits in All 3 Followups***	16.9	0.3	16.5***		27.0	0.5	26.5***
Child Care							
Any Child Care***	91.3	84.3	7.0***		77.5	73.4	4.1
Any Center-Based Child Care***	51.2	35.3	16.0***		46.0	34.1	11.9***
Average Hours Per Week of Center-Based Care	6.2	2.9	3.2***		6.5	3.2	3.4***
Concurrent Child Care Arrangements***	53.6	48.1	5.5*		47.9	39.4	8.5**
Average Weekly Out-of-Pocket Cost of Care	\$4.96	\$6.90	-\$1.94**		\$3.71	\$7.71	-\$4.00***
Received a Child Care Subsidy***	30.8	32.2	-1.4		27.5	32.0	-4.5
Child Was in Care at 12 Months of Age***	72.8	60.1	12.7***		57.2	46.0	11.2***
Child Was in Care at 24 Months of Age**	68.5	61.2	7.3**		55.3	46.2	9.2**
Case Management							
Any Case Management Meetings***	86.4	55.2	31.2***		89.7	56.5	33.2***
Weekly Case Management, 1st Follow-Up Period***	45.5	9.5	36.0***		52.1	9.3	42.7***
Weekly Case Management, 2nd Follow-Up Period***	31.3	5.1	26.2***		43.9	5.9	38.0***
Weekly Case Management, 3rd Follow-Up Period***	27.9	4.9	23.0***		35.3	4.2	31.2***
Group Activities							
Any Group Parenting Activities***	69.6	37.1	32.5***		72.7	36.6	36.1***
Any Parent-Child Group Activities**	40.9	15.9	25.0***		44.8	12.4	32.4***

TABLE VII.4 (continued)

	Firstborn Child				Later Born Child		
	Program Group	Control Group	Impact Estimate per Eligible Applicant		Program Group	Control Group	Impact Estimate per Eligible Applicant
Early Intervention Services							
Identification of Child's Disability***	6.5	5.7	0.8		9.9	7.0	2.9
Services for Child With Disability***	4.2	4.2	-0.0		5.7	3.9	1.7
Child Health Services							
Any Child Health Services***	100.0	99.9	0.2		100.0	99.8	0.2
Any Doctor Visits***	98.9	98.7	0.2		98.9	98.3	0.6
Any Emergency Room Visits***	56.1	53.6	2.5		53.1	52.9	0.1
Number of Emergency Room Visits for Injuries	0.3	0.3	-0.0		0.2	0.2	-0.1
Any Dentist Visits***	27.0	24.3	2.7		30.5	27.9	2.6
Any Screening Tests***	69.1	69.2	-0.1		62.9	60.5	2.4
Any Immunizations***	98.8	98.0	0.8		98.9	97.9	1.0
Family Development Services							
Any Education-Related Services***	89.2	63.2	26.0***		85.4	49.6	35.8***
Any Employment-Related Services***	77.3	47.1	30.1***		77.2	44.7	32.5***
Any Family Health Service ^c	100.0	100.0	0.0		100.0	100.0	0.0
Any Family Mental Health Services***	22.4	19.4	3.0		25.9	25.3	0.6
Transportation Assistance***	33.0	22.9	10.1***		33.0	22.7	10.4***
Housing Assistance***	55.5	55.0	0.5		62.2	58.2	4.0
Sample Size	667	612	1,279		399	398	797

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroups are included in the estimates for each subgroup.

^aHome visits, case management, center-based child care, and/or group parenting activities.

^bAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups in the first two columns.

^cThere is no variance across subgroups due to lack of variance in level of services.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.5

IMPACTS ON CHILD AND FAMILY OUTCOMES AT AGE 3, BY FOCUS CHILD'S BIRTH ORDER

Outcome	Firstborn Child				Later Born Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Child Cognitive and Language Development								
Bayley Mental Development Index (MDI) Standard Score	91.2	90.0	1.1	8.8	92.7	90.9	1.9*	14.4
Percentage with MDI < 85*** ^d	29.1	30.5	-1.8	-3.9	23.6	29.5	-4.9	-10.6
Peabody Picture Vocabulary Test (PPVT)-III Standard Score	83.8	82.3	1.5	9.2	84.9	83.8	1.1	6.8
Percentage with PPVT-III < 85***	49.1	53.3	-4.2	-8.4	49.6	49.0	0.6	1.2
Child Social-Emotional Development								
Engagement of Parent During Parent-Child Semistructured Play**	4.9	4.6	0.3***	26.2	4.7	4.7	0.1	5.1
Sustained Attention with Objects During Parent-Child Semistructured Play	5.0	4.8	0.2**	16.4	5.0	4.8	0.1	13.2
Engagement of Parent During Parent-Child Puzzle Challenge Task	5.0	4.9	0.1	9.4	5.1	5.1	0.0	6.7
Persistence During Parent-Child Puzzle Challenge Task	4.6	4.5	0.1	8.0	4.6	4.6	0.0	1.0
Bayley Behavioral Rating Scale (BRS): Emotional Regulation	4.0	4.0	-0.1	-6.2	4.0	3.9	0.1	8.3
Bayley BRS: Orientation/ Engagement	3.9	3.9	0.0	3.4	3.8	3.8	-0.0	-0.9
Negativity Toward Parent During Parent-Child Semistructured Play	1.3	1.3	-0.1	-10.7	1.2	1.3	-0.1**	-15.2
Frustration During Parent-Child Puzzle Challenge Task	2.7	2.6	0.1	4.4	2.8	2.9	-0.1	-10.0
Child Behavior Checklist—Aggressive Behavior	10.8	11.0	-0.3	-4.0	11.0	11.8	-0.8	-11.9
Child Health Status								
Child's Health Status	4.0	4.0	0.0	2.1	4.0	4.0	-0.0	-2.9
Percentage of Children in Fair or Poor Health***	6.7	8.5	-1.8	-6.5	9.5	8.0	1.5	5.4
Quality of the Home Environment and Parenting: Overall and Physical Environment								
Home Observation for Measurement of the Environment (HOME) Total Score	27.6	27.1	0.5*	10.4	27.6	27.3	0.3	6.6
HOME Internal Physical Environment*	7.9	7.8	0.0	2.2	7.7	7.9	-0.2*	-15.9
Parenting Behavior : Emotional Support								
HOME Warmth	2.5	2.5	0.1	7.3	2.6	2.6	0.1	8.4
Supportiveness During Parent-Child Semistructured Play	4.0	3.9	0.1*	13.1	4.0	3.9	0.1	10.1
Supportive Presence During Parent-Child Puzzle Challenge Task	4.4	4.4	0.1	4.4	4.6	4.6	0.0	2.2
Parenting Behavior: Stimulation of Language and Learning								
Percentage of Children with a Regular Bedtime***	59.2	56.3	2.9	5.9	62.4	62.6	-0.2	-0.4
Percentage of Children Who Follow a Bedtime Routine***	67.6	68.5	-0.9	-1.9	73.4	72.4	0.9	2.0

TABLE VII.5 (continued)

Outcome	Firstborn Child				Later Born Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
HOME: Support of Language and Learning	10.7	10.5	0.2**	11.4	10.5	10.4	0.1	6.4
Parent-Child Play	4.5	4.4	0.1	8.6	4.3	4.2	0.1	10.2
Quality of Assistance During Parent-Child Puzzle Challenge Task	3.6	3.5	0.1	8.9	3.7	3.5	0.2	12.5
Percentage of Parents Who Read to Child Daily***	59.2	56.1	3.2	6.3	52.2	44.3	7.9*	15.9
Percentage of Parents Who Read to Child at Bedtime***	33.0	30.9	2.1	4.6	32.4	28.4	4.0	8.8
Parenting Behavior: Negative Parenting Behavior								
Detachment During Parent-Child Semistructured Play	1.2	1.3	-0.0	-4.2	1.2	1.2	-0.1	-10.2
Intrusiveness During Parent-Child Semistructured Play	1.6	1.6	-0.0	-1.4	1.5	1.5	-0.0	-5.4
Detachment During Parent-Child Puzzle Challenge Task	1.7	1.7	0.0	1.7	1.6	1.6	-0.0	-1.8
Intrusiveness During Parent-Child Puzzle Challenge Task	2.7	2.8	-0.1	-10.8	2.6	2.6	0.0	1.9
Negative Regard During Parent-Child Semistructured Play	1.3	1.4	-0.0	-4.7	1.2	1.2	0.0	3.8
HOME Harshness	0.3	0.3	0.0	5.7	0.2	0.2	-0.1	-7.9
Percentage of Parents Who Spanked Child in the Past Week***	50.1	53.9	-3.8	-7.5	39.1	50.3	-11.2***	-22.5
Knowledge of Safety Practices and Discipline Strategies								
Percentage of Parents Who Usually Use a Car Seat Correctly***	70.9	72.4	-1.5	-3.3	74.4	69.1	5.3	11.5
Percentage of Parents Suggesting Physical Punishment as a Discipline Strategy***	48.9	49.4	-0.5	-1.0	35.9	48.3	-12.4***	-24.8
Percentage of Parents Who Would Use Mild Discipline Only***	42.1	41.7	0.4	0.8	53.9	44.4	9.5**	19.2
Index of Severity of Discipline Strategies	3.5	3.5	-0.0	-2.4	3.0	3.4	-0.4***	-24.0
Parent Physical and Mental Health								
Parent's Health Status	3.5	3.5	0.0	2.5	3.3	3.4	-0.1	-11.5
Parenting Stress Index (PSI) Parental Distress	24.4	25.4	-1.0	-10.5	25.3	26.0	-0.7	-7.7
PSI Parent-Child Dysfunctional Interaction	17.7	17.6	0.1	1.2	18.3	18.3	-0.0	-0.6
Center for Epidemiological Studies Depression (CES-D; Short Form)	7.1	7.4	-0.3	-4.8	8.1	8.5	-0.4	-4.9
CES-D Severe Depressive Symptoms ***	11.7	12.9	-1.2	-3.2	19.0	19.5	-0.5	-1.5
Family Environment Scale (FES): Family Conflict	1.6	1.6	-0.0	-7.4	1.8	1.7	0.0	4.3
Father Presence								
Currently Married To Biological Father ***	30.6	28.1	2.5	5.2	45.3	47.3	-1.9	-4.0
Biological Father is Currently Married to, Lives with, or is Boyfriend of Respondent***	46.6	45.2	1.4	2.9	55.2	57.9	-2.8	-5.5
Biological Father Currently Present in Child's Life***	70.1	68.4	1.7	3.9	76.3	73.2	3.1	6.8

TABLE VII.5 (continued)

Outcome	Firstborn Child				Later Born Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Continuous Biological Father Presence Child Age 14-36 Months***	63.7	66.5	-2.8	-6.1	72.6	71.6	1.0	2.1
No Biological Father Presence Child Age 14-36 Months***	13.7	13.0	0.7	2.3	11.2	11.3	-0.1	-0.2
Continuous Male Presence Child Age 14-36 Months***	80.1	81.9	-1.8	-5.1	78.0	83.9	-5.9*	-16.5
No Male Presence Child Age 14-36 Months***	1.9	1.6	0.2	2.0	2.6	2.4	0.2	1.9
Sample Size								
Bayley	537	477	1,014		330	302	632	
Parent Interview	676	610	1,286		420	392	812	
Parent-Child Interactions	536	484	1,020		331	300	631	

SOURCE: Parent interviews, child assessments, interviewer observations, and assessments of semistructured parent-child interactions conducted when children were approximately 36 months old.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.6

IMPACTS ON SELF-SUFFICIENCY AT 28 MONTHS, BY FOCUS CHILD'S BIRTH ORDER

Outcome	Firstborn Child				Later Born Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
Education/Job Training								
Ever in Education or Training**** ^d	66.7	55.7	11.0***	22.0	47.8	41.6	6.2	12.4
Ever in High School***	19.3	13.8	5.5***	19.4	1.3	1.3	0.0	0.0
Ever in ESL Class***	3.1	1.5	1.6*	11.4	5.5	4.3	1.3	9.0
Ever in Vocational Program***	21.9	18.8	3.1	8.2	14.6	14.9	-0.3	-0.7
Average Hours per Week in Education or Training	6.0	4.0	1.9***	30.2	1.9	2.0	-0.1	-0.9
In Education or Training:								
1 st Quarter***	27.3	26.4	0.9	2.3	12.9	14.8	-1.9	-4.5
2 nd Quarter***	32.4	29.9	2.5	5.8	15.5	17.5	-2.0	-5.0
3 rd Quarter***	38.2	29.1	9.2***	20.8	17.1	21.6	-4.5	-10.2
4 th Quarter***	37.1	26.9	10.2***	23.7	19.1	18.5	0.6	1.3
5 th Quarter***	36.5	27.6	8.9***	20.6	19.3	19.2	0.1	0.3
6 th Quarter***	34.2	25.3	8.9***	21.3	21.6	15.9	5.6*	13.6
7 th Quarter***	32.3	23.4	8.9***	22.3	14.7	17.1	-2.4	-6.0
8 th Quarter***	31.4	21.9	9.5***	24.2	19.1	14.0	5.0	12.9
Have High School Diploma***	51.1	49.2	1.9	3.9	46.9	50.1	-3.2	-6.4
Have GED***	10.7	12.0	-1.3	-4.0	10.5	10.0	0.5	1.6
Employment								
Ever Employed***	89.8	85.5	4.4***	11.6	81.3	80.3	1.0	2.6
Average Hours/Week Employed	16.7	16.6	0.1	0.8	18.4	17.0	1.4	9.5
Employed in:								
1 st Quarter***	37.8	38.2	-0.4	-0.9	43.7	38.5	5.2	10.7
2 nd Quarter***	43.9	46.0	-2.1	-4.3	50.4	43.8	6.5*	13.2
3 rd Quarter***	51.9	53.4	-1.6	-3.2	56.8	50.6	6.2*	12.4
4 th Quarter***	56.7	55.3	1.5	3.0	61.9	54.5	7.4**	14.8
5 th Quarter***	61.1	60.8	0.3	0.7	64.1	57.3	6.8*	13.9
6 th Quarter***	64.4	59.2	5.2	10.5	64.3	59.1	5.3	10.7
7 th Quarter***	62.9	59.1	3.7	7.5	56.3	54.5	1.8	3.6
8 th Quarter***	64.6	64.4	0.3	0.5	61.6	54.9	6.7*	13.8
Any Self-Sufficiency-Oriented Activity (Education, Training, or Employment)								
Ever Employed or in Education/Training***	96.2	91.9	4.4***	14.4	90.7	87.3	3.4	11.1
Average Hours per Week in Any Activity	23.4	21.0	2.4**	15.1	20.6	19.2	1.4	9.1
In Activities in:								
1 st Quarter***	55.1	54.3	0.8	1.6	51.7	47.9	3.8	7.7
2 nd Quarter***	63.2	62.0	1.2	2.5	59.4	52.8	6.7*	13.5
3 rd Quarter***	71.6	68.4	3.1	6.6	66.3	62.0	4.3	9.0
4 th Quarter***	74.8	67.0	7.8***	16.2	69.4	62.1	7.3**	15.3
5 th Quarter***	77.5	72.0	5.5**	12.0	70.1	65.7	4.4	9.5
6 th Quarter***	79.5	69.6	9.9***	21.0	72.1	63.7	8.4**	17.9
7 th Quarter***	76.8	68.9	7.9***	16.6	62.7	60.7	2.0	4.2
8 th Quarter***	78.3	73.0	5.3*	11.4	68.6	61.2	7.4*	15.8

TABLE VII.6 (continued)

Outcome	Firstborn Child				Later Born Child			
	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c	Program Group Participants	Control Group ^a	Impact Estimate per Participant ^b	Effect Size ^c
AFDC/TANF Receipt								
Ever Received AFDC/TANF***	47.8	44.7	3.1	6.2	42.3	43.8	-1.5	3.0
Received AFDC/TANF in:								
1 st Quarter***	32.8	29.3	3.5	7.5	33.6	33.5	0.1	0.1
2 nd Quarter***	33.1	31.9	1.2	2.5	33.7	33.7	0.0	0.1
3 rd Quarter***	36.0	33.0	3.1	6.4	33.7	35.5	-1.8	-3.7
4 th Quarter***	29.4	28.1	1.3	2.9	29.0	31.6	-2.6	-5.6
5 th Quarter***	28.6	28.1	0.5	1.1	28.3	30.0	-1.6	-3.6
6 th Quarter***	27.4	28.7	-1.4	-3.0	29.1	30.8	-1.7	-3.7
7 th Quarter***	21.0	25.0	-4.0	-9.1	25.2	25.1	0.1	0.3
8 th Quarter***	20.4	23.6	-3.2	-7.5	23.9	20.5	3.4	8.0
Total AFDC/TANF Benefits (\$)*	\$1,773	\$1,824	-\$51	-1.3	\$2,716	\$2,774	-\$58	-1.5
Receipt of Other Welfare Benefits								
Ever Received Welfare***	66.2	64.6	1.6	3.4	67.9	68.4	-0.5	-1.1
Total Welfare Benefits (\$)*	\$3,970	\$4,377	-\$406.2	-5.4	\$6,735	\$6,790	-\$55	-0.7
Ever Received Food Stamps***	57.8	56.7	1.1	2.2	62.6	63.9	-1.3	-2.7
Total Food Stamp Benefits (\$)*	\$1,657	\$1,560	\$97	3.6	\$2,633	\$2,716	-\$83	-3.0
Income/Poverty								
Income Above Poverty Level***	47.7	45.1	2.6	5.3	36.0	41.1	-5.0	-10.2
Subsequent Births								
Subsequent Birth by 24 Months after Random Assignment***	24.4	30.9	-6.5**	-14.4	18.0	23.0	-5.0	-11.0
Sample Size	667	612	1,279		399	398	797	

SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after random assignment.

NOTE: All estimates were calculated using regression models, where each site was weighted equally. Only sites with at least 10 program group members and 10 control group members in the subgroup are included in the estimates for each subgroup.

^aA participant is defined as a program group member who received more than one Early Head Start home visit, met with an Early Head Start case manager more than once, received at least two weeks of Early Head Start center-based care, and/or participated in Early Head Start group parent-child activities. The control group mean is the mean for the control group members who would have participated in Early Head Start if they had instead been assigned to the program group. This unobserved mean is estimated as the difference between the program group mean for participants and the impact per participant.

^bThe estimated impact per participant is measured as the estimated impact per eligible applicant divided by the proportion of program group members who participated in Early Head Start services (which varied by site). The estimated impact per eligible applicant is measured as the difference between the regression-adjusted means for program and control group members.

^cThe effect size is calculated by dividing the estimated impact per participant by the standard deviation of the outcome measure for the control group times 100 (that is, it is the impact per participant expressed as a percentage of a standard deviation).

^dAsterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the subgroups.

*Significantly different from zero at the .10 level, two-tailed test.

**Significantly different from zero at the .05 level, two-tailed test.

***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.7

IMPACTS ON SERVICE RECEIPT DURING THE FIRST 28 MONTHS, BY AGE OF MOTHER AT BIRTH OF FOCUS CHILD

	Teenage Mother (19 and Younger)			Older Mother (20 and Older)		
	Program Group	Control Group	Impact Estimate per Eligible Applicant	Program Group	Control Group	Impact Estimate per Eligible Applicant
Any Services						
Any Key Services*** ^{a,b}	94.0	84.1	9.9***	96.6	80.6	16.0***
Any Home Visits Or Center-Based Child Care***	91.5	60.2	31.3***	93.6	54.5	39.1***
More Than 1 Home Visit or 2 Weeks Center-Based Child Care***	89.7	53.3	36.4***	92.9	49.5	43.4***
Home Visits or Center Care at Required Intensity in at Least 1 Followup***	67.2	16.4	50.8***	73.9	11.6	62.3***
Home Visits or Center Care at Required Intensity in All 3 Followups***	23.4	2.4	21.0***	31.2	3.4	27.9***
Home Visits						
Any Home Visits***	85.2	36.2	49.0***	87.8	31.7	56.1***
Any Child Development Services During Home Visits***	83.7	33.7	50.0***	87.0	28.8	58.2***
Weekly Home Visits, 1st Follow-Up Period***	40.7	5.0	35.7***	46.1	2.5	43.6***
Weekly Home Visits, 2nd Follow-Up Period***	31.7	3.6	28.2***	36.0	2.1	33.9***
Weekly Home Visits, 3rd Follow-Up Period***	26.1	3.5	22.6***	28.7	2.4	26.3***
Weekly Home Visits in At Least 1 Followup***	55.1	8.4	46.7***	56.9	4.3	52.6***
Weekly Home Visits in All 3 Followups***	15.7	0.2	15.4***	19.4	0.7	18.8***
Child Care						
Any Child Care***	94.1	88.9	5.3**	82.1	75.8	6.3**
Any Center-Based Child Care***	52.3	37.6	14.7***	49.5	33.4	16.2***
Average Hours Per Week of Center-Based Care	4.7	3.0	1.8**	6.4	3.0	3.4***
Concurrent Child Care Arrangements***	58.2	56.1	2.1	47.8	41.0	6.8**
Average Weekly Out-of-Pocket Cost of Care	\$3.33	\$5.60	-\$2.27**	\$5.10	\$7.60	-\$2.51**
Received a Child Care Subsidy***	39.6	43.4	-3.8	24.9	26.5	-1.7
Child Was in Care at 12 Months of Age***	75.0	61.4	13.6***	60.4	54.3	6.2*
Child Was in Care at 24 Months of Age***	73.4	61.9	11.8***	58.3	52.0	6.3*
Case Management						
Any Case Management Meetings***	84.0	62.5	21.6***	87.9	54.2	33.8***
Weekly Case Management, 1st Follow-Up Period***	45.0	10.0	35.0***	47.5	8.4	39.1***
Weekly Case Management, 2nd Follow-Up Period***	32.5	5.5	27.0***	35.1	5.2	29.9***
Weekly Case Management, 3rd Follow-Up Period***	26.6	4.9	21.7***	28.7	5.0	23.6***
Group Activities						
Any Group Parenting Activities***	65.3	38.4	27.0***	72.0	35.6	36.3***
Any Parent-Child Group Activities**	33.3	13.4	20.0***	44.3	15.9	28.4***

