Building a Stronger Child Care Workforce:

A Review of Studies of the Effectiveness of Public Compensation Initiatives

Professional Development

Higher Salaries

Public Funding

Scholarships

Institute for Women's Policy Research

Building a Stronger Child Care Workforce:

A Review of Studies of the Effectiveness of Public Compensation Initiatives

is the result of an Institute for Women's Policy Research (IWPR) study on compensation initiatives targeted to early childhood professionals. IWPR's study reviewed evaluations of seven programs designed to improve the compensation of the child care workforce. The goal of this project is to make policymakers and the public aware of the progress of current initiatives that link professional development to increases in compensation for early childhood educators.

About the
Institute for Women's Policy Research

The Institute for Women's Policy Research (IWPR) is a scientific research organization dedicated to informing and stimulating debate on public policy issues of critical importance to women and their families.

IWPR focuses on issues of poverty and welfare, employment and earnings, work and family issues, the economic and social aspects of health care and safety, and women's civic and political participation.

The Institute works with policymakers, scholars, and public interest groups to design, execute, and disseminate research and to build a network of individuals and organizations that conduct and use women-oriented policy research. IWPR, an independent, nonprofit organization, also works in affiliation with the graduate programs in public policy and women's studies at The George Washington University.

IWPR's work is supported by foundation grants, government grants and contracts, donations from individuals, and contributions from organizations and corporations. IWPR is a 501(c)(3) tax-exempt organization.

Building a Stronger Child Care Workforce:

A Review of Studies of the Effectiveness of Public Compensation Initiatives

Jennifer Park-Jadotte, Ph.D.

Stacie Carolyn Golin, Ph.D.

Barbara Gault, Ph.D.

Institute for Women's Policy Research

Acknowledgments

Table of Contents

Executive Summary

Child care providers are among the lowest paid workers in the United States. Inadequate compensation has led many qualified practitioners to leave the field for higher paying jobs, decreasing the quality of available care. At the same time, families continue to deal with the persistent problem of finding affordable high-quality child care at a time of growing need. Increasing awareness of this problem has prompted policymakers, advocates, and practitioners to help qualified staff earn higher wages and remain in their field. In this report, we review preliminary findings on the implementation and early effects of publicly supported compensation initiatives on the child care[1] workforce.

Researchers have found a critical link between the quality of children's early care and education and their development and educational growth. Mounting evidence strongly suggests that the quality of child care is tied to the wages, education, and retention of teachers. In 2000, the mean wage was $7.86 per hour for all child care workers, with preschool teachers earning $9.66. Low compensation contributes greatly to high staff turnover. As of 2000, 20 states had addressed early care and education compensation in a variety of ways.

To gauge the effects of one type of compensation program—rewarding further education and training—the Institute for Women's Policy Research reviewed evaluations of federal, state, and local efforts using this approach. We examined efforts to monitor the programs and looked at whether such programs reached their target populations (child care workers) as intended. We reviewed documented effects on the following indicators: staff turnover, income, and education. We also reported on worker morale and feelings of professionalism when such information was available. We focused on two general types of monitoring—process or implementation evaluations (which track how a program is implemented and funded and describe early stages of program development) and outcome evaluations (which examine whether a program's intended effects are realized). We assessed the effects of the compensation programs as well as the robustness of the evaluations that tracked their progress.

We examined seven programs across the United States. All had been monitored in some way, ranging from large third-party evaluations to internal information tracking. The programs were:

- Alameda Child Development Corps (California CARES[2]);

- Child Development Program, Caregiver Pay Program
  (U.S. Department of Defense);

- Georgia Early Learning Initiative (GELI);

- T.E.A.C.H.[3] Early Childhood® Project (North Carolina);

- Child Care WAGE$® (North Carolina);

[1] The term "child care" is used interchangeably with other terms such as "early care and education." Both terms refer to non-parental care arrangements for children.

[2] The acronym "CARES" stands for "Compensation and Recognition Enhances Stability."

[3] The acronym "T.E.A.C.H." stands for "Teacher Education and Compensation Helps."

◗ Washington Early Childhood Education Career Development Ladder; and

◗ Wisconsin Child Care Mentor Project.

The programs varied in their approaches to compensation and education, with some providing wage supplements and others providing stipends, scholarships, or bonuses. Some programs were funded through larger interventions to increase child care quality, reflecting an understanding that compensation is an important contributor to quality, but not the only one.

We found that many of the evaluations selected for this study reported increased income and education and decreased turnover in the short term. Some of the studies also reported increased feelings of professionalism and higher staff morale. Others concluded that the programs also had indirect effects. For example, compensation initiatives may have driven up demand for courses in early childhood education at universities and colleges. In some cases, evaluators found that compensation initiatives were associated with increases in the quality of the applicant pool.

Yet, researchers also documented challenges. Some studies concluded that programs will need to re-evaluate their funding structures to ensure continuing services. Others will need to revise their outreach strategies to ensure that they reach as many child care programs, groups, or communities as possible. Still others will need to rethink how they reward participants to ensure that all teachers in a program receive adequate benefits for participation.

While many of these results are promising, they must be viewed as preliminary and interpreted with care. It is clear that program administrators are making a concerted effort to track the progress of these programs, and both evaluators and administrators demonstrated a commitment to monitoring successes and challenges as accurately as possible. We found, however, that evaluators often monitored these programs under less than ideal circumstances. To gain greater certainty about the effects of these programs, a firmer and more sustained commitment to monitoring is needed. Resources must be dedicated to funding long-term evaluations that begin with the advent and initial implementation of a program and extend to a program's full maturity and beyond.

We found that compensation initiatives can, indeed, improve child care workforce education and retention. While the evaluation findings reviewed are preliminary, the evidence suggests that that these strategies do serve to increase worker incomes and education levels. We recommend that effective compensation programs continue, and that more states and communities avail themselves of opportunities to adopt these strategies. We recommend that programs pursue one or more of the following strategies: increasing starting salaries, establishing minimum education and training requirements for workers, linking professional development activities to bonuses or pay increases, providing access to credits toward a college degree, and sustaining programs through multiple funding streams or other means in order to attain and measure long-term benefits. The report concludes with an Appendix providing detailed recommendations on effective ways to evaluate child care compensation and education programs of varying sizes and scopes.

Overview: Child Care Worker Compensation
Initiatives and Study Design

Introduction

In this report, we review preliminary findings on the implementation and early effects of publicly supported compensation initiatives on the child care[1] workforce. We examined efforts to monitor early program developments and funding, and we looked at whether programs have been able to reach their target populations (child care workers) as intended. We also reviewed documented effects on the following indicators: staff turnover, income, and education. When available, we also report information on worker morale and feelings of professionalism.

Because assessments of these programs were vital to our effort to judge the effectiveness of compensation initiatives, we paid a great deal of attention to program evaluations. We focused on two general types of monitoring—process or implementation evaluations (which track how a program is implemented and funded as well as early stages of program development) and outcome evaluations (which examine whether a program's intended effects are realized). We reviewed evaluative information from seven programs designed to increase staff retention by providing financial rewards to child care practitioners who increased their education and stayed with their employer. We assessed the potential influences of these programs as well as the robustness of the evaluations that tracked their progress.

Many of the evaluations selected for this study reported increased child care worker incomes and education and decreased turnover in the short term. Some of the studies also reported perceived feelings of professionalism and higher morale among staff. Others suggested that these programs have had indirect effects such as increased demand for courses in early childhood education at universities and colleges.

Yet, researchers also documented challenges. Some studies concluded that compensation initiatives will need to re-evaluate their funding structures to ensure continuing services. Some programs will need to revise their outreach strategies to involve more child care programs, groups, and communities. Others will need to rethink how they reward participating staff members to ensure that all teachers in a program receive adequate recompense for their efforts.

While many of these results are promising, they must be viewed as preliminary and interpreted with care. We found that evaluations of these programs often occurred under less than ideal circumstances. Although we do set forth assessments of these programs, a stronger and more sustained commitment to monitoring will be needed to arrive at more reliable judgments about their effectiveness.

More support for long-term studies would help researchers understand the characteristics of various initiatives that lead to an improved and more stable workforce and to

---

[1] The term "child care" is used interchangeably with "early care and education." Both terms refer to non-parental care arrangements for children.

discern what level of compensation improvement is effective. For example, what are the minimum compensation and educational improvements necessary to achieve a well-trained and stable workforce? What program characteristics lead to a better-qualified and more-stable workforce? We conclude this report with recommendations on how such an evaluation can be effectively executed.

As a result of new federal and state welfare policies, low-income mothers of young children have been moving into the job market in growing numbers. This trend has reinforced the continuing need for organized child care. A recent study by the Urban Institute found that 73 percent of all children under age five with an employed parent were in child care (Sonenstein, Gates, Schmidt, and Bolshum 2002). A 2002 study by the Federal Interagency Forum on Child and Family Statistics found that 56 percent of all children ages three through five were in a preschool or early childhood setting in 2001 (Federal Interagency Forum on Child and Family Statistics 2002). The need for non-parental care has been growing and is likely to continue to be in high demand in the United States.

In conjunction with this trend, researchers have examined the relationship between children's early experiences and their later development, and particularly the effects of early care and education. They have found a critical link between the quality of children's early care and education and their developmental and educational growth. Specifically, high-quality early care and education (defined by high ratings on a number of measures such as the Early Childhood Environment Rating Scale) has a sustained and positive effect on children's language and math skills, their relationship with their peers, and later academic success (Campbell, Ramey, Pungello, Sparling, and Miller-Johnson 2002; Cost, Quality and Outcomes Study Team 1999).

These findings have prompted a number of strategies to increase the quality of early care and education programs. In this report we examine the preliminary outcomes of one type of intervention: programs that provide financial incentives to increase child care staff education and retention.

The Connection Between a Better Compensated Workforce, Workforce Stability, and Quality of Care

Mounting evidence strongly suggests that the quality of child care is tied to the wages, education, and retention of teachers (Helburn 1995; Howes, Smith, and Galinsky 1995; Whitebook, Howes, and Phillips 1998; Phillips, Mekos, Scarr, McCartney, and Abbott-Shim 2001). In the landmark Cost, Quality, and Outcomes Study, researchers found that teaching staff wages were the second most important determinant of program quality, with the first being staff-to-child ratios (Mocan, Burchinal, Morris, and Helburn 1995). A National Research Council (2000) review found that "both formal education levels and recent, specialized training in child development have been found quite consistently to be associated with high-quality interactions and children's development (316)."[2] The ability of child care staff to build strong ties with children and use developmentally

[2] Authors drew this conclusion from the following citations: Dunn 1993; Fischer and Eheart 1991; Kontos, Howes, Shinn, and Galinsky 1995; Kontos, Hsu, and Dunn 1994; Lamb 1998; NICHD Early Child Care Research Network 1996, in press; Smith 1998; Whitebook, Howes, and Phillips 1990.

appropriate practices have translated into children's increased reading and math abilities and positive future relationships with elementary school teachers and peers (Cost, Quality, and Outcomes Study Team 1999). Conversely, high staff turnover has led to poorer early care and education experiences for children (Helburn 1995; Whitebook et al. 1998). Children's school readiness hinges on the education, training, and stability of the early care and education workforce. Most important, higher-quality care is critical for enhancing children's development. The following sequence illustrates the connection between higher staff wages and improved children's outcomes.

Higher wages➜ Better educated and trained teachers➜
Higher-quality programs➜ Enhanced child development

This model illustrates steps toward the ultimate goal of investing in higher wages for child care workers—enhanced development in children. The programs included in this report focus on the first two components of the model, higher wages and better-prepared teachers, which are necessary steps in improving the quality of services. Similarly, the evaluations examined in this review focus on the first steps in this process of improving quality: improving wages, education and training, and retention. Once it is clear that these immediate program goals are effectively met through compensation initiatives, future evaluations may explore initiatives' specific effects on improving quality of services, although such evaluations are usually quite costly to perform.[3]

Increased demand for high-quality child care suggests that well-trained and experienced practitioners could command high salaries for their work. This, however, is not the case. The early care and education workforce is one of the lowest paid in the United States. In 2000 the mean wage was $7.86 per hour for all child care workers, with preschool teachers earning $9.66 (Center for the Child Care Workforce 2002).[4] That same year, child care workers and preschool teachers earned lower hourly wages than bus drivers ($13.10), animal trainers ($12.62), and secretaries ($11.98). Child care workers earned hourly wages only slightly higher than parking lot attendants ($7.69).

Unlike publicly funded kindergarten through grade 12, about 60 percent of all child care revenue comes from tuition (Mitchell, Stoney, and Dichter 2001).[5] A recent analysis of child care expenses found that families paid on average 10 percent of their monthly incomes for child care (for children under five). This proportion jumped to 23 percent for families earning less than the federal poverty level (Giannarelli and Barsimantov 2000). Since most families cannot pay the full cost of child care, early care and educa-

---

[3] When it is appropriate to conduct such studies, we recommend using the Early Childhood Environment Rating Scale (ECERS) developed by Harms and Clifford; the Infant/Toddler Environment Rating Scale (ITERS) developed by Harms, Cryer, and Clifford; the Family Day Care Rating Scale (FDCRS) developed by Harms and Clifford; and the Arnett Scale of Caregiver Behavior to measure child care quality. The Peabody Picture Vocabulary Test by Dunn, Dunn, and Dunn and the Woodcock-Johnson Tests of Achievement can be used to measure child cognitive outcomes.

[4] The Current Population Survey, from which these data are taken, distinguishes between child care workers and preschool teachers, although, as the Center for the Child Care Workforce has pointed out, this distinction is by and large arbitrary (Center for the Child Care Workforce 2002).

[5] Approximately 39 percent of child care costs are funded by federal, state, and local governments. The data used to make these calculations were based on Louise Stoney and Mark Greenberg. 1996. The Financing of Child Care: Current and Emerging Trends. In *The Future of Children,* 6(2).

tion programs have kept delivery expenses low through depressed staff wages and other means (Culkin, Morris, and Helburn 1989).

Low compensation has greatly contributed to high staff turnover (Whitebook et al. 1998). A recent longitudinal study of three California communities found that 76 percent of child care teachers in 1996 and 82 percent in 1994 were not working in the same programs in 2000 (Whitebook, Sakai, Gerber, and Howes 2001). The study found that annual turnover was approximately 30 percent in 1999/2000, and that more than half of the centers that experienced turnover failed to fill all vacancies by the end of the year (Whitebook et al. 2001). Clearly, high turnover reduces the chances that children will receive high-quality child care and thus be ready for kindergarten. This problem is especially pronounced in centers that are unable to retain highly skilled staff.

Some researchers have investigated why child care worker wages are so low despite the number of families who need high-quality care. In a report prepared for the Foundation for Child Development, "Why are Early Education and Care Wages So Low? A Critical Guide to Common Explanations" (April 2001), Julie Nelson examines three traditional arguments to point out how labor market theories conflict with conditions in the child care field. Arguing against the theory that child care wages are low because child care jobs require no training and can be performed well by people with low skill levels, Nelson points out that children receive better-quality service when staff participate in professional development activities. This would not be true if early care and education practice required no specialized training. In contrast to the argument that, all things being equal, wages are higher when working conditions are undesirable, Nelson argues that child care wages and benefits do not reflect the long hours and unpleasant tasks associated with caring for very young children. Contrary to the theory that an over-supply of workers depresses wages, Nelson points out that its converse, child care staffing shortages, has not translated into higher compensation. One major factor contributing to the devaluation of child care work is that it is a female-dominated occupation (Hartmann and Pearce 1989). In a 1997 report, the Urban Institute reported that women comprised 99.6 percent of the child care workforce (Pindus, Dyer, Ratcliffe, Trutko, and Isbell 1997). An IWPR study found that "child care workers' salaries are exceedingly low, even when compared to other 'women's jobs'" (Hartmann and Pearce 1989, 27).

The problem of low compensation for child care workers can only be solved with government assistance. Most families struggle to pay for child care, and current revenues do not cover the cost of paying teachers' higher salaries. While government helps families buy large-ticket items like homes and college educations, families don't receive similar levels of assistance in meeting child care costs. Government contributes to the financing of child care through the provision of child care subsidies and child care tax credits that would allow some families to pay for high-quality programs, but these programs do not nearly cover families' needs. Tax credit programs, unless they are refundable, do not help lower-income families who pay a higher percentage of their income towards child care. Only a small portion of families who qualify for child care subsidies actually receive assistance (Mezey, Greenberg, and Schumacher 2002).

Strategies for Increasing Wages

To combat low compensation and high turnover, decision makers in government and the private sector have implemented a number of measures. As of 2000, 20 states had addressed the problem (Doherty 2002).[6] The majority of the initiatives were paid for at least partially with public funds, including money from the Child Care and Development Fund (CCDF) and the Temporary Assistance to Needy Families (TANF) block grant. Some programs have intervened directly by supplementing wages or employer-sponsored health insurance. For example, child care workers in Rhode Island have been able to join that state's employee health insurance program. But most methods of intervention have been indirect, linking bonuses and higher compensation to staff training or offering higher subsidy reimbursement rates to programs with a national accreditation in child care (Twombly, Montilla, and DeVita 2001). North Carolina's well-known T.E.A.C.H. Early Childhood® Project, for example, has awarded scholarships and bonuses to teachers who have obtained additional education and remain with their employer.

Innovations to increase staff compensation and training and decrease turnover have also been funded by private organizations, particularly the philanthropic community. Foundations have funded pilot or demonstration projects with the hope that these initiatives will then be adopted as public programs. For example, the Dekko Foundation in Indiana set up an endowment to help programs increase quality primarily through professional development (Mitchell et al. 2001). The William Penn Foundation in Pennsylvania funded Child Care Matters, which provides funds for teachers to participate in the state's T.E.A.C.H. Early Childhood® Project (a replication of North Carolina's program). Unions have also been active, organizing child care workers in Pennsylvania, Washington, Wisconsin, and Massachusetts with the intention of improving their wages and benefits.

The Purpose of the Study

While the number of programs addressing the problem is encouraging, there is still debate among legislators and advocates as to the most effective strategies for raising wages. As more states and communities consider adopting programs, information about the advantages and challenges of alternative methods, and the circumstances under which these programs are most effective, will help policymakers choose models that best meet their needs. There is still a dearth of systematic analyses of various programs' efficacy (Whitebook and Eichberg 2001). This report is meant to address this need.

To gauge the impact of one type of compensation program—rewarding further education and training—IWPR reviewed evaluations of federal, state, and local efforts to stabilize the workforce by providing financial incentives to those who obtain additional education and stay in their jobs. This analysis has two purposes: to describe and discuss program attributes, successes, and challenges; and to discuss various approaches used in evaluating the programs.

[6] This number was determined based the number of states reported to have a compensation program and/or a scholarship program tied to additional educational attainment.

To accomplish these objectives, we highlighted seven compensation models that have been evaluated or have evaluations in progress. We focused on two types of monitoring strategies: process or implementation evaluations (which document the early stages of program development, funding, and operation) and outcome evaluations (which consider program effects). We reviewed findings on the programs' implementation and progress. When possible, we also reported and commented on data on program effects. In addition, we presented evaluation methods and findings and discussed the strengths and limitations of each evaluation strategy. This discussion is designed to assist in future program evaluations.

Methodology

To conduct this research, we used three strategies: literature review, interviews, and document collection. First we selected programs and gathered written information about them. Then we analyzed program and evaluation documents and conducted in-depth interviews with program administrators and evaluators (when available) to determine which programs seemed to be successful and why.

Program Selection

We used two methods to develop selection criteria and determine which programs to study. First, we reviewed written reports and online resources that documented child care workforce initiatives.[7] This background work helped us develop selection criteria and educated us about the types of programs currently being implemented across the country. The following sources were used extensively and provided useful summaries of various programs.

▸ *State Early Care and Education Career Development Initiatives in 1998,* Center for Career Development in Early Care and Education, Wheelock College, 1998.

▸ *Comparison of Current Publicly Funded State Initiatives for Compensation and Retention,* Anne Mitchell, 2001.

▸ *Finding a Better Way: Defining and Assessing Public Policies to Improve Child Care Workforce Compensation, Appendix A: Major Initiatives with Institution as Direct Recipient, Appendix B: Major Initiatives with Individual as Direct Recipient,* Marcy Whitebook and Abby Eichberg, 2001.

▸ *State Initiatives to Increase Compensation for Child Care Workers,* Eric C. Twombly, Maria D. Montilla, and Carol J. DeVita, February 2001.

▸ *"Early Learning: Data on State Early-Childhood Policies and Programs Have Large Gaps,"* Kathryn Doherty. January 10, 2002.

Second, we interviewed 12 child care experts with backgrounds in policy, research, advocacy, program administration, education, and philanthropy. The participants were from California, Illinois, Massachusetts, New York, North Carolina, Pennsylvania, and

---

[7] We did not phone all child care administrators across the country to collect information on pay and evaluation. We wanted instead to focus on programs that were considered models in the field. We did contact some state administrators about programs in their states. Unfortunately, many of them knew little about evaluation efforts that could be useful for this study.

the District of Columbia. These telephone interviews were used to gather information on compensation approaches. In all, participants recommended 20 programs they thought promising.

Information from these interviews was also used to refine our program selection criteria. Based on this process, the following criteria were adopted. Programs selected for the study had:

❯ Some type of professional development component (i.e., to increase education or training levels) that was linked to bonuses or a salary supplement;

❯ An evaluation component, whether formal or informal;

❯ Data for at least 12 months, including first-year data, and a specified methodology that was used to collect the data;

❯ Reported results;

❯ Targeted practitioners working with children under five; and

❯ National recognition.

We sought programs that would contribute to our understanding of compensation initiatives in different ways (e.g., we did not include multiple programs using the same model). We also selected programs that varied in region and scope (federal, state, and local). We excluded programs that provided only health insurance or other non-salary benefits, because we saw no wide-scale effort to evaluate these programs.[8] This was also the reason we excluded attempts to raise wages through unionization and other private methods, although we hope that future efforts will be made to gauge the effectiveness of these approaches. We included scholarship models, which may provide wage supplements, as well as "compensation initiatives," which raised base salaries. We did not, however, include models that provided paid training without a salary increment or stipend. As of this writing, we did not find any efforts to evaluate compensation initiatives within Head Start. Because we believed that any monetary incentive is likely to affect turnover, we wanted to capture all compensation initiatives that increased salaries, whether "base" or "supplemental." We chose the following programs for this review (see Table 1).

❯ Alameda Child Development Corps (California CARES[9]);

❯ Child Development Program, Caregiver Pay Program (U.S. Department of Defense);

❯ Georgia Early Learning Initiative (GELI);

❯ T.E.A.C.H.[10] Early Childhood® Project (North Carolina);

❯ Child Care WAGE$® (North Carolina);

❯ Washington Early Childhood Education Career Development Ladder; and

❯ Wisconsin Child Care Mentor Project.

13

[8] One notable project in this category was Wages Plus in San Francisco, California (no evaluation to date).

[9] The acronym "CARES" stands for "Compensation and Recognition Enhances Stability."

[10] The acronym "T.E.A.C.H." stands for "Teacher Education and Compensation Helps."

Table 1: Summary of Program Features*

Program	First Year Offered	Compensation Strategy	Education/Training Requirement
Alameda Child Development Corps (California CARES)	2001	Stipends	Must have completed at least 12 credit hours in child development to qualify and must continue attaining education and training to stay in the program.
Child Development Program, Caregiver Pay Program (DoD)	1989	Wage ladder	Completion of competency-based training in 13 functional areas of child development; orientation training; 24 hours of training annually.
Georgia Early Learning Initiative	1999	Stipends (Incentive$), scholarships (T.E.A.C.H. Early Childhood® Project)	None, but wage supplement rates are based on education for Incentive$. Minimum of 9 semester hours per year (with some scholarships requiring less) for T.E.A.C.H. Early Childhood® Project.
T.E.A.C.H. Early Childhood® Project	1990	Scholarships with bonuses or pay increases at completion of goals	Minimum of 9 semester hours per year (with some scholarships requiring less).
Child Care WAGE$®	1994	Wage supplement	None, but wage supplement rates are based on education.
Washington Career Ladder	1999	Wage ladder	None, but wage ladder rates are partially based on education.
Wisconsin Child Care Mentor Project	1996	Scholarships provided to experienced and new practitioners; stipends for mentoring	Mentors must attend seminar series; protégés must complete 9 semester hours per year; joint mentor and protégé seminar series; onsite training for both mentors and protégés.

14

* See Chapters 2 and 3 for sources of program information.

Commitment Period	Main Participation Requirements	Program Target	Number of Participants
6-month intervals	Must have completed at least 12 credit hours in child development.	Individual	2,400 in FY 2000/2001
NA	Must complete training requirement in 24 months.	Individual	All DoD Caregivers
6-month intervals for Incentive$, 1 year after completion of education goals for T.E.A.C.H. Early Childhood® Project	Work 30 hours per week and earn $14.45 or less; Georgia residency; attend Georgia public college or university.	Individual and employer	936-Incentives; 96 T.E.A.C.H. Early Childhood® Project (with GELI funding attached)
1 year after completion of education goals	Earn less than $14.45/hour and work minimum of 20-30 hours per week, depending on type of scholarship.	Individual and employer	4,962 in 2001 (with an additional 3,038 receiving the bonus only)
6-month intervals	Earn less than $14.45/hour and work minimum of 10 hours per week.	Individual	8,725 in 2001
NA	Staff must work 20 hours per week; centers must adopt the career ladder and provide benefits.	Employer	NA
1 year beyond the contract period	Mentors must have completed a minimum of 60 college credits related to early childhood education in addition to two years experience.	Individual	94 mentors, 39 protégés in 2002

Those programs that were suggested during our telephone interviews but were not included in the study were omitted because they did not meet our criteria. They did not, for example, link professional development activities to bonuses, scholarships, or salary increases, or they did not conduct program evaluations with reported data. In a few cases, programs had incomplete evaluations that will be available for examination in the future (e.g., the Department of Labor's Child Care Apprenticeship Program, Illinois Great Start, and Kansas City Tri-County Smart Start).

The programs included child care workers from a number of settings including family child care settings and child care centers. Family child care staff were included in Alameda Child Development Corps, T.E.A.C.H. Early Childhood® Project, Child Care WAGE$®, the Georgia Early Learning Initiative, and the Wisconsin Child Care Mentor Project.

Data Collection

After selecting programs, we solicited information from program administrators and evaluators. When possible, we collected evaluation reports and other research materials. Information from administrators was used to develop a broader understanding of each program's goals, history, and funding. Information from evaluators was used to learn about research goals, methodology, and program effectiveness.

We then conducted in-depth interviews with administrators and evaluators to learn more about the program's history, development, and evaluation.[11] We attempted to interview one administrator and one evaluator from each program. Two of the programs received outside technical assistance during implementation. In these cases, we also interviewed a representative from the technical assistance provider. We conducted 13 interviews concerning the seven programs.[12]

Program Evaluation Analysis

We entered the information in an Excel spreadsheet and used it to determine unique and common attributes and components of programs. We focused on the following program characteristics:

- History and implementation;
- Goals;
- Funding sources; and
- Administration.

We then focused on the following evaluative information:

- Staff recruitment;
- Staff retention and turnover;
- Number of participants, currently and over time;

[11] The interviews were semi-structured and open-ended. Some of the questions were: What is the origin of your program (historical/political context)? Can you talk about the program inception? How was the program implemented? What program results do you expect? Do you expect that it will be sustained? What are the study evaluation main components? What is the general design of the study (i.e., experimental, observation, secondary analysis)? What are the specific methods that researchers are using to measure the program's effects? What type of effects are you concentrating on? Short term? Long term? Has the evaluation team planned to measure short-term effects, implementation, or utilization? How?

[12] One additional interview was conducted via e-mail. The total number of interviews was actually 23, including those concerning programs that did not meet our criteria.

◗ Increases in child care training; and

◗ Caregiver stipends/salaries and increases over time and by job category.

We also looked at the robustness of each evaluation approach. Does the evaluation measure progress toward overall program goals? For example, if the program was designed to increase wages, were data on wages collected and analyzed? Are evaluators collecting information that will answer research questions? For example, if there was a question about enrollment, did the evaluators collect participant data? Finally, we used the information to recommend how other programs around the country could adopt various strategies to do their own evaluations. To analyze the evaluations, we gathered data on:

◗ Evaluation methodology;

◗ Timing and duration of the study;

◗ Sample selection and participation;

◗ Data collection methods; and

◗ Findings[13]

We recorded, when possible, suggestions from program administrators and evaluators about implementation and evaluation. We also reviewed some unexpected program outcomes. In a few cases, programs included employee benefits (e.g., paid vacation, subsidized health insurance) and measured feelings of professionalism, including increased morale, or participant satisfaction with the program. Indirect effects, such as increased demand for early childhood education courses at colleges and universities, are also discussed when appropriate. These data were not available across all programs.

While we originally intended to collect data that would allow us to compare and contrast programs and their effects, the preliminary nature of the data prevented us from doing a meaningful comparison. We therefore present what we learned by describing each program, the strategies used for implementation, reported findings, and the validity and limitations of these findings. We attempt in our conclusion to highlight common themes. We hope that as later research presents more conclusive findings, such comparisons will be made and will prove useful.

Organization of the Report

The following chapters describe the programs and our findings. We intend this paper to be read by a number of early care and education stakeholders. Chapters Two and Three describe the programs and evaluation findings organized by type of evaluation (process versus outcome). For those more interested in our results, Chapter Four presents a compilation of findings, including the effects of each program by category of evaluation, and includes our conclusions and recommendations. For those who may be interested in designing an evaluation for their own compensation initiative and seeking guidance on evaluation approaches, the Appendix provides suggestions on how wage initiatives can be evaluated and strategies for conducting a thoughtful internal assessment or a large-scale, third-party evaluation.

[13] Since we relied heavily on published findings and did not attempt to acquire raw data, we did not define a threshold for findings we were willing to report. We point out, however, when we think findings are suspect or less robust.

Compensation Initiatives With Process Evaluations

To evaluate whether compensation initiatives positively affect staff income, education, and retention, it is imperative to investigate how these initiatives are implemented and whether they are funded and facilitated in ways that maximize the number of participating child care workers. This chapter describes three compensation programs and examines findings from efforts to document their implementation and early stages of development, including recruitment and participation, program funding, and administration. In some cases, early indicators of program effects are also discussed.

To collect this information, researchers conduct a process or implementation evaluation, which is useful for documenting the transition of a program from policy to practice. The information gathered can provide key insights into why a program worked or did not, or why it had unintended or surprising results. Such studies are also an important source of information for replication purposes. They often track how a program is implemented; how the target population is made aware of the program; how participants are recruited; and what decisions are made during the planning process and the effects of those decisions.

Process evaluations can answer the following questions: Was a program funded sufficiently that all components were working as intended or all individuals who wanted to participate were served? Did the funding allow all participants to receive the intended benefits at the intended level? For example, was there enough funding to provide adequate additional compensation to workers in the program? Process evaluations can also track program usage. Low or high participation has consequences for whether a program will meet its overall goals. All three programs highlighted in this section included an implementation, or process, study as part of their overall evaluation design. The programs are the Alameda Child Development Corps (California CARES), the Georgia Early Learning Initiative (GELI); and the Wisconsin Child Care Mentor Project.

All the models described in this chapter provided financial incentives to promote staff retention. All three programs provided stipends or bonuses to participants and did not try to institute a systemic salary increase for all workers. They also tied increased compensation in some fashion to continuing education or training and required participants to remain in their programs for a specified length of time. The programs differed, however, in the approaches they used to enhance staff development and to compensate participants. For example, the Alameda Child Development Corps is funded with state dollars but was developed and implemented as a local program. The Georgia Early Learning Initiative does not provide a unique program per se, but coordinates four different kinds of quality enhancement strategies, of which two include a focus on professional development and compensation. The Wisconsin Child Care Mentor Project provides stipends and other supports to child care providers who serve as mentors to junior staff.

Alameda Child Development Corps (California CARES)

Program History

The Center for the Child Care Workforce, in collaboration with six other organizations[14] and with other child care professionals, worked to develop the California CARES initiative. The initial strategy was to build "a skilled and stable workforce to provide high-quality child care and development services throughout the state of California" (Burton, Mihaly, Kagiwada, and Whitebook 2000, 1). The program, first introduced as Assembly Bill 2025 (AB2025) and later Assembly Bill 212 (AB212)[15], proposed to institute and fund two main programs at the state level: the Child Development Corps and the Resources For Retention program. The Child Development Corps was to provide family- and center-based child care workers with stipends based on their education levels and training qualifications. The Resources For Retention program was to provide financial support to child care programs that demonstrated a commitment to improving quality. This would be done by increasing reimbursement rates to child care providers serving subsidized children and providing grants to programs to help them achieve accreditation and retain workers (Burton et al. 2000).

For the purposes of illustrating how the CARES model worked at the community level, we concentrated on the Alameda Child Development Corps and its corresponding implementation evaluation, conducted by Policy Analysis for California Education (PACE), a public policy research center jointly sponsored by the University of California at Berkeley and Stanford University.[16]

Deciding to adopt the CARES program before the passage of AB212, Alameda County implemented its Child Development Corps program in 2000.[17] With strong support from local child care advocates, the Alameda County Children and Families Commission[18] funded the program at $3.8 million. The Commission serves as the local representative of the statewide Children and Families Commission, which is charged with overseeing the allocation of Proposition 10 funds (revenue from a 50-cent-per-package tobacco tax), providing local dollars for child development and health services for children newborn up to age five (Burton et al. 2000). The Alameda County Children and Families Commission began administering its program in May 2000 (Burton et al. 2000).

---

[14] The California Association for the Education of Young Children, the California Early Childhood Mentor Program, the California Child Care Resource and Referral Network, the California School Age Consortium, the California Federated Family Child Care Association, and the Private Association for California Educators.

[15] CARES was passed by the California legislature with bipartisan support, only to be blocked by Republican Governor Pete Wilson in 1998 and again by Democratic Governor Gray Davis in 1999. Final passage came when AB212 was changed from a statewide program to a matching grant program targeted to individual communities. The program would now provide "ongoing State Department of Education funds to county child care planning councils to support local efforts to address the retention of qualified child care employees in state-subsidized child care centers" (Burton et al. 2000, 9-10). Governor Davis signed AB212 into law on September 20, 2000, and the program began on January 1, 2001.

[16] For a detailed account of the passage of CARES and of the implementation of the Alameda Child Development Corps, see Burton, Mihaly, Kagiwada, and Whitebook's, *The CARES Initiative in California: Pursuing Public Policy to Build a Skilled and Stable Child Care Workforce.*

[17] San Francisco also implemented a CARES program before the statewide passage.

[18] The Alameda County Children and Families Commission is one of 58 county commissions in California.

Program Goals and Features

Child Development Corps administrators had both short- and long-term goals for the program. In the short term, administrators wanted to increase worker retention and education levels. Their long-term goal was to enhance the professional stature of early care and education workers. To address these objectives, the Alameda Child Development Corps provides a stipend for eligible family- and center-based child care workers who have:

◗ Practiced their occupation with children newborn through age 5;

◗ Worked in the same program a minimum of 20 hours per week for at least nine months before July 1, 2000; and

◗ Completed at least 12 college credits in early childhood education (later lowered to six credits; Alameda County Children Families Commission 2002).

(Caspary, Gilman, and Hamilton 2002).

The amount of the stipend is based on a practitioner's educational attainment and job position. The program uses a seven-tiered stipend structure designed to provide reasonably attainable rewards for educational accomplishments (Burton et al. 2000). The maximum award for a "Tier 1" practitioner was set at $500 per year in 2002. For the top tier, the stipend increased to $6,000 (Caspary et al. 2002). This structure placed an emphasis on education for the least experienced workers and on both education and training for more senior staff. It is important to note that, unlike programs such as Washington State's Career Ladder and Child Care WAGE$®, discussed later in the report, the Child Development Corps does not consider a staff member eligible for any stipend until he or she has completed 12 college credits (later lowered to six credits) in early childhood and education.

In order to continue to receive the stipend in subsequent years, practitioners must continue to receive training. This requirement can be met in a number of ways. For example, practitioners have been able to:

◗ Attend one Child Development Corps seminar;

◗ Hold, or apply for, a Child Development Permit;

◗ Learn how to conduct quality assessment scales;

◗ Conduct a quality assessment in the classroom; or

◗ Complete additional training.

Corps members can also aspire to a higher stipend tier by continuing their education (Caspary et al. 2002, 11).

Program Evaluation

As mentioned above, the implementation of the Alameda Child Development Corps was conducted by PACE, which is also evaluating the San Francisco retention program, San Francisco CARES. One year later, PACE was charged with the task of performing a statewide evaluation of all child care retention programs funded with Proposition 10 funds. The results presented below represent the evaluation team's first-year process

study. To collect information, researchers used qualitative methods, including focus groups, interviews, and document review. The results shed light on how program decisions and funding decisions were made and provide preliminary information on program success. In addition to this qualitative study, a quantitative study is currently being conducted involving a program participant phone survey and a survey of program directors. The results of the quantitative study were not available at the time we produced this report.

Sampling and Participation

The research team at PACE conducted focus groups with planners, community stakeholders, outreach participants, program staff, program participants (child care workers), advisors, center directors, and educators/trainers (Caspary et al. 2002). Researchers then conducted interviews to follow up on issues not covered in the focus group. Postcards were sent to all program participants inviting them to take part in focus groups.

Data Collection

In all, researchers conducted 12 focus groups with the actors mentioned above. The total number of focus group participants, the number of one-on-one interviews, and the number of documents reviewed were not reported.

Highlights of Findings

The main findings of the implementation study suggest that the Alameda Child Development Corps implementation and early accomplishments grew out of the presence of a well-established and aware child care advocacy community, the opportunity to secure new funding sources, and the planners' decision to focus on staff professionalism, with an emphasis on rewarding formal educational attainment.

Researchers found that the Child Development Corps filled a void in local efforts to improve child care. While California has had an array of public programs devoted to this goal, none of them focused directly on staff retention and education (Caspary et al. 2002). The City of Berkeley had been providing a small number of staff stipends since 1998. Advocates recognized that Proposition 10 funds could be used for this purpose, and their proposal to the Children and Families Commission emphasized this unique need.

Evaluators also found that the advocacy community in Alameda County played a key role in ensuring that the program was funded and implemented with a focus on linking compensation and education. This may have been a key reason why Alameda was the first county in the state to apply for Proposition 10 funding. Specifically, the Center for the Child Care Workforce, a longstanding research and advocacy group, was founded in Alameda County and was the lead author of the original CARES proposal. This plan gave the community a blueprint for how to connect compensation to retention. Leadership proved to be an important aspect of successful implementation.

In addition, researchers found that a key decision to emphasize professionalism greatly influenced decisions about how the program was implemented. Two main decisions

grew out of this emphasis. First, stipends were based on educational attainment, not on income level. Second, qualified participants were required to complete at least 12 units, or college credits, in child development (later lowered to six credits). These decisions have sometimes caused confusion regarding the program's goal. Researchers reported that there was little agreement around the county as to whether the program should take income into account in distributing stipends. The argument was that if the goal is to increase compensation, income should be the determinant of the size of the stipend. If, however, professional development was the goal, income should not be the determinant (Caspary et al. 2002).

Researchers' findings also suggest that the Alameda Child Development Corps increased the number of child care practitioners seeking additional training. The program has been associated with increases in demand for child development courses at local colleges and universities. Researchers collected enrollment data from four local community colleges and found that enrollment in relevant courses had increased an average of 19 percent from the 1999/2000 school year to the 2000/2001 school year (Caspary et al. 2002). Program participants also reported that they felt more professional (based on self-reported information) when participating in the program.

Focus group participants also reported perceptions of increased retention. One director reported that she was losing fewer staff members to the school district. Several Corps staff members reported that the program influenced them to remain in the child care field (Caspary et al. 2002).

The program has faced challenges. Some focus group participants reported that child care workers felt that the stipend was to compensate them for years of low compensation, not to encourage professional development. Program administrators also had to readjust stipend levels during the first year because of inadequate funds. This problem had not been foreseen, given the lack of baseline data on staff before the inception of the program. Continued program education and budget planning are needed to overcome such problems.

Program Evaluation Strengths and Limitations

This evaluation provides important information about the history of the program's design and implementation. Qualitative methods such as focus groups and interviews are important tools for capturing the details that should be reported when documenting policy decisions and are particularly useful in process evaluations. Qualitative research provides a rich picture of what is happening in a program but may not alone provide a comprehensive illustration of a program's needs and accomplishments. This limitation may be addressed in the quantitative study. The use of community college enrollment data was also helpful in assessing additional possible program effects and gauging the program's popularity with its targeted population. The evaluation provides a thorough account of the evolution of Alameda Child Development Corps and how it has progressed from proposal to operating program. One weakness, however, is that researchers did not report on recruitment method or exact number of study participants. This information is important for purposes of replication and for the interpretation of findings.

While a comparison group was unnecessary for the implementation study, it would have allowed researchers to gauge differences in contextual factors that led to variations in program implementation, such as a comparison of child care advocacy in different communities. A challenge that researchers will face in the planned outcome evaluation of this program is that, as more communities participate in the CARES program and other staff retention initiatives, fewer will be available to allow the measurement of differences between communities that adopt retention programs and those that do not. The difficulty in finding a randomized non-participant group could affect researchers' efforts to document program outcomes in the future.

Georgia Early Learning Initiative (GELI)

Program History

In 1999 the Georgia Early Learning Initiative (GELI) was developed through a partnership between Governor Roy Barnes, the United Way, and the Joseph B. Whitehead Foundation. GELI is a collaborative effort of state agencies, the child care community, foundations, and private businesses that work together to enhance the quality of child care so that all children in the state will be ready to succeed in kindergarten. In 2000 GELI administrators convened a meeting of recognized stakeholders to recommend ways this overall objective could be reached. By FY 2002 the General Assembly recommended a $6 million appropriation for the program, which began implementation in July 2001(Antinozzi and Herk 2002).

Program Goals and Features

As stated above, the overall goal of GELI is to provide services that will increase children's kindergarten readiness. GELI collaborators aim to accomplish this goal by providing four programs that focus on various aspects of quality. The programs are:

- Incentive$, providing salary supplements to caregivers who obtain formal training and education and stay at their jobs for at least 12 months;

- T.E.A.C.H. Early Childhood® Project, which subsidizes the cost of additional education and training for caregivers;

- Tiered Reimbursement Rates, which encourages facilities serving children subsidized by the state to improve quality by providing higher reimbursement rates to those who meet higher standards; and

- Training and Technical Assistance, providing assistance to eligible sites in achieving higher levels of care.

(Antinozzi and Herk 2002, 3)

For this report, we focused on Incentive$ and the T.E.A.C.H. Early Childhood® Project, implemented statewide in 2001 and 1994, respectively. The Tiered Reimbursement Rates and Training and Technical Assistance programs were only administered in five "pilot" counties. We omitted these programs because they do not directly link professional development activities to increasing wages.

The Incentive$ program provides stipends to child care teachers in Georgia who have worked at their programs for at least one year. Stipend recipients must work at a qualified program: one that is nationally accredited; a licensed program that participates in the Child and Adult Food Program, with 25 percent of its total enrollment receiving state subsidies; or a registered family child care program serving at least one subsidized child and participating in the Child and Adult Food Program. In addition, stipend recipients must already have a degree or an accepted credential in early childhood education, child development, or a related field. Thus, like the Alameda Child Development Corps, Incentive$ rewards teachers who have already achieved some level of education. Finally, workers must earn less than $14.45 per hour for at least 25 hours per week working with children newborn through age five (Antinozzi and Herk 2002). Eligible workers receive the following stipends, based on education level, every six months:

▶ With a Child Development Associate (CDA) credential, a certified child professional credential, or a technical certificate of credit—$200.

▶ With a Technical College Diploma—$375.

▶ With an associate of applied science, associate of applied technology, associate of science, or associate of arts degree—$750.

▶ With a bachelor of arts, bachelor of science, master of arts, master of education, or master of science degree—$1,000.

(Antinozzi and Herk 2002)

As in North Carolina, discussed in the next chapter, Georgia's T.E.A.C.H. Early Childhood® Project provides scholarships and other support statewide so workers can acquire more education. In Georgia, the T.E.A.C.H. Early Childhood® Project helps workers eventually participate in the Incentive$ program. T.E.A.C.H. Early Childhood® Project dollars are used for tuition, books, travel, paid leave for education, and counseling support. The Georgia Association on Young Children has administered the T.E.A.C.H. Early Childhood® Project since 1994. With the adoption of GELI, additional funds were made available so that more workers could gain access to T.E.A.C.H. Early Childhood® Project benefits. To participate in the T.E.A.C.H. Early Childhood® Project, individuals must:

▶ Work at least 30 hours per week in a registered family child care home, licensed child care center, or group home;

▶ Earn no more than $14.45 per hour ($15.00 for directors);

▶ Be a Georgia resident; and

▶ Enroll in class(es) at a Georgia public college or university.

The T.E.A.C.H. Early Childhood® Project also requires a contract between participants and their employers stipulating "the employer to contribute a small percentage to the cost of tuition and books as well as to provide paid release time and a salary increase or bonus upon completion of each scholarship year" (Antinozzi and Herk 2002, 14). Participants, in turn, agree to stay with their employer for at least one year after the end of the scholarship period.

Program Evaluation

Evaluators from the Child Policy Initiative (CPI), Andrew Young School of Policy Studies at Georgia State University, were charged with conducting the statewide evaluation of the first year of these programs. Our analysis relies on their first report, which details usage patterns for the first six months of the program, as well as the degree to which program outreach has been successful.

To assess whether the program's availability and services are generally known among child care workers, CPI took a survey of randomly selected workers across the state. To gauge program participation, researchers relied on self-reported data submitted by program administrators. GELI's goal for the report was to show that GELI was indeed being used by the child care community and should be considered for further public funding. Given a short timeline for conducting the evaluation of GELI, researchers' utilization study represented a progress report rather than a rigorous study of program implementation or outcomes.

Sampling and Participation

To conduct the program awareness survey, researchers telephoned randomly selected child care centers and administered a general survey to teachers and directors who were not in GELI's five pilot sites. The sample represented a range of work experience and education levels. Seventy percent of respondents had more than three years of early care and education experience, while only 6 percent had less than one year (Antinozzi and Herk 2002). Thirty percent of the sample had no more than a high school diploma, 42 percent had at least some college, and 14 percent had earned a four-year college degree. Eleven percent of the sample had a graduate degree and 11 percent had a CDA (Antinozzi and Herk 2002).

Researchers relied on self-reported data from administrating offices and we have no information on how administrators collected enrollment and participation information. We suspect that programs forwarded reports based on information obtained from their own databases (i.e., instances of written applications, program participation, fund disbursement) although we have no way to confirm this. One exception is the T.E.A.C.H. Early Childhood® Project, which used the database designed by Child Care Services Association in North Carolina.

Data Collection

For the awareness survey, researchers collected information from 151 teachers and directors. Self-reported data was submitted for 1,474 individuals who came into contact with the Incentive$ program and 272 who came into contact with the T.E.A.C.H. Early Childhood® Project (Antinozzi and Herk 2002).

Finding Highlights

In general, researchers found that during the first six months of program implementation, GELI administrators began serving providers in the Incentive$ and T.E.A.C.H. Early Childhood® Project, and both programs began disbursing funds to participants. Nevertheless, researchers found that at the six-month point, only a small number of

child care practitioners in Georgia knew about the GELI programs open to them, and some who knew about GELI were confused about what the programs offered.

Based on the statewide awareness survey, researchers found that only 10 percent of those surveyed were familiar with the T.E.A.C.H. Early Childhood® Project. Only 3 percent of the sample recognized the Incentive$ program by name. Seventy percent of the sample had never heard of the GELI program, and directors were more likely to be aware than teachers (Antinozzi and Herk 2002). Thus, researchers concluded that GELI collaborators would have to increase their outreach efforts if they were to significantly affect the quality of early care and education in the state.

Regarding participation rates in the Incentive$ program, administrators received 1,474 applications representing 113 counties within the first six months of program operation. More than 40 percent came from workers in nationally accredited centers. Approximately two-thirds of the applications were approved. Non-approvals were due to incomplete applications or documentation or failure to meet minimum requirements. Nine hundred thirty-six awards were made totaling $335,750. Awards were made between July and December 2001, and funds were disseminated after the first six months (rewards are disseminated semi-annually). Between July and December 2001, the T.E.A.C.H. Early Childhood® Project received 272 applications from approximately 30 counties. T.E.A.C.H. Early Childhood® Project scholarships were awarded to 96 applicants, who received bonuses ranging from $48 to $1,709 (Antinozzi and Herk 2002).

Program Evaluation Strengths and Limitations

As mentioned earlier, the GELI utilization study was structured as more of a progress report than an evaluation, and it provides an example of the challenges researchers often face in balancing the goal of conducting a rigorous study with the political realities of reporting progress to policymakers. In Spring 2002, researchers were required to submit a progress report on the program's participation rates, with the hope that it would illustrate the importance of including the program in the next fiscal year's budget. At the same time, the research team experienced a significant staffing change, and systems had yet to be put into place to begin proper data collection. The result was that researchers were forced to use self-reported data from program administrators. While relying on self-reported data is not a weakness in and of itself, a lack of quality control due to time constraints may have compromised data accuracy. The evaluation of GELI was funded by GELI. This can cause conflicts and compromise the integrity of the research, because researchers might then be influenced by a program administrator's direction in conducting the evaluation which can sometimes compromise scientific objectivity.

The greatest strength of the evaluation is the awareness survey. The results from this component illuminate a common problem among interventions: lack of successful outreach. Being alert to this problem can be quite useful at the beginning of a program, because it can help administrators make adjustments to maximize participation. Unfortunately, at the time of this study it had not been determined whether and how further evaluation of this program would be done.

Wisconsin Child Care Mentor Project

Program History

The Wisconsin Child Care Mentor Project was originally developed in 1993 as the Milwaukee Early Childhood Mentor Teacher Program. That program was administered by a Milwaukee area technical college and served a total of 112 participants: 56 mentors and 56 protégés. The participants' positive feedback prompted state policymakers to extend and expand the program. In 1998, with $5 million, the program evolved into the Wisconsin Child Care Mentor Project. This pilot project was implemented in five counties: Dane, Fond du Lac, Kenosha, Milwaukee, and Racine. The program went statewide in 2000, served 40 mentors and 37 protégés, and is primarily funded through the state's T.E.A.C.H. Early Childhood® Project (currently allocated $7 million), with additional state funds for administration ($1.24 million).

Program Goals and Features

In 1998 the Wisconsin Child Care Mentor Project had three main objectives: 1) to help welfare recipients and other low-income workers obtain and keep child care jobs; 2) to increase the availability of child care to help meet a growing demand as more parents who are welfare recipients enter the job market; and 3) to increase the quality of child care in the state by encouraging qualified teachers to stay in the field (Burton and Whitebook 2000). To accomplish these goals, the pilot program provided the following services:

▶ A mentor seminar series in which child care teachers took college credit classes on how to provide guidance to junior staff;

▶ A joint mentor and protégé seminar series;

▶ On-site training for both mentors and protégés, available for both center and family child care; and

▶ Stipends ranging from $300 to $500 for mentors who completed the program.

Some sites also provided supports to mentors and protégés, such as substitutes, so that staff could participate in the program (Burton and Whitebook 2000).

The pilot program was administered through community collaboration in each of the sites, consisting of a local child care resource and referral agency, welfare and job training center, university or community college, and planning committee. These entities were in charge of recruitment, refining a common curriculum for the seminar series, and disbursing stipends. The current statewide program continues these services and is administered by the state's child care resource and referral agencies.

Current program participation requirements are: Mentors are required to have a minimum of 60 college credits related to early childhood education in addition to two years of experience. Protégés are required to follow the requirements of the T.E.A.C.H. Early Childhood® Project scholarship program, because education and training funds come from T.E.A.C.H. Early Childhood® Project dollars. As part of the T.E.A.C.H. Early

Childhood® Project program, protégés are required to remain with their employer for a minimum of one year beyond their participation.

Program Evaluation

Wisconsin monitored its Child Care Mentor Project in two ways: 1) It commissioned a third-party evaluation of the pilot program. 2) It instituted a data reporting system through its child care resource and referral agencies. For the purposes of this study, we focused on the one-year third-party evaluation conducted by the Center for the Child Care Workforce (CCW). The study focused on the implementation of the program, level of participation, initial program satisfaction, and early findings. The evaluation was funded as part of the $5 million pilot program budget and focused on both implementation and initial outcomes. Researchers relied on a number of data collection strategies to measure various actors' points of view and possible program outcomes.

Sampling and Participation

Researchers targeted a number of actors participating in or administering the Mentor program. They included child care workers (representing protégés and mentors), administrators, and community collaborators. Researchers did not report which strategies were used by community collaborations to recruit study participants.

Data Collection

Researchers used numerous methods to collect data in three waves. To record and understand the initial implementation process and mentors' initial reactions to the program, the team conducted interviews with program and community coordinators and collected written survey responses from mentors who had completed their first seminar (Burton and Whitebook 2000). During the second wave, researchers conducted focus groups with mentors and protégés; observed mentor and protégé seminars and on-site trainings; observed statewide meetings of project staff, participants, collaborators, and other stakeholders; and collected written survey responses from protégés (Burton and Whitebook 2000). During the third wave, researchers interviewed state and local coordinators and administered a final survey to mentors and protégés at the conclusion of the seminars. In total, researchers collected data from three mentor/protégé seminars, two mentor/protégé on-site training events, six mentor/protégé focus groups, 31 mentor surveys collected in wave one (an 89 percent response rate), 30 protégé surveys collected in wave two (an 83 percent response rate), 20 mentor surveys collected in wave three (a 57 percent response rate) and 10 protégé surveys collected at the final stage (a 31 percent response rate) (Burton and Whitebook 2000).

Finding Highlights

Researchers found that the Wisconsin Child Care Mentor Project succeeded in achieving its goal of helping both protégés and mentors gain additional education and experience. However, the program was less effective than anticipated in attracting current welfare recipients into child care jobs, although many of the protégés had received public assistance of some kind in the past. The program also faced challenges in ensuring that participation actually translated into additional compensation or other rewards in participants' respective programs.

The authors reported that the Mentor Project faced serious challenges in recruiting program participants. This was especially true for current welfare recipients or other low-income job seekers. Because of the low wages and lack of benefits prevalent in the child care field, job center staff found it difficult to recommend child care jobs to individuals seeking to gain economic independence. By contrast, researchers found that the "typical" protégé, at the time of the program, was an assistant teacher or aide, had worked in the field for 3.7 years, had been employed at his or her current center for 1.4 years, and had been in his or her position for one year (Burton and Whitebook 2000).

Two-thirds of the protégés in the study had received public assistance in the past. At the time of the study, "one third had received cash assistance, child care, Medicaid, and/or a food subsidy within the last year" (Burton and Whitebook 2000, 6).

The Mentor Project was successful in attracting mentors who had demonstrated a commitment to the field, and that commitment was reported to have increased as a result of the mentor/protégé relationship. Mentors had been in the child care field an average of 10 years, and at their current centers for six years. The researchers reported, "In an occupation characterized by high staff turnover, mentors have been stable, holding an average of only two jobs over five years" (Burton and Whitebook 2000, 7). By the end of the evaluation, researchers reported that 30 percent of the mentors were pursuing a degree in child development or a related subject.

Protégés also increased their education credentials while in the program. Researchers reported that almost half of participating protégés received their first college credit or child development training as a result of the project (Burton and Whitebook 2000).

Nevertheless, protégés and mentors reported that meeting program requirements and work demands was difficult. (These challenges existed despite the funds that directors received for hiring substitute staff.) Furthermore, the turnover rates faced by many of the child care programs in the area were severe enough to hinder the very efforts to address the problem. As the authors concluded, "The current 'child care staffing crisis' of high turnover and scarcity of qualified caregivers led to the development of the Mentor Project, and yet the same staffing crisis sometimes also hampered project staff's ability to facilitate satisfying mentoring relationships" (Burton and Whitebook 2000, 32).

But in light of the initial implementation of the program, were the stipends sufficient for the Mentor Project to have an effect on staff wages? The research findings suggest that the answer would probably be "no." Although mentors received a stipend after completing the program, only 33 percent received any salary increase from their employers (Burton and Whitebook 2000). Protégés did not receive a bonus from the program; only about 30 percent received a pay raise or a bonus from their employers, and only 20 percent received a promotion (Burton and Whitebook 2000). Thus, if protégés received no pay raise or promotion, it meant that they received no financial or status reward at all for participating in the program. As the researchers reported in their conclusions:

> So, while increasing their education will help protégés in the long-term qualify for jobs requiring more education that should pay a higher salary, there was no immediate reward, which may undercut their commitment to the child care occupation (Burton and Whitebook 2000, 8).

This finding may have been the reason why the state now uses T.E.A.C.H. Early Childhood® Project funds. Protégés are now required to participate in the T.E.A.C.H. Early Childhood® Project, since the program provides bonuses for completing education goals.

Program Evaluation Strengths and Limitations

The one-year evaluation of the Wisconsin Child Care Mentor Project illustrates the advantages of using a number of methods to capture program attributes that may affect later outcomes. A strength of this evaluation is that researchers collected a great variety of data from various stakeholders (administrators, mentors, and protégés), allowing them to highlight various aspects of the program: recruitment successes and challenges, participation experiences, outcomes, and participant characteristics. This information is extremely effective for helping program planners improve the Mentor Project.

A potential limitation of this study is the lack of information on how participants were recruited for the evaluation. Because we know nothing about those who participated in the pilot program but not in the evaluation, we do not know if "selection bias" may have played a role in researchers' findings. Given the scope of the study, however, we do not expect that this limitation had a large influence on the study's results.

Compensation Initiatives With Outcome Evaluations

Do compensation initiatives increase income, education, and retention? If so, what size effects do they have? An outcome evaluation measures a program's direct and indirect effects or influences on its target population. This chapter reviews the findings of outcome studies of the following four compensation programs: the Child Development Program, Caregiver Pay Program (U.S. Department of Defense); the T.E.A.C.H. Early Childhood® Project (North Carolina); Child Care WAGE$® (North Carolina); and the Washington Early Childhood Education Career Development Ladder.

Outcome evaluations are also useful in identifying program strengths and challenges. Effects are typically compared with overall program objectives to assess whether the program met its original goals, and why. It's important to note that outcome evaluations should only be conducted after a program has been fully implemented, when administrators are confident that they had the opportunity to accomplish its goals. In many cases however, evaluators begin conducting outcome assessments early in a program's implementation, and they sometimes release those results to the public. Such data are usually regarded as preliminary, and final judgment is reserved until after final data analysis in later years.

As with the previous programs reviewed, all the workforce programs detailed in this chapter have provided financial incentives for qualified teachers to stay in the field, although each program's approach has been unique. The Caregiver Pay Program sets workers' salaries based on the military's established pay scale. The T.E.A.C.H. Early Childhood® Project provides stipends or salary increases based on successful completion of college-level courses. The Child Care WAGE$® program provides salary supplements based on education already achieved. The Washington Career Ladder is a statewide program in which child care centers are able to apply for funding if they agree to adopt the program's wage ladder, which is based on tenure, job responsibility, and education. It is also important to note that the Caregiver Pay Program and the Washington Career Ladder aim to change the pay structure of their target population of child care workers, while T.E.A.C.H. Early Childhood® and Child Care WAGE$® focus on helping individual teachers by means of stipends, small pay increases, or bonuses.

Child Development Program, Caregiver Pay Program (DoD)

Program History

In 1989 Congress passed the Military Child Care Act (MCCA) as a way to increase the quality and capacity of child care programs on military installations.[19] The MCCA mandated that the military improve its Child Development Program by implementing a number of policies, including: 1) a "dollar for dollar" matched subsidy program (funded by federal appropriation) to help parents pay for child care; 2) hiring onsite training and curriculum specialists for centers; 3) instituting an unannounced-inspection process;

---

[19] It should be noted that the military had already taken steps to improve the quality of their child development system. The MCCA, however, enabled them to make changes much more quickly than had been anticipated.

and 4) providing a systematic increase in worker compensation that would be tied to training and education (Zellman and Johansen 1998).

Other provisions of the MCCA included a hotline to report child abuse and safety violations in child care settings, the establishment of a parent advisory board at every center, and a push to increase the number of nationally accredited Child Development Centers (CDCs) (Zellman and Johansen 1998). In addition, since military child care programs had historically high staff turnover rates, and there was no mechanism for ensuring that all staff were properly trained, administrators were ordered to address the issue of staff quality. Based on this mandate, the military implemented the Caregiver Pay Program.[20]

Program Goals and Features

Low salaries and high turnover rates were a major theme of Congressional hearings that eventually led to the MCCA. Not only did these circumstances lower the overall quality of the military's child care programs, they also negatively affected the availability of child care. Thus, a major goal of the MCCA was to lower turnover rates and to pay salaries competitive with those in other occupations requiring similar levels of training, work experience, and education (Zellman and Johansen 1998).

The Caregiver Pay Program has addressed these goals in a number of ways. First, pay classification for non-appropriated workers (meaning they were not paid with government funds) at CDCs was changed to make pay rates equivalent to the corresponding general service (GS) locality schedule rates. In the federal system, GS positions are ranked from Grade 1-15, with increasing numbers representing increased responsibility, education, and job skills. As child care staff complete the training and time-in-grade requirements, they earn wages that parallel those of their GS counterparts who have similar education and experience (Zellman and Johansen 1998).

Second, workers are now required to complete "13 military Child Development Employee Training Modules or a DoD approved equivalent" (Zellman and Johansen 1998, 51)[21] within 24 months after starting work (Campbell, Applebaum, Martinson, and Martin 2000). The training modules are based on the Child Development Associate (CDA) competency standards. Competency-based training is tied to wages, and an "up-or-out" personnel policy requires the successful completion of training.

Third, at the completion of the first training milestone at six months, staff are promoted and receive a 6 percent raise in pay. By the completion of their full core training, they are promoted to the target level, comparable to the GS-4 rate, with a minimum 6 percent pay increase. In addition, staff must complete orientation training and observation and 24 hours of ongoing training yearly (Campbell et al. 2000).

Fourth, staff are offered many professional development opportunities—to seek a CDA, an associate degree, or a bachelor's degree. Attaining higher education levels provides

[20] For a more detailed account of the passage of the MCCA, see Campbell, Applebaum, Martinson, and Martin. 2000. *Be All That We Can Be: Lessons From the Military for Improving our Nation's Child Care System.* National Women's Law Center: Washington, DC.

[21] These areas closely follow the requirements for the Child Development Associate (CDA) credential (Campbell et al. 2000).

workers with promotion opportunities to the GS-5 level and higher. It should be noted that the MCCA, passed in 1989, required that all branches of the military begin to adopt these changes immediately, without additional funding, and that they raise salaries within six months. Evaluation results show that the Army and Air Force led the way and accomplished this by June 1990 (Zellman and Johansen 1998).

Program Evaluation

After the implementation of the MCCA mandates, the military commissioned the RAND Corporation to evaluate the successes and challenges of the transition and to measure whether the new policies led to expected changes in the delivery of the Child Development Program (CDP) (Zellman and Johansen 1998).[22] To meet these goals, RAND researchers used four main strategies: 1) They analyzed documents from all military branches to assess historical and contextual factors that would affect implementation (e.g., Was the command in each branch generally supportive of MCCA?). 2) They conducted face-to-face interviews with various actors involved in the implementation and administration of the revised CDP. They also conducted interviews to capture retrospective accounts of the child care system before MCCA and perceptions of the successes and challenges of the implementation process. 3) The team also distributed a mail-in survey to installation sites worldwide to collect program outcome information, as well as to expand their understanding of the conditions prior to MCCA. 4) Finally, the team conducted site visits to a sub-sample of 17 installations (Zellman and Johansen 1998). The evaluation was conducted between 1991 and 1993.

Sampling and Participation

Representatives from command posts of all four military branches provided the researchers documents for analysis and were interviewed. The team distributed the mail-in survey to all installations (worldwide) with a CDP. For the site visits, a stratified sample by service was used to select the programs. This strategy allowed researchers to select locations that reflected the range of program quality and how much a specific program would have to change in order to comply with MCCA standards. Installations were categorized according to degree of difficulty in MCCA implementation, center accreditation, and location. The final site visit sample included 17 installations from all four services (five Army, four Marine Corps, four Navy, four Air Force). Ten of the installations had at least one accredited CDC, and three had two accredited centers (Zellman and Johansen 1998).

Surveys were sent to staff "in charge of child development services, the child development program coordinator, or the Child Development Program director" (Zellman and Johansen 1998, 26). In cases where these individuals were unfamiliar with pre-MCCA conditions, respondents were directed to defer to another individual who would better be able to discuss program changes. Finally, face-to-face interviews were conducted with 175 individuals at the DoD, representing major commands, military personnel at all levels, CDC employees, parent users of child care, and kindergarten teachers.

---

[22] All four services require continuous monitoring of their respective Child Development Programs via an ongoing internal reporting system conducted annually or semi-annually.

Data Collection

In total, researchers reviewed 336 relevant military headquarters documents dating from November 1989 to July 1993 (68 Army, 38 Marine Corps, 91 Navy, 139 Air Force). Documents were read, coded, and analyzed. Eighty percent of the 466 CDCs returned the mail survey. Almost all non-responses were from bases located outside the United States. Findings could not, therefore, be generalized to installations abroad (Zellman and Johansen 1998).

Highlights of Findings

While the RAND team examined the implementation and outcomes of a variety of factors related to the MCCA, for this report we focused on RAND's findings regarding the effect of the Caregiver Pay Program on staff at child development centers. In sum, researchers found that the program had a noticeable effect on military CDC staff's wages, turnover, and training. In addition, researchers found that the program not only increased the quantity of job applicants at CDCs, but also the quality of the applicant pool.

Based on average starting salaries collected through the mail survey, researchers found that pre-MCCA wages for all military caregivers were low. Between MCCA implementation and the time of the survey (1993), entry-level salaries increased by an average of almost $2 per hour across all branches (see Table 2), a change that is statistically significant.[23] Interestingly, original data collection efforts found that there was a statistically significant difference in the starting wages across the branches. For example, the Army and Navy CDCs had higher starting salaries than those of the Marine Corps. This was thought to be because Marine Corps installations were generally located in areas where the cost of living was low, and Army and Navy installations were located where the cost of living was higher. Yet by 1993 salaries became standardized across the services (Zellman and Johansen 1998). Salary increases did not increase proportionately across the services; it appears that the Marine Corps and Air Force benefited more from the Caregiver Pay Program than the Army and Navy. Table 2 summarizes the salary changes across branches.

Table 2: Hourly Wages Pre- and Post-Military Child Care Act (MCCA)		
Branch	**Pre-MCCA, 1989**	**Post-MCCA, 1993**
Air Force	$4.50	$6.47
Army	$4.74	$6.53
Marine Corps	$4.35	$6.60
Navy	$4.89	$6.52
Mean	$4.67	$6.51

Source: Zellman and Johansen 1998, Data from Mail Survey

[23] Throughout this report, we will we note when a finding is "statistically significant." This term refers to the outcome of a statistical test performed by researchers. If the means of two findings are "statistically significant" then it is unlikely that a difference between two groups (the intervention group and the comparison group) happened by chance. Researchers would report that these two groups (the intervention group and the comparison group) are different from each other on the specified measure (e.g., wages).

Before the implementation of the MCCA and the Caregiver Pay Program, annual turnover among CDC staff averaged about 48 percent. After implementation, turnover dropped to an average of 23.6 percent. Differences between pre- and post-MCCA rates were found to be statistically significant. Post-MCCA wage differences across branches were not significantly different. While this level of turnover is still high given the investment in this intervention, the structure of the military naturally dictates higher turnover rates than in non-military child care. Not surprisingly, many CDC caregivers were spouses of military personnel and were thus more likely to leave a child care setting due to relocation than caregivers in non-military settings. CDC directors reported that resignations post-MCCA most often occurred because of a military transfer. Turnover data may also indicate that lower-quality staff left for other occupations. Data were not available to determine if staff left for positions at other installations due to a transfer or for a change in occupation. Table 3 summarizes the changes in turnover across branches.

Table 3: Turnover Rates, Pre- and Post-Military Child Care Act (MCCA)			
Branch	Pre-MCCA, 1989	Post-MCCA, 1993	Difference
Air Force	51.1%	22.5%	-27.78%
Army	43.7	22.6	-25.49
Marine Corps	50.5	32.1	-20.3
Navy	47.1	24.1	-25.87
Mean	47.7	23.6	-26.09

Source: Zellman and Johansen 1998, Data from Mail Survey

CDC directors reported that the Caregiver Pay Program had an effect on staff education and experience. Changes resulted from the MCCA requirement that CDC staff increase their training and education. Yet in addition to this change, respondents also reported improvements in applicants' education or experience as a result of MCCA. They also reported that the program encouraged the departure of staff who were less inclined to complete the new requirements, thus increasing the perceived quality of the staff. Directors stated that higher starting pay increased the general number of applicants as well, helping CDCs hire enough staff to cover the increased need and achieve staff-to-child ratios required for accreditation (Zellman and Johansen 1998). In terms of implementation of the MCCA, two installations were classified as having had a relatively easy experience; 10 were rated as average; and five had a difficult time meeting the requirements.

Program Evaluation Strengths and Limitations

This large-scale, multi-state RAND evaluation effectively captured the relationship between the implementation of the MCCA and the desired outcomes. The team's multi-method approach was designed assuming that MCCA policy changes would be shaped by the military's unique environment. For example, staff turnover, though still greater than 23 percent was assessed as a success in light of the frequency of transfers. The combination of the mail-in survey, which recorded the turnover rates, and the extended

interviews, which discussed implementation, allowed the researchers to conclude that the turnover rate did not stem from low pay but from the military structure (the environment). The multi-method approach also allowed researchers to capture how the new training requirements not only increased the level of training for current staff, but also the level of training for applicants.

There are some limitations to the study's design. The authors report that the evaluation was commissioned after the passage of the MCCA. Researchers were forced to interview participants up to three years after the policy change, thus relying on memory. Another limitation is that researchers did not report that they controlled for inflation. While it is still likely that wages increased between the pre-MCCA period and 1993, the actual change may have been smaller than the authors suggested.[24] Finally, the authors were unable to implement a random sample design. Nevertheless, the support for a multi-year study allowed for data collection to address change over time, although only for two years.

T.E.A.C.H. Early Childhood® Project (North Carolina)

Program History

The T.E.A.C.H. Early Childhood® Project began in July 1990 as the Child Care Teacher Education and Compensation Program, a pilot project granting scholarships for education to 21 workers in Wake, Durham, and Orange counties. Participants received stipends for taking courses toward an associate degree in early childhood education. Following the success of this pilot, two foundations then contributed funds for expansion of the project. In 1992, funds from the Child Care and Development Block Grant were allocated toward even further expansion. The T.E.A.C.H. Early Childhood® Project has been implemented in all 100 North Carolina counties and has since expanded to represent an umbrella of scholarship models available to child care professionals at varying levels of career development.[25] Executive Director Susan Russell of the non-profit Child Care Services Association designed the original program. The Association currently administers the T.E.A.C.H. Early Childhood® Project.[26]

In many ways T.E.A.C.H. Early Childhood® Project and Child Care WAGE$® (to be discussed next) have been models for other compensation efforts around the country. Many of the programs outlined in this report were adapted from these programs or were heavily influenced by them. The emphasis in these programs on attaching education and experience to increased compensation and on seeking out public/private funding has led the way for other states to invest in their child care workforces by increasing workers' human capital. As of this writing, 21 states had adopted the T.E.A.C.H. Early

---

[24] To gauge whether the difference in wages was indeed an increase, IWPR researchers used the Consumer Price Index Research Series Using Current Methods (CPI-U-RS) to adjust for the effect of inflation on the reported results. The CPI-U-RS was 187.0 in 1989 and 213.7 in 1993, for an increase of 14.3 percent over that period. When we adjusted the 1989 average wage of $4.67 to 1993 dollars, we calculated a wage of $5.34. Child care workers in the Caregiver Pay Program, therefore, still experienced a wage increase, although not as much as the researchers reported in their evaluation.

[25] http://www.childcareservices.org/TEACH/T.E.A.C.H.%20Project.htm#TEACH%20history

[26] Child Care Services Association owns the copyright to T.E.A.C.H. Early Childhood® Project. In order for states to implement the program, a nongovernmental organization must obtain a license from the Association.

Childhood® Project, including the internal monitoring system, and Child Care WAGE$® has been adopted in two[27] other states (Russell 2002).

Program Goals and Features

Several of the main goals of the T.E.A.C.H. Early Childhood® Project are to increase staff education and compensation and reduce turnover (Child Care Services Association 2001c). To do this, the program provides various scholarships to workers to help pay for classes, books, and transportation. The scholarships also help programs pay for substitute teacher costs. When workers complete their education goals they are rewarded with either a bonus or a pay increase,[28] in conjunction with the workers' commitment to stay at their program for at least one additional year.

Scholarships are available for center teachers, directors, and family child care providers. They are awarded to help fund coursework toward a CDA or an associate or bachelor's degree in early childhood education. The main requirement for participation is that the workers must be employed at a licensed center or family child care home. In addition, each scholarship program requires that recipients work a certain number of hours per week. During the 2000-2001 year, seven different scholarship programs were made available:

- ◗ North Carolina Early Childhood Credential Scholarship Program;
- ◗ North Carolina Early Childhood Administration Credential;
- ◗ CDA Assessment Scholarship Program;
- ◗ Early Childhood Associate Degree Scholarship Program;
- ◗ Early Childhood Bachelor's Degree Scholarship Program;
- ◗ Early Childhood Model/Mentor Teacher Program; and
- ◗ T.E.A.C.H. Early Childhood Scholars Program.

(Child Care Services Association 2001b)

The completion of each scholarship contract[29] corresponds to a financial award, in the form of either a bonus or a four to five percent pay increase. For example, the completion of the North Carolina Early Childhood Credential leads to a one-time bonus of $100. The completion of nine to 15 credit hours in the Bachelor's Degree Scholarship Program leads to a pay increase (provided by the participant's employer) or a $550 to $700 bonus.

The T.E.A.C.H. Early Childhood® Project is underwritten through a combination of public and private funds. Private sponsors include child care programs, foundations, the United Way, and corporations. Public funds come from the Child Care and Development Fund and the North Carolina General Assembly. In Fiscal Year 1999-2000, the program received $2.2 million in state funding (Mitchell et al. 2001).

---

[27] Child Care WAGE$® is operated in Kansas and Oklahoma has adopted a Child Care WAGE$® affiliate program called Oklahoma R.E.W.A.R.D. (Rewarding Education with Wages And Respect for Dedication).

[28] By educational goals, we mean, for example, completing their bachelor's degree or CDA.

[29] "Contracts" refer to agreements between the participant and the employer or sponsor. Contracts can vary in length, but are generally based on one school year.

Program Evaluation

To monitor the effects of the T.E.A.C.H. Early Childhood® Project, Child Care Services Association designed a database software package that tracks a number of T.E.A.C.H. Early Childhood® Project activities and outcomes, including scholarship enrollment, sponsoring child care program names, bonus disbursements, retention, and turnover rates. This database is also used by all states that have adopted the T.E.A.C.H. Early Childhood® Project. Child Care Services Association issues its findings for North Carolina in an annual report. In addition to these data, the Association administers a participant survey on the adequacy of the scholarships, participant and sponsor satisfaction, and perceived effect of the program. For this report, we focused on database outcome data that measured whether the T.E.A.C.H. Early Childhood® Project influenced participants' educational attainment, their wages, and the turnover rates for participants in the associate and bachelor's programs (Child Care Services Association 2001b). These data have also been used to assess participation rates and participant characteristics.

Sampling and Participation

Since Child Care Services Association is both administrator and monitor of the program, it has access to contact information for all T.E.A.C.H. Early Childhood® Project participants. Data are collected from the database on all participants that the association successfully contacts. Data collection efforts have been ongoing since 1990. Findings reported here are based on data from 2,713 program participants. No information was provided on how many of these were successfully contacted with follow-up calls. Therefore, it is difficult to determine whether the follow-up data were representative of participant experiences.

Data Collection

Data collection took place through two primary means: First, information was collected during the enrollment and completion stages, as participants filled out appropriate paperwork. Second, Association staff called participants and sponsoring programs to collect follow-up information on wages and turnover.

Highlights of Findings

Based on data collected from August 1990 through June 2001, participants in the T.E.A.C.H. Early Childhood® Project increased their education and training, gained additional compensation, and were more likely to remain in their jobs than non-participants when comparing participants' turnover to statewide data on average turnover rates. Participants in the Early Childhood Associate Degree Scholarship Program are expected to complete nine to 15 credit hours per year. Data showed that teachers completed these requirements and more (see Table 4). Findings were not tested for statistical significance.[30] These findings suggest that participating in the T.E.A.C.H. Early Childhood® Project not only encouraged child care staff to obtain additional education, but also encouraged programs to provide additional compensation for their workers' increased training.

[30] Researchers also did not report that they controlled for inflation.

Table 4: Educational Credits Completed and Increases in T.E.A.C.H. Early Childhood® Project Participant Earnings across Contract Years*

Contract Number	Number of Credits Completed	Percent Increase in Earnings
1	14 to 16	12 to 21
2	28 to 33	21 to 30
3	43 to 48	32 to 40
4	52 to 58	39 to 48

*The range represents different requirements for full- and part-time teachers and directors.
Source: Child Care Services Association 2001b

Have increased education and compensation translated into decreased turnover rates? In some sense, decreased turnover would be expected, since staying in programs is one requirement of participation. Individual turnover rates among participants ranged from 1-10 percent after one contract and from 0-3 percent after four contracts (Child Care Services Association 2001b). T.E.A.C.H. Early Childhood® Project administrators reported that the statewide annual turnover rate was 31 percent at the time of the evaluation (calculated based on center reports of turnover) (Child Care Services Association 2001b).

In the Early Childhood Bachelor Degree Scholarship Program, individuals completed 13 credit hours after one contract and 58 credit hours after four contracts. During this time, their earnings increases ranged from 17 percent after one contract to 53 percent after four contracts. Turnover among these participants was 4 percent after one contract and 0 percent after four contracts. As the data indicate, the more contracts the participants committed to, the less likely they were to leave their jobs (Child Care Services Association 2001b). Again, it is important to note that participants were required to make a commitment to remain with their employer for a year following the fulfillment of their contract.

Evaluators have also found that participants experienced wage increases at much higher rates than the minimum requirements. The evaluators speculated that the T.E.A.C.H. Early Childhood® Project may have contributed to worker mobility, enabling individuals to win promotions and higher salaries.

Finally, program administrators reported to IWPR that an indirect effect of the program has been to provide additional support for other institutions, such as public universities and colleges. Public dollars that were invested in this program circulated back into the public system, perpetuating a cycle of reinvestment in public programs. The scholarships helped schools expand or develop early education departments, enabling them to meet the increased demand for early childhood education training. While not measured through the database, this finding has been noted in other compensation programs, and we suggest that this might be an important focus of investigation when measuring the effects of compensation programs in the future.

Program Evaluation Strengths and Limitations

The T.E.A.C.H. Early Childhood® Project reporting method has been effective in collecting ongoing information in a timely manner. This has been most helpful in tracking the successes and challenges of the program as it is implemented in other states. As mentioned above, each of these states was required to purchase the database system to track and report participation rates and outcome measures. For example, Pennsylvania adopted T.E.A.C.H. Early Childhood® Project in 1998; the program is administered by the Pennsylvania Child Care Association (PACCA; Pennsylvania Child Care Association 2001). PACCA collects data and reports findings similar to North Carolina's findings. T.E.A.C.H. Early Childhood® Project administrators, policymakers, and advocates can use the data to assess where the program might need adjustments based on Pennsylvania's specific needs.

Some challenges remain. The accuracy of the follow-up procedures is unclear. Are participants "coded" as "still employed" if they cannot be contacted or are they eliminated from data analysis until they can be? This raises questions about the exact method and reliability of calculating findings on turnover, that are not clearly addressed in evaluation reports.

This evaluation did not examine program effects in a comparison group, so the impact of this program versus the impact of other variables is unclear. In addition, it is not certain how non-participants of the T.E.A.C.H. Early Childhood® Project were defined. Furthermore, findings should be interpreted with the understanding that response rates were not provided. While high response rates allow for accurate illustration of program effects, low response rates can provide a skewed picture of program outcomes. Finally, participants in the T.E.A.C.H. Early Childhood® Project are not likely to be representative of child care workers in general, since this is a volunteer program that requires a long-term commitment from participants. The T.E.A.C.H. Early Childhood® Project may be benefiting the child care industry, however, simply by providing incentives for the more motivated and committed caregivers in the state, therefore selecting out and supporting these individuals.

Child Care WAGE$® (North Carolina)

Program History

Shortly after the T.E.A.C.H. Early Childhood® Project was introduced in North Carolina, advocates recognized a need to complement the program with an initiative focused on rewarding existing educational accomplishments by child care workers. There was also a need for continued financial incentives for them to gain additional education and stay in the field. The Child Care WAGE$® pilot program was originally established in one North Carolina county to address this need and is presently available in 63 counties throughout the state. Child Care WAGE$®, like the T.E.A.C.H. Early Childhood® Project, is administered by Child Care Services Association.

Program Goals and Features

The goal of Child Care WAGE$® is to provide financial incentives to individuals who remain with their employers, as well as incentives for staff to seek additional education. Child Care WAGE$® provides semi-annual salary supplements to workers who have remained in one workplace for at least six months. Participants must be employed at a licensed child care center or family home and must work at least 10 hours per week and serve children up to five years old. Teachers must earn no more than $14.45 per hour (directors $15.00) to be eligible. For every six months a practitioner remains at one job, he or she receives a supplement in the form of a stipend, which ranged from $200 to $4,000 depending on education, experience, and job position. In FY 2000/2001 the average payment was $392 (Child Care Services Association 2001a). Participants may increase their supplements by submitting paperwork showing that they have obtained additional education. They may receive a T.E.A.C.H. Early Childhood® Project scholarship to help them gain their additional education. The program's funding originally stemmed from Governor Jim Hunt's Smart Start Program; it is now funded through collaborations between local Smart Start Partnerships and the Division of Child Development.[31]

Program Evaluation

As with the T.E.A.C.H. Early Childhood® Project, Child Care Services Association monitors Child Care WAGE$® participants using a participant database that tracks demographics such as education, years of experience, age, and gender, as well as level of supplement received and turnover. In addition, the Association administers an annual satisfaction survey to a sample of participants. This allows administrators to gauge needed modifications as well as monitor potential outcomes (such as whether Child Care WAGE$® is encouraging practitioners to gain additional education and stay at their programs). Program administrators also attempt to assess why some Child Care WAGE$® participants leave their jobs. To do this, they periodically send a second survey to those who have left their jobs and the program.

Sampling and Participants

The database is designed to monitor all participants through enrollment applications and other paperwork. Administrators select potential respondents for the satisfaction survey by employment position (teachers, family child care providers, participating directors or directors with participating staff) and county size. If a county had more than 100 participants, administrators randomly sampled 25 percent in each category. If a county had fewer than 25 participants, all were selected for the sample. Administrators distributed the turnover survey to all participants who left in the previous year.

---

[31] Smart Start is a community-based initiative to increase early childhood care and education services. Communities receive state grants to provide a host of quality-enhancing services, including strategies to increase the quality of local child care staff.

Data Collection

In FY 2000/2001, Child Care Services Association paid supplements to 8,725 participants in its ongoing study. For the annual satisfaction survey, 2,391 questionnaires were distributed to a subset of the 8,725 participants and 1,360 were returned, a 57 percent response rate (Child Care Services Association 2001a). It is unclear if surveys were distributed to randomly selected participants. For the turnover survey, 1,353 questionnaires were distributed and 347 were returned, a 26 percent response rate.

Highlights of Findings

The data suggest that the Child Care WAGE$® program was associated with increased incomes and seemed to have influenced workers to stay at their jobs. In addition, participants were actively pursuing further education, and many attributed their success to Child Care WAGE$®. Directors reported increased staff morale and satisfaction as a result of participating in the program. Directors' reports of staff perceptions should be interpreted with caution, however, as directors do not necessarily have an accurate understanding of staff perceptions, particularly regarding job satisfaction. Directors also reported that they believed the increased level of staff continuity directly benefited the children in their programs (Child Care Services Association 2001a).

As mentioned previously, the Child Care Services Association reported that the state turnover rate was 31 percent during the evaluation year, as reported by centers (Child Care Services Association 2001a). During Fiscal Year 2000/2001, participant turnover was 18 percent.[32] Qualitative data collected through the satisfaction survey suggested that the Child Care WAGE$® program helped workers remain at their jobs. Based on the turnover survey, 35 percent of those who responded reported that they had been offered a job outside the child care field with better benefits. Thirty-eight percent of those who responded reported that they had been offered a job outside of child care with a better salary (Child Care Services Association 2001a).

Based on information collected in the database, 1,612 participants gained or were in the process of gaining additional education. A total of 973 moved up on the supplement scale as a result of their educational advances. Among all Child Care WAGE$® participants, 60 percent stated that they pursued additional education since applying to the program (92 percent of these have taken courses in early childhood education or child development). The satisfaction survey suggests that participation in the program, and the inherent connection with the T.E.A.C.H. Early Childhood® Project, encouraged workers to gain additional training (Child Care Services Association 2001a).

As stated above, participants received an average supplement of $392 for six months of employment. The goal of the program was that 75 percent of participants would report that these supplements influenced their decision to stay in the field or pursue further education. The program exceeded this goal, with 80 percent reporting that the supplements influenced their pursuit of additional education. Participants also report-

---

[32] Turnover was calculated based on any WAGE$® participant who left a program. If a participant became ineligible for the WAGE$® program (i.e., exceeded income requirements), that person was not counted towards the turnover rate. There were 8,694 program participants, of whom 1,546 left the program.

ed increased feelings of professionalism. Seventy-one percent of respondents indicated that they felt more appreciated and recognized for their work. Seventy-seven percent of responding directors noted increases in staff morale and more positive child-teacher interactions.

Program Evaluation Strengths and Limitations

The strategies used by Child Care Services Association mirrored methods used in third-party evaluations, although these efforts occurred "in-house." This is an important point, because it indicates that with proper training and support, more programs could institute ongoing monitoring. These findings address a key question of policymakers: "What is the ongoing effect of a program?" A particular strength of this approach was the periodic turnover survey, which attempted to measure why child care practitioners left the Child Care WAGE$® program.

Since a mail survey was already being distributed, it would have been extremely helpful to have a comparison group fill out a survey that would allow comparisons with Child Care WAGE$® participants. Such a comparison would have helped determine whether non-participants were just as likely to pursue additional education. Although program administrators use the statewide turnover rate to suggest that the Child Care WAGE$® program lowers the rate, comparing participant turnover with the statewide rate may not be accurate. Data collection methods, calculations, and possibly the types of workers included in the statewide count might differ from the Child Care WAGE$® count. While these differences might be small or even nonexistent, we cannot be certain because comparison groups were not studied. Since Child Care WAGE$® is not available in every child care program in the state, it might have been possible for program administrators to select a matched comparison group. Finally, a low response rate was reported, indicating that program findings may not necessarily represent program effectiveness accurately.

Washington Early Childhood Education Career Development Ladder

Program History

Initially, John Burbank, executive director of the Economic Opportunity Institute (EOI) in Seattle, proposed to implement a wage ladder for child care workers in the state. EOI has a history of advocating higher wages and better support for workers, and it was thought that the low wages paid to child care workers hindered both the quality of care provided to children and the workers' own economic stability. In 1999, in collaboration with the Services Employees International Union (SEIU) Local 925 and Child Care Works for Washington, EOI worked with Governor Gary Locke to create a two-year pilot program (Burbank 2001). With $4 million from the state's TANF block grant, EOI and the Department of Social and Health Services designed and implemented the pilot program. In 2001, the program was extended through 2003 and funded at $8 million.[33] The Department of Social and Health Services continues to administer the program, but EOI remains a strong advocate and information clearinghouse for the program. It also serves as a liaison between participating centers and the state's Office of Child Care Policy (Burbank 2001).

[33] http://www.econop.org/ELCNewsAdvisory012902.htm

Program Goals and Features

The goal of the Early Childhood Education Career Development Ladder (Career Ladder) is to create financial incentives for workers to stay in the field and seek additional education. It does this by helping participating child care centers pay their staff higher wages based on a career ladder, with rates set according to education level, tenure, and job responsibility. Workers can benefit from the program if they work a minimum of 20 hours per week (school-aged care workers must work a minimum of 15) and are employed by a participating center. These centers must:[34]

- Adopt the state's career development and wage ladder;
- Include in their total enrollment at least 10 percent subsidized children;
- Provide staff with a minimum of ten days' annual paid leave;[35]
- Provide staff with access to a health plan and pay at least $25 per month toward employee costs to participate in that plan; and
- Establish a Quality Care Committee (with teachers included as members) to oversee the care provided at the center.

Participating centers must also be currently licensed and in good standing, have been in operation for at least two years, not be under investigation by the state's Child Protective Services agency, have a Washington business license, and be a nongovernmental program (Boyd and Wandschneider 2002).

In return, the state pays for 50 percent of wage increases (the "education" part of the salary increase) that result from adopting the ladder and 15 percent above the award amount for administrative costs. The state also pays for part of the "experience" component (as defined by years of experience in child care) of the salary scale increases if more than 25 percent of the children enrolled in the center are receiving a child care subsidy (Boyd and Wandschneider 2002).

Program Evaluation

As part of the original $4 million dollar pilot, funds were allocated for evaluation. Researchers at Washington State University are presently conducting additional phases of the evaluation, which are expected to last for the duration of the pilot program. The overall goals of the evaluation have been to collect data on implementation and to measure the program's effects on child care quality. The evaluation results presented below are based on the first year (July 2000 to June 2001) of the pilot program and reflect the effect of the wage ladder on several factors associated with quality: wages, education, and participant retention. To evaluate the success of the Career Ladder during this first year, researchers compared participating and non-participating centers. The team collected data through director surveys three times during the year and through in-depth telephone interviews with a sub-sample of directors of participating centers (Boyd and Wandschneider 2002).

[34] From the EOI website (http://www.econop.org/Policy-EarlyLearningAndCare.htm#ECE)
[35] As of January 2001, programs were required to provide 12 days paid leave.

Sampling and Participation

Participation in the evaluation was based on responses to a statewide call for applications to enroll in the Career Ladder. Centers that enrolled were required to participate in the evaluation. A comparison group was chosen from centers that requested information about the program but decided not to apply. The comparison group did not represent all child care providers and centers in the state but, rather, was made up of centers that expressed some interest in the program. Therefore, it is likely that the comparison group was at least somewhat biased in favor of professional development and compensation initiatives than those in a randomly selected sample. Although participating centers were neither randomly selected nor randomly assigned to groups, comparison group centers were matched to participating centers based on a number of characteristics, such as size, region, and percentage of children receiving subsidies. Comparison programs were paid $250 for each survey returned to the research team. In all, 124 treatment centers and 126 comparison centers participated in the study (Boyd and Wandschneider 2002).

Data Collection

The evaluators asked directors, via the three mail-in surveys, to report on various aspects of their program (accreditation status, number of employees, child environment, etc). Researchers also asked directors to report on employees' participation in the program, including education, wages, benefits, promotions, turnover, job satisfaction, and morale. The response rate for each survey was approximately 90 percent, although only 84 percent of all programs responded to all three surveys (administered to each participant at three different times during the study).[36] In addition, telephone surveys were conducted with a smaller subset of center directors participating in the Career Ladder. These interviews allowed directors to talk about their perceptions of staff retention, employee professionalism, and how they felt about participating, as well as recommendations on how to improve administration. In total, the study tracked the activities of 2,623 participating workers through director reports during this evaluation period (Boyd and Wandschneider 2002).

Highlights of Findings

While researchers collected data about the program's implementation and directors' feelings of satisfaction about the program, for the purpose of this study, we focused on the effects of the program on workers, because the primary goal of this program is to retain workers and encourage them to pursue additional education. In general, researchers found that the program did improve staff compensation and education levels. There was also some preliminary evidence suggesting that it had an effect on retention, although a one-year study is not ideal for measuring this variable.

Evaluators found that participating workers were more likely to have specialized training specific to early childhood than staff employed at comparison centers. For exam-

---

[36] Researchers reported that program director turnover affected at least two programs' abilities to return surveys. To address this challenge, researchers dispatched technical advisors to those programs to assist with data reporting.

ple, Career Ladder teachers were more likely than comparison group staff to have Child Development Associate (CDA) degrees (58 percent versus 48 percent, respectively), and the comparison group was more likely to have staff with no specific training (34 percent versus 23 percent). Both of these findings were statistically significant (Boyd and Wandschneider 2002). Researchers found no statistically significant difference between groups in terms of additional education and training during the study year. Newly hired staff at Career Ladder centers had significantly higher levels of education than newly hired staff during the same time period at comparison centers. But there was a difference between groups in salary levels prior to the program, which indicates that this difference in education of those hired was seen prior to the Career Ladder. This led evaluators to suggest that the Career Ladder might have helped centers recruit more highly educated staff, thus possibly improving quality from the onset of employment (Boyd and Wandschneider 2002). It is also possible that program participation led centers to place greater emphasis on hiring highly educated staff. Alternatively, since there was a difference in education levels prior to participation in the program, it is possible that pilot centers continued to attract more trained workers as they had prior to the start of the initiative, providing an explanation for the group differences that is not linked to the program.

Researchers found that the program seemed to have had an effect on staff wages. The data suggested that staff employed at participating centers had higher wages and more benefits than comparison group staff. Wages among pilot center staff (an average of $8.94 per hour) were higher across all positions (at the point of data collection) than in the comparison group (an average of $8.41 per hour), and these differences were statistically significant (Boyd and Wanschneider 2002). These figures represent teacher wages during the 2000/2001 school year. In 1999, the statewide average wage was $7.86 (Center for the Child Care Workforce 2001).

The finding that both the participating centers' and comparison centers' wages were higher than the state average may indicate that neither group was representative of the child care workforce population. Nevertheless, the Career Ladder did not increase wages across job categories. Increases were not found to be significantly different across the participant group and the comparison group when taking job level into account. One statistical difference was found in the job level "supervisor," with Career Ladder supervisors actually receiving wage increases at a slower rate than supervisors in the comparison group (Boyd and Wandschneider 2002). Researchers also found cases in which wages decreased, although explanations for these cases were not provided.

Staff at participating centers were more likely to have worker benefits than staff at comparison centers. While Career Ladder centers were required to provide basic benefits like access to a health plan, researchers found that these centers were also more likely to provide benefits beyond program requirements. The differences were statistically significant for paid sick leave, holidays or vacation, and fully paid or partially paid health insurance (only 45 percent of comparison centers provided this benefit compared with 79 percent of Career Ladder centers; Boyd and Wandschneider 2002).

Finally, researchers attempted to measure directors' perceptions of turnover and retention rates. Based on the mail-in surveys, the team found no significant difference in the length of employment between the Career Ladder centers and the comparison centers (29.5 months and 30.5 months, respectively). However, there were differences in retention among workers employed during the first three months of the program, although the difference was not statistically significant (57 percent and 47 percent respectively).[37] But researchers did find a highly statistically significant difference between those employed at any point during the year, with employees at Career Ladder centers working about two weeks longer (Boyd and Wandschneider 2002).[38] Given the small difference, it is also possible that this finding was due to statistical error.

There was a perception among directors that the program positively influenced staff retention. This may indicate that directors saw improvements in retention rates, but that these improvements were generally too slight to produce statistically significant differences. While these results may not suggest that there was a big change, evaluators found that 84 percent of directors in the telephone interviews reported an increase in staff retention and 92 percent reported increases in staff professionalism (increased professional skills with children, parents, and leadership; increased advocacy skills in early childhood education with parents and policymakers; perception of increased value of work; perception that their work was a career, provided a living wage and benefits and required specialized knowledge; and more positive interactions with children).

Program Evaluation Strengths and Limitations

A one-year evaluation generally does not allow sufficient time to measure an initiative's effect on programs designed to change long-term worker behavior, and the research team was justifiably cautious in reporting data about staff retention. Findings are especially tenuous while a program in still in its early stages of implementation. Nevertheless, researchers were able to effectively track key indicators suggesting that the Career Ladder was having a short-term effect. In general, researchers were able to track whether the program succeeded in its goals of changing workers' wages, increasing their educational attainment, and decreasing turnover. Because the state required all Career Ladder centers to participate in the study and because adequate financial incentives were offered to the comparison group, researchers were able to obtain high response rates. The team was also able to obtain a large enough sample of directors (N=2,623) to generate statistically reliable results. A mail-in survey is an efficient way to collect a large amount of data in a short time at relatively low cost. Researchers were also able to provide the $250 stipend to comparison centers and conduct more in-depth interviews with a subset of Career Ladder directors.

A limitation of the study is the absence of an experimental design, in which case centers would have been randomly selected and randomly assigned to either the Career Ladder or the comparison group. Because the state had asked child care centers to apply for participation, and the participating centers became the "treatment" group, there was an inherent self-selection bias. This was also true of the comparison group,

---

[37] The authors note, however, that the difference was approaching significance.
[38] The authors defined "highly" when p< .0001.

which was made up of programs that had asked for information about the Career Ladder, even though they ultimately did not participate. The most obvious bias for both these groups is that programs involved in the study were more likely to be "professionally inclined" or to pay their staff higher wages regardless of whether they participated in the program. This bias perhaps reduced the effects found. Comparing the wages of both groups to the state average in 1999 provides evidence for this argument, because comparison group wages were still higher than average. Nevertheless, the use of a matched comparison group in some ways accounted for this bias—an attempt to compare "apples to apples."

Another limitation of the study is the lack of direct observation or evidence from the student program participant perspective. While there is nothing to suggest that center directors would respond untruthfully to survey questions, there was no supporting documentation regarding staff wages, benefits, education, and turnover. Site visits, document collection, surveys, or interviews with staff could have shed more light on outcomes such as turnover, retention, staff morale, and feelings of professionalism. Finally, reports of staff satisfaction and morale were provided by directors rather than by participating workers. These accounts may not be representative of participants' experiences.

Are Compensation Initiatives Increasing Income, Education, and Retention in the Child Care Workforce?

In this chapter, we summarize the major findings of our study. We also address the challenges that evaluators faced in monitoring the programs we reviewed. We conclude with policy recommendations to help communities better support qualified early care and education practitioners and to assist evaluators in monitoring effects.

The programs that we selected for this study have a number of elements in common. Almost all of them provided incremental salary adjustments or supplements based on job level and education. All were designed on the assumption that a professional, stable early care and education workforce translates into better child outcomes. Finally, all targeted individual child care workers, their employers, or both.

The programs had differences as well. Some addressed compensation by changing the very pay structure of participating local programs, as in the case of the Caregiver Pay Program or the Washington Career Ladder. Others, such as the T.E.A.C.H. Early Childhood® Project and Child Care WAGE$®, took a more indirect approach by providing scholarships and bonuses. Some, such as GELI's Incentive$, were implemented on a large scale. Others, like the Alameda Child Development Corps, were local interventions and required that workers already have some specialized training in early childhood education in order to participate. Others, like Wisconsin's Child Care Mentor Project, welcomed workers with little education.

Our goals for this study were to assess the effectiveness, successes, and challenges of programs to increase child care worker income and education and to analyze the strategies used in evaluating these programs. Monitoring efforts did show that compensation initiatives were associated with increases in workers' incomes, retention, and education. In some cases, evaluators found that compensation initiatives were associated with increases in the quality of the applicant pool and encouraged feelings of professionalism in participating workers. Some evaluators reported that funds used to help workers obtain further education also helped neighboring colleges and universities build their early education programs.

Yet, we also found that many programs faced challenges. Process and implementation results suggest that programs will need to re-evaluate their funding structures to ensure being able to continue services. Others must improve their outreach strategies to reach more local programs, groups, or communities. Still others will have to rethink how they reward participants to make sure that all workers in a program receive adequate benefits for their participation. Also, more information is needed on how much education is enough and on what effect various amounts of monetary incentives have on retention rates. These findings underline the importance of using implementation and utilization studies as a way to ensure that a program will have a maximum effect on the targeted population.

But as we have emphasized, our findings must include the caution that our information was collected from studies that had their own limitations. We found that evaluators

were often monitoring programs under less than ideal circumstances. As we pointed out in earlier chapters, evaluators were sometimes funded to monitor programs for only one or two years, hardly enough time to assess long-term effects. Some evaluations were funded with monies allocated only for the pilot program in question, resulting in smaller-scale studies than might not have been optimal.

Unfortunately, the timing of our study also posed a challenge. At the outset of our work, very few evaluations had been completed. A few were produced during the early course of this study. We anticipate that more evaluations of these programs, with more definitive data, will be available in the near future.

Investments in child care improve children's development and the chances of their later success in adolescence and adulthood. It is interesting to note that few programs articulated that improving the lives of workers and their families was an explicit goal in improving wages and working conditions. We acknowledge that many program administrators are interested in achieving these ends, whether or not related to improved child care. We do suggest, though, that most state policymakers would not prioritize improving working conditions and wages, as a top policy goal for the sole purpose of improving worker well-being.

Findings

Table 5 summarizes the various evaluation approaches and characteristics of the programs we examined. Table 6 summarizes the evaluation findings. The following is a discussion of key findings that emerged from our analysis.

Compensation Changes Across Programs

As we mentioned, all of the programs had some component that financially rewarded participants for increasing their education and remaining at their jobs. While strategies for providing financial rewards took various forms—increasing pay scales, stipends, and scholarships—most evaluators who tracked income found that workers' incomes went up. Even where the approach focused on scholarships (as in the T.E.A.C.H. Early Childhood® Project), increased education translated into bonuses or pay raises that were in some cases beyond expectations. By definition, these programs increased compensation in some capacity for most participants.

Most increases were small, and as Table 5 shows, program allocations were modest. We were unable to determine the effects of varying stipend amounts across programs. In Child Care WAGE$®, the Alameda Child Development Corps, and GELI's Incentive$, stipends ranged from about $100-$6,000, depending on job level and education of the participant. In programs that provided one-time bonuses, most recipients got about $300-$500 for completing a program. Over the course of a year, few participants could have felt much increase in income.

Based on the data we examined, annual income gains could not be determined. In the Caregiver Pay Program, researchers reported that most participants saw their wages increase by almost $2 per hour, a more substantial increase than provided by other initiatives. However, evaluators of the Caregiver Pay Program did not report that wage

Table 5: Summary of Program Evaluations

Program	External or Internal Investigation	Evaluation Strategies	Duration of Evaluation	Funding/ Evaluation Period*
Alameda Child Development Corps (California CARES)	External	12 focus groups	Implementation study – one year	Total funding: $4 million (2000-2001); Funding for Evaluation: Unavailable
Child Development Program, Caregiver Pay Program (DoD)	External	Mail-in survey of all child development programs; site visits; process interviews with administrators, workers and parents.	Two years	Total funding: $6 million (2001-2002); Funding for Evaluation: $44,000
Georgia Early Learning Initiative	External	Participant awareness survey and self-reported data from administering groups.	NA	Total funding: $580,000 (1998-1999); Funding for Evaluation: $20,000
T.E.A.C.H. Early Childhood® Project	Internal	Generated report from monitoring database and participant satisfaction survey (only database results were included in the study).	Ongoing	Total funding: $2,697,256 (2000-2001); Funding for Evaluation: Unavailable
Child Care WAGE$®	Internal	Generated report from monitoring database and participant satisfaction survey.	Ongoing	Total funding: $6,488,952 (2000-2001); Funding for Evaluation: Unavailable
Washington Career Ladder	External	Comparison study using three waves of director surveys and one extended telephone survey.	Duration of pilot program (will most likely be two years)	Total funding: $3.8 million (2000-2001); Funding for Evaluation: Unavailable
Wisconsin Child Care Mentor Project	External	Interviews, focus groups, and closed surveys with program administrators and participants.	One year	Total funding for program and evaluation: $5 million (1998-1999)

53

*Funding information was gathered from evaluation reports and direct communications with evaluators and program administrators.

Table 6: Summary of Program Findings for Studies with Outcome Information

Program	Education/ Training	Retention/ Turnover	Financial Compensation
Alameda Child Development Corps (California CARES)	Not an evaluation goal.	Not an evaluation goal.	Not an evaluation goal.
Child Development Program, Caregiver Pay Program (DoD)	Caregivers were required to obtain additional training, although there were no reported findings as to how much education levels improved.	Turnover decreased across all military branches.	Wages increased across all four military branches.
Georgia Early Learning Initiative	Not an evaluation goal.	Not an evaluation goal.	Not an evaluation goal.
T.E.A.C.H. Early Childhood® Project	Although increasing educational attainment is a requirement for the program, participants gained further education beyond program requirements.	Turnover levels for program participants were below state average.	Wages increased on average for all participants, and many reported increases beyond the required amount.
Child Care WAGE$®	Participants were awarded stipends based on education, but no education requirement was stipulated. The majority said that the program encouraged them to obtain additional education.	The majority of participants reported that supplements impacted their decision to stay in the field or pursue additional education; participant survey, turnover among participants was lower than state average.	Stipends encouraged many participants to stay at their jobs.
Washington Career Ladder	Participants had higher levels of specialized education. Participating programs appeared to recruit applicants with higher levels of education.	No difference in employment duration for all study participants, but staff hired after start of program stayed two weeks longer at their centers.	Participants had higher wages overall, but wage growth was inconsistent across job categories. Both groups had higher average wages than state average.
Wisconsin Child Care Mentor Project	Both mentors and protégés increased their education levels.	Not an evaluation goal.	Mentors received a stipend for participation; 1/3 received a salary increase from their jobs. Protégés received no stipend; 1/3 received a salary increase from their jobs.

changes were adjusted for inflation, so these increases may be less than they seem *(see footnote 24)*. In the Career Ladder, while participants' incomes were higher than in the comparison group, wage differences in some jobs were noticeably less than for others. We suspect that the Career Ladder would have seen larger wage differences had the participating programs and the comparison group not both started with higher wages than the state's average for child care workers. If the pilot group had been compared with a more representative group, researchers might have found larger differences. In this case, a "creaming" effect may have muted the real wage gains.

The overarching goals of the various compensation initiatives are to: 1) retain staff and increase their levels of education and 2) attract new workers and offer them training to increase their skill levels. Compensation increases were set differently for different job positions and for junior versus senior staff. In most programs, senior staff received higher levels of compensation supplements. In the Wisconsin Child Care Mentor Project's pilot program, mentors received a bonus for participating, while protégés did not.

On the one hand, increasing compensation at a sharper rate for higher-level staff may encourage all participants to seek further education. On the other hand, senior staff are less likely to leave the job or the field. But when senior staff do leave child care, the impact is harsher and the effects of their absence and the challenges in replacing them are heightened. The starting wages of child care workers were often so low that programs like the Wisconsin Child Care Mentor Project had trouble obtaining referrals from one-stop employment centers. It may be worth re-evaluating programs that do not significantly increase wages at the lower end of a child care career ladder.

Education Changes Across Programs

Education and training were key concerns for all the programs we examined. In general, we found compelling evidence that programs were successful in establishing the connection between increased education and increased compensation, something that has been historically missing in the child care field. However, education and training changes depended on whether occupational supports (paid leave time for education, scholarships for courses or training, etc.) were provided, whether education was a criterion for participation, or whether education was tied to actual pay levels.

In general, we found evidence that the T.E.A.C.H. Early Childhood® Project the Caregiver Pay Program, and the Wisconsin Child Care Mentor Project have increased, or will increase, workers' education levels—no surprise, given that these programs provided direct support for increased education. The Alameda Child Development Corps program had yet to report on outcomes. One effect of North Carolina's Child Care WAGE$® program may have been to provide an incentive for participants to seek additional education through enrollment in the T.E.A.C.H. Early Childhood® Project. This points to another important finding: some states and communities benefited from using a number of coordinated compensation initiatives. While investigators did not report increased education levels for workers in the Career Ladder, we suspect that any changes would be unobservable in the course of one year or during the pilot or early stages of implementation.

Another important finding is the effect of compensation initiatives on education levels of new employees. Research teams from both the Washington Career Ladder and the Caregiver Pay Program reported that center directors noticed increases in education levels of newly hired employees since the inception of the program. Thus, a key benefit of compensation strategies could be enabling programs to recruit better-educated staff. This suggests that with higher pay scales come higher-quality applicant pools, and thus higher overall quality. It also suggests that if applicants already have specialized education, states might save money in child care training in the long run.

Retention and Turnover Changes Across Programs

In general, based on the four evaluations that reported on employment stability, we found evidence that compensation initiatives increased staff stability. Evaluators reported these findings as changes in either retention or turnover rates. Retention is measured by the length of time an employee spends at a job, while turnover is measured by the proportion of staff positions that become vacant at least once over the course of a given time period. However, because measuring turnover requires multi-year monitoring while retention can be measured in shorter-term programs, evaluators reported on retention in some cases and turnover in others. North Carolina's T.E.A.C.H. Early Childhood® Project and Child Care WAGE$® and the Caregiver Pay Program demonstrated decreases in turnover. The Washington Career Ladder demonstrated increases in retention.

It appeared that employment stability was, unsurprisingly, linked primarily to compensation. While the Wisconsin Child Care Mentor Project evaluation did not report on turnover, the team did suggest that both protégés and mentors were unsure whether the amount of work they were required to do was worth the small, or nonexistent, increase in compensation. In attempting to find out why some participants dropped out of the Child Care WAGE$® program, monitors were told by more than half of their respondents that better compensation would have made a difference in their willingness to stay. The financial component appears to be the critical factor in making these initiatives effective. Increases in compensation linked to increases in education, training, or responsibility appear to be very important in the child care labor market.

Compensation increases did not have to be very large to have an effect. We speculate that workers who participate in these programs already exhibit a stronger desire to stay in the field than those who do not participate. Even small compensation increases encourage them to continue to improve and remain in their jobs.

Yet, we should also point out that turnover is not always a negative outcome in child care, especially if the ultimate goal is to increase the quality of service to children. Evaluators in the Caregiver Pay Program reported that early in the implementation of MCCA, many staff who refused to commit to the program's new training requirements voluntarily left. While we do not know about the quality of service these staff members provided, this finding suggests that compensation incentives, by setting higher standards for workers, may weed out unmotivated staff. Alternatively, some workers undoubtedly left their jobs but did not leave the field of child care.

Feelings of Professionalism Across Programs

Evaluators of the Washington Career Ladder, Child Care WAGE$®, and the Alameda Child Development Corps found that center directors reported increased feelings of professionalism among their staff. The Career Ladder evaluators defined "feelings of professionalism" using directors' accounts of workers' increased professional skills with children, parents, and leadership; increased advocacy skills with parents and policymakers; perception of increased value of their work; perception that their work was a career that provided a living wage and benefits and required specialized knowledge; and more positive interactions with children. Child Care WAGE$® defined "feelings of professionalism" by directors' accounts of workers' appreciation of and recognition for work, increased staff morale, and more positive interactions with children. The Alameda Child Development Corps relied on self-reports of "increased professionalism." While the evaluators did not suggest that increased feelings of professionalism would translate into lower turnover, this type of worker reaction may have later retention effects. These findings should be interpreted with caution, however, since it is possible that directors' perceptions of staff satisfaction may not accurately reflect actual staff feelings.

Indirect Changes Across Programs

During our interviews, some program administrators talked about how their programs reverberated beyond their immediate target populations. For example, the infusion of funds to help workers gain further education was directed to community colleges and public universities. These institutions then used these funds to build their early childhood education programs, which then helped meet the demand to train more early care and education professionals. In the Alameda Child Development Corps implementation study, researchers found that local colleges experienced increased enrollment in child development-related courses.

The Presence of Strong Leadership

Strong leadership can have a positive effect on the way programs are implemented and funded. As the implementation study of the Alameda Child Development Corps demonstrated, community leaders who have a clear vision and are able to effectively mobilize coalitions will ensure that programs are well-funded and implemented with clear goals. This was also most likely a strong factor in the successful implementation of the Washington Career Ladder.

Implementation Challenges Across Programs

Programs must still overcome challenges to ensure that workers benefit from participation. Stability in funding continues to be a problem. Evaluators of the Alameda Child Development Corps noted that the maximum level of the program's stipend scale had to be decreased due to higher-than-expected demand. Programs also face challenges in performing effective outreach. Based on a survey of providers, GELI's evaluators concluded that very few potential participants knew either about the T.E.A.C.H. Early Childhood® Project or Incentive$ programs. Attrition rates were not captured in any of the programs examined in this study. This information is important to understanding the strengths and challenges faced in program implementation.

The Challenges of Evaluating the Programs in This Study

Perhaps the most important finding is that evaluators are continually challenged to find reliable ways to monitor the effects of child care compensation initiatives. In general, we found that evaluators and program administrators were committed to monitoring the effects of their programs on staff stability, wages, and education. Nevertheless, evaluators were faced with a number of challenges that hindered their ability to produce highly reliable results in all cases.

Matching Program Goals and Evaluation Methods

In our research, we found no example of an evaluation that used randomly assigned control and "treatment" groups to monitor the effects of compensation initiatives on the workforce. Use of such pairings would have allowed researchers to control for a number of potential influences that might skew the relationship between compensation strategies and outcomes. Their absence drastically limits our ability to say with certainty that a compensation strategy alone has been the cause of changes evaluators noted.

Randomly assigned control and treatment group studies are difficult to arrange in the child care field for many reasons. Maintaining a population of individuals who are not offered a particular treatment often goes against the goals of early intervention programs such as child care. Additionally, the field of child care is quite complex, and the workforce is mobile. Workers are difficult to track and isolate and may not remain in any given job for long. Despite these problems, if policymakers and advocates want to see accurate and reliable measurements of the results of interventions, they must support making an investment in studies that use an experimental research design. Baseline data are also helpful in measuring program effects, particularly in the absence of a randomized control group. An investment in collecting such data across states should be made to further assist in determining the effects of such interventions.

Given this overall limitation, we found that evaluators used measures that corresponded to the overall goals of the programs they were assigned to monitor. When this did not occur, it was from lack of funding or demands to generate findings prematurely. This was the case in GELI, which requested the investigators to use organizational self-reported data to evaluate initial participation results.

The lack of baseline data in the child care field makes it difficult to evaluate the effects of programs. For example, Washington Career Ladder evaluators were unable to report the relationship between wages and turnover because there was no reliable information on salaries before the implementation of the program. Since they were not able to measure the increase in salaries over time, they were able to report only on retention rates.

Evaluation Timing

We found that evaluators were not given sufficient time to monitor programs. With the exception of T.E.A.C.H. Early Childhood® Project and Child Care WAGE$® program, which are monitored in-house and are ongoing, program evaluators were funded only for one- to three-year studies, whereas major effects on turnover and wages take much longer to come to light. This is a primary reason to view these findings as preliminary or short term.

Some evaluators were asked to carry out an outcome or implementation study some time after the start of a program. This forced them to rely on outdated data of questionable reliability. For example, evaluators of the Caregiver Pay Program conducted interviews with respondents in which they referred to events of the previous three years. Other evaluators had to use existing, and in some cases inaccurate, record keeping systems to examine participation rates. Furthermore, baseline data, by circumstance, are not available when program evaluations begin after program implementation has been carried out. Baseline data can be critical to the valid measurement of program effects.

At the same time, however, outcomes measured during a program's early stages may not accurately reflect true program effectiveness. Programs struggle to begin and streamline operations during the first years and often take several more years to be fully implemented. Early changes may be small or underestimated during the "start-up" time. Implementation studies that emphasize processes rather than outcomes serve programs well during this phase. Findings from these evaluations can be used to refine programs, leading to better services for participants and, ultimately, better outcomes. In many cases, the decision to report outcome data is determined by the realities of how policy and funding decisions are made. In these cases, evaluators are left with only the ability to measure program outcomes rather than first studying implementation and later assessing outcomes.

Funding

It is worth repeating that inadequate funding and time to carry out multi-year evaluations was a problem for many evaluation teams. The lack of support for evaluation efforts forced researchers to make compromises on methods used to collect data.

Conclusions and Policy Recommendations

Linking increases in child care worker compensation to increases in training or education is one of many possible strategies for improving child care quality. Champions of improved child care have discussed a number of alternative strategies, including encouraging unionization, funding services through the public education system, increasing staff/child ratios, improving compliance with quality regulations, providing financial rewards to programs that achieve national accreditation, and increasing the availability of subsidies so that more families can afford higher quality care. Strategies can be used in combination, and not all strategies designed to improve quality would operate through improving provider compensation. In deciding upon any particular strategy to improve child care quality or worker compensation or both, it is important to consider both the intended and unintended effects. For example, encouraging unionization would likely lead to increased wages and may improve worker qualifications. Prices might increase, and to keep care accessible to lower income families, public subsidies would have to be increased. This study focused on one strategy, subsidies for providers tied to education and training, because so far it appears successful in garnering public support and increasing public subsidies for child care. Public compensation initiatives have also been a focus of monitoring and evaluation efforts, which allowed us to begin to review evidence of their effectiveness.

We found that compensation initiatives can, indeed, improve child care workforce education and retention. While evaluation findings are preliminary, the evidence suggests that these strategies do serve to increase worker incomes and education levels and decrease staff turnover in the short term. In light of our conclusions, we recommend that these programs continue, and that other states avail themselves of opportunities to adopt these strategies where appropriate. We also recommend ways to help monitor the effects of these programs to ensure reliable results. In the Appendix, we offer suggestions on how to monitor compensation initiatives using a number of evaluation strategies. Our recommendations are:

> **Ways should be explored to increase *starting* salaries and establish minimum requirements for workers.**

In each region examined in this study, we found that starting salaries were close to the national average, which was dismally low. Low compensation makes it difficult to attract qualified staff and more difficult still to increase salaries to levels competitive with those in other occupations that place similar lifestyle and educational demands on workers. Increasing starting salaries will provide a better basis for compensation initiatives and raise the chances of improving the quality of the child care workforce. Higher starting salaries should go hand-in-hand with increases in the minimum qualifications required of child care providers. A minimum educational and training requirement should be the norm for the field nationwide. For example, an applicant should have a minimum of a Child Development Associate (CDA) degree to get a job as a child care provider.

> **To be effective, strategies must link professional development activities to bonuses or increases in pay.**

Strategies must incorporate bonuses or pay raises into professional development models. In many of these programs, participants were required to complete a number of tasks in order to receive their bonus or pay raise. If workers carry out tasks and do not receive rewards, they may not participate. While many of the programs in this study provided at least minimal salary enhancements or stipends, future research should examine the effect of the amount of salary enhancement or stipend on worker retention.

> **Programs should provide adequate outreach and marketing to the child care community, particularly to workers who are often not reached.**

Child care workers need to be informed of educational and training opportunities. Planned outreach efforts should target isolated populations, such as family child care providers, rural child care providers, and non-English-speaking child care providers. Because compensation initiatives are likely to be unfamiliar to many workers, these programs are probably not taking in as many participants as they could. Outreach and marketing would also reduce the time burden on workers of finding professional development opportunities.

> **Programs must offer opportunities for career growth through the provision of education and training credits toward a college degree.**

Disjointed courses that don't count toward a college degree are of limited or no benefit. Education and training should award degree-earning credits. This arrangement would help define a clear curriculum and developmental path for workers that can ultimately

lead to a college degree. College coursework should be articulated to ease the transition from two-year to four-year colleges, enabling busy workers to have a realistic chance to pursue their education. For workers who are not yet college ready, education and training should be geared toward preparing them for college-level courses.

▶ **Public colleges and universities must make accommodations for the work schedules of their students.**

Since so many compensation initiatives are linked to enrollment in college classes, public colleges and universities providing education and training linked to these programs should take workers' schedules into consideration when planning course offerings and schedules.

▶ **Programs must have adequate supports in place to enable workers to participate.**

Child care workers have little flexibility in paying for further education and in scheduling. Many of the programs we examined provided education stipends for participants. In addition to these stipends or tuition scholarships, however, participants must be offered paid leave time for education, an allowance for books and additional supplies, and access to other supportive services (e.g., an administrator who can assist in registering participants for classes or navigating an educational system). Finally, child care for the worker's own family and transportation should also be covered, particularly when training and education are provided during evenings and weekends, when such facilities are less available.

▶ **A "menu" of programs should be offered to the child care community.**

Child care workers' needs, like those in the general population, vary considerably. While all child care workers need continued professional development, needs and readiness differ among individuals. Therefore, workers should have choices in the types of programs they subscribe to and in the professional development opportunities presented to them. This would allow for the full spectrum, from novices to master teachers, to continually improve their caregiving and teaching skills.

▶ **Mixed or blended funding strategies should be considered when there is more than one funding stream for professional development.**

To maximize limited resources, programs should look at ways to achieve their desired outcomes using existing community resources or programs as much as possible. Some programs have already been successful in using general program funds and infrastructure to address a specific feature of their program. For example, T.E.A.C.H. Early Childhood® Project dollars are used in many compensation programs (e.g., the Wisconsin Mentor Project and GELI). Maintaining diversity in funding streams also protects valuable programs during tighter economic times, when one or several funding sources are no longer available. Various funding strategies can be used, particularly in larger interventions. These larger interventions can boost education and retention while also addressing other areas of child care quality (e.g., adequate facilities, materials, and low child-to-staff ratios). These different funding streams and intervention foci should be coordinated to optimize the use of funds.

❱ **Programs must be funded at levels that guarantee sustainability and must last long enough to demonstrate effects.**

Child care workers need to be assured that programs aimed at helping them maintain a sustainable lifestyle and increase their level of professionalism are not temporary gestures. Policymakers and program developers need to make sure that programs will continue operating to support current and future participants. Programs that are funded and later discontinued only add uncertainty and instability to an already uncertain and unstable profession. Additionally, full program effects can not be determined when programs are discontinued prior to full implementation, which usually takes several years.

❱ **Programs should provide continued support, mentoring, and monitoring of participants.**

Programs should not be implemented as short-term interventions or supports. Instead, workers should be able to integrate professional development programs into their framework of occupational supports. Programs providing optimal services for only a fixed period of time miss out on maximizing the investment already spent on these workers. Furthermore, programs should remain linked to their graduates to allow monitoring of the longer-term strengths and limitations of each program.

❱ **Process and outcome evaluations should be adequately funded and realistically planned before program implementation.**

Both process and outcome evaluations should be prepared during the program planning phase, well before program implementation. Process evaluations allow administrators and staff to more quickly assess program implementation and to make needed changes, realigning the program with its intended goals. Outcome evaluations allow programs to assess how successful they have been in meeting their goals. Outcome evaluations should not be conducted during the early stages of program implementation except when collecting pre-implementation baseline data or as part of a long-term study continuing beyond full implementation. Otherwise, outcome evaluations should be conducted after a program has fully implemented its approach. Outcome evaluations allow researchers to identify which program strategies were effective and which need further refinement. Programs should always be reexamining their operations and considering how they can better address community needs. Making improvements does not imply earlier failures.

❱ **Turnover should be clearly defined and carefully examined in program evaluations.**

As mentioned throughout this paper, turnover in the child care field may indicate program strengths as well as weaknesses. Turnover should be tracked, so that administrators and policy makers have a clear understanding of why it happens. Positive or neutral reasons for turnover should be tracked and measured separately from negative reasons. A neutral example is that of a caregiver leaving a position for a comparable job in a different program due to relocation. Positive turnover occurs, for example, when a worker has been promoted to a higher position, whether in the same setting or in a dif-

ferent facility. Another kind of positive turnover occurs when low-skilled workers decide that they are not "cut out" for child care and voluntarily leave the field. Negative examples of turnover, such as staff resignations because of undesirable working conditions, low wages, and lack of professional supports, should be closely examined, and these data should be used to strengthen these components of the child care infrastructure.

▶ **Research studies should measure the effect of compensation incentive programs on caregiver skills.**

The evaluations included in this study measured professional development through number of credit hours completed, number of training hours received, or type of degree attained. While these findings are important and speak to the immediate success of each strategy, future studies should also examine how these professional development activities translate into improved child care.

▶ **Effective compensation initiatives should be expanded or replicated.**

High staff turnover and low wages affect child care workers nationwide. States that have implemented these compensation initiatives should fully examine their effects. In addition, the federal government should sponsor an evaluation using accepted experimental design methods to validate these outcomes. If and when a program is deemed effective, states and communities would benefit by copying it.

The evidence suggests that compensation initiatives help child care workers not only increase their education, but in some cases, also demonstrate greater commitment to their profession. These changes are likely to affect children's early experiences positively and increase the chance that they will enter kindergarten ready to succeed.

References

Alameda County Children and Families Commission. 2002. "Child Development Corps." http://www.ackids.org/dev_corps.shtml. September 4, 2002).

Antinozzi, Jennifer and Monica Herk. 2002. *Improving Early Childhood Education in Georgia: Progress Report on Year 1 of the Georgia Early Learning Initiative.* Atlanta: Georgia State University.

Boyd, Brenda and Mary Wandschneider. 2002. *Washington Child Care Career and Wage Ladder Pilot: Year I Evaluation Report.* Seattle, WA: University of Washington.

Burbank, John. 2001. *Washington State Child Care Career Development Ladder Pilot Project: Research and Evaluation Interim Report—Summary of Findings.* Seattle: Economic Opportunity Institute.

Burton, Alice, Jessica Mihaly, Jennifer Kagiwada, and Marcy Whitebook. 2000. *The CARES Initiative in California: Pursuing Public Policy to Build a Skilled and Stable Child Care Workforce, 1997-2000.* Washington, DC: Center for the Child Care Workforce.

Burton, Alice and Marcy Whitebook. 2000. *Recruiting and Retaining Low-Income Child Care Workers in Wisconsin: The Wisconsin Child Care Mentor Project Evaluation, A Summary of Findings.* Washington, DC: Center for the Child Care Workforce.

Campbell, Nancy Duff, Judith C. Applebaum, Karin Martinson, and Emily Martin. 2000. *Be All That We Can Be: Lessons From the Military for Improving Our Nation's Child Care System.* Washington, DC: National Women's Law Center.

Campbell, Frances A., Craig T. Ramey, Elizabeth Pungello, Joseph Sparling, and Shari Miller-Johnson. 2002. *"Early Childhood Education: Young Adult Outcomes From the Abecedarian Project."* Applied Developmental Science, 6(1). Pp. 42-57.

Caspary, Kyra, Elizabeth Gilman, and Muriel Hamilton. 2002. *Alameda Child Development Corps: Year 1 Qualitative Implementation Study February 2002.* Berkeley, CA: Policy Analysis for California Education.

Center for the Child Care Workforce. 2001. *What's Happening in Washington?* Retrieved July 25, 2001 from: http://www.ccw.org/whatsnew/states/Washington.html.

Center for the Child Care Workforce. 2002. *Current Data on Child Care Salaries and Benefits in the United States, 2002 Edition.* Washington, DC: National Center for the Child Care Workforce.

Child Care Services Association. 2001a. *Child Care WAGE$® Project Statewide Final Report: July 2000-June 2001.* Chapel Hill, NC: Child Care Services Association.

Child Care Services Association. 2001b. *T.E.A.C.H. Early Childhood® Annual Report: July 1, 2000-June 30, 2001.* Chapel Hill, NC: Child Care Services Association.

Child Care Services Association. 2001c. *The T.E.A.C.H. Early Childhood® Project.* Retrieved July 25, 2001 from: http://www.childcareservices.org/TEACH/T.E.A.C.H.%20Project.htm.

Cook, Thomas and Donald T. Campbell. 1979. *Quasi-Experimental Design and Analysis Issues for Field Settings.* Chicago: Rand McNally.

REFERENCES

Cost, Quality and Outcomes Study Team. 1999. *The Children of the Cost, Quality, and Child Outcomes Study Go To School.* Chapel Hill: Frank Porter Graham Center at the University of North Carolina at Chapel Hill.

Culkin, Mary, John R. Morris, and Suzanne W. Helburn. 1989. "Subsidies and the True Cost of Child Care." *Proceedings: Second Annual Women's Policy Research Conference,* Washington, DC: Institute for Women's Policy Research.

Doherty, Kathryn M. 2002. "Early Learning: Data on State Early-Childhood Policies and Programs Have Large Gaps." *Education Week.* 11(7) (January): 54-67.

Federal Interagency Forum on Child and Family Statistics. 2002. *America's Children: Key National Indicators of Well-Being 2002.* Washington, DC: Federal Interagency Forum on Child and Family Statistics.

Giannarelli, Linda and James Barsimantov. 2000. *Child Care Expenses of America's Families.* Washington, DC: Urban Institute.

Gilliam, Walter, Carol Ripple, Edward Zigler, and Valerie Leiter. 2000. "Evaluating Child and Family Demonstration Initiatives: Lessons from the Comprehensive Child Development Program." *Early Childhood Research Quarterly,* 15, 1:41-59.

Hartmann, Heidi and Diana Pearce. January 1989. *High Skill and Low Pay: The Economics of Child Care Work.* Washington, DC: Institute for Women's Policy Research.

Helburn, Suzanne W., Ed. 1995. *Cost, Quality, and Child Outcomes in Centers, Technical Report.* Denver: Department of Economics, Center for Research in Economic and Social Policy, University of Colorado at Denver.

Howes, Carollee, Ellen Smith, and Ellen Galinsky. 1995. *The Florida Child Care Quality Improvement Study: Interim Report.* New York: Families and Work Institute.

Mezey, Jennifer, Mark Greenberg, and Rachel Schumacher. October 2, 2002. *The Vast Majority of Federally Eligible Children Did Not Receive Child Care Assistance in FY 2000:Increased Child Care Funding Needed to Help More Families.* Washington, DC: Center for Law and Social Policy.

Mitchell, Anne. 2001. *Comparison of Current Publicly Funded State Initiatives for Compensation and Retention.* New York: Early Childhood Policy Research.

Mitchell, Anne, Louise Stoney, and Harriet Dichter. 2001. *Financing Child Care in the United States: An Expanded Catalog of Current Strategies, 2001 Edition.* Kansas City, MO: Ewing Marion Kauffman Foundation.

Mocan, H. Naci, Margaret Burchinal, John R. Morris, and Suzanne W. Helburn. 1995. "Models of Quality in Early Childhood Care and Education" in Suzanne W. Helburn (ed.) *Cost, Quality, and Child Outcomes in Child Care Centers: Technical Report.* pp. 279-295.

National Research Council Institute of Medicine. 2000. *From Neurons to Neighborhoods: The Science of Early Childhood Development.* Washington, DC: National Academy of Sciences.

Nelson, Julie. April 2001. *Why are Early Education and Care Wages So Low?" A Critical Guide to Common Explanations.* New York: Foundation for Child Development.

Pennsylvania Child Care Association. 2001. *Annual Report.* Harrisburg, PA: Pennsylvania Child Care Association.

Phillips, Deborah, Debra Mekos, Sandra Scarr, Kathleen McCartney, and Martha Abbott-Shim. 2001. "Within and Beyond the Classroom Door: Assessing Quality in Child Care Centers." *Early Childhood Research Quarterly,* 15(4): 475-496.

Pindus, Nancy, Daryl Dyer, Caroline Ratcliffe, John Trutko, and Kellie Isbell. December 1997. *Experiences, Trends, and Opportunities for Low-Wage Workers in Health Care, Hospitality, and Child Care.* Washington, DC: The Urban Institute.

Russell, Susan. September 2002. Personal correspondence, Child Care Services Association, Chapel Hill, NC.

Sonenstein, Freya L., Gary J. Gates, Stefanie Schmidt, and Natalya Bolshun. May 2002. "Primary Child Care Arrangements of Employed Parents: Findings from the 1999 National Survey of America's Families." Washington, DC: The Urban Institute, Occasional Paper Number 59.

Twombley, Eric C., Maria D. Montilla, and Carol J. DeVita. February 2001. "State Initiatives to Increase Compensation for Child Care Workers." Washington, DC: The Urban Institute.

Wheelock College Center for Career Development in Early Care and Education. 1998. *State Early Care and Education Career Development Initiatives in 1998.* Boston: Wheelock College.

Whitebook, Marcy and Abby Eichberg. 2001. *Finding a Better Way: Defining and Assessing Public Policies to Improve Child Care Workforce Compensation.* Washington, DC: Center for the Child Care Workforce.

Whitebook, Marcy, Carollee Howes, and Deborah Phillips. 1998. *Worthy Work, Unlivable Wages: The National Child Care Staffing Study, 1988-1997.* Washington, DC: Center for the Child Care Workforce.

Whitebook, Marcy, Laura Sakai, Emily Gerber, and Carollee Howes. 2001. *Then and Now: Changes in Child Care Staffing, 1994-2000.* Washington, DC: Center for the Child Care Workforce and the Institute of Industrial Relations.

Zellman, Gail L. and Anne S. Johansen. 1998. *Examining the Implementation and Outcomes of the Military Child Care Act of 1989.* Santa Monica, CA: National Defense Research Institute.

How to Evaluate Child Care Compensation Initiatives

During our search of evaluations of compensation initiatives, we found that there were few ongoing efforts to monitor the results of these programs. We also found that when studies did exist, they were often under-funded or too brief to allow evaluators time to collect reliable information. Many programs did not have the resources to hire outside research teams to evaluate their programs, but administrators still wanted to have a system that tracked program progress (e.g., the T.E.A.C.H. Early Childhood® Project and Child Care WAGE$®). Administrators need measurable proof of their program's worth to show to policymakers and other potential funding sources. In light of these concerns, we offer some guidelines for conducting program evaluation.

This "How To" appendix presents basic guidelines for evaluating child care compensation initiatives. We formulated these practical recommendations based on information from a number of sources that discuss the components of a successful evaluation as well as a number of effective strategies to accurately assess whether a program's services are meeting its overall objectives. Our recommendations are derived from the following sources:

- Measuring Program Outcomes: A Practical Approach, The United Way of America, 1996.

- Performance Measurement and Evaluation: Definitions and Relationships, General Accounting Office (GAO). 1998.

- Child-Care Retention Initiative (CRI) Programs Evaluation Handbook, PACE, 2001.

The first section is a general overview of key components of program evaluation. The second section is a general outline or guide that can be used to implement an evaluation. The third section provides an example of a small, a medium, and a large-scale evaluation.

The Objectives of Program Evaluation

Program evaluations measure how well a particular program is working. For example, an evaluation of compensation initiatives might focus on how professional development affects retention through various approaches. In conducting evaluations, researchers (or whoever is performing the study) are interested in determining how the program was implemented, how it affected the target population, and the program's cost to benefit ratio. Evaluations are also important for program replication purposes. Information on the design, implementation, and effectiveness of a program can be used by others to replicate the program in their communities.

Types of Evaluations

In general, there are two main types of evaluation: A process or implementation evaluation and an outcome evaluation. Both are often conducted within the same general study, but a process evaluation is more likely to occur in the early stages of a program's implementation. An outcome evaluation is more effective once a program is fully operational, except when collecting baseline data for comparison purposes. A utilization study, which is a type of process or implementation study, is conducted throughout the

evaluation to monitor participation fluctuations. In some cases, a market study is included in a large-scale process evaluation. This type of study helps researchers describe the environment in which a program is operating and may be helpful in concluding why a program is or is not working as originally intended.

A research team not connected with the program itself often conducts the evaluation, but program administrators or other internal actors can also evaluate services. Either approach can be effective. Nevertheless, some observers, such as the United States General Accounting Office (GAO), make a distinction between programs that are examined by internal staff, as in North Carolina's T.E.A.C.H. Early Childhood® Project evaluation and North Carolina's Child Care WAGE$® program evaluation, and those evaluated by outside staff (usually from a research firm or a university). The GAO defines Performance Measurement Evaluation as monitoring conducted by program staff. In Performance Measurement, individuals perform ongoing monitoring and reporting of program progress (accomplishments and goal attainment). Performance measures may also record the direct products and services delivered by a program and/or the results of those products or services (GAO 1998). The GAO defines third-party evaluations as those conducted by an expert external to the program (GAO 1998).

Implementation or Process Evaluation

The overall goal of a process or implementation study is to measure how a program is being implemented, how implementation may enhance or constrain program outcomes, whether the program is being implemented efficiently, and whether program processes are consistent with objectives. To use the example provided, if a goal of a compensation initiative is to increase staff retention, an implementation study will assess whether the services and benefits provided to the staff are designed to contribute to that objective.

To gauge this, evaluators use a number of data collection strategies. They hold focus groups (as was the case with the Alameda Child Development Corps evaluation) or individual interviews with program administrators, planners, policymakers, and participants (as was the case with the Wisconsin Child Care Mentor Program). They examine written records, such as legislation, testimony, and program plans. Process evaluations conducted early enough can help administrators make adjustments to maximize the program's effectiveness. They can also be very useful for program replication. Some examples of process evaluations are the Alameda Child Development Corps program evaluation, the Georgia Early Learning Initiative (GELI) program evaluation, and the Wisconsin Child Care Mentor Project program evaluation.

Utilization studies gauge program participation and reasons for high or low usage. In some cases, evaluators request that participants fill out forms that track applicant information, usage of services, and what happened after a service was used. They will either enter that information into their own management information system or ask program administrators to manage the information. Data are also collected on program outreach methods to further gauge levels of program usage and participant satisfaction. Utilization studies are normally an ongoing part of any good process evaluation but can also be conducted independently.

Outcome Evaluation

An outcome evaluation measures a program's direct and indirect effects on its target population. For example, do workers remain with their employer for longer periods when they participate in employer-sponsored professional development? Those effects are also compared with program objectives to assess whether the observed changes meet the program's original goals, and why. If staff retention stays constant but classroom performance improved, did the program meet its goals? Outcome evaluations should only be conducted once a program is fully implemented. Outcome evaluations conducted prematurely do not uncover program effects but, rather, intermediate effects influenced by the program implementation experience.

For these reasons, researchers must be careful in timing and planning outcome evaluations. In many cases, evaluators will begin conducting outcome evaluations in a program's early years, and will sometimes release those results to the public (as was the case of the Washington Career Ladder evaluation). Those data must be regarded as preliminary, and judgment must be reserved until after final data analysis can take place in later years (after a program has been fully implemented). Some examples of outcome evaluations are the Department of Defense's Child Development Program, Caregiver Pay Program evaluation, North Carolina's T.E.A.C.H. Early Childhood® Project evaluation, North Carolina's Child Care WAGE$® program evaluation, and the Washington Career Ladder program evaluation.

Outcome evaluations can measure a number of effects, such as program impacts on participants and cost effectiveness. Impact evaluations measure changes in a target population after it has received a service or "treatment." Impact evaluations can be conducted to determine both short-term and long-term changes. Short-term impact evaluations focus on immediate outcomes. Long-term impact evaluations measure effects several months or years after participants receive the intended services, or a combination of the two. For example, the Perry Preschool Project looked at the long-term effect of high-quality early care and education by tracking the activities of children during their adolescence (or several years after participating in the program) (Barnett, 1996). Evaluators measure long- and short-term impacts in a number of ways. They can administer a participant survey before and immediately after a person uses a program's service. They can record observable changes in behavior through observational assessments. This is often done with early intervention programs, where researchers observe children to see if the intervention or treatment has had a behavioral effect. During outcome, as well as implementation, studies researchers typically attempt to interview at least some participants and program administrators.

Cost-benefit analyses are conducted to determine if the resources invested in a program are of greater or lesser value than the value of the benefits generated by the program's effects. Researchers measure the cost to deliver a service and then measure the potential funds and other benefits generated by the service. For example, high-quality early care and education is very expensive. Research has found that the monetary savings (derived from children's decreased need for remedial services and a decreased likelihood they will later be in the penal or welfare system) added to the monetary value gen-

erated (by the increased likelihood they will go to college, get a better job, pay taxes, and spend more on consumer goods) outweighs the initial cost of early care and education (Barnett 1996).

Conducting an Evaluation

The following suggestions constitute a step-by-step guide to conducting an evaluation. We have presented these steps in the order that we suggest they take place. However, many of these steps can occur simultaneously, and certain steps can occur earlier or later than we suggest. Nevertheless, we think these are the major factors to consider when performing an evaluation either internally or when using a third-party research team.

Articulate Program and Evaluation Goals

The first, and most helpful, thing to do when conducting an evaluation is for program administrators and evaluators to mutually discuss the program's goals and the objectives of the evaluation. This will help evaluators determine the most effective research questions and data collection methods. For example, imagine that a research team is about to evaluate a compensation model that provides stipends to workers based on education level. Program planners assert that the overall goal of the program is to lower turnover rates among staff with child development training. Researchers then formulate the evaluation question, "Are participating child care workers with specialized training less likely to leave their programs than child care workers without specialized training?" Since evaluators are often asked to monitor a program's implementation, this stage should be conducted before implementation.

Develop a Budget and Timeline

At this stage it is also a good idea to find out how much money is budgeted for evaluation. This will determine the scale of the study. Once the general parameters are set, a more detailed work plan can be designed to stipulate what tasks will be completed and when. This step is important because it lets evaluators decide which research questions can effectively be answered and which should take priority based on resources and program needs. For example, if funds are limited, researchers may decide to conduct an implementation study that answers questions about how a program became operational. Or, they might decide to monitor only usage and collect data over the course of many years. Developing the budget and timeline in conjunction with this step can help evaluators ensure that they have the resources to answer the questions most important to program planners, administrators, and policymakers.

Organize an Advisory Committee

It is also helpful to organize an advisory committee during the evaluation planning process. This committee should consist of researchers, experts in the area a program is addressing, program planners, and policymakers and may include representatives of the client population. The role of an advisory committee is to help the evaluation team accurately assesses a program's effectiveness by providing feedback on research designs, data collection procedures, and interpretation of results.

Develop a Study Model

It is also helpful for evaluators to construct a logic or study model that outlines a program's functions and what outcomes should be expected. This helps them determine an overall research plan and ensures that variables are included that measure program effects as they relate to program goals. For example, a general logic model can assume the following, where "inputs" equal resources used for the program (e.g., staff time, money, and facilities) or constraints (e.g., regulation); "activities" equal the actual service provided; "outputs" equal the product of the service, such as the number of services performed; and "outcomes" equal the changes, benefits, or effects expected (United Way 1996, 17-18).

Generic Model:

> Inputs➔ Activities➔ Outputs➔ Outcomes

Specific Model For Child Care Compensation Initiatives:

> Inputs (funding, staff time, outreach to child care workers)➔ Activities (stipends provided to workers based on education level)➔ Outputs (total cost of stipends disbursed to total number of workers)➔ Outcomes (workers gain additional compensation, stay in child care jobs, and obtain additional education).

A logic model helps researchers determine the type of data needed. Based on the example above, data will have to be collected on stipend levels, job tenure, and education levels. The model is also helpful in determining variables that may not be directly related to the program but may influence outcomes. For example, will the funding mechanism change during the program's operation? How will that affect the number of workers participating in the program? Will changes in funding force program administrators to decrease the level of stipends? How will that affect outcomes?

Design the Evaluation Plan and Select Data-Collection Strategies

Evaluators should then design an evaluation plan, or a research design, and decide which tools will effectively answer the research questions. Besides deciding how information should be collected, evaluators should also think about the number of times data should be collected from the target population and other study participants. This is particularly important when trying to measure change over time. Evaluators should also consider how participants will be recruited for the study. Will the team try to collect information from all participants, or just a sample? If a sample strategy is used, how will the sample be selected? Will a comparison group of non-participants be used? How will they be selected? Local colleges or universities have researchers available to help evaluators answer these questions.

Below is a list of some data collection strategies to consider.

> ▶ Document Review—Normally used to answer questions about how a program was implemented. This method requires review of documents generally at administrative offices or offices where services are delivered. These documents may include personnel files, applications, general program papers, financial statements, meeting minutes, and any legal documents. Documents may also include internally collected information that can be used to monitor program outcomes.

For example, the Caregiver Pay Program and the Alameda Child Development Corps evaluations used document review in their program evaluations.

▶ Questionnaires/surveys—Generally used to answer outcome, utilization, and, sometimes, implementation questions. Questionnaires/surveys are usually administered by telephone, mail, e-mail or in person. They generally consist of several closed-ended questions (i.e., requiring multiple choice or one-word responses) that are used to measure the various factors that help answer the research questions. Questionnaires/surveys sometimes have open-ended items to allow respondents to communicate thoughts in an unrestricted way. Almost all of the program evaluations included in this study used this method of data collection (Alameda Child Development Corps is currently using this method; North Carolina's T.E.A.C.H. Early Childhood® Project did not use this method).

▶ Semi-Structured Interviews—Semi-structured interviews are used to obtain answers to planned questions while also giving participants opportunities to discuss issues and provide detail freely. Semi-structured interviews use interview protocols that serve as maps or guides during the interview process. Often "probes" or questions are used to encourage participants to provide additional, more detailed information. These interviews are normally conducted in person. Semi-structured interviews were used in program evaluations of the Alameda Child Development Corps, the Caregiver Pay Program, Washington Career Ladder, and the Wisconsin Child Care Mentor Project.

▶ Assessments—Assessments are used to gauge an individual's competency at a given time, as well as the person's development or progress over time. Assessments can be open- or closed-ended, can be administered in classroom settings or in more structured test settings, and are normally administered by specifically trained person. Assessments can take the form of a series of observations that are recorded along a "scale" or tests performed by a member of the target population. Commonly known assessments are the Early Childhood Environmental Rating Scale (ECERS) and standardized tests such as minimum basic skills tests. Classroom observations were only done in the Wisconsin Child Care Mentor Project.

▶ Focus Group Discussions—Focus group discussions are semi-structured approaches used in a small-group setting that allows a leader to elicit responses from participants. A skilled facilitator (or an individual who is able to encourage participation without influencing comments) should administer focus groups. Focus groups were used in the Alameda Child Development Corps and Wisconsin Child Care Mentor Project program evaluations.

▶ Utilization forms, program application, and other "paperwork"—When the goal of an evaluation is to track as many users as possible, it is often effective for evaluators to design administrative forms. The forms can be applications for participants, sign-in logs, or other types of paperwork. Information from the forms can be directly entered into a database system for analysis. This method is often used for internal evaluations.

Once evaluation methods are selected, researchers decide on the means of data collection. The following options are commonly used in conjunction with questionnaires and surveys.

▶ Telephone—Questionnaires and surveys can often be administered over the phone. This method is generally less expensive than in-person interviews but more expensive than mail. Because it is often difficult for respondents to stay engaged in an interview for long periods, telephone interviews should be kept to a maximum of 30 minutes.

▶ Postal mail or e-mail—Postal mail or e-mail is an inexpensive way of distributing and administering surveys and questionnaires. This method is also used when questionnaires or surveys are too long to administer by telephone. If using postal mail, it is critical that a due date and a self-addressed, stamped envelope be included in the package to maximize the likelihood that it will be returned in a timely fashion.

▶ Teleconferencing—Teleconferencing is a recently developed method for collecting data. Teleconferencing can be used as a less expensive alternative to travel or face-to-face interviews.

▶ Conference calling—Conference calls can be used to collect data from two or three respondents simultaneously.

▶ Travel or face-to-face—Travel or face-to-face data collection methods are generally the most expensive. If data are to be collected locally, these costs may not be burdensome, but if travel sites are distant, study costs can increase dramatically.

Once data collection methods have been chosen, evaluators can then develop instruments such as questionnaires/surveys, interview protocols, or focus group questions. It is important to keep in mind that questions included in surveys or questionnaires should answer initial research questions. This will help evaluators keep instruments focused and manageable. It is also important to consider that certain data collection strategies will be appropriate for some respondents and not others. For example, to answer questions about how a program was implemented, evaluators may want to design a semi-structured interview for program planners. To collect information on changes experienced by participants, such as additional educational attainment or wage increases, a closed-ended questionnaire might be used. Large-scale evaluations often use a mix of these strategies, since they normally try to answer questions about implementation, utilization, and outcomes.

Begin Documentation

Also during the initial stages of the evaluation, it is helpful to begin developing a handbook or guide that specifies and describes each step of the evaluation process. These handbooks are useful for all research staff involved. It also allows researchers to identify potential problems with the research design or with specific instruments. Handbooks may contain the following information.

- Study purpose

- Study researchers, contact information, and individual responsibilities

- Study design and procedures (including guides for collecting data, such as how to conduct a focus group, how to probe, examples of probes; or when not to probe for additional information)

- Study instruments and forms (consent forms, statement of confidentiality, travel forms, etc.)

- Troubleshooting tips or sample completed forms and instruments

- Procedures for entering and returning forms and completed instruments

- Debriefing information (A time to allow researchers to share their experiences and discuss research successes and challenges. This allows researchers to improve their models for future evaluation. Debriefings can also reveal interesting study hypotheses and anecdotal data.)

Design a Data-Analysis Plan

The next step is to develop a data-analysis plan. The key to deciding what types of analyses to perform is to know how outcomes will be measured. Statistical or quantitative analyses are effective for summarizing a large amount of information succinctly (for example, the average wage of a group of workers before and after they participate in a wage ladder program). There are number of software packages to help summarize findings. If the analysis will include "closed-ended" variables such as participation rates or completion rates, a database management system like Microsoft Access® or a spreadsheet program like Microsoft Excel® may be sufficient. If more complex analyses are required, evaluators use statistical software. For open-ended questions on factors such as perceptions of program change, evaluators may choose a qualitative approach to analysis. Qualitative analysis, which requires that evaluators extract general themes or ideas from documents or open-ended interview questions, can be analyzed by using word processing software or a qualitative software program.

Secure Informed Consent

Another issue to consider at this time is how to obtain proper consent from program participants. Since the mid-twentieth century, universities and other research institutions have followed specific guidelines to ensure that any "subject" of a research study is made fully aware of the study's purposes, as well as any risks or benefits to his or her participation. Researchers also ensure that all of a subject's information collected during a study will be confidential. If an evaluation, performed either by outside researchers or by program staff, is going to collect personal information about any participant, it is a good idea to get informed consent. Forms are usually designed for these purposes and are read and signed by participants before data collection begins. Forms should contain enough information about the study to allow individuals to make educated decisions regarding participation, but not so much that it will bias study results. Examples are often available at local colleges and universities.

Researchers employed at universities or large independent research firms typically have to submit their study materials for review by a peer research panel. This review process, often conducted by a Human Subjects Committee or Institutional Review Board, monitors studies for potential design flaws and dangers posed to participants. Often, valuable suggestions are provided through these review procedures. Internal evaluations will most likely not include this step.

Test Data Collection Instruments

Once data collection instruments are designed, evaluators often do a "pre-test" to make sure that they will work according to plan. Generally, evaluators ask volunteers who are similar to the intended respondents to go through the data-collection procedure. The volunteers can then provide feedback on what did or did not work. Evaluators can also gauge the types of answers the instruments solicited and whether respondents interpreted the questions as planned. After a pre-test, instruments can be revised to address potential problems.

It is usually a good idea to provide a stipend or some gift to individuals who participate in the pre-test. This often leads to greater response rates. Two stipends that are commonly used are: 1) cash or money orders from $10 to $50; and 2) gift certificates or gift cards for bookstores or retailers (a discount store or a supermarket).

Recruit Participants

The next step is participant recruitment. As suggested above, the strategy for this phase ultimately depends on the research design or evaluation plan. To gather detailed information about participants, evaluators may wish to take a sample of the total population and put more resources into gathering in-depth information. If this is the chosen strategy, the sample should be randomly selected. An outcome study can have two groups: a treatment group (program participants) and a control, or comparison, group (those who didn't participate). These groups should both be randomly selected and randomly assigned. This helps to ensure that research can control for a number of factors that may interfere with a program's proposed effects. In most cases involving human service programs, particularly child care, this is a difficult design to implement.

There are a number of strategies for selecting study participants from the target population. While these strategies are often not as controlled as in a formal experimental design, they are useful. If the goal is to track a large proportion of participants, a random sample may not be needed or possible. Another strategy is to select a sample and comparison group by matching the comparison group as closely to the sample group as possible, with the exception that the comparison group does not contain program participants. In the case of an implementation study, evaluators may choose to interview as many actors as possible who have been involved in the program, but they generally would not have a comparison group, unless they were comparing two different programs.

Collect Data and Manage Information to Ensure Data Quality

Once a recruitment strategy is developed and all the instruments are tested, data collection can begin. While collecting data, evaluators develop a system to store data that ensures minimum errors in collecting, entering, and checking the data. Management information systems are designed to ensure that all information is accounted for the moment it is collected through analysis. The following is an example of one type of management information system for a utilization study of a program to train teachers how to use computer technology in their lesson plans.

Step 1. A sign-in log is positioned at the door to a classroom where child care providers take a workshop to learn how to integrate computer technology into their lesson plans. A workshop leader in the classroom encourages all participants to sign the log when they arrive. The log contains spaces for the participants name, date and time of arrival, contact information, and the number of times the participant has taken a workshop.

Step 2. The log is collected weekly by a local evaluator, who files the log sheet in a folder called "new logs." That file is kept in a locked file cabinet to ensure confidentiality.

Step 3. A second researcher takes each sheet from the new log file and enters the information into a computerized database designed to look like the sign-in log. If any of the spaces in the log sheet are left blank, the researcher calls the participant and asks for correct information. If the researcher is unable to get a response after trying three times, she or he records the empty space as "missing data."

Step 4. Once all of the log sheets have been entered into the database, the database file is downloaded into a statistical software program for analysis. The hard copy logs are boxed and kept in secure storage for at least 18 months after data analysis for any needed fact-checking.

Analyze Data

Prior to analysis, evaluators often examine the data for reliability and validity. Researchers will also take time to clean the data, correcting mistakes in data entry or attempting to get missing information. Evaluators have a number of options for analyzing data. As with data-collection methods, the methodology for data analysis should be based upon the desired goals of the study.

It is often helpful to create tables or other visual aids such as charts and graphs during analysis. These can help evaluators see the outcomes generated by the study more clearly. In cases of qualitative data, researchers often stick various emerging themes onto bulletin boards to help them visualize the process they are trying to map.

Debrief with Researchers

At the completion of the study, evaluation teams often provide their members an opportunity for debriefing or discussion. This process allows researchers to collect valuable information about study challenges and strengths while providing a forum where research partners can voice their opinions and concerns.

Report and Use Evaluation Findings

Once analysis is complete, evaluators usually present their findings in reports or short briefing papers. We strongly recommend that evaluation findings be shared with the public and other interested parties. It is helpful to include recommendations in the briefing papers and final report, suggesting ways both the program and efforts to monitor its progress can be improved. We also encourage evaluators to include the research design and data collection methods and instruments used in the study. A number of strategies can also expand the report's audience. News conferences and announcements over listservs and web sites can increase the number of people who benefit from the findings of the study.

Sample Program Evaluations

These sample evaluations are meant to show what small-, medium-, and large-scale evaluations might look like. For our example program, we used a publicly funded, statewide child care worker career ladder program. The goal of the program was to provide financial incentives for workers in centers to stay in the field and gain additional training. Those with higher levels of education were rewarded with better compensation. The program addressed these goals by recruiting centers to adopt a wage ladder for their employees. The ladder was set based on job position and education level. The program was targeted to licensed child care centers.

Small-Scale Internal Evaluation

In this scenario, few resources are available to pay for an outside evaluation team. Program administrators are confident, however, that the program is mature enough to have at least short-term measurable effects on participants. As a result, they decide to conduct an internal evaluation. The team assigned the task decided to implement a utilization study and a short-term effects or outcome study to answer two main questions: 1) Are child care centers aware that the program exists and does that awareness lead to participation? 2) Do workers at participating centers see an increase in their wages, and are they more likely to stay at their jobs for at least one year? This example is closely related to strategies used by the T.E.A.C.H. Early Childhood® Project.

Research Design and Methods

Program evaluators decided to use a single-group research design, in contrast to a comparison study, as a way to gather the maximum possible information about the target group without raising costs. For the utilization study, they mailed a survey to all center directors employed at licensed state programs. They included questions asking whether directors knew about the program and whether they intended to apply for participation. The survey also asked informed directors how they learned out about the program and, if they previously had not known about the program, whether they would consider participating. It also asked whether centers were already participating in the program, and that information was checked against application records.

During the child care worker study's planning stage, there were 300 participating centers among the 1,000 centers surveyed. Administrators decided to mail the survey to every participating center director, asking him or her to distribute the survey to all teachers. The teachers' survey included questions regarding the following:

1. Current education level;

2. Wages before the Career Ladder;

3. Current wages;

4. Whether the teacher plans to continue, or is continuing, her education;

5. Last job and number of months at that position;

6. Number of months in this job;

7. Effects of the Career Ladder on attachment to the job;

8. If leaving job, reason for leaving; and

9. Contact information.

The survey was distributed again to teachers one year later, and results from each wave of data collection were compared. For purposes of comparison, only those centers and teachers that received surveys in the first wave were resurveyed in the second wave. If a teacher left her position before the second wave, program administrators attempted to contact her and administer the survey by phone. In all, evaluators collected information from 250 centers, out of a possible 300, and 700 teacher surveys, out of a possible 900.

Strengths and Limitations

The overall strength of this approach is that it is inexpensive. While the strategies used provided a low-cost approach to determining what would make centers implement the Career Ladder but offered only limited glimpses at the experiences of teachers affected by the wage adjustment, this approach would provide basic benchmarks, including participation rates, information about outreach, wages, retention, and education outcomes for teachers. In addition, the small-scale approach would allow evaluators to conduct the study in an ongoing manner, possibly collecting information annually. The major limitation, however, is that with no comparison group, evaluators would be unable to conclude whether the Career Ladder influenced staff turnover, or whether turnover decreased because of other factors.

Medium-Scale External Evaluation

In this scenario, program administrators have sufficient funds to hire an outside research team from a local university. The research team decides to design a process evaluation, a small utilization study, and a short-term effects study. Their goal is to find out the main decision factors involved in designing and implementing the Career Ladder; the effects of outreach efforts on participation; and the immediate effect the program has had on teachers' wages, education, and retention. The study will last approximately three years. An example of a medium-scale external evaluation is the Washington Career Ladder program evaluation.

Research Design and Methods

To collect information on implementation, the research team conducted a series of semi-structured interviews with program planners, policymakers, and administrators. They also interviewed center directors and teachers to gauge initial program operations. To collect information about utilization, the team took an approach similar to that of the

small-scale evaluation. They disseminated a survey to all directors of licensed centers and included questions regarding directors' knowledge of the program, and whether they would be willing to participate if they knew about it. They also collected outreach materials from program administrators. The implementation interviews were conducted at the beginning of year one. The utilization study began at the start of year two.

To measure short-term effects on teachers, evaluators used a comparison approach. They randomly selected a group of teachers in the Career Ladder and a group of teachers from non-participating centers. Two surveys were designed: one geared toward participating teachers (which asked questions similar to those in the small-scale study), the other asked non-participating teachers about their education, wages, and job tenure at their last and present jobs. Some questions were identical on the two surveys (such as questions on wages) to facilitate accurate comparisons. They did not ask the non-participating group about the Career Ladder but did ask whether teachers planned to leave their programs and why. The surveys were distributed by postal mail at the beginning of year two of the evaluation and again at the beginning of year three. As in the example above, evaluators tracked the same group of teachers for both years, and attempted to contact teachers for information if they were no longer employed at their programs.

In all, the evaluators interviewed approximately 50 individuals for the implementation study. They conducted 300 out of a possible 1,500 director interviews for the participation study. They collected 100 participating teacher interviews and 100 comparison teacher interviews for both years (out of a possible 4,000).

Strengths and Limitations

The addition of an implementation study provided key information about how the Career Ladder was developed and how funding and other policy decisions affected its service delivery. The collection of outreach documents and other materials provided information suggesting why some center directors were aware of the program and participated and others did not.

The comparison study provided useful data on whether participating in the Career Ladder influenced teachers' willingness to gain additional education, whether their education levels did indeed change, whether they stayed at their jobs, and how the program affected their wages over time. The drawback of the comparison study was the fact that researchers did not randomly assign child care centers, and thus teachers, to either the treatment or comparison groups. This limited researchers' ability to control for self-selection bias. In other words, there was still a question as to whether participants in the Career Ladder worked at centers that were more likely to have better working conditions and thus to foster greater employee commitment and professional development than centers that did not participate. In addition, because the implementation study relied on participants to recall past events, there was a risk that they forgot important information.

Large-Scale Evaluation

The final example represents a large-scale evaluation of the Career Ladder. In this scenario, a university research team was selected and contracted to begin the evaluation

during the initial stages of implementation. The goals of the study were to track the initial implementation, program utilization, and the short- and long-term effects of the program, including how the quality of care and education provided to children might improve with a more stable, better-paid, and better-trained workforce. The duration of the study was ten years. An example of a large-scale evaluation is the Caregiver Pay Program evaluation, although this example goes beyond the scope of the RAND study.

Research Design and Methods

Researchers used semi-structured interviews with program planners, policymakers, administrators, participating directors, and teachers to gather information about key decisions regarding the program's activities and funding, as well as the efficiency of early operations. Researchers also collected documents including legislation, testimony, and minutes of planning meetings. To collect as much information as possible, researchers interviewed as many administrative actors as would agree, and randomly selected five directors and 15 teachers who participated in the first phase of operations. This phase of the evaluation was conducted during the first two years of the study.

To gauge program awareness and utilization, researchers collected outreach materials and tracked the number of times the Career Ladder was mentioned in the media (including newspaper advertisements, television public service announcements, and postings on known child care listservs across the state). The team then disseminated a survey to all licensed child care directors in the state, asking similar questions to the ones outlined in scenario one. The utilization study was disseminated via postal mail twice, once at the beginning of year two and again at the beginning of year five, to gauge whether outreach and participation improved over time. Directors who sent back the survey were mailed a $100 donation to the center.

The short- and long-term effects study used an experimental design. Centers were randomly selected throughout the state, and those that agreed to participate were randomly assigned to either the treatment or control group. Two surveys were then designed. One asked teachers in the treatment group the questions highlighted in scenario one. The second survey was designed to include questions for the control group outlined in scenario two. The surveys were administered to all teachers in each group at the beginning of years two and three to monitor short-term effects on teachers' turnover rates and education, and again in years five and six to measure long-term effects, such as the number of teachers who were promoted or obtained four-year degrees. Researchers made every effort to contact teachers who had left their programs. In addition to the surveys, researchers also designed a director survey that included questions to measure the following variables:

1. Turnover rate;
2. Number of teachers with specialized training in child development;
3. Average salaries for each job position at the center;
4. Number of applicants with specialized training in child development; and
5. Satisfaction with the Career Ladder.

The directors' survey was then mailed in years three, five, seven, and 10. Finally, researchers visited each participating center and performed a child care quality assessment in every classroom. These assessments were conducted in years three, five, and 10.

In all, researchers interviewed 50 individuals for the implementation study. For the utilization and awareness study, they received 700 director surveys in year one and 800 in year five. The outcomes study included 400 centers, 200 in each group. The teams interviewed 2,000 child care teachers and 375 center directors. Trained observers assessed the quality of approximately 1,600 classrooms.

Strengths and Limitations

The main strength of this approach is its multi-method design, particularly regarding outcomes. Evaluators collected data from directors, teachers, and (to a certain degree) children. The addition of a child care quality assessment is particularly important in examining whether the career ladder had an affect on the quality of services provided to children. Finally, the sustained evaluation allows researchers to reveal both the short- and long-term value of the program. Researchers are also able to track the progress of participants to determine whether a developmental trend exists in their learning or general success.

Appendix: References

Babbie, Earl. 1989. *The Practice of Social Research, Fifth Edition.* Belmont, CA: Wadsworth Publishing Company.

Barnett, W. Steven. 1996. *Lives in the Balance: Age-27 Benefit-Cost Analysis of the High/Scope Perry Preschool Program* (Monographs of the High/Scope Educational Research Foundation, 11). Ypsilanti, MI: High/Scope Press.

Policy Analysis for California Education. 2001. *Child-Care Retention Initiative (CRI) Programs Evaluation Handbook,* Berkeley, CA: University of California, Berkeley, and Stanford University.

Reynolds, Arthur, J. 2000. *Chicago's Preschool Programs: Do They Promote Children's School Success?* Chicago: Chicago Public Schools.

Rossi, Peter H., Howard E. Freeman, and Mark Lipsey. 1999. *Evaluation: A Systematic Approach.* Thousand Oaks, CA: Sage Publications.

United States General Accounting Office (GAO). 1998. *Performance Measurement and Evaluation: Definitions and Relationships.* Washington, DC: Government Printing Office.

United Way of America. 1996. *Measuring Program Outcomes: A Practical Approach.* Alexandria, VA: United Way of America.

IWPR Membership Information ▪ 202/785-5100 ▪ www.iwpr.org

Your membership enables IWPR to continue its mission to conduct policy-relevant research that analyzes and documents the issues that most affect women and their families. Members enjoy a range of benefits, including access to the IWPR Information Network, which brings you the latest IWPR and other relevant policy information.

IWPR Membership Levels

Graduate Student Member: $35
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs*
◗ 20% discount on publications
◗ Special IWPR conference rate

Friend: $60
Regular subscription to the IWPR Information Network
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs
◗ 20% discount on publications
◗ 20% discount on one registration for an IWPR conference

Sustainer: $175
Enhanced subscription to the IWPR Information Network
◗ Research News Reporter Online
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs
◗ 20% discount on publications
◗ 20% discount on one registration for an IWPR conference

Partner: $250
Comprehensive subscription to the IWPR Information Network
◗ All major reports
◗ Research News Reporter Online
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs
◗ 20% discount on publications
◗ 20% discount on one registration for an IWPR conference

Affiliate: $350★
Organizational subscription to the
IWPR Information Network for nonprofits
◗ All major reports
◗ Research News Reporter Online
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs
◗ 20% discount on publications
◗ 20% discount on up to three registrations for an IWPR conference
★*$200 for nonprofits with an operating budget under $500,000*

Corporate Affiliate: $1,000★★
Organizational subscription to the
IWPR Information Network for corporations
◗ All major reports
◗ Research News Reporter Online
◗ Quarterly newsletter, fact sheets, and Research-In-Briefs
◗ 20% discount on publications
◗ 20% discount on up to three registrations for an IWPR conference
★★*$500 for corporations with revenue under $1 million*

Eleanor Roosevelt Policy Council
Comprehensive benefits and invitations to special IWPR events
◗ Community Council: $500-$999
◗ Institute Council: $1,000-$2,499
◗ Leadership Council: $2,500-$4,999
◗ President's Council: $5,000 and up

Research News Reporter Online, upon request