

The Effects of School-Age Child Care in Northern California on Parents' Stress and Job Productivity

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Day care for school-age children continues to be a national problem that affects more and more families. It is estimated that in 1995 there were over 23.5 million school-age children in the United States in need of before- and after-school supervision because of their parents' employment (Hofferth and Phillips 1987). In 1990, 57 percent of California mothers with children under six years of age were in the labor force. For mothers with children between the ages of six and seventeen, the number jumped to 72 percent (Children Now 1993). This growing demand for school-age child care is due in part to the significant increases in the number of women in the workforce (Hayes, Palmer, and Zaslow 1990; Goodman 1995). Increases can be attributed to more female heads of household, an increase in dual wage earner families, a push for equality between men and women in the home and workplace, and other family economic constraints (Childman 1993; Hofferth and Phillips 1987; Spitzer 1988).

There are a number of care options available to employed parents of school-age children, ranging from no supervision to high levels of adult supervision (Todd, Albrecht, and Coleman 1990). According to the 1990 National Care Survey (Willer et al. 1991), the most frequent arrangement for parents with children between the ages of five and twelve was *no* supervised care (44 percent). The remainder of the families were using care by nonparent relatives (25 percent), center care (14 percent), family day care (7 percent), other care (7 percent), and in-home care (3 percent).

The potential negative effects for children with inadequate adult supervision are documented and debated in the research literature (Cole and Rodman 1987; Diamond, Kataria, and Messer 1989). Some studies have found greater risks of substance abuse (Richardson et al. 1989); Steinberg 1986), negative social development and low self-esteem (Berman et al. 1992). However, other studies found no significant differences in self-esteem between children in self-care and adult care (Rodman, Pratto, and Nelson 1985; Vandell and Corasaniti 1988). Fear, rejection, alienation, poor academic performance, health problems, accidents, and abuse are other reported potential risk factors associated with self-care (Coolsen, Seligson, and Garbarino 1985).

In contrast, school-age children participating in quality after-school child care programs have been found to receive positive benefits from the experience. Posner and Vandell (1991) reported enhanced self-esteem and improved academic and social competence. Junge et al. (1994) found increased social skills, decreased problem behaviors and improved academic performance among children enrolled in after-school child care programs. What may seem like contradictory findings on the varying effects of supervised and unsupervised care can possibly be attributed to the failure of studies to assess the quality of the programs under investigation. In fact, studies of preschool care have shown the importance of quality as a mediator of preschool child care effects (Howes 1990; Howes, Phillips, and Whitebook 1992; Phillips 1987).

Few studies have focused on the specific program elements in school-age child care that may determine quality. Instead, professionals in the field have relied primarily on preschool findings and their own experiences to develop quality guidelines such as those published by the American Home Economic Association's Project Home Safe (Albrecht 1991) and the National Association of Elementary School Principals (1993). One recent study that looked at quality variables in school-age child care programs found that a greater number of program activities was associated with program staff having more frequent positive interactions with children (Rosenthal and Vandell 1996). Other researchers have used parents' rankings of the importance of program elements as an indicator of quality (Endsley and Bradbard 1987). Bradbard, Endsley, and Readdick (1994) found that health and safety, quality of caregivers, the personal-social development of the child, and the educational/academic development of the child were ranked highest by parents when selecting a day care program for their school-age child. Powell and Widdows (1987) found that parents with school-age children enrolled in centers rated the educational content, trained staff, and program activities as more important to child care than did parents who had children in sitter or self-care arrangements.

For parents wanting to enroll children in quality after-school programs, the availability of such care is an issue (California Senate Office of Research 1983; Policy Analysis for California Education 1989). This is especially a concern in rural areas where the shortage of quality programs is further complicated by geographic isolation, fewer neighbors to contact in case of an emergency, and the lower availability of other resources (Karns and Stevens 1995). Rural areas are often different from other parts of the country in their social and demographic makeup. Generally, lower median incomes, lower levels of education, and lower population densities are associated with rural areas (Hobbs and Change 1996). Most studies of school-age child care (Atkinson 1994; Karns and Stevens 1995; Hobbs and Change 1996) have focused on urban or national representative samples and have often looked at need for care more than program content or impact.

Other questions arise as to the effects of availability and quality of care on parents' work productivity. Some parents in part-time employment report that lack of good care prevents them from working as many hours as desired (Karns and Stevens 1995). Several studies show that the lack of quality and affordable child care can lead to numerous absences from work, late arrivals, poor productivity, and stress among employees (Chapman 1987; Galinsky and Hughes 1987; Magid 1983; Zedeck and Mosier 1990). Harrell and Ridley (1975) report greater job satisfaction of mothers when they are satisfied with their child care.

The impact of stress on parents and their ability to work is a concern for both workers and employers. In the Media Report to Women (1994), employees reported medium to extreme stress while balancing work and child care, while other studies (Seyler, Monroe, and Garand 1995) have also showed that work performance may suffer from the stress associated with modern family life. Bradbard and Endsley (1986) explored whether a working mother's satisfaction with child care may relate to other aspects of personal and work life. Other researchers have reported positive relationships between a mother's dissatisfaction with her child care and her reported level of stress (Shinn, Galinsky, and Gulcur 1990), as well as between a mother's satisfaction with child care arrangements and her relationships with both child and spouse (Roopnarine and Hempel 1988). Hayes, Palmer, and Zaslow (1990) suggest further studies to examine the interactions between family factors and child care, including how the quality of child care affects family stress levels.

In this study we investigated parents' satisfaction with the 4-H school-age child care programs in which their children were currently enrolled. The programs under investigation were established through a community development process that used the results of a comprehensive needs assessment to determine program design and delivery. We were interested in how these programs compared to parents' prior child care arrangements, especially in terms of quality and other issues that had been identified in the needs assessment: location, cost, educational activities, recreational activities, and health and safety conditions. A wide range of collaborators, including schools, social service agencies, and employers were engaged in the process. We also were curious about the impact that the programs might have on other areas of parents' lives, particularly in work productivity and parental stress.

Method

Participants

The research participants were parents of children who were newly enrolled in 4-H school-age child care programs in rural Northern California. Survey questionnaires were mailed to 188 parents soon after they enrolled their child in one of the school-age child care programs, and again approximately six months later. Only data from those parents who responded to both questionnaires were used in the study, resulting in a total of 48 respondents being included in the analysis.

Of the matched pair respondents, 93.6 percent were female and 6.4 percent were male. The largest ethnic group in the survey was Caucasian (91.5 percent), followed by those listing "other" (4.3 percent), Asian (2.1 percent), Hispanic (2.1 percent). The majority of the parents (66 percent) were between the ages of thirty-one and forty; 21.3 percent were between forty-one and fifty, and 12.8 percent were between twenty and thirty years of age. Annual family incomes of over \$40,000 were reported by 62.2 percent of the parents, while 13.3 percent had incomes under \$20,000. Thus a composite profile of the forty-eight respondents would portray a Caucasian, married female with a family income of over \$40,000, who used the child care program because she was employed.

The majority of the respondents indicated that their children were enrolled in the school-age child care program because they (the parents) were employed (77.1 percent) or attending school (4.2 percent).

Another 6.3 percent were using the program for their children's enrichment, and 12.5 percent gave other reasons for using the program.

The School-Age Child Care Program

Seven programs are represented in the study. All were created through partnerships between schools, parents, social service agencies, employers, and local associations, organized as part of the Youth at Risk project funded by the United States Department of Agriculture's Cooperative State Research, Education, and Extension Service. All of the programs were established between one and four years prior to the study, and all were licensed by the California Department of Social Services, Community Care Licensing Division, which mandates regulations covering health and safety, facilities, staff qualifications, and program content. A minimum child to staff ratio of fourteen to one is required, but most of the participating programs reported lower (i.e., more desirable) ratios. Fully qualified directors with appropriate education and experience provided on-site supervision. Strategically located on school campuses, all programs were consistent in their use of an experientially oriented curriculum that addressed cognitive, social, emotional, and physical development. Each week had a different educational theme. Both cross-age teaching and inter-generational programming (i.e., the involvement of parents or grandparents) were incorporated into a wide array of weekly activities. Because evidence shows that students are not keeping pace with expected academic performance (California Department of Education 1988), all programs offered homework assistance and literacy enhancement activities that included lending resources, parent education classes, newsletters, and referrals.

The seven 4-H school-age child care programs were located in rural areas or small towns in five Northern California counties (Colusa, Lake, Mendocino, Nevada, and Tehama). At the time the programs were established, the availability, affordability, and quality of school-age child care were at critically low levels in these five counties. Two of the counties each had only a single center serving school-age children and had the lowest rate of available child care in the state (Policy Analysis for California Education 1989). The child poverty rate for the participating counties varied from 24.3 percent in Tehama County to 10.4 percent in Nevada County, while the state rate in the same year was 18.2 percent. Child abuse rates in the five counties varied from 56.7 per 1,000 children to 129.6 per 1,000 children, compared to a state rate of 70.9 per 1,000 children (Children Now 1993).

Survey Instrument

The pretest and posttest questionnaires included demographic items on gender, ethnicity, age, family income, marital status, and reason for using the school-age child care services. In addition, parents were asked on the pretest questionnaire to identify their primary child care arrangement prior to enrolling their child in the 4-H afterschool child care program, and to rate both their own and their child's levels of satisfaction with those arrangements. Parents were also asked more specific questions about the quality of their prior child care arrangements, including health and safety conditions, quality of educational activities, quality of recreational activities, convenience of location, hours of operation, and cost.

Questions concerning child care and parents' work productivity focused on their ability to concentrate at work, volume of work produced, work interruptions, and job errors. Other questions concerned their availability for work, arriving late to work, leaving work early, quitting a job, job absence, turning down a raise or promotion, and turning down overtime or shift work because of their prior child care arrangements.

Because of our interest in the effects of stress caused by child care and other aspects of the parents' lives, we asked additional questions concerning their own health, the health of other family members, family finances, relationship with children, and relationships with spouse.

In the posttest, mailed approximately six months after the pretest, parents were asked the same demographic questions contained in the pretest, and were also asked the same questions concerning their satisfaction, work productivity, availability for work, and stress, but this time in relation to their child's enrollment in the current (i.e., 4-H) child care program.

Data Analysis

The data analysis included information only from those parents who responded to both the pretest and the posttest. These cases are reported as matched pairs. For each questionnaire item, the comparison of matched responses allowed us to see how opinions changed in the same group of people over time. T-tests were computed for the difference between average pretest scores and average posttest scores. On items for

which rating scales or count items were created, all insubstantial choices from the scale were excluded (i.e., “don’t know”, “no opinion”, “not applicable,” and “other”).

Results

Prior to enrollment in the 4-H school-age child care program, the majority of the respondents’ children were enrolled in some type of organized, out-of-home care: 37 percent in a child care center and 24.1 percent in family day care. However, 18.5 percent of the parents reported that they did not require child care prior to enrolling their child in the program. Other prior arrangements included staying at home with a sitter (3.7 percent), staying at home with an older sibling (1.9 percent), or other unlisted arrangement (14.8 percent). No parent reported children in self care.

Job Performance

Parents reported improvements in their own job performance after enrolling their child in the 4-H school-age child care program. Parents were asked, both at pretest and posttest, how often over the past six months they had experienced the following as a result of their child care arrangements: reduced ability to concentrate, reduced volume of work produced, increased interruptions, and increased errors. Counts for the pretest and posttest are presented in table 4.1. A summary variable, “total negative effect on quality of work”, was created by summing the total number of substantive responses. Significant improvements between pretest and posttest ($p < .05$) were reported in terms of the average number of negative effects experienced. There was also a corresponding increase in the number of parents reporting “none of the above”, though this change was not statistically significant (see table 4.2).

Parents were also asked to respond to other questions concerning their job performances as it related to their child care arrangements. On both questionnaires, parents were asked to report the number of times they had experienced the following due to their child care arrangements: late for work, left work early, quit a job, absent one day, turned down a raise or promotion, and turned down overtime or shift work. Counts for the pretest and posttest are presented in table 4.3

A summary variable, “total negative experiences due to child care arrangements,” was created by summing the total number of substantive responses. Once again, significant improvements ($p < .005$) were reported in these areas following enrollment of children in the 4-H school-age child care program (see table 4.4).

Table 4.1

Child care effects on parents’ quality of work before and after participation in 4-H school-age child care program

Question: *Has your requirement for child care affected your quality of work in the following ways? (check all that apply)*

Response	Precount	Postcount
Reduced ability to concentrate	5 (10.4%)	0 (0%)
Reduced volume of work produced	4 (8.3%)	1 (2.1%)
Increased interruptions	2 (4.1%)	2 (4.1%)
Increased errors	0 (0%)	0 (0%)
Other	6 (12.5%)	3 (6.3%)
Not applicable, not employed (post only)	2 (4.1%)	4 (8.3%)
None of the above	31 (64.6%)	35 (72.9%)
Total n (matched pairs)	48	48

NOTE: The responses in each column do not sum to 48 (the number of respondents) because respondents were asked to check “all that apply.”

Table 4.2**Summary of child care effects on parents' quality of work before and after participation in 4-H school-age child care program**

Question: *Has your requirement for child care affected your quality of work in the following ways? Reduced ability to work; reduced volume of work produced; increased interruptions; increased errors.*

	n	Pretest mean	Posttest mean	Pretest to Posttest Change	<u>t-test</u>	
					t-value	sig
Summary of adverse responses	48	0.27	0.06	-0.21	-2.11	.04+
Response: none of the above	48	0.65	0.73	0.08	0.85	NS

NS not significant

+ Significant (p<.05)

Table 4.3**Child care effects on parents' work schedules before and after participation in the 4-H school-age child care program**

Question: *Check any of the following that you have experienced due to child care arrangements: late to work; left work early; quit a job; absent one day; turned down a raise or promotion; turned down overtime shift work; other; not applicable, not employed; none of the above*

Response	Pretest count	Posttest count
Late to work	4 (8.3%)	0 (0%)
Left work early	12 (25.0%)	9 (18.8%)
Quit a job	3 (6.3%)	0 (0%)
Absent one day	6 (12.5%)	2 (4.1%)
Turned down a raise or promotion	0 (0%)	0 (0%)
Turned down overtime shift work	2 (4.1%)	1 (2.1%)
Other	5 (10.4%)	2 (4.1%)
Not applicable, not employed	3 (6.3%)	4 (8.3%)
None of the above	21 (43.8%)	29 (60.4%)
Total n	48	48

Note: The responses in each column do not sum to 48 (the number of respondents) because respondents were asked to check "all that apply."

Table 4.4**Summary of child care effects on parents' work schedules before and after participation in 4-H school-age child care program**

Question: *Check any of the following that you have experienced due to child care arrangements: late for work; left work early; quit a job; absent 1 day; turned down overtime shift work; none of the above.*

	n	Pretest mean	Posttest mean	Pretest to Posttest Change	<u>t-test</u>	
					t-value	sig
Summary of adverse responses	48	0.60	0.25	-0.35	-2.93	.005*
Response: none of the above	48	0.44	0.60	0.17	2.07	.04+

+ p<.05

* p<.01

Parental Stress

On both questionnaires parents were asked to what extent the following areas of life had been a source of stress to them: child care, health of self, health of other family members, relationship with children, relationship with spouse, and family finances. As table 4.5 indicates, parents reported significant improvement (ranging between $p < .001$ and $p < .08$) in all areas except family finances after enrolling their children in the school-age child care program.

Table 4.5

Source of stress to parents before and after entering 4-H school-age child care program

Question: *To what extent have any of the following areas of life been a source of stress to you? Childcare; health of other family members' relationships with children; your health; family finances; relationship with spouse.*

1=no stress at all; 2=hardly any stress; 3=some stress; 4=a lot of stress.

	n	Pretest mean	Posttest mean	Pretest to Posttest Change	t-test	
					t-value	sig
Child care	44	2.80	2.14	-0.65	-4.54	<.001d
Health of other family members	42	2.24	1.70	-0.55	-3.41	<.01c
Relationships with children	41	2.24	1.98	-0.27	-2.43	.02b
Your health	42	2.12	1.50	-0.62	-3.88	<.001d
Family Finances	43	2.37	2.09	-0.28	-1.55	NS
Relationship with spouse	36	2.14	1.83	-0.31	-1.82	.08a

NS not significant

a marginally significant ($p < .10$)

b significant ($p < .05$)

c Significant ($p < .01$)

d significant ($p < .001$)

Quality of Program

Both questionnaires asked parents to rate the quality of the health and safety conditions, educational activities, recreation activities, convenience of location, hours of operation and cost of the child care program. Counts for the pretest and posttest, with t-test results, are presented in Tables 4.6 and 4.7. The 4-H school-age child care program was rated superior to parents' prior child care arrangements in the areas of educational activities ($p < .06$) and cost of the program ($p < .03$). No significance was found for the other variables.

Table 4.6

Quality of educational activities before and after entering the 4-H school-age child care program

Question: *Please rate the educational activities of your child care arrangement.*

1=Poor; 2=Fair; 3=Good; 4=Excellent

N	Pretest mean	Posttest mean	Pretest to posttest change	t-test	
				t-value	sig
39	2.74	3.13	0.38	1.92	.06*

*marginally significant ($p < .10$)

Table 4.7
Cost of child care before and after entering 4-H school-age child care program

Question: *How would you rate the cost of your child care program?*

1=Very expensive; 2=A little expensive, 3=Affordable; 4=Very affordable

N	Pretest mean	Posttest mean	Pretest to posttest change	<u>t-test</u>	
				t-value	sig
36	2.64	3.08	0.44	2.30	.03*

*significant (p<.05)

Discussion

The findings are limited by the small number of participating parents (n=48) whose children attended the seven 4-H school-age child care programs included in this study. The rural and small town locations of the school-age programs may also limit the generalizability of these findings to more suburban or urban settings. Furthermore, the response rate for the survey was low, and we cannot know what the potential effects of self-selection may have been on the results. Therefore, although the participants in the study were demographically representative of the areas in which they lived, caution should be taken when applying these results to other groups of parents.

Several significant findings emerged from the results of the study. Improved job performance and reduced stress were found in parents after enrolling their school-age child in one of the age-appropriate, community-based 4-H school-age child care programs. Additionally, educational activities and affordability were rated significantly higher in the 4-H programs when compared to prior child care arrangements.

Job performance was measured using two different approaches. In the first, we used a summary variable to measure the total negative effect that child care arrangements had on the parents' quality of work. Improvement was found in the areas of ability to concentrate, volume of work produced, interruptions, and errors. This is reasonable in that Hobbs and Change (1996) found that parents with children in self care or a patchwork of care have reported that they worry about their children during the hours that their children are out of school and are interrupted by their children with phone calls. Therefore, it is quite plausible that when children are in a well-supervised environment, parents would experience less interruptions and, in turn, would improve their work concentration, productivity and accuracy.

In the second approach we again used a summary variable to measure the negative job-related experiences associated with parents' child care arrangements. Six months after enrolling their children in the 4-H programs, parents had fewer negative experiences of being late for work, leaving work early, quitting a job, being absent for one day, turning down a raise or promotion, or turning down overtime or shift work. These improvements are not surprising in that other studies have reported that parents with children in inadequate care are plagued by these negative job-related experiences (Chapman 1987; Galinsky and Hughes 1987; Magid 1983). Knowing that children will be cared for in a licensed, qualified program with regular schedules allows parents to focus on their job demands during those hours that their children are in care.

Stress is a common complaint of working parents who must continually juggle family and work. We were interested in the impact that consistent, qualified care could have on parents' stress. We expected to find reductions in the area of stress and child care. However, we were surprised to find that parents also reported reduced stress in the areas of health of self, health of other family members, relationship with children, and relationship with spouse. In fact, the only area not showing a reduction was family finances. We do caution, however, that the casual nature of these relationships is not known. Furthermore, these were self-reported responses and no stress measures were administered. Further studies using validated measures could more accurately assess changes in parental stress.

The quality of the educational activities in the 4-H school-age child care programs under study was rated superior to parents' prior child care arrangements. Since these programs were specifically designed with an educational focus to meet the needs of school-age children in their after school hours, we expected parents

to rate the programs more highly than their previous arrangements. Prior studies have, in fact, found that educational and academic development of the child was one of the key considerations used by parents when selecting care for their school-age child (Bradbard, Endsley, and Readdick 1994), and educational content was rated more important by parents who had children enrolled in center than parents who had children in sitter or self care (Powell and Widdows 1987). A high proportion of the children in this study (61 percent) were enrolled in centers or family day care prior to enrolling in the 4-H programs.

Program cost was also rated significantly lower in the posttest than in the pretest administered six months earlier. Since we did not ask parents to indicate the cost of their prior child care arrangements, we cannot verify this finding numerically. We do know that the school-age programs under study had after-school fees ranging from \$4.00 to \$6.00 per afternoon, depending on the number of hours of care received. These fees were comparable to the regional market rates at the time of the study. However, for parents who previously had used a family day care or other types of centers, the 4-H program fees may have provided a reduction because family day care and center providers often require parents to pay the full daily fee even if the child only attends after school.

These results suggest several areas for further study. First, additional diagnostic tests on parental stress and job performance could be included to provide more detailed findings. Replication of the study would also be useful to determine whether other school-age child care programs, under the circumstances, are associated with the same improvements in parents' job productivity and reported stress levels. Finally, other quality indicators could be added to the survey instrument and additional quality assessments could be conducted on the programs.

Certainly the findings in the study are encouraging to both employers and parents. The relation between family issues and work performance and satisfaction cannot be ignored. These findings indicate that children, parents, and employers all benefit from quality school-age child care. Even when employers cannot offer direct child care benefits for their employees, they can support other family-friendly policies, programs, and practices to assist their employees in securing safe, satisfying, and high quality care for their children.

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References

- Albrecht, K. 1991. *Quality criteria for school-age child care programs*. Alexandria, VA: Project Home Safe, American Home Economic Association and Benton Harbor, MI: Whirlpool Foundation.
- Atkinson, A. M. 1994. Rural and urban families' use of child care. *Family Relations* (43):16-22.
- Berman, B. D., M. Wiknelby, E. Chesterman, and W. T. Boyce. 1992. After-school child care and self-esteem in school-age children. *Pediatrics* 89(4):654-659
- Bradbard, M. R., and R. C. Endsley. 1986. Sources of variance in young working mothers satisfaction with child care: A transactional model and new research direction. *Advances in Early Education and Day Care* 4:181-207.
- Bradbard, M. R., R. C. Endsley, and C. A. Readdick. 1994. Parents' selection of proprietary day care centers for their school-age children: A study of three Southeastern university communities. *Child and Youth Care Forum* 23(1):55-72.
- California Department of Education. 1988. *Here they come, ready or not!* Sacramento: California Department of Education, School Readiness Task Force.
- California Senate Office of Research. 1983. *Who is watching the children? The latchkey child phenomenon*. Sacramento: California Legislature.
- Chapman, F. S. 1987. Executive guilt: Who's taking care of the children? *Fortune* (February 16):30-37.
- Children Now. 1993. *The children now county data book 1993*. Oakland, CA: Children Now.
- Chilman, C. S. 1993. Parental employment and child care trends: Some critical issues and suggested policies. *Social Work* 38(4):451-461.

- Cole, C., and H. Rodman. 1987. When school children care for themselves: Issues for family life educators and parents. *Journal of Marriage and the Family* 51:65-77.
- Coolsen, P., M. Seligson, and J. Garbarino. 1985. *When school is out and nobody is home*. Chicago: National Committee for Prevention of Child Abuse.
- Diamond, J. M., S. Kataria, and S. Messer. 1989. Latchkey children: A pilot study investigating behavior and academic achievement. *Child and Youth Quarterly* 18(2):131-140.
- Endsley, R. C., and M. R. Bradbard. 1987. Dissatisfaction with previous child care among current users of proprietary center care. *Child and Youth Care Quarterly* 6(4):249-262.
- Galinsky, E., and D. Hughes. 1987. *The Fortune Magazine child care study*. New York: Bank Street College.
- Goodman, W. 1995. Boom in day care industry the result of many social changes. *Monthly Labor Review* (August):3-12.
- Harrell, J. E., and C. A. Ridley. 1975. Substitute child care, maternal employment, and the quality of mother-child interactions. *Journal of Marriage and the Family* 37:556-564.
- Hayes, C. D., J. L. Palmer, and M. J. Zaslow, eds. 1990. *Who cares for America's children?* Washington, D.C.: National Academy Press.
- Hobbs, B. B., and I. J. Change. 1996. Identifying and meeting the school-age child care needs of rural families. *Journal of Family and Consumer Sciences* (winter):14-16, 24.
- Hofferth, S. L., and D. A. Phillips. 1987. Child care in the United States, 1970 to 1995. *Journal of Marriage and the Family* 49:559-571.
- Howes, C. 1990. Can the age of entry into child care and the quality of child care predict adjustment in kindergarten? *Developmental Psychology* 26(2):292-304.
- Howes, C., D. A. Phillips, and M. Whitebook. 1992. Thresholds of quality: Implications for the social development of children in center-based child care. *Child Development* 63(2):449-461
- Junge, S., D. Riley, J. Steinbeg, C. Todd, and I. McClain. 1994. 4-H and Cooperative Extension venture into child care. *California Agriculture* 48(7):27-30.
- Karns, J. T., and G. L. Stevens. 1995. Parental employment and rural school-age child care needs. *Child and Youth Care Forum* 22(5):315-325.
- Magid, R. Y. 1983. *Child care initiatives for working parents: Why employers get involved*. New York: American Management Association.
- Media Report to Women: Unresolved child care issues threaten the work force. 1994. *Media Report to Women* 22(4):3-6.
- National Association of Elementary School Principals. 1993. *Quality school-age child care*. Alexandria, VA: National Association of Elementary School Principals.
- Phillips, D., ed. 1987. *Quality in child care: What does research tell us?* Washington, D. C.: National Association for the Education of Young Children.
- Policy Analysis for California Education. 1989. *Conditions of children in California*. University of California, Berkeley: PACE.
- Posner, J., and D. Vandell. 1991. *An ecological analysis of the effects of after-school care*. Madison, WI: University of Wisconsin-Madison.
- Powell, D. R., and R. Widdows. 1987. Social and economic factors associated with parents' decisions about after-school child care: An exploratory study in a medium-sized community. *Child and Youth Care Quarterly* 16(4):272-282.
- Richardson, J. L., K. Dwyer, K. McGuigan, W. Hansen, C. Dent, B. Brannon, and B. Flay. 1989. Substance use among eighth-grade students who take care of themselves after school. *Pediatrics* 84:556-566.
- Rodman, H., D. J. Pratto, and R. S. Nelson. 1985. Child care arrangements and children's functioning: A comparison of self care and adult care children. *Developmental Psychology* 21:413-418.
- Roopnarine, J. L., and L. M. Hempel. 1988. Day care and family dynamics. *Early Childhood Research Quarterly* 3:427-438.
- Rosenthal, R., and D. L. Vandell. 1996. Quality of care at school-age child care programs: Regulatable features, observed experiences, child perspectives, and parent perspectives. *Child Development* 67:434-445.
- Seyler, D. L., P. A. Monroe, and J. C. Garand. 1995. Balancing work and family. *Journal of Family Issues* 16(2):170-93.
- Shinn, M., E. Galinsky, and L. Gulcur. 1990. *The role of child care in the lives of parents*. New York:

- Families and Work Institute.
- Spitzer, G. 1988. Women's employment and family relations. *Journal of Marriage and the Family* 50:595-611.
- Steinberg, L. 1986. Latchkey children and susceptibility to peer pressure: An ecological analysis. *Developmental Psychology* 22:433-439.
- Todd, C., K. M. Albrecht, and M. Coleman. 1990. School-age child care. A continuum of options. *Journal of Home Economics* 82:46-52.
- Vandell, D. L., and M. A. Corasaniti. 1988. The relation between third graders' after-school and social, academic, and emotional functioning. *Child Development* 59:868-875.
- Willer, B., S. L. Hofferth, E. E. Kisker, P. Diwkins, E. Farquhar, and F. B. Glantz. 1991. *The demand and supply of child care in 1990*. Washington, D. C.: National Association for the Education of Young Children.
- Zedeck, S., and K. Mosier. 1990. Work in the family and employing organization. *American Psychologist* 45:240-251.