This appendix briefly summarizes each of the publications included in the meta-analysis.

**TIER I PUBLICATIONS**

Pierce, Hamm, and Vandell (1999) studied the adjustment of 150 first-graders in 37 after-school programs by observing the children in the day care setting and in the classroom. Two practices were positively and statistically significantly related to children’s adjustment in school: staff interactions and program flexibility. For boys, staff positivity (as expressed toward the children) was associated with boys' manifesting fewer internalizing and externalizing behaviors, and staff negativity was associated with boys’ receiving poorer grades. Program flexibility was associated with boys' displaying better social skills. Availability of activities was based on observers’ counting and assessing of the age appropriateness of activities offered. A low rating indicated few activities, limited in their developmental focus; a high rating reflected a wide choice of age-appropriate activities that focused on several developmental areas, including physical, social, and cognitive. Child adjustment outcomes were emotional and behavioral problems, academic grades, work habits, and social skills with peers. Child emotional and behavioral problems were assessed by the classroom teacher as “no problems,” “internalization problems,” and “externalization problems.”

Rosenthal and Vandell (1996) investigated the relationship between program features and program quality. Larger staff-to-child ratios, lower staff education, and fewer program activities were each asso-
associated with a higher number of observed negative staff-child interactions. Children reported a poorer emotional climate in programs with larger total enrollment and those with a higher number of observed negative staff-child interactions; similarly, parents felt more positively toward programs with lower staff-to-child ratios and when their children reported a stronger emotional climate. All regulatable features (enrollment, number of staff and staff education, time on average that specific activities were offered) were reported by the program directors.\(^1\) Program quality was assessed by participant and parent reports about the program and through interviewer-observed staff-child interactions about the program. Children’s perceptions of the psychosocial climate of the after-school programs (including relationships with staff and other children in the center and perceptions about center’s activities) were measured using the After-School Environmental Scale (ASES). The ASES is an instrument administered to children. Staff-child interactions were recorded using an adaptation of Vandell and Posner’s (1995) observation system. The authors focus on the quality of after-school programs that serve school-age children between the third and fifth grades. A total of 180 children (94 in the third grade, 55 in the fourth grade, and 21 in the fifth grade) from 30 different programs gave their perceptions of their after-school programs.

TIER 2 PUBLICATIONS

Albrecht (1991), with the assistance of experts in the field, constructed a list of indicators of high quality for key program components. The criteria established by NAEYC for early-childhood programs were used as a starting point for these indicators of quality of school-age programs. These criteria were then amended and expanded by individuals and organizations with expertise in school-age care through discussions, workshops, panels, and feedback.

The California School-Age Care Study (California Department of Education, 1996), consisted of three components: (1) a statewide survey of over 1,000 programs; (2) in-depth interviews with 14 school-age care providers from five geographic locations throughout

\(^1\)Observers also reported on staff-to-child ratios.
California, chosen to reflect diversity in ethnicity and socioeconomic status; and (3) discussions and analyses by members of the School-Age Care Advisory Committee. Respondents were asked for their input on what aspects of care are important to ensuring quality care.

The California Department of Education Child Development Division (1994), working in cooperation with the School-Age Care Working Group, developed a program guide for school-age care programs. A number of child care specialists representing a wide variety of programs contributed to the development of the guide. The document is intended for programs serving children from five to fourteen years of age. The guide outlines standards to be set and specifies what an exemplary school-age care program would look like.

The National Institute on Out-of-School Time (2000) prepared a guide on making the most impact on out-of-school time. They adapted quality indicators from the official National School-Age Care Alliance standards.

The National Research Council and Institute of Medicine published After-School Programs to Promote Child and Adolescent Development: Summary of a Workshop (2000), which brought together researchers, policymakers, and practitioners to discuss the current state of knowledge related to after-school care for children aged five to fourteen.

Newman et al. (2000) prepared a report for Fight Crime: Invest in Kids that reviews the after-school care literature and provides recommendations on how after-school care programs can achieve positive results in reducing juvenile crime. Fight Crime: Invest in Kids is a nonprofit national anticrime organization led by law enforcement personnel.

In Working for Children and Families: Safe and Smart After-School Programs (2000), the U.S. Departments of Education and Justice describe evidence showing that after-school care programs produce beneficial results and identify key components of after-school care programs that their experts believe are associated with quality care. The report also describes exemplary after-school care models throughout the nation.
Walter, Caplan, and McElvain (2000) interviewed after-school program practitioners about their perceptions of practices associated with high-quality after-school programs. These interviews were used to help develop a toolkit for “creating effective after-school programs” with a focus on management, collaboration, programming, evaluation, and communication issues.

The National Association of Elementary School Principals (1999), with the assistance of an advisory committee of principals, child care professionals, researchers, and organizations, prepared a set of standards for quality after-school age child care.

Fashola (1998) reviewed 34 evaluations of after-school programs and their relationship with child outcomes. The quality of the methodologies employed for the evaluations ranged from a randomized controlled experiment to self-evaluations. Fashola supplements the conclusions he draws from the review of the evaluation studies with a literature review. A major contribution was the identification of promising practices for after-school care.

The National School-Age Care Alliance (1998) Standards Committee developed the current version Standards for Quality School-Age Care on the basis of research and field testing in 75 programs in 13 states for accreditation purposes. All of the field-tested programs received training in the use of the Assessment of School-Age Child Care Quality (ASQ) self-study materials and the process of accreditation. This document includes recommendations based on pilot site experiences in addition to extensive reviews from the National School-Age Care Alliance Accreditation Advisory Board, National School-Age Care Alliance staff, and school-age care professionals around the country. The National School-Age Care Alliance standards for quality school-age care are divided into five categories: human relationships; indoor environment; outdoor environment; activities, safety, health, and nutrition; and administration. This is the major national accrediting body for school-age care.

The Carnegie Council on Adolescent Development working paper entitled Consultation on After-School Development (1994) was based on a 1994 workshop of the same name. The objective of the workshop was to explore the key issues in developing effective after-
school programs and to identify federal strategies to promote high-quality programs nationwide.

Zigler and Lang (1991), in collaboration with several youth development organizations and individual experts, provide recommendations for quality child care, including after-school care.

Miller and Marx (1990) review the literature and compile a set of characteristics of school-age child care programs with a focus on identifying practices that address children’s developmental needs.

**TIER 3 PUBLICATIONS**

In the *National Study of Before- and After-School Programs* (1993), RMC Corporation conducted 12 site visits to programs in three communities. The 12 programs vary in location, administration auspice, relatedness to public schools, quality features, and service to economically disadvantaged children. The quality of the programs was assessed using an adapted version of the ASQ observation tool, developed by the School-Age Child Care Project at Wellesley College. In an effort to more thoroughly understand the factors that influence quality ratings, the study examines connections between the telephone survey data, site visitors’ observations, and interviews in search of factors correlating with program achievement on the ASQ. They compare ratings on human relationships, space, time allocation, and activities for the seven programs with the highest ASQ score with the five lowest-scoring programs. A nationally representative sample of 1,304 programs were interviewed by telephone. ASQ components were safety and health/nutrition, staff-child interactions, ratio and total enrollments, child-child interactions and staff-staff interactions (emotional climate), staff-parent interactions (involvement of families), space (indoor and outdoor), materials/supplies/equipment, flexibility of scheduling, variety of activities, and age-appropriate programming. This study is classified as Tier 3 (instead of Tier 1) because the ASQ scores were based on the practices rather than independently assessed. In other words, program practices are used to measure quality—they are not separate constructs.

Halpern, Spielberger, and Robb (2000) evaluated the MOST (Making the Most of Out-of-School Time) initiative. One component of the
evaluation was the description and assessment of the “effectiveness of the MOST strategies to strengthen the quality of school-age care programs.” Center quality for ten of the programs that were closely examined was based on observations. The authors draw the following conclusions: (1) the quality and number of materials boosted the morale of staff and children; (2) staff training led to improved management of selection of activities, room arrangement, schedule, and the like; (3) self-assessment compelled programs to set priorities and engage in self-reflection but was too time-consuming and disruptive for smaller, struggling programs; and (4) linking programs to external resources (e.g., organizations that offer volunteers or specialists or resource organizations) provided additional adjust into the program to teach and tutor the children, exposed children to new experiences, reduced the isolation that some programs felt, and sometimes provided staff additional training. These conclusions were based on the anecdotal reports of staff.

Huang et al. (2000) conducted a longitudinal study that evaluates the impact of participating in LA’s BEST after-school care. The program now consists of 69 sites. Sites are selected on the basis of community need (assessed by local school performance, economic status of the community, and crime rates or gang activity). The program has been in existence for 12 years and caters free of charge to K–5 students. The UCLA Center for the Study of Evaluation studied the impact of participating in LA’s BEST over four years compared with not participating. As part of the study, students and staff were interviewed about what components of the program worked and which could be improved. Staff and students mentioned that the availability of a variety of activities and the care and concern shown by staff were beneficial for the students.

Kahne et al. (1999) sampled 69 sixth- through tenth-grade students in three schools in Chicago participating in one of four after-school programs. Information was collected from surveys and observation. The paper recommends practices from an in-depth examination of the centers that provided the highest level of support for youth development. On the basis of the qualitative data, the authors identify coordination with the regular day school program as an important component of an effective program.
Finn-Stevenson, Desimone, and Chung (1998) evaluated the implementation of two pilot Schools of the 21st Century (21C). They compared the academic performance of children in the pilot after-school care programs with that of children not in the pilot programs. A second component of their evaluation (which we used) assessed the implementation of the after-school pilot programs via surveys administered to principals, teachers, and staff. From this evaluation, they derived ad hoc recommendations regarding the most effective practices. Principals and staff believed that (1) mixing age groups in the programs led to improved relationships among students of different ages and aided the children’s personal growth and social development; (2) efforts to improve communication with regular day school teachers and to increase teacher involvement improved relations between staff and teachers; and (3) proper evaluation and feedback and the responsiveness of staff to this feedback are essential to improvement in quality of care.

Belle (1997) followed 53 families over time to understand changes in after-school care arrangements, a subset of which placed their children in after-school care programs. In other words, the empirical portion of this study examined changes in arrangements; it did not examine the associations between outcomes and specific characteristics of after-school programs. The paper included an in-depth case study of the experience of a single child in an after-school care program. Factors with which the parent and child reported concern were turnover rate and range of activities.

Halpern (1991) conducted an evaluation of the nine Urban Youth Network after-school programs in Chicago. He interviewed all site and center directors and 22 staff. He also conducted one-on-one interviews with 70 children and administered a survey to 650 children. Administrative data on activities and participation were examined. Although the study had no comparison group, it attempted to form nonempirical impressions about the programs’ impact on children. The factors that were thought to influence quality included safety and health, offering a variety of activities, and the use of volunteers.

The School-Age Child Care Project (Baden et al., 1982), in collaboration with several youth development organizations and experts, compiled recommendations based on the experience of programs in
30 states, field research in 25 program sites, and original research on school-age child care. These recommendations were derived from the actual experience of the participants combined with original research (which did not meet the criteria for Tier 1 study). The one recommendation made in the report that relates to our practices is to reduce the “role ambiguity” of school-based after-school care staff by formally recognizing staff as part of the school community, including them in meetings, and encouraging coordination with teachers.

TIER 4 PUBLICATIONS

Alexander (1986) discusses the issues surrounding self-care of children during the after-school hours. She provides potential solutions to the latchkey problem, one of which includes after-school care centers. Finally, she discusses some characteristics that contribute to a center’s success. These recommendations are not based on a systematic review of the literature; nor are they based on original empirical research.