



The Role of Early Head Start Programs in Addressing the Child Care Needs of Low-Income Families with Infants and Toddlers: Influences on Child Care Use and Quality



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



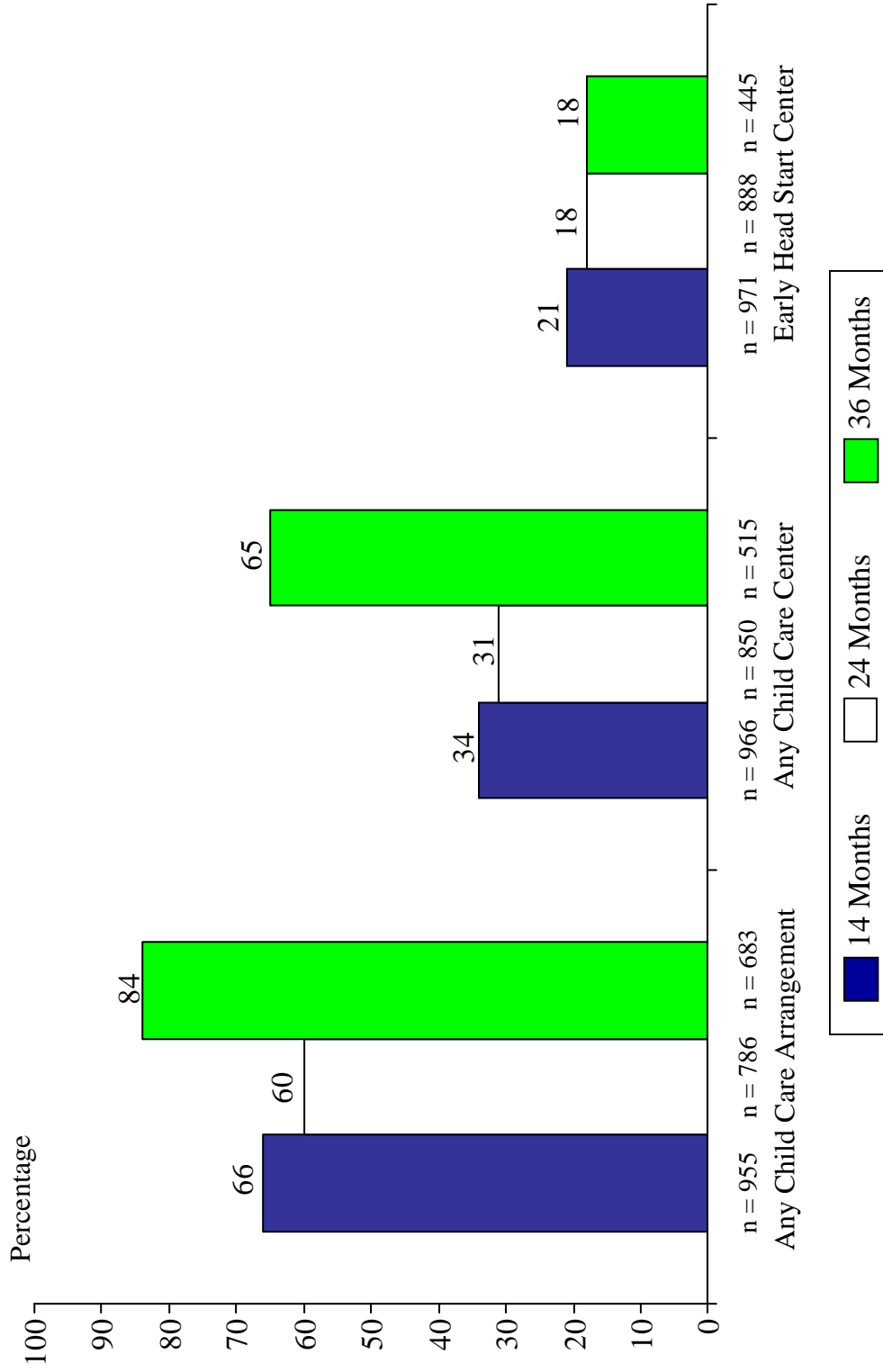
**The Role of Early Head Start Programs in Addressing the Child Care
Needs of Low-Income Families with Infants and Toddlers:
Influences on Child Care Use and Quality**

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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

FIGURE II.1

USE OF CHILD CARE BY EARLY HEAD START CHILDREN
AT 14, 24, AND 36 MONTHS OF AGE



Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old (see text for details).

Note: The percentages are average percentages across programs and are weighted for survey nonresponse.

TABLE II.1

PERCENTAGE OF PROGRAM FAMILIES IN CHILD CARE AT 14, 24, AND 36 MONTHS BY FAMILY CHARACTERISTICS

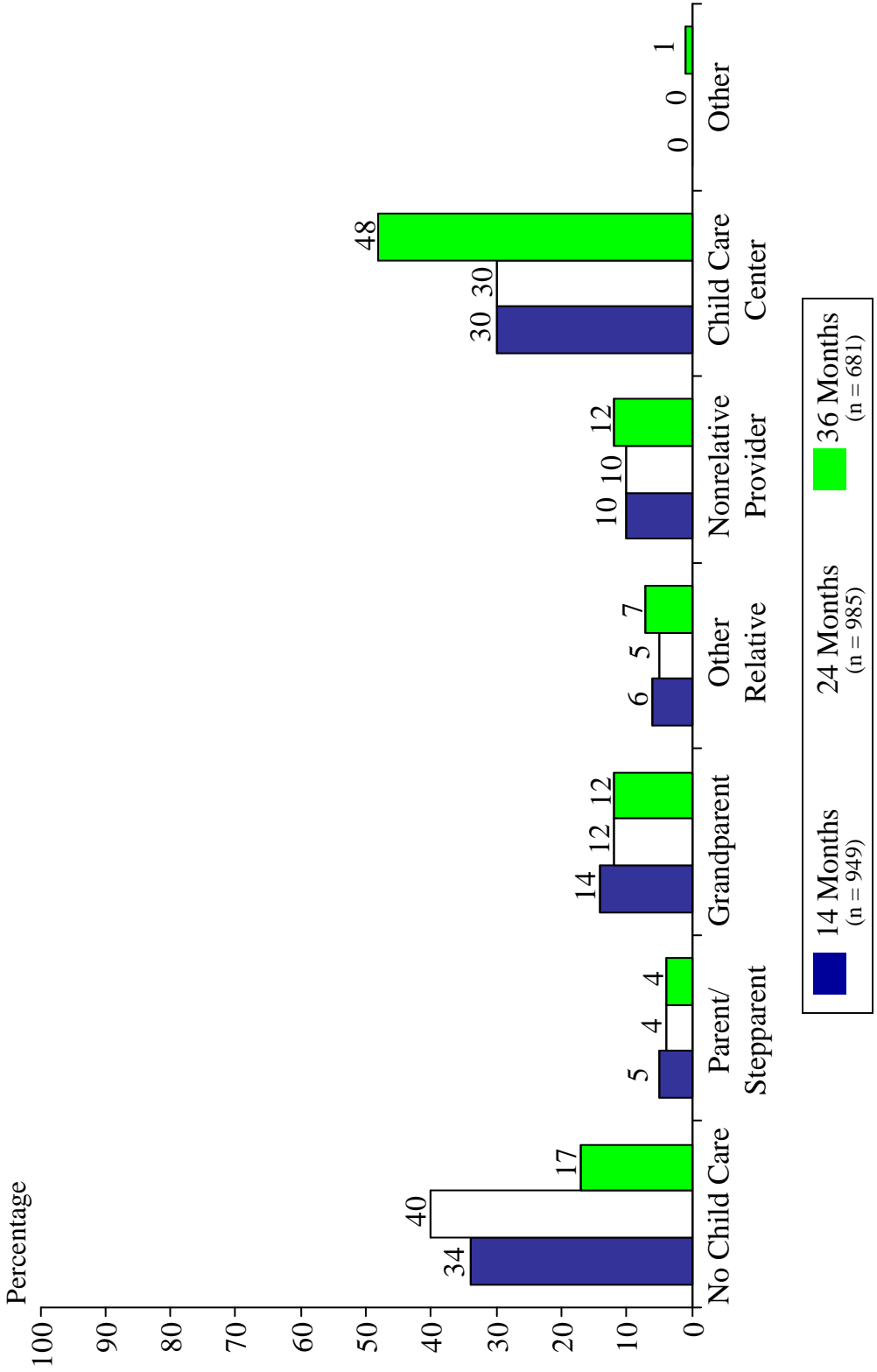
Age of Child Family Characteristics at Enrollment	14 Months		24 Months		36 Months	
	Total Sample Size	Percent in Care	Total Sample Size	Percent in Care	Total Sample Size	Percent in Care
Child Is Firstborn	619	71	493	65	446	86
Child Is Later Born	368	60	317	53	260	84
Parent's Education Is Less than 12 years	433	63	361	56	294	83
Parent's Education Is 12 years or GED	272	67	226	62	207	87
Parents Education Is More Than 12 Years	254	73	206	65	182	83
Parent Lives with Spouse	250	48	218	39	169	71
Parent Lives with Other Adults	383	72	317	71	270	89
Parent Lives Alone with Child	364	74	285	64	276	89
Adult Male Not in Household	607	72	492	66	453	90
Adult Male in Household	390	58	328	51	262	76
Parent Employed	234	82	198	76	193	87
Parent in School/Training	218	78	174	69	161	90
Parent Unemployed/Out of the Labor Force	512	56	421	49	337	80
White, Non-Hispanic	368	64	303	54	256	80
Black, Non-Hispanic	363	78	285	71	275	89
Hispanic		55	189	53	146	84
Other Race/Ethnicity	36	58	28	50	24	75

Source: Background characteristics information gathered at enrollment. Information on child care collected from the Parent Service Interviews (PSIs) and the Parent Interviews (PIs).

Note: Most children had not reached their 36-month birthday by the time the 26-month PSI was collected. If the child was 36 months old by that time, child care information was obtained from the PSI. If the child was not 36 months old at the time of the last PSI, 36-month child care information was taken from the 36-month birthday PI. The background characteristics above are the only ones for which the distribution of children in care and not in care significantly differed at any time point.

FIGURE II.2

PRIMARY CHILD CARE ARRANGEMENTS OF EARLY HEAD START CHILDREN
AT 14, 24, AND 36 MONTHS OF AGE

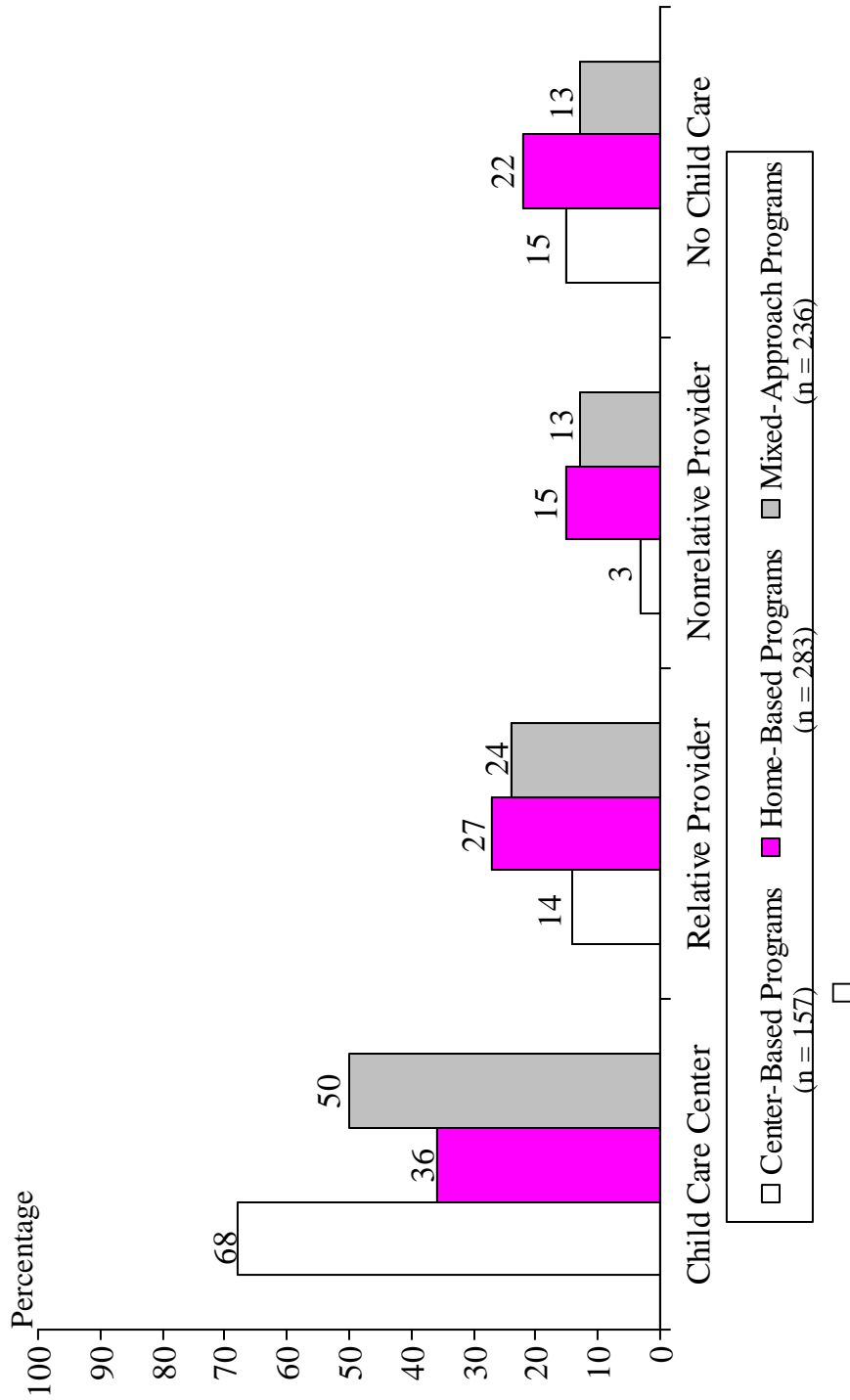


Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

Note: The percentages are average percentages across programs and are weighted for survey nonresponse.

FIGURE II.3

PRIMARY CHILD CARE ARRANGEMENTS FOR EARLY HEAD START CHILDREN
AT 36 MONTHS OF AGE, BY PROGRAM APPROACH

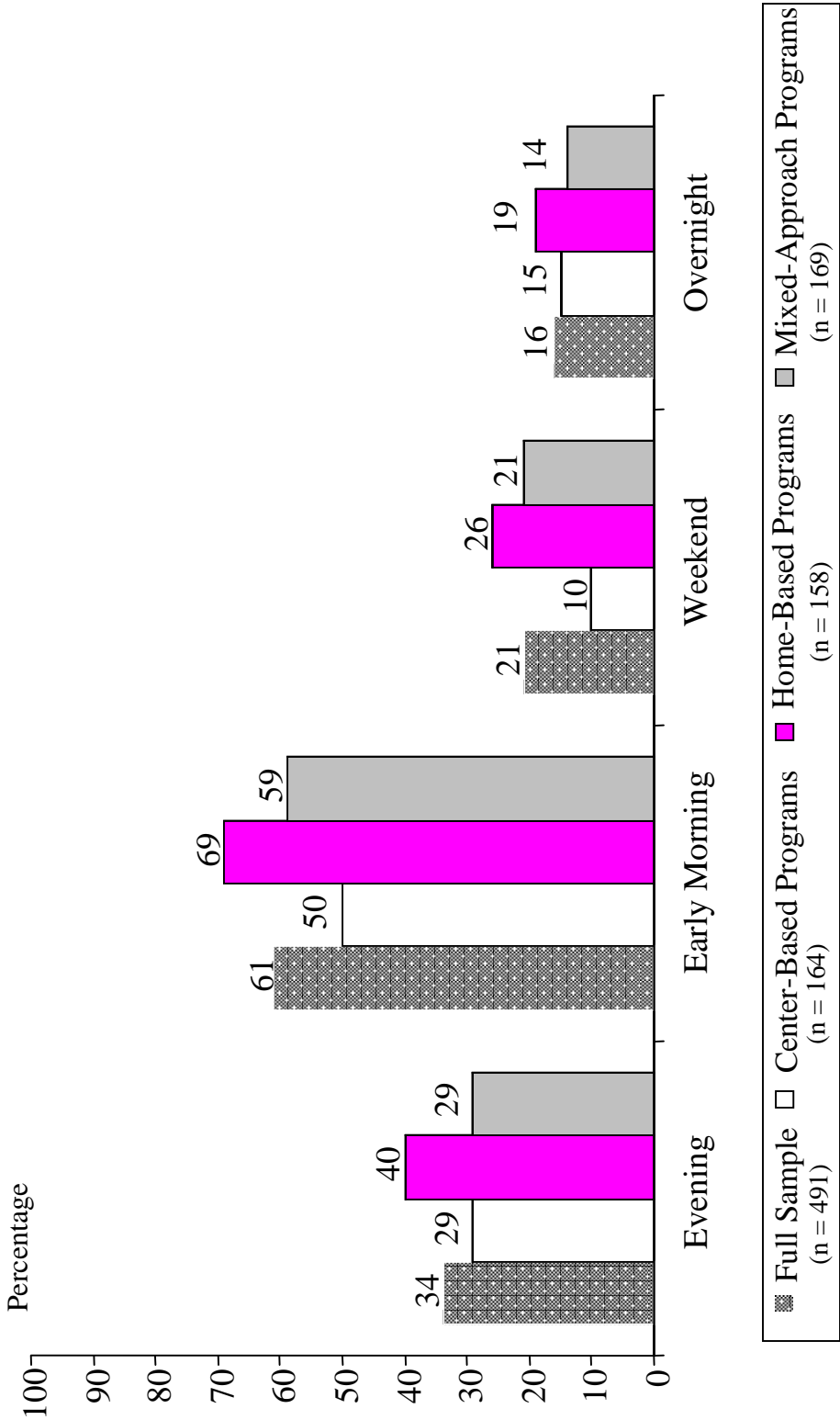


Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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

FIGURE II.4

PERCENTAGE OF EARLY HEAD START CHILDREN WHO RECEIVED THEIR PRIMARY CHILD CARE DURING NONSTANDARD HOURS, AT 24 MONTHS OF AGE, BY PROGRAM APPROACH

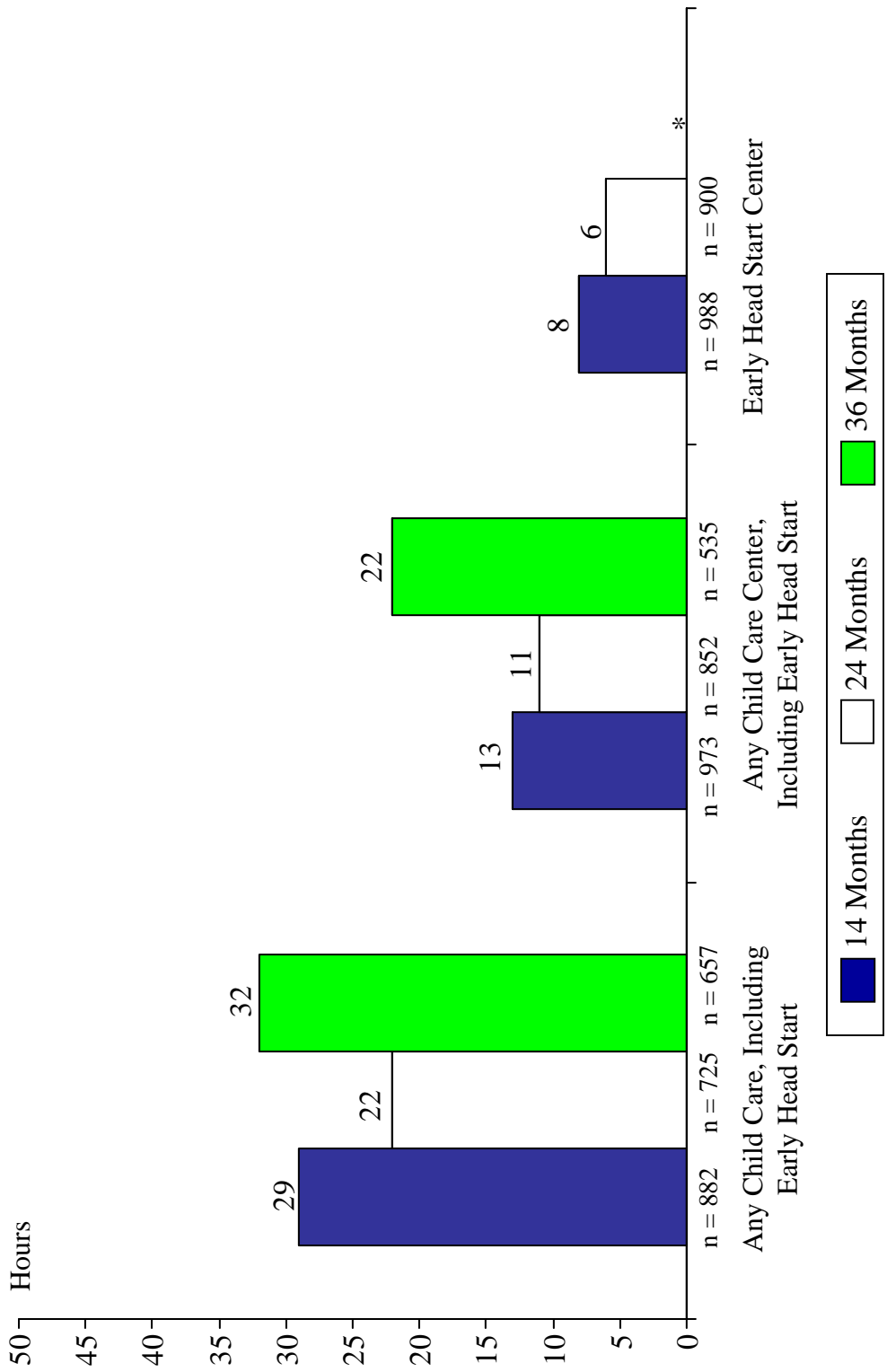


Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after program enrollment.

Note: The percentages are average percentages of children who have a primary arrangement across programs and within each program approach and are weighted for survey nonresponse. Base is the 785 families who reported a primary arrangement at 24 months. Total exceeds 100 percent because a given primary arrangement may have occurred in more than one time period. Primary arrangements can include Early Head Start and community child care.

FIGURE II.5

AVERAGE HOURS PER WEEK IN CHILD CARE FOR EARLY HEAD START CHILDREN AT 14, 24, AND 36 MONTHS OF AGE



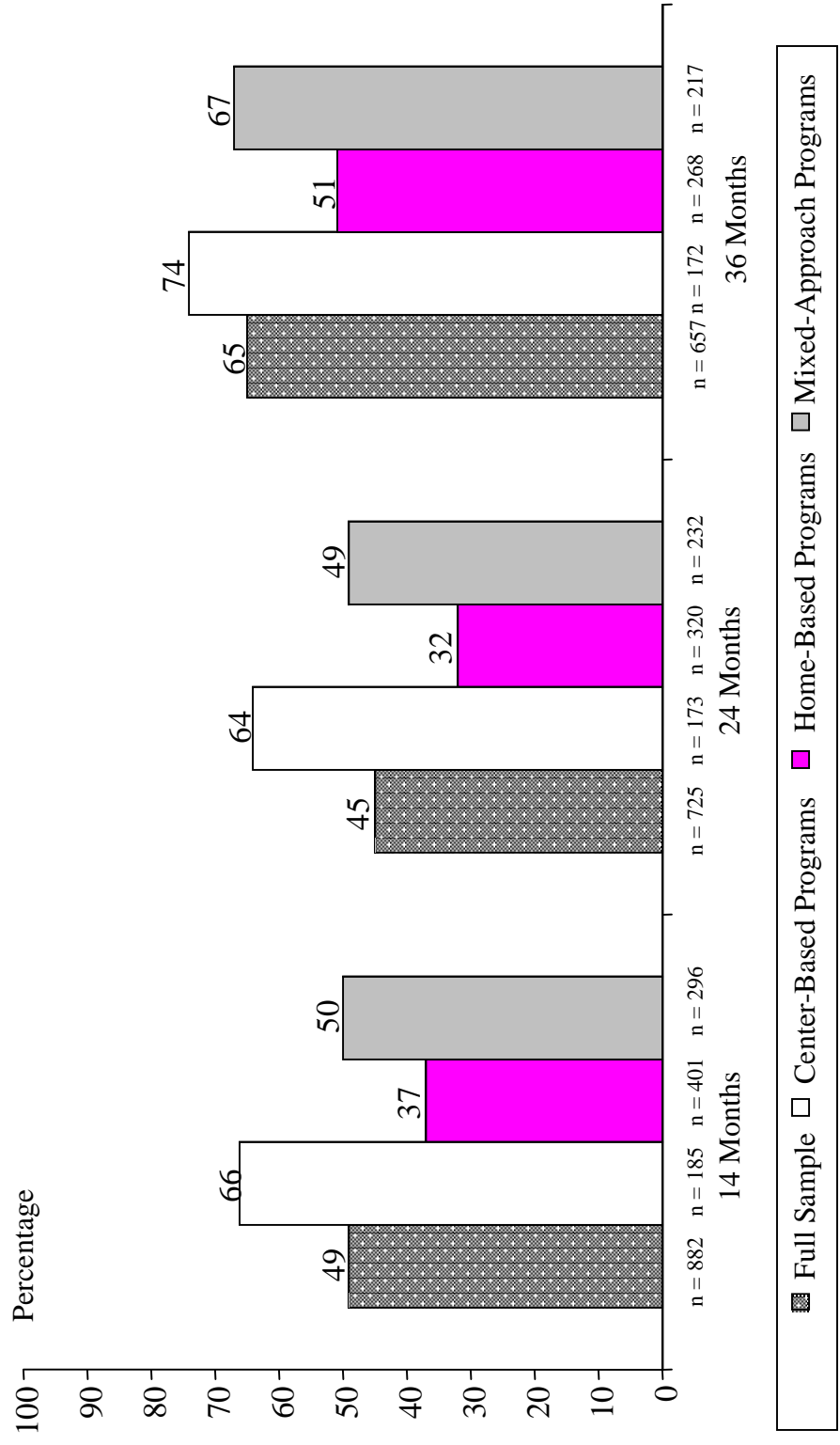
Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

Note: The percentages are average percentages across programs and are weighted for survey nonresponse.

*Data not available at 36 months.

FIGURE II.6

PERCENTAGE OF EARLY HEAD START CHILDREN IN CHILD CARE FOR AT LEAST 30 HOURS PER WEEK AT 14, 24, AND 36 MONTHS OF AGE, BY PROGRAM APPROACH

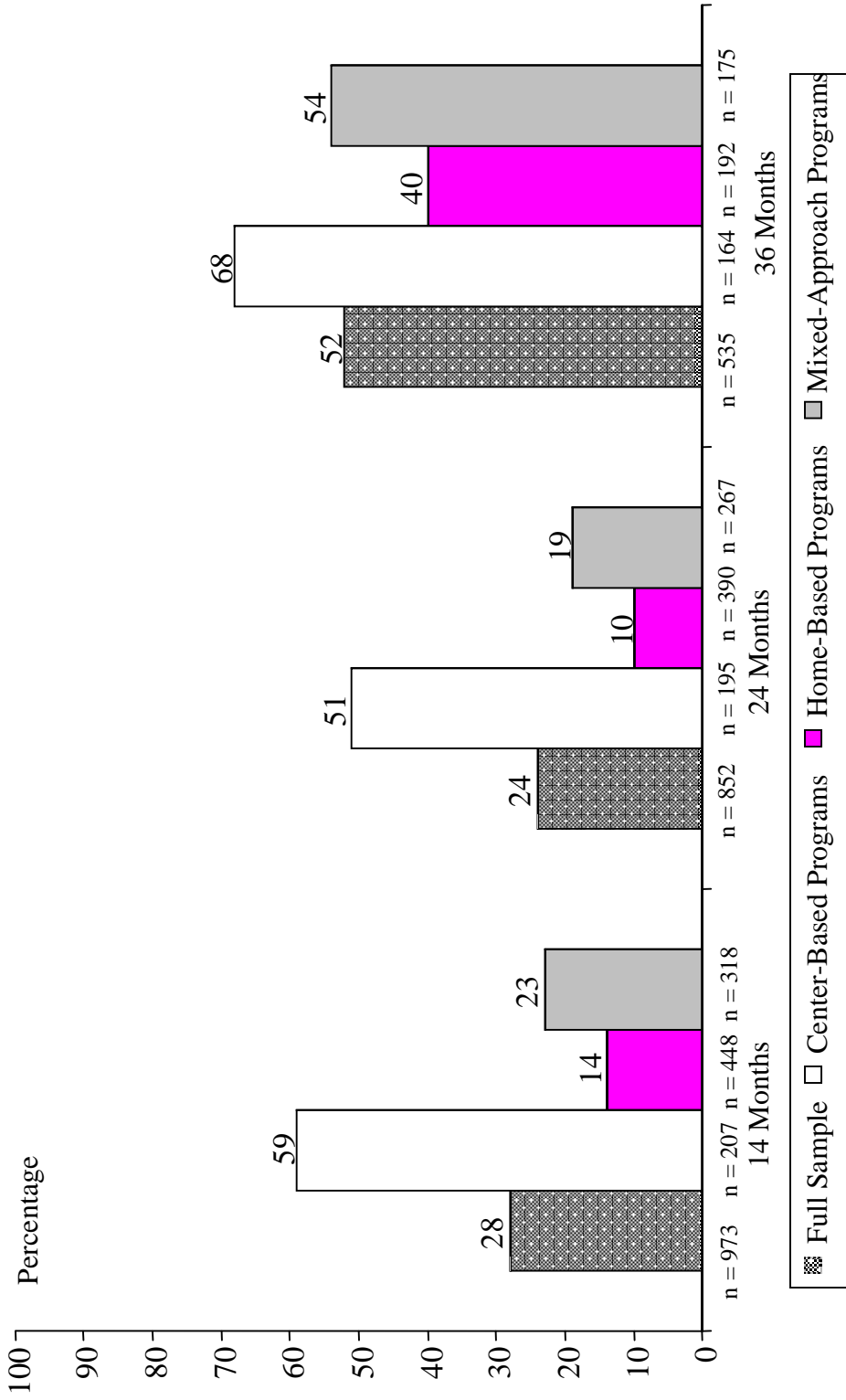


Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after program enrollment and a Parent Interview completed when children were approximately 36 months old.

Note: The percentages are average percentages across programs in any given group and are weighted for survey nonresponse. They include use of all types of child care for at least 30 hours per week.

FIGURE II.7

PERCENTAGE OF EARLY HEAD START CHILDREN IN CENTER CHILD CARE FOR AT LEAST 30 HOURS PER WEEK AT 14, 24, AND 36 MONTHS OF AGE, BY PROGRAM APPROACH

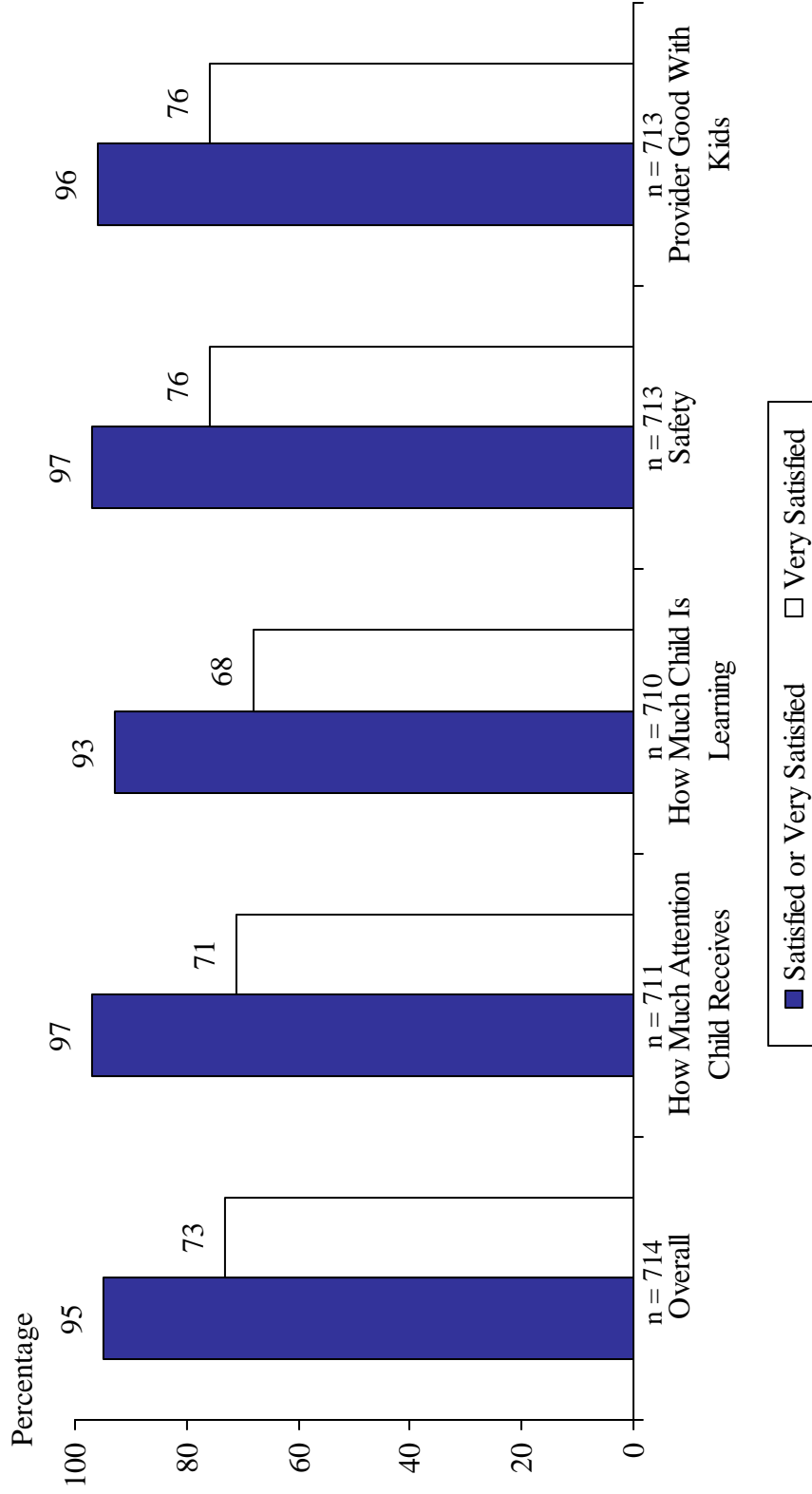


Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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

FIGURE II.8

SATISFACTION WITH PRIMARY CHILD CARE ARRANGEMENTS 28 MONTHS AFTER ENROLLMENT

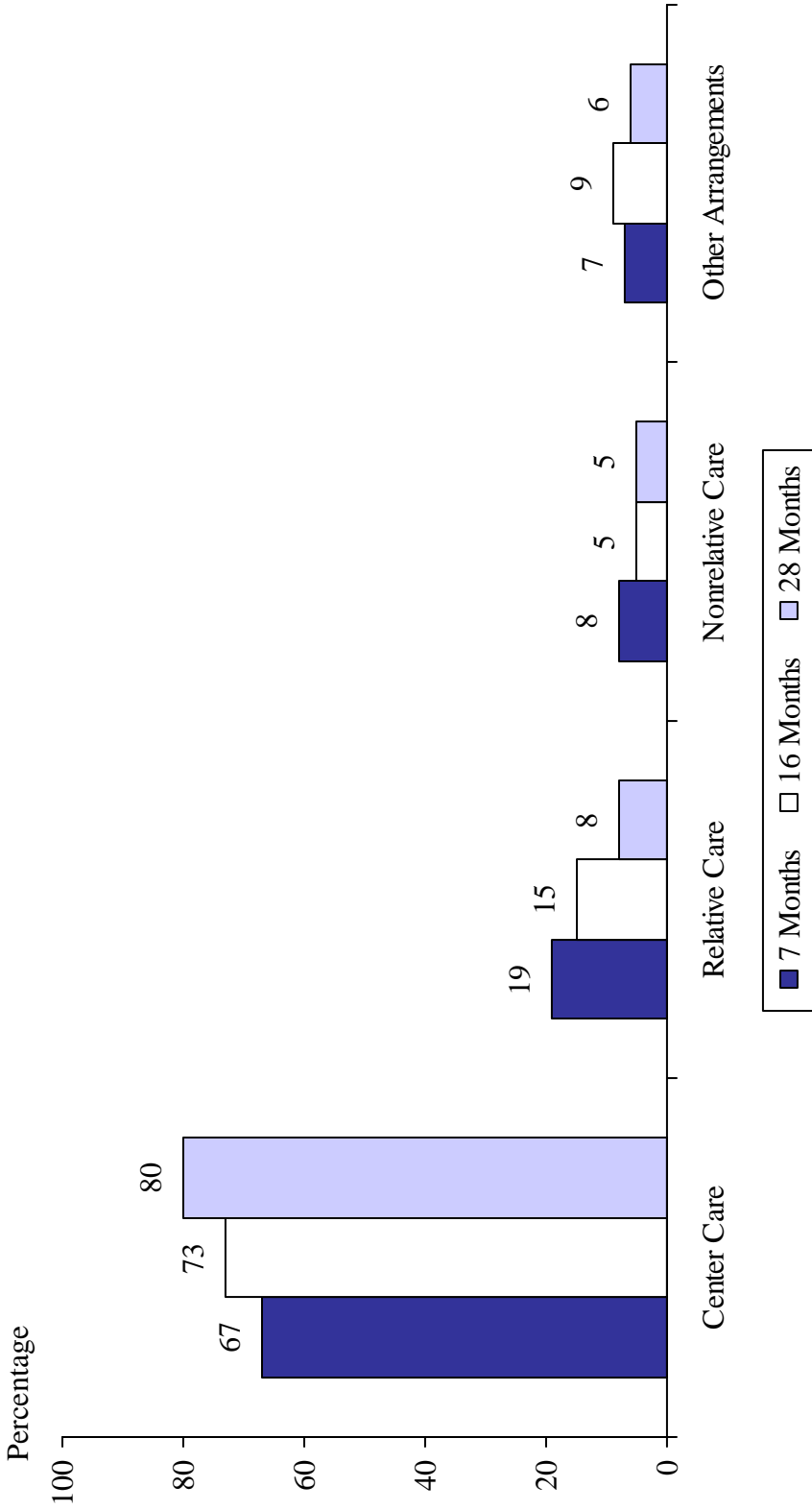


SOURCE: Parent Services Follow-Up Interviews completed an average of 28 months after enrollment.

NOTE: The percentages are average percentages across programs and are weighted for survey nonresponse.

FIGURE II.9

TYPES OF CHILD CARE ARRANGEMENTS PREFERRED BY EARLY HEAD START FAMILIES WHO WANTED TO CHANGE ARRANGEMENTS

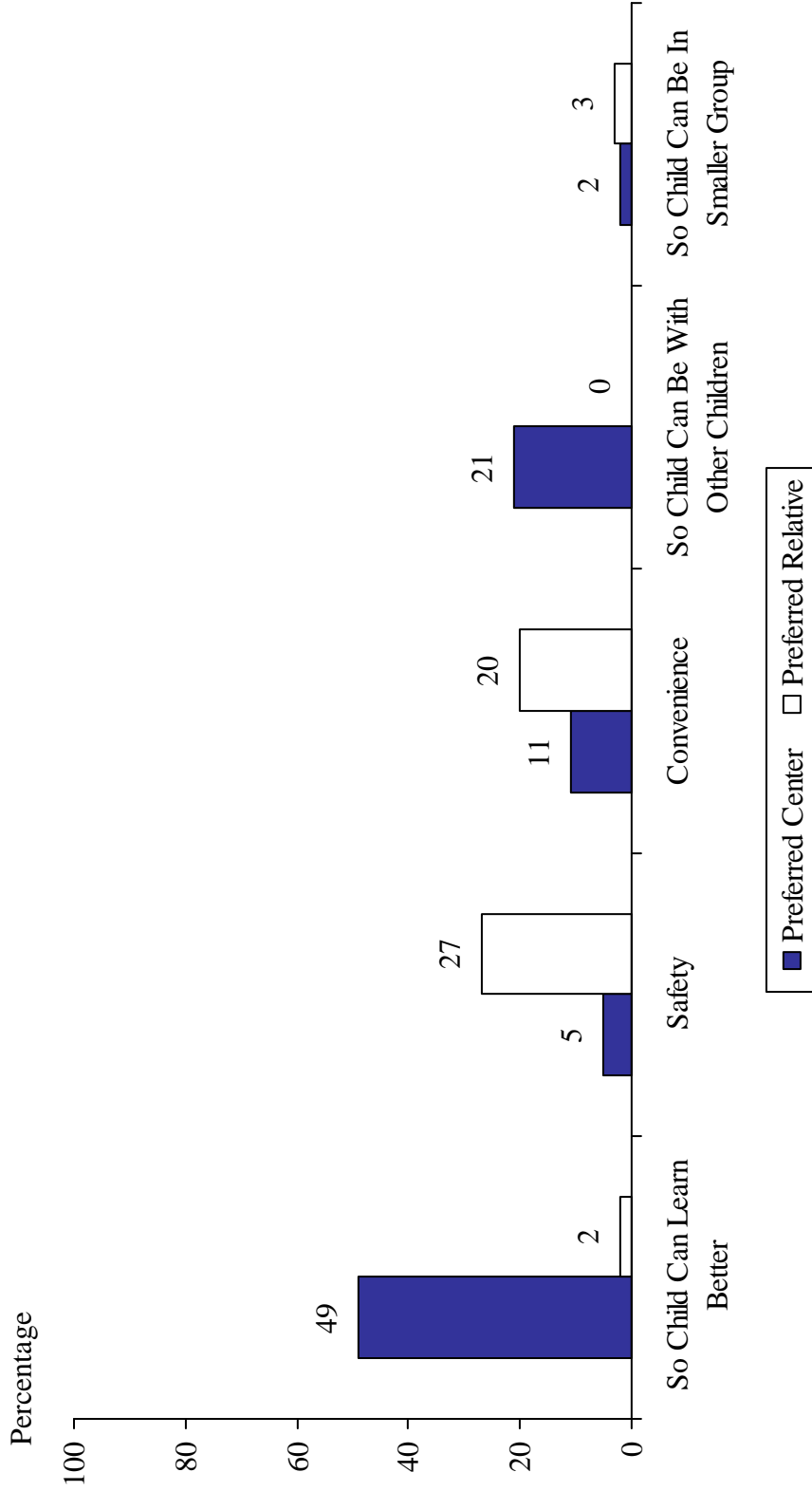


SOURCE: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment. Sample sizes as follows: 7 months: 317 out of 317 who wanted to change; 16 months: 251 out of 264 who wanted to change; 28 months: 284 out of 294 who wanted to change.

NOTE: The percentages are average percentages across programs and are weighted for survey nonresponse.

FIGURE II.10

MAIN REASONS FAMILIES WOULD WANT TO CHANGE CHILD CARE ARRANGEMENTS,
BY TYPE OF CARE PREFERRED, 28 MONTHS AFTER ENROLLMENT

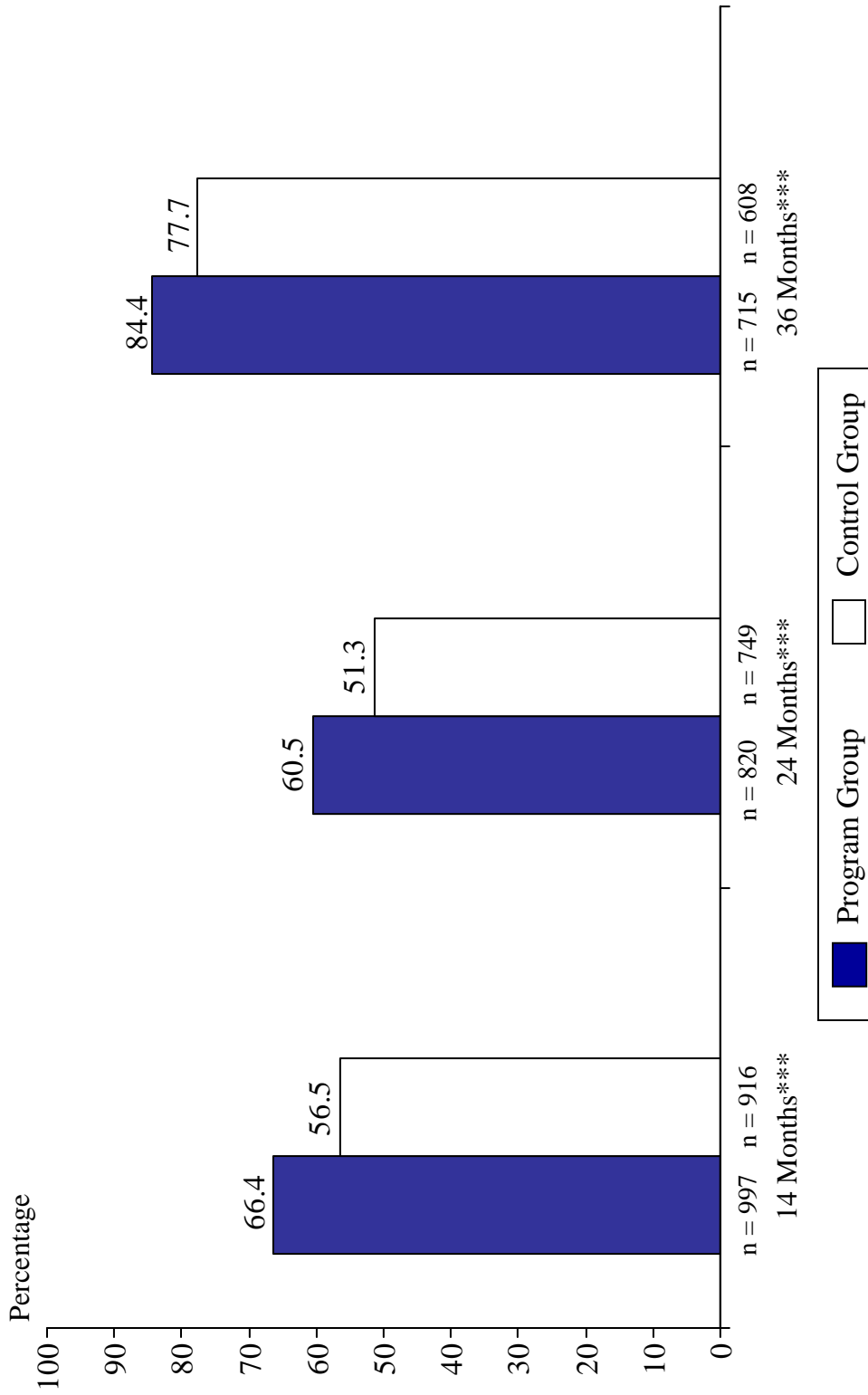


SOURCE: Parent Services Follow-Up Interviews completed an average of 28 months after enrollment. N = 287, of the 294 families who wanted to change.

NOTE: The percentages are average percentages across programs and are weighted for survey nonresponse.

FIGURE II.11

IMPACTS ON CHILD CARE USE AT 14, 24, AND 36 MONTHS OF AGE



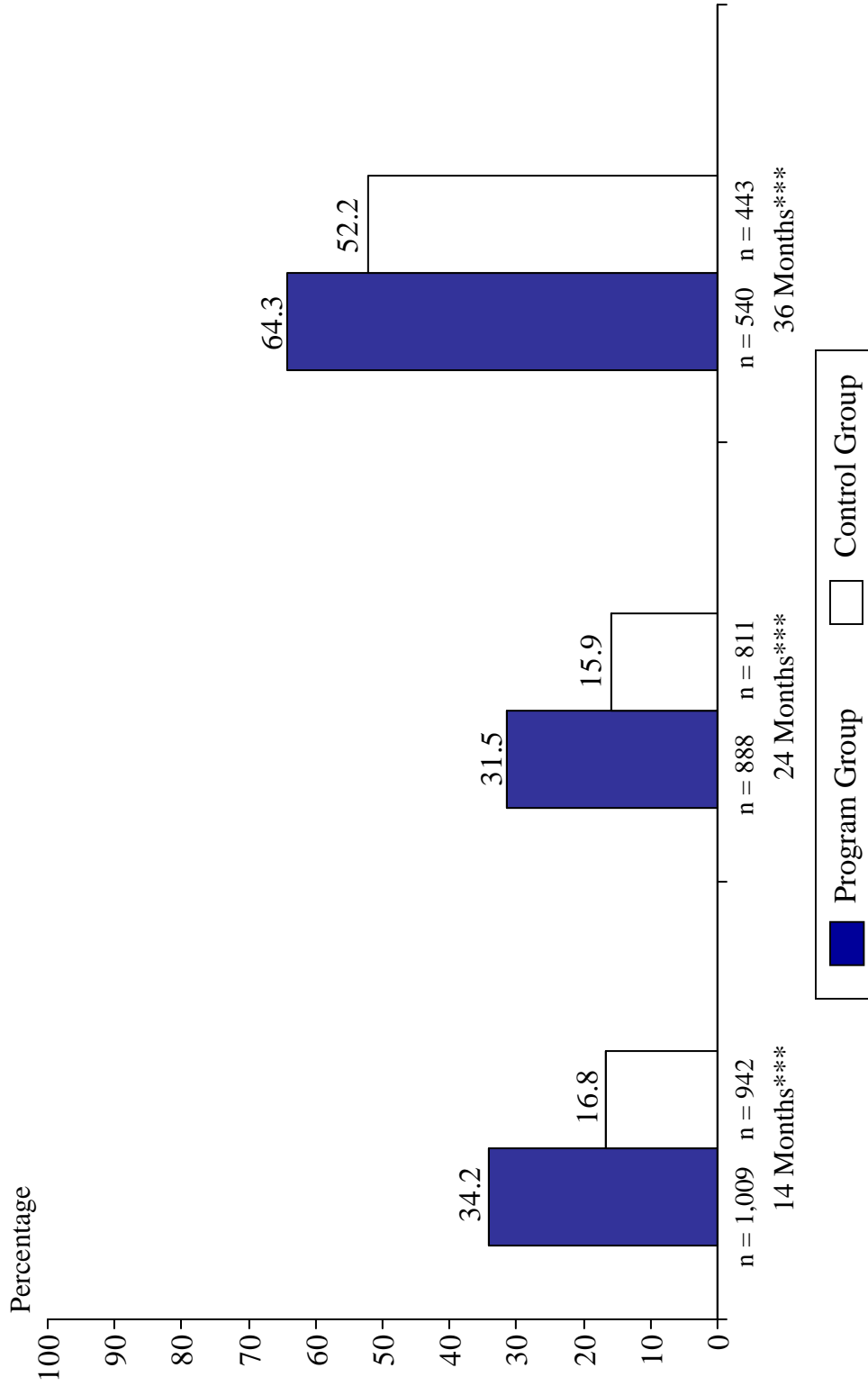
Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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.

*** Program-control difference is significantly different from zero at the .01 level, two-tailed test.

FIGURE II.12

IMPACTS ON USE OF CENTER CHILD CARE AT 14, 24, AND 36 MONTHS OF AGE



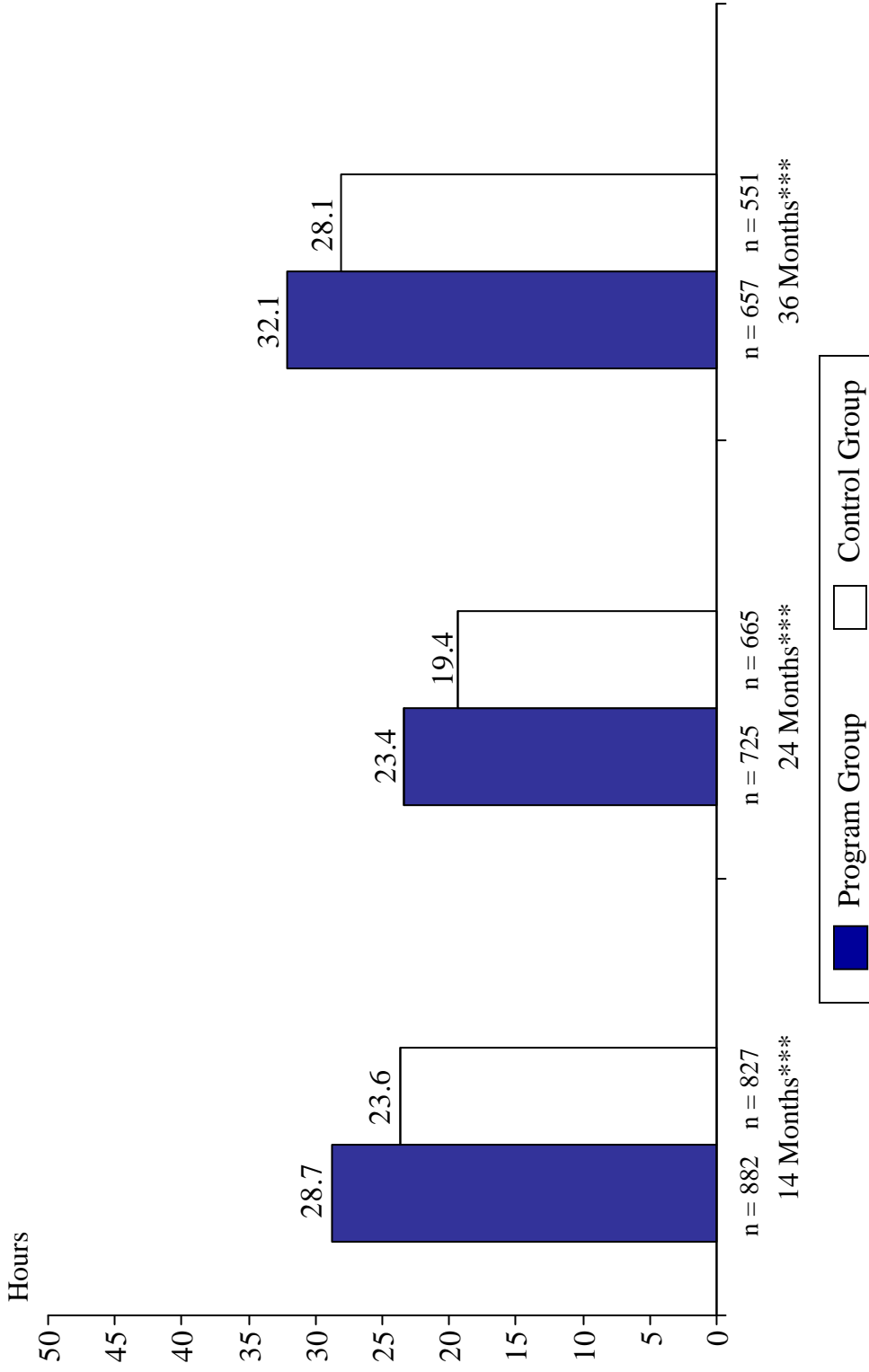
Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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.

*** Program-control difference is significantly different from zero at the .01 level, two-tailed test.

FIGURE II.13

IMPACTS ON AVERAGE HOURS PER WEEK IN ANY CHILD CARE
AT 14, 24, AND 36 MONTHS OF AGE



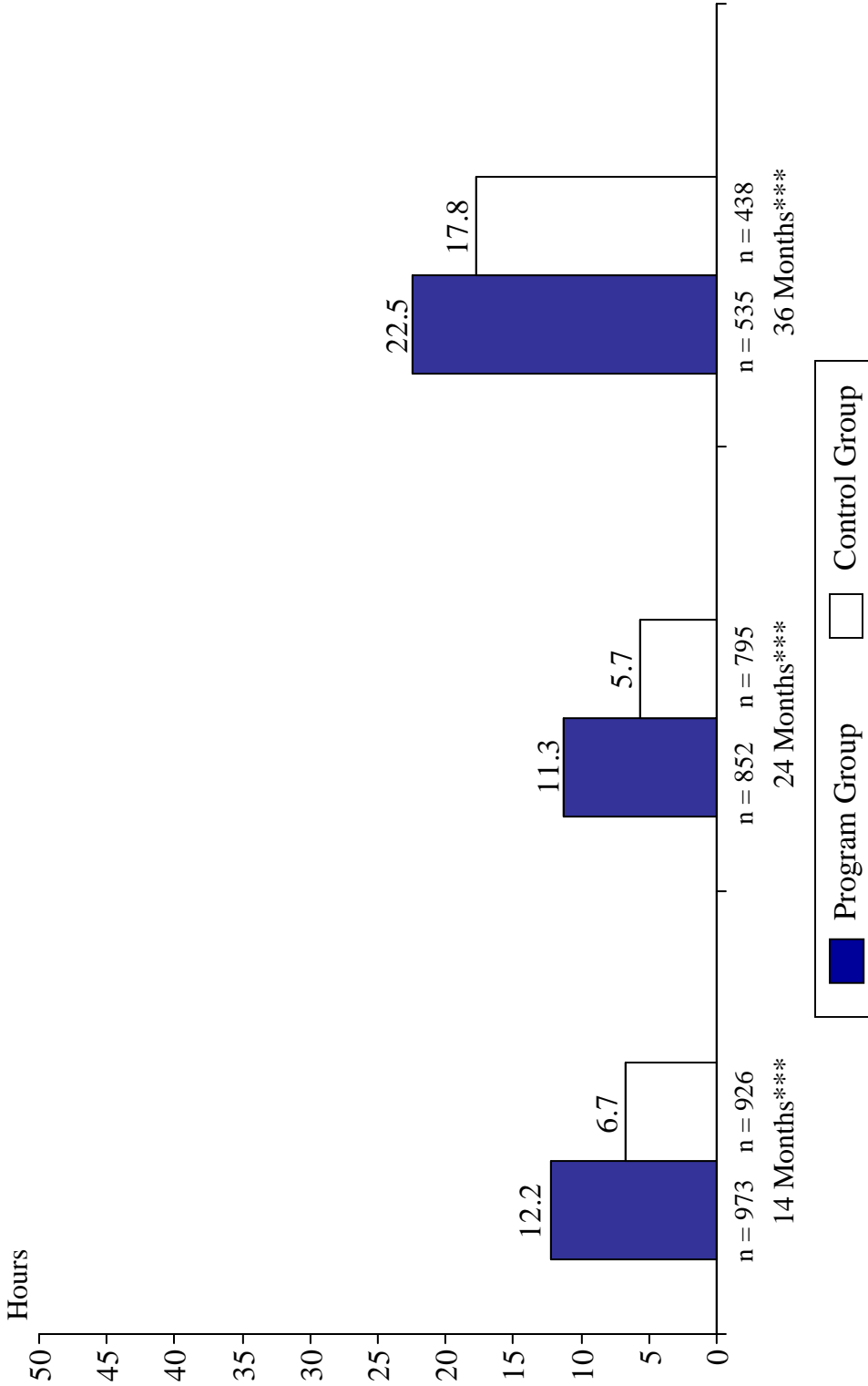
Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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.

*** Program-control difference is significantly different from zero at the .01 level, two-tailed test.

FIGURE II.14

IMPACTS ON AVERAGE HOURS PER WEEK IN CENTER CHILD CARE
AT 14, 24, AND 36 MONTHS OF AGE



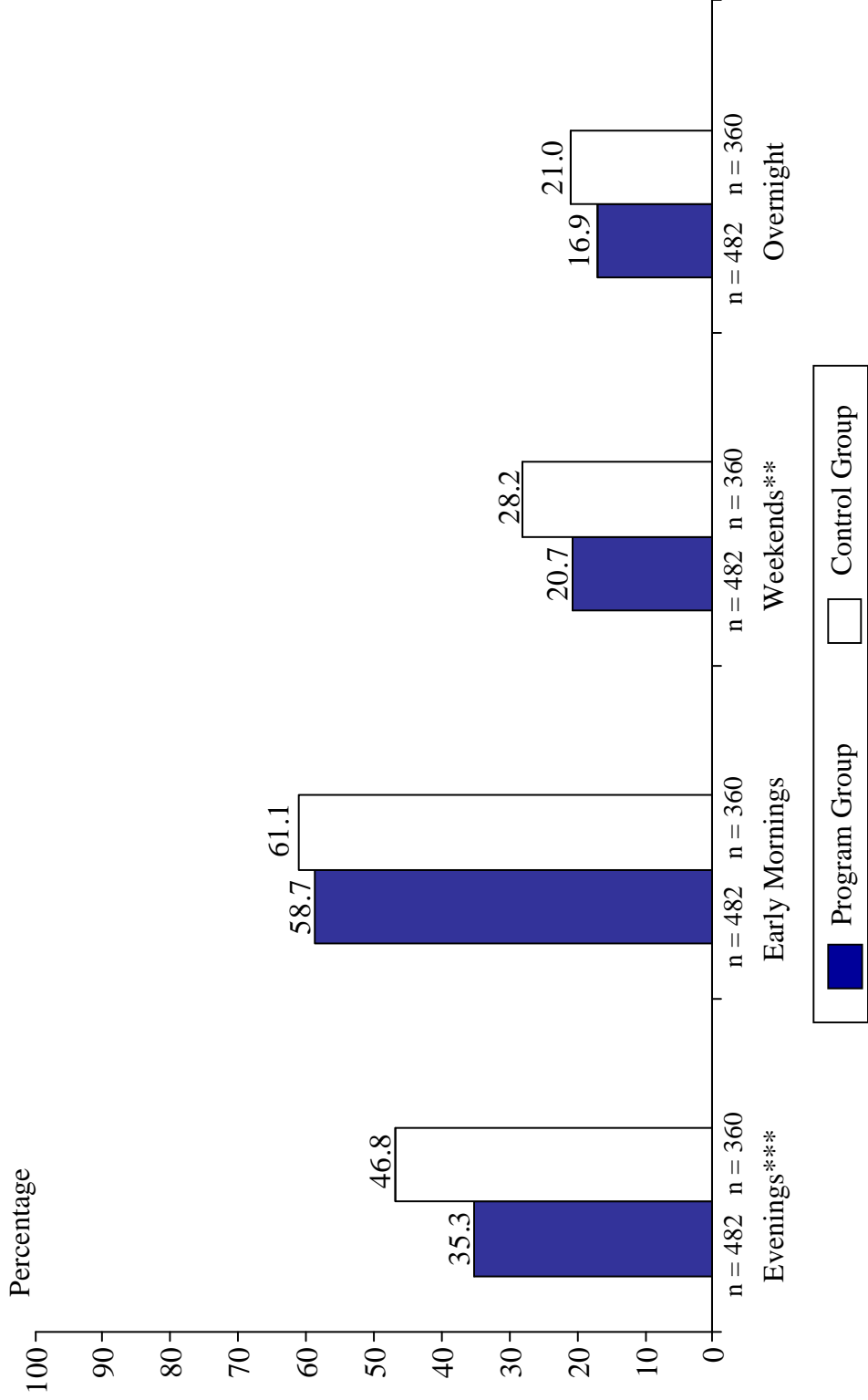
Source: Parent Services Follow-Up Interviews completed an average of 7, 16, and 28 months after enrollment and a Parent Interview completed when children were approximately 36 months old.

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.

*** Program-control difference is significantly different from zero at the .01 level, two-tailed test.

FIGURE II.15

IMPACTS ON USE OF CARE DURING NONSTANDARD HOURS IN PRIMARY CHILD CARE ARRANGEMENTS AT 24 MONTHS OF AGE



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

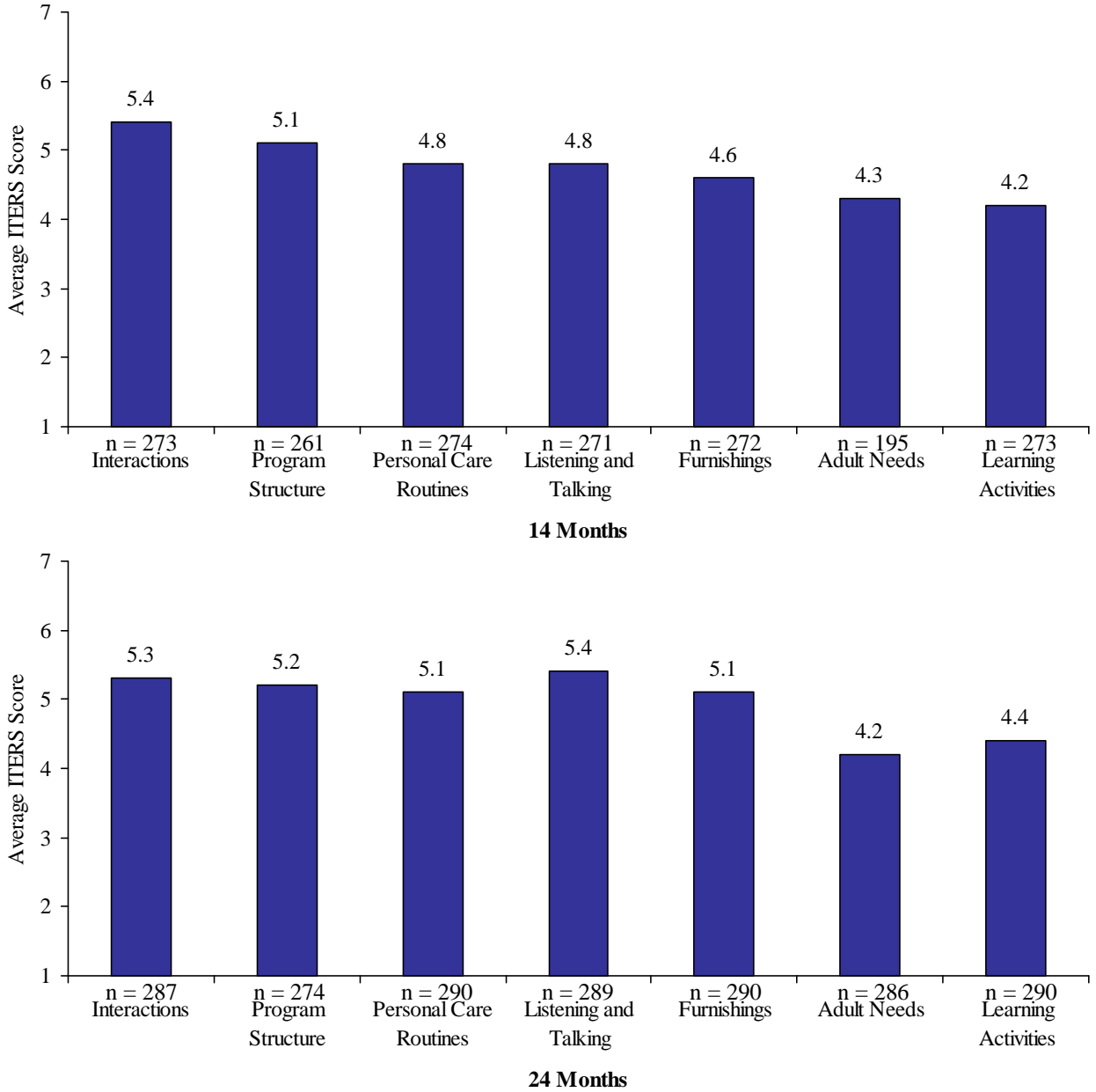
Note: All percentages are regression-adjusted means estimated using models that weight each site equally. The differences between program and control families are estimated impacts per eligible applicant.

** Program-control difference is significantly different from zero at the .05 level, two-tailed test.

*** Program-control difference is significantly different from zero at the .01 level, two-tailed test.

FIGURE III.1

AVERAGE ITERS SUBSCALE SCORES FOR CENTER CARE
 USED BY EARLY HEAD START FAMILIES
 (ALL SITES, WHEN CHILDREN WERE 14 AND 24 MONTHS OLD)

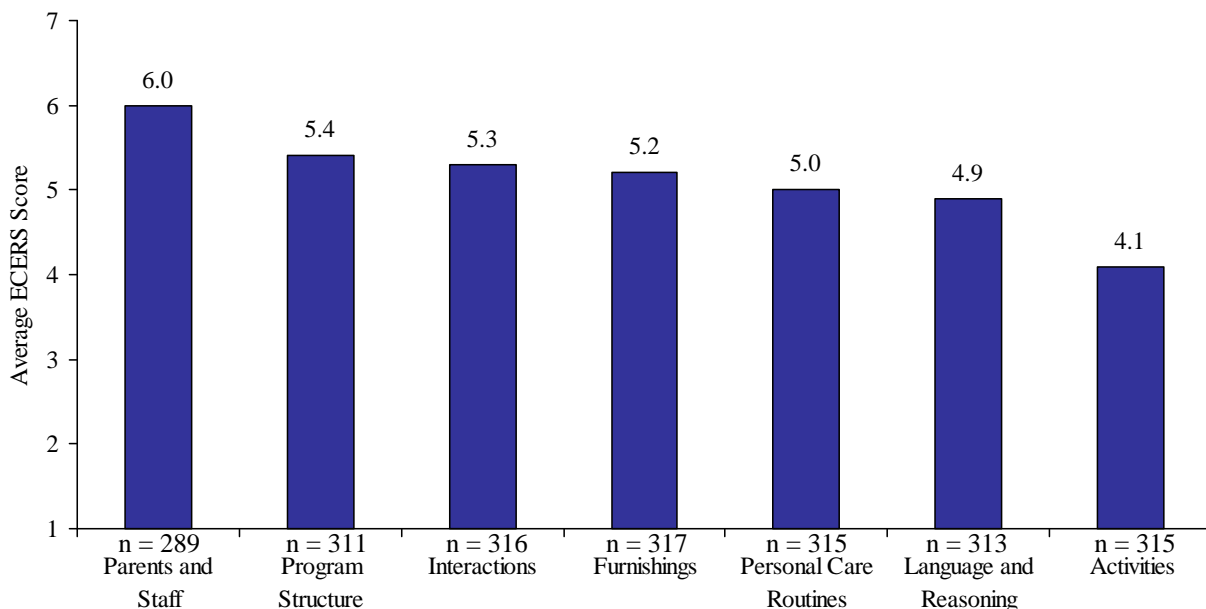


Source: Based on outside observations of “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

Note: Individual observations were not conducted for all children at 14 months. Children in the same care setting who were scheduled to be observed within three months of each other were assigned the same classroom characteristics. The possible range on each subscale is 1.0 – 7.0.

FIGURE III.2

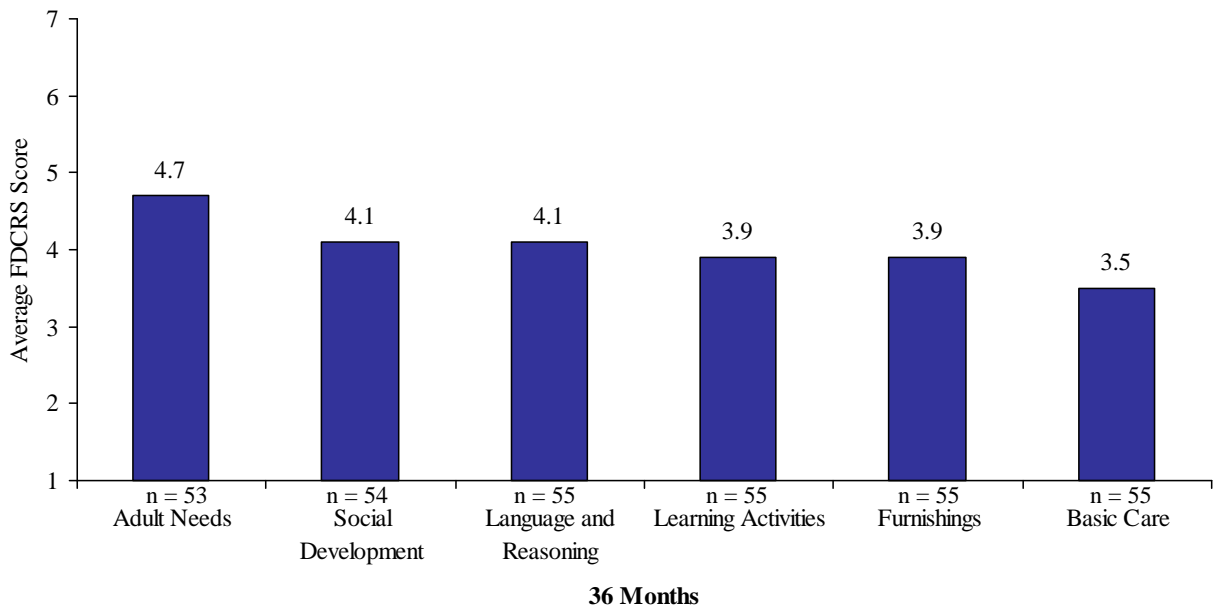
AVERAGE ECERS-R SUBSCALE SCORES FOR CENTER CARE
USED BY EARLY HEAD START FAMILIES
(ALL SITES, WHEN CHILD WAS 36 MONTHS OLD)



Source: Based on outside observations of “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

Note: The possible range on each subscale is 1.0 – 7.0.

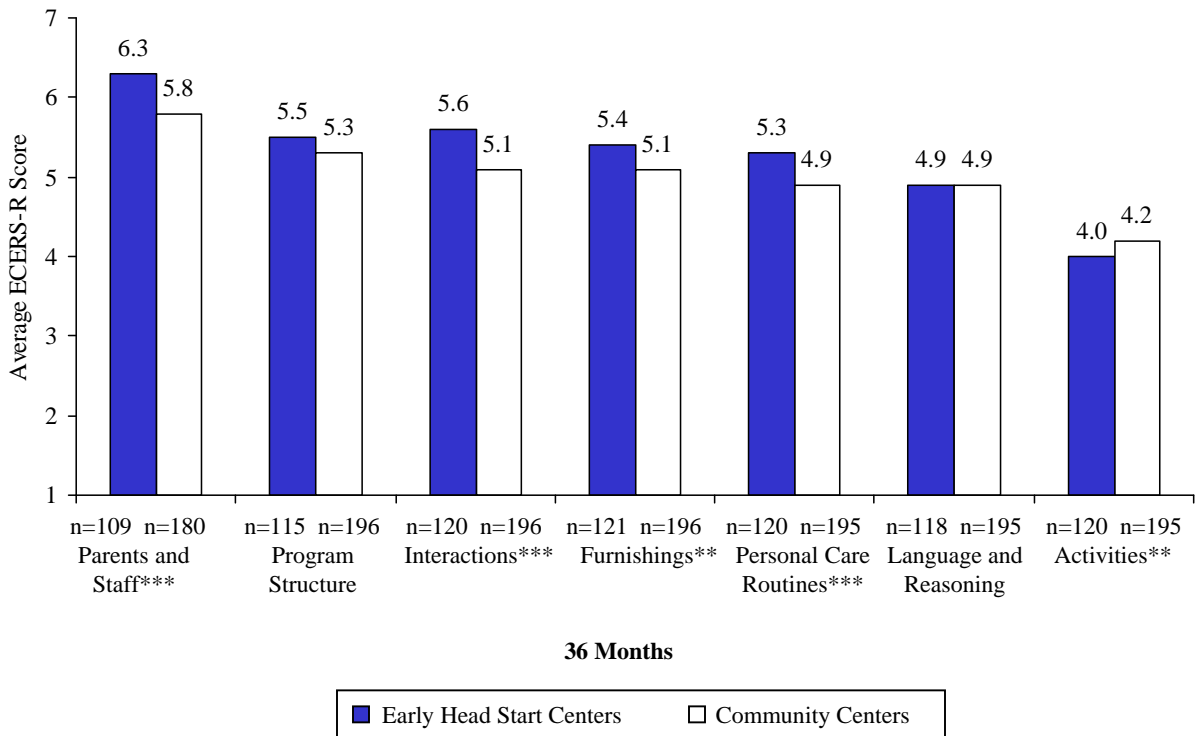
FIGURE III.3 (continued)



Source: Based on outside observations of “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a non-relative in the child’s home. Only one arrangement per child was observed.

Note: Individual observations were not conducted for all children at 14 months. Children in the same care setting who were scheduled to be observed within three months of each other were assigned the same family care characteristics. The possible range on each subscale is 1.0 – 7.0.

FIGURE III.5 (continued)



Source: Based on outside observations of “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a non-relative in the child’s home. Only one arrangement per child was observed.

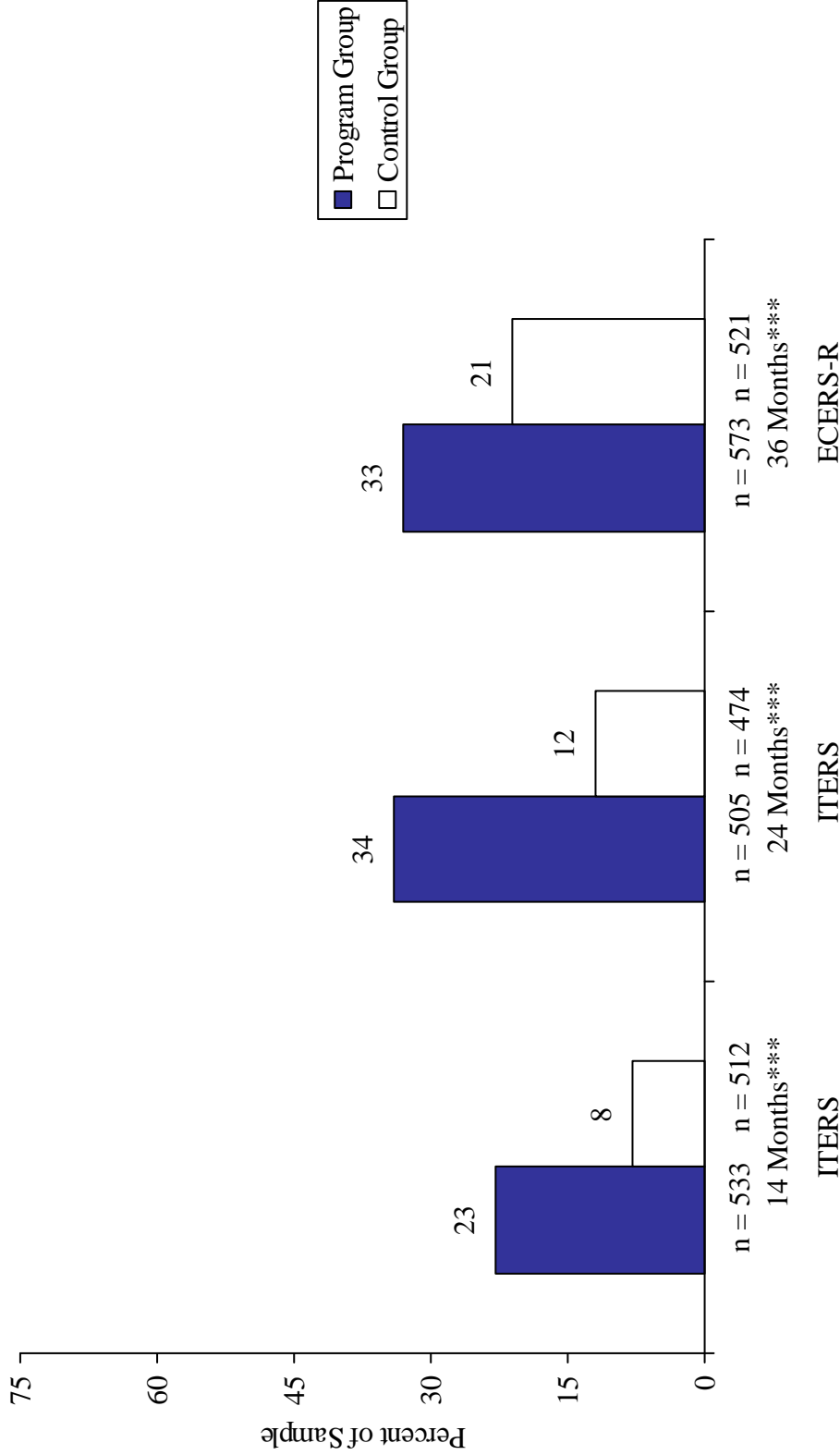
Note: Individual observations were not conducted for all children at 14 months. Children in the same care setting who were scheduled to be observed within three months of each other were assigned the same classroom characteristics. The possible range on each subscale is 1.0 – 7.0.

**Difference is significant at the .05 level.

***Difference is significant at the .01 level.

FIGURE III.9

IMPACT OF EARLY HEAD START ON PERCENTAGE OF CHILDREN IN GOOD-QUALITY, CENTER CARE, WHEN THEY WERE 14, 24, AND 36 MONTHS OLD



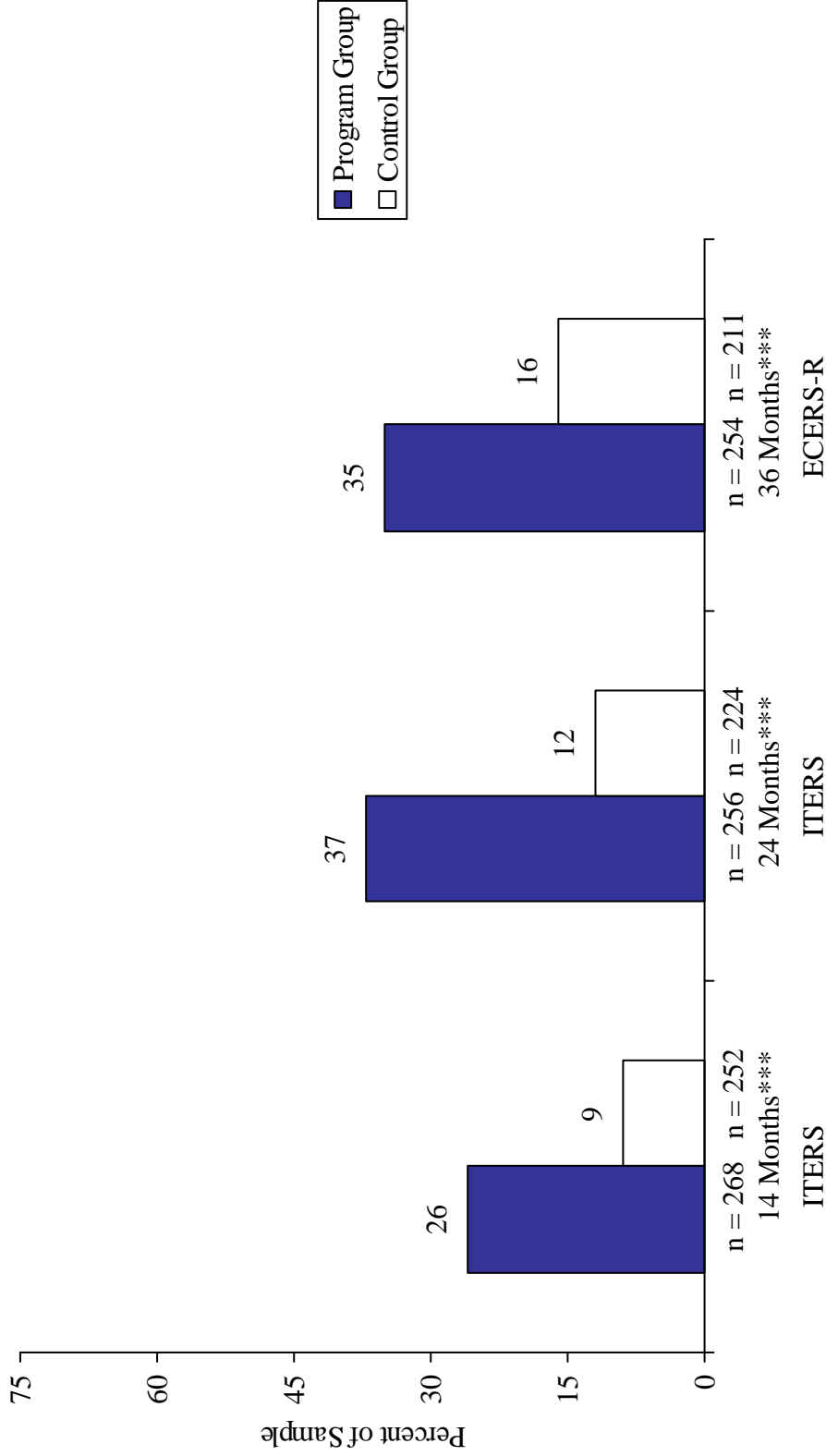
SOURCE: Based on responses to Parent Interviews and observations on children in “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

NOTE: High quality is defined as 5.0 or higher on the ITERS and ECERS-R. The sample includes all children at four center-based and four mixed-approach sites at all three time periods and an additional mixed-approach site at 36 months. Children in the same location at 14 months scheduled to be observed within three months of each other were assigned the same classroom characteristics. The probability of a high ITERS or ECERS-R score was imputed for children in care but not observed.

***Difference is statistically significant at the .01 level.

FIGURE III.10

IMPACT OF EARLY HEAD START ON PERCENTAGE OF CHILDREN IN GOOD-QUALITY, CENTER CARE, AT CENTER-BASED SITES WHEN CHILDREN WERE 14, 24, AND 36 MONTHS OLD

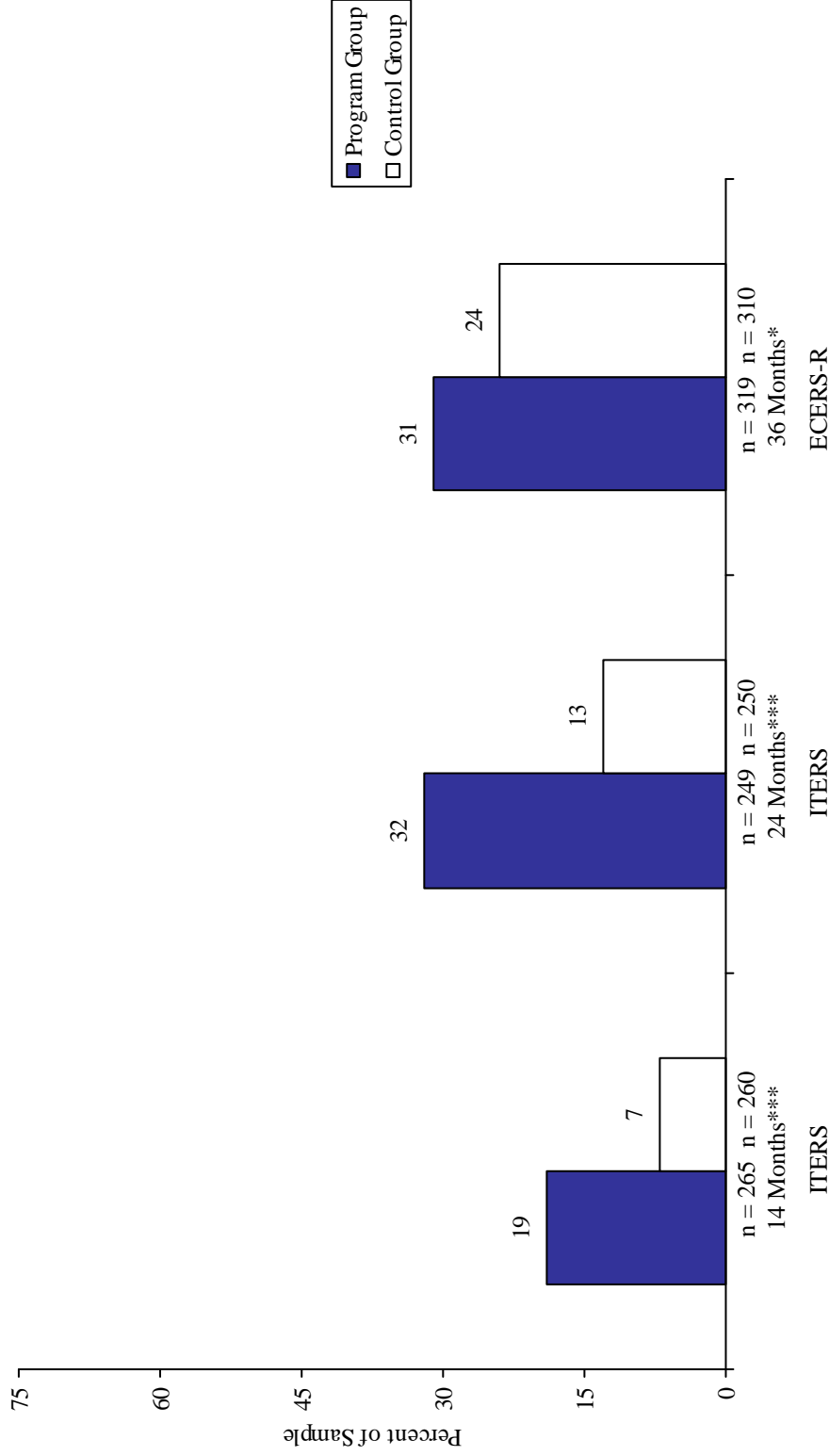


SOURCE: Based on responses to Parent Interviews and observations on children in “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

NOTE: High quality is defined as 5.0 or higher on the ITERS and ECERS-R. The sample includes all children at four center-based sites at all three time periods. Children in the same location at 14 months scheduled to be observed within three months of each other were assigned the same classroom characteristics. The probability of a high ITERS or ECERS-R score was imputed for children in care but not observed.

***Difference is statistically significant at the .01 level.

FIGURE III.11
 IMPACT OF EARLY HEAD START ON PERCENTAGE OF CHILDREN IN GOOD-QUALITY, CENTER CARE,
 AT SELECTED MIXED-APPROACH SITES WHEN CHILDREN WERE 14, 24, AND 36 MONTHS OLD



SOURCE: Based on responses to Parent Interviews and observations on children in “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

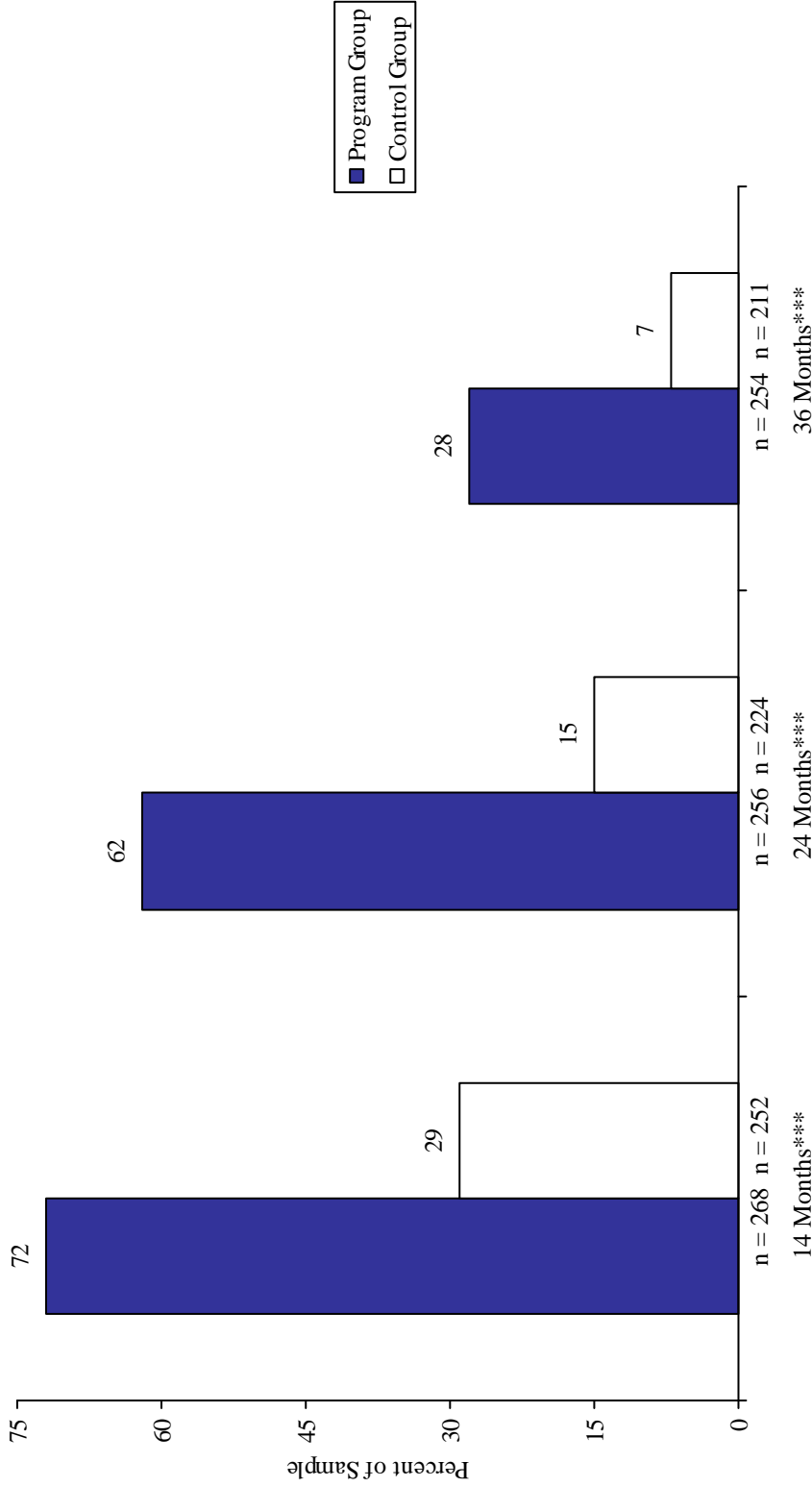
NOTE: High quality is defined as 5.0 or higher on the ITERS and ECERS-R. The sample includes all children at the four mixed-approach sites at all three time periods and an additional site at 36 months. Children in the same location at 14 months scheduled to be observed within three months of each other were assigned the same classroom characteristics. The probability of a high ITERS or ECERS-R score was imputed for children in care but not observed.

*Difference is statistically significant at the .10 percent level.

***Difference is statistically significant at the .01 percent level.

FIGURE III.12

IMPACT OF EARLY HEAD START ON PERCENTAGE OF CHILDREN IN CENTER CARE THAT MEETS THE HEAD START PROGRAM PERFORMANCE STANDARDS FOR CHILD-ADULT RATIOS, AT CENTER-BASED SITES WHEN CHILDREN WERE 14, 24, AND 36 MONTHS OLD



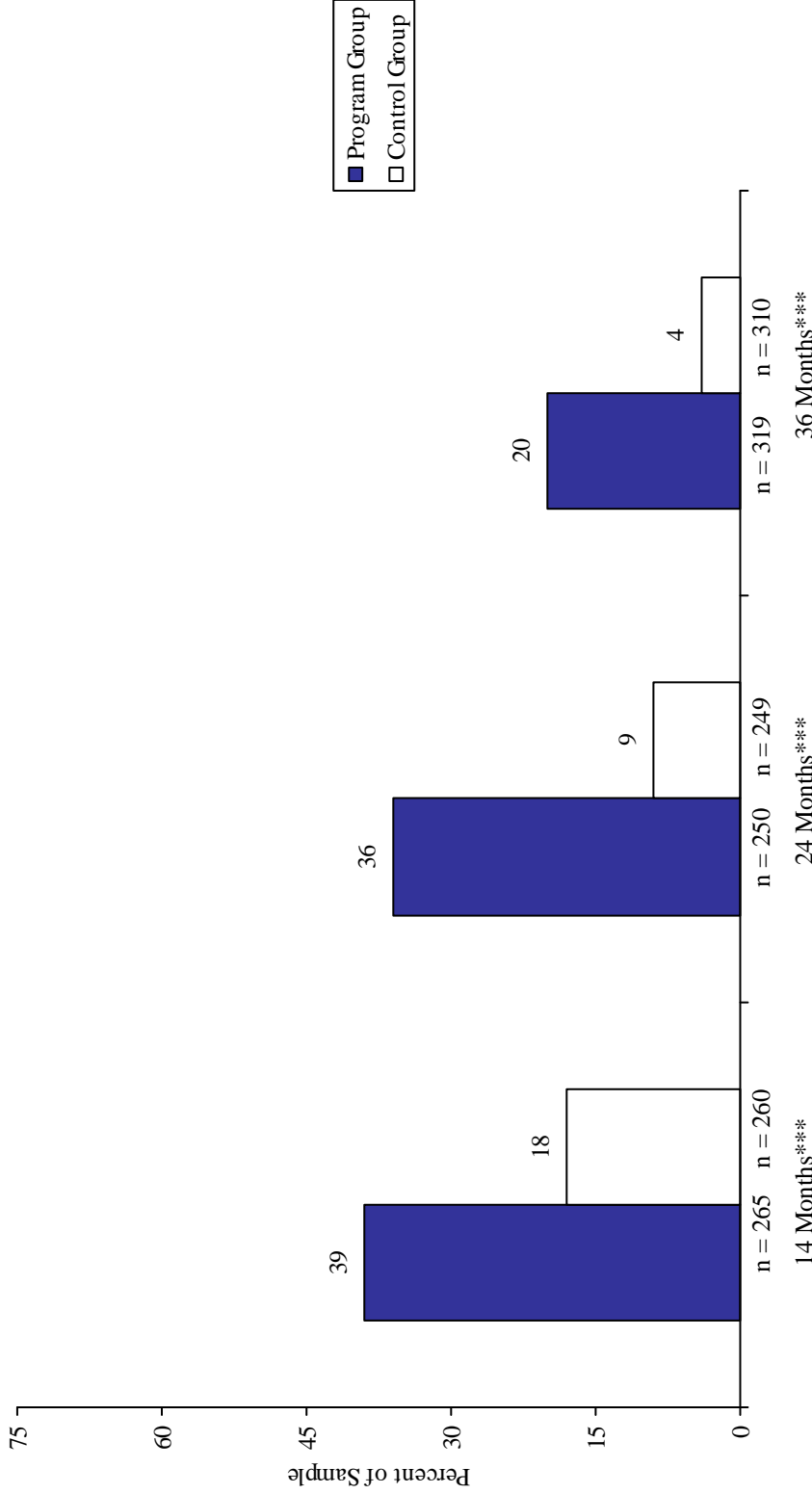
SOURCE: Based on responses to Parent Interviews and observations on children in “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

NOTE: Child-adult ratios of 4.0 or lower meet Head Start Program Performance Standards for infants and toddlers. We use the same ratio for 36-months, although higher ratios meet the performance standard for children older than 36 months. The sample includes all children at the four center-based sites. Children in the same location at 14 months scheduled to be observed within three months of each other were assigned the same classroom characteristics. The probability of a child-adult ratio of 4.0 or lower was imputed for children in care but not observed.

***Difference is statistically significant at the .01 level.

FIGURE III.13

IMPACT OF EARLY HEAD START ON PERCENTAGE OF CHILDREN IN CENTER CARE THAT MEETS THE HEAD START PROGRAM PERFORMANCE STANDARDS FOR CHILD-ADULT RATIOS, AT SELECTED MIXED-APPROACH SITES WHEN CHILDREN WERE 14, 24, AND 36 MONTHS OLD



SOURCE: Based on responses to Parent Interviews and observations on children in “eligible” care arrangements, defined as care that occurs for at least 10 hours per week outside a child’s home, or by a nonrelative in the child’s home. Only one arrangement per child was observed.

NOTE: Child-adult ratios of 4.0 or lower meet Head Start Program Performance Standards for infants and toddlers. We use the same ratio for 36-months, although higher ratios meet the performance standard for children older than 36 months. The sample includes all children at four mixed-approach sites at all three time periods and an additional site at 36 months. Children in the same location at 14 months scheduled to be observed within three months of each other were assigned the same classroom characteristics. The probability of a child-adult ratio of 4.0 or lower was imputed for children in care but not observed.

***Difference is statistically significant at the .01 level.

APPENDIX A
SUPPLEMENTARY TABLES

TABLE A.1

RESPONSE RATES FOR OBSERVATIONS OF EARLY HEAD START AND CONTROL GROUP CENTER
AND FAMILY CHILD CARE ARRANGEMENTS AT 14 MONTHS OF AGE

Site	Number of Center Arrangements Observed		Center Response Rate ^a (Percentage)		Number of Family Child Care Arrangements Observed		Family Child Care Response Rate ^a (Percentage)	
	EHS	Control	EHS	Control	EHS	Control	EHS	Control
Center-Based								
Site #1	44	17	83	74	0	3	0	23
Site #2	55	16	92	84	0	4	0	31
Site #3	25	6	86	100	1	3	33	33
Site #4	44	13	86	76	4	8	50	31
Center Total	168	52	87	80	5	18	33	30
Home-Based								
Site #5	2	1	25	50	7	5	64	45
Site #6	1	0	25	0	3	4	13	18
Site #7	1	0	13	0	8	6	62	43
Site #8	13	4	87	44	5	0	29	0
Site #9	5	0	45	0	1	3	10	23
Site #10	0	3	0	75	3	7	19	58
Site #11	3	2	43	40	3	2	25	40
Home Total	25	10	45	30	30	27	29	28
Mixed								
Site #12	13	8	72	62	3	6	21	43
Site #13	11	2	73	17	13	9	62	45
Site #14	3	0	20	0	0	1	0	7
Site #15	31	7	91	54	3	0	43	0
Site #16	11	2	79	50	7	8	64	57
Site #17	12	11	71	69	6	7	50	50
Mixed Total	81	30	72	49	32	31	43	33
Sample Total	274	92	76	58	67	76	35	31

^aResponse rates indicate the percentage of eligible center or family child care arrangements we were able to locate and observe.

TABLE A.2

RESPONSE RATES FOR OBSERVATIONS OF EARLY HEAD START AND CONTROL GROUP CENTER
AND FAMILY CHILD CARE ARRANGEMENTS AT 24 MONTHS OF AGE

Site	Number of Center Arrangements Observed ^a		Center Response Rate ^b (Percentage)		Number of Family Child Care Arrangements Observed ^a		Family Child Care Response Rate ^b (Percentage)	
	EHS	Control	EHS	Control	EHS	Control	EHS	Control
Center-Based								
Site #1	48	17	94	65	0	1	0	11
Site #2	50	11	88	79	0	0	0	0
Site #3	19	5	76	83	4	1	67	14
Site #4	45	15	96	65	1	11	13	69
Center Total	162	48	90	70	5	13	24	30
Home-Based								
Site #5	8	1	50	50	13	7	100	64
Site #6	6	2	55	33	6	9	24	41
Site #7	3	1	75	25	10	5	48	42
Site #8	13	9	68	60	4	0	24	0
Site #9	0	0	0	0	0	1	0	6
Site #10	1	7	100	100	7	2	54	22
Site #11	4	4	57	100	3	5	23	56
Home Total	35	24	49	55	43	29	39	32
Mixed								
Site #12	15	3	71	43	0	2	0	15
Site #13	9	8	64	62	15	4	54	20
Site #14	10	0	91	0	1	0	17	0
Site #15	30	9	86	53	1	4	17	27
Site #16	17	7	100	64	10	2	71	25
Site #17	12	17	52	74	7	5	50	36
Mixed Total	93	44	77	61	34	17	44	22
Sample Total	290	116	78	63	82	59	39	28

^aNumber of observed arrangements were determined by the number of valid ITERS or FDCRS scales we were able to calculate. Sample sizes for variables developed from the C-COS are slightly larger.

^bResponse rates indicate the percentage of eligible center or family child care arrangements we were able to locate and observe.

TABLE A.3

RESPONSE RATES FOR OBSERVATIONS OF EARLY HEAD START AND CONTROL GROUP CENTER AND
FAMILY CHILD CARE ARRANGEMENTS AT 36 MONTHS OF AGE

Site	Number of Center Arrangements Observed ^a		Center Response Rate ^b (Percentage)		Number of Family Child Care Arrangements Observed ^a		Family Child Care Response Rate ^b (Percentage)	
	EHS	Control	EHS	Control	EHS	Control	EHS	Control
Center-Based								
Site #1	43	25	91	83	1	3	20	30
Site #2	47	14	100	74	0	0	0	0
Site #3	17	18	65	90	1	1	33	20
Site #4	46	15	102	75	2	4	20	57
Center Total	153	72	93	81	4	8	19	26
Home-Based								
Site #5	20	5	63	45	9	6	150	60
Site #6	9	4	100	50	4	9	15	43
Site #7	19	15	86	94	5	8	29	50
Site #8	12	4	36	22	0	0	0	0
Site #9	0	0	0	0	0	0	0	0
Site #10	3	3	50	75	3	5	25	45
Site #11	6	4	75	80	5	6	63	55
Home Total	69	35	55	42	26	34	28	38
Mixed								
Site #12	20	8	80	50	0	0	0	0
Site #13	10	7	67	41	11	2	46	25
Site #14	10	2	67	17	1	2	9	40
Site #15	25	19	78	86	1	1	17	13
Site #16	15	8	63	73	6	3	75	27
Site #17	14	22	58	76	6	2	46	25
Mixed Total	94	66	70	62	25	10	36	19
Sample Total	316	173	74	62	55	52	30	30

^aNumber of observed arrangements were determined by the number of valid ECERS or FDCRS scales we were able to calculate. Sample sizes for variables developed from the C-COS are slightly larger.

^bResponse rates indicate the percentage of eligible center or family child care arrangements we were able to locate and observe.

TABLE A.5

BACKGROUND CHARACTERISTICS OF PROGRAM AND CONTROL-GROUP FAMILIES
WITH CHILDREN IN CENTER CHILD CARE AT SELECTED MIXED-APPROACH SITES
(Percentages)

Age of Child	14-Months		24-Months		36-Months	
Characteristic at Enrollment	Program	Control	Program	Control	Program	Control
Child Was 5+ Months Old	31	25	27	22	31	29
Child had Environmental Risks	52	22**	30	33	43	39
Pregnant	30	32	36	39	34	38
Teenage Mother	61	36	49	43	45	51
Parents had Less than 9 Years of Education	10	0*	9	8	4	4
Primary Language Was not English ^a	3	11	3	3	6	4
Parent Lived with Partner	10	18	10	22*	9	19**
Adult Male in Household	27	54***	27	47**	23	42***
Family Income 33% to 67% of Poverty Line	33	14*	38	31	33	35
Family Income 67% to 99% of Poverty Line	16	36**	14	28*	13	17
Family Received Welfare	67	42**	64	50	71	49***
African American	55	36*	49	36	46	38
Parent in School or Training	45	18***	35	20*	31	20*
Parent Was Unemployed	22	36	25	37	23	42***
Urban = Setting	37	68***	37	56*	57	63
Welfare Work Requirements ^b		29	21	8*	42	32

Source: Sample is based on families who reported being in an eligible care arrangement whom we were able to observe for a valid ITERS or ECERS-R score. Baseline characteristics taken from the HSFIS enrollment data.

^aParent reported English was not primary language spoken, but could speak English well.

^bFamily lived in a state with TANF work requirement for women with children younger than 12 months.

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*Difference is statistically significant at the .10 level.

**Difference is statistically significant at the .05 level.

***Difference is statistically significant at the .01 level.

TABLE A.7

SUMMARY OF OLS REGRESSIONS PREDICTING CHILD OUTCOMES
AT 24 AND 36 MONTHS OF AGE

	24-Month Outcomes			36-Month Outcomes		
	BSID-MDI	CDI Language	CBCL Aggression	BSID-MDI	PPVT-III	CBCL Aggression
Mean ITERS/ECERS-R	1.58** (.74)	.53 (1.37)	-.79 (.61)	.49 (.64)	1.34* (.83)	.37 (.60)
Mean Child-Adult Ratio	.32 (.64)	-1.15 (1.12)	.48 (.50)	.40 (.33)	.10 (.43)	-.27 (.31)
Mean Hours in Center Care	.13** (.06)	.06 (.12)	-.03 (.05)	.15*** (.05)	.15** (.06)	-.05 (.05)
Adj R ²	.13***	.04**	-.01	.13***	.17***	-.01
Sample Size	284	308	306	336	293	328

Note: Unstandardized beta coefficients (with standard errors) presented. Mean scores from 14 to 24 months were included in models predicting 24-month outcomes; mean scores from 14 to 36 months were included in models predicting 36-month outcomes. All models control for the following: child gender, child age at time of assessment, maternal race/ethnicity, education and marital status, whether mother was teenage (<19 years) at child's birth, and whether site was urban.

* $p < .10$; ** $p < .05$; *** $p < .01$.

APPENDIX B

**PROCEDURES FOR TRAINING AND ESTABLISHING RELIABILITY ON THE
CLASSROOM OBSERVATION QUALITY MEASURES**

Mathematica Policy Research (MPR) trained more than 80 observers to collect child care quality data in preparation for the first set of observations (conducted when the children were 14 months old). Prior to attending centralized training sessions, observers reviewed detailed training manuals that described the instruments and study procedures. The first day of training included a combination of lecture, interactive discussion, and viewing and discussion of the Infant-Toddler Environment Rating Scale (ITERS) or Family Day Care Rating Scale (FDCRS) videotaped training materials. On the following two days of training, MPR group leaders (who had established inter-rater reliability with two of the instruments' developers, Thelma Harms and Debby Cryer, prior to the training session) accompanied small groups of observers into the local community to conduct one center and one family child care observation. After the observation, the group leader answered questions about any information needed to score items that could not be observed. All observers independently scored each item. The group leader then facilitated a discussion of each item, spending time discussing items on which there was disagreement about the score. The group came to a consensus score for each item and the group leader computed the percent agreement for each observer against the consensus score. To be certified to collect Early Head Start child care observation data, observers had to have rated items within one scale point of the consensus score on 80 percent of the ITERS, FDCRS, and Arnett Caregiver Interaction Scale (CIS) items. After returning to their sites, observers were also required to conduct one center and one family child care within-site reliability practice visit with another observer from their site and again meet the certification requirements. MPR reviewed the reliability data from those visits. Almost all observers met the certification criteria in their first attempt. We worked with those who did not to further explain items and indicators and asked the observers to conduct additional practice visits until they met the certification requirements of establishing reliability on two post-training observations.

Given that the main child care observation measures did not change from 14 to 24 months, we focused the 24-month child care data collection training on preparing observers to conduct the Child-Caregiver Observation System (C-COS). Following one day of classroom instruction on the C-COS, five MPR group leaders led groups of head trainers/lead observers from each site in conducting visits to community child care settings to establish reliability on the ITERS, FDCRS, and Arnett CIS and to practice the C-COS in the context of a full child care quality observation. After training and any local training of additional observers, we also asked them to conduct two within-site reliability visits. Again, very few observers did not meet the reliability criteria. For the C-COS, we developed test videotapes and compared observers' codes with the codes developed by a team of gold standard coders to establish reliability. For the 36-month observations, we adopted a site-based training model and distributed detailed training manuals and videotapes to the sites, where experienced local site coordinators conducted the training. Training in conducting the Early Childhood Environment Rating Scale-Revised (ECERS-R) followed the same pattern described for the ITERS and FDCRS. The criteria for certification were the same as described above and almost all observers met them on the first attempt. As before, if an observer did not meet the criteria, we worked with him or her to answer any questions and required that he or she conduct additional practice reliability visits until they met the criteria.