

# Lane County Child Care Enhancement Project Evaluation: Year 1 *Final Report*



*Submitted to:*

**Oregon Employment Department –  
Child Care Division**

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*FINAL REPORT*

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**October 2006**

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*Human services research designed to promote effective decision-making by  
policymakers at the national, state and community level*



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# TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	I
INTRODUCTION .....	1
What is the Childcare Enhancement Project?.....	1
What is the CCEP Evaluation? .....	1
Study Design and Research Questions .....	1
Sample Selection.....	3
Methodology .....	4
About This Report .....	7
CCEP IMPLEMENTATION .....	9
CCEP Activities and Expenditures .....	9
Activities to Promote Childcare Affordability.....	9
Activities to Increase Provider Compensation.....	9
Activities to Promote Childcare Quality.....	9
CCEP Provider and Parent Characteristics .....	11
CCEP Provider Satisfaction.....	15
Implementation Challenges and Successes.....	15
Implementation Challenges .....	15
Implementation Successes .....	16
CCEP OUTCOMES .....	17
Question 1: Are parents spending less than 10% of their income on childcare?.....	17
Outcome 1A: Increased Affordability of Care for Parents .....	17
Outcome 1B: Parents Have Reduced Financial Stress .....	17
Question 2: Are CCEP Parents More Satisfied With Their Childcare Arrangements?.....	20
Outcome 2A: Stability of Care .....	20
Outcome 2B: Parental Work Productivity .....	20
Outcome 2C: Parental Assessment of Quality.....	20
Question 3: Do CCEP Providers Show More Evidence of Engagement in Professional Development Activities?.....	21
Outcome 3A: Increased Provider Professional Development Activities.....	21
Outcome 3B: Increased Motivation for Professional Development .....	22
Outcome 3C: Increased Supportive Networks.....	23
Question 4: Are Providers Compensated at a Rate Commensurate With Their Level of Training and Education?.....	24
Outcome 4A: Increased Income for Providers.....	24
Outcome 4B: Providers Have Reduced Financial Stress.....	24
Question 5: Are Facilities More Likely to Have Stable Income and Less Likely to Have Problems With Issues of Parent Non-Payment?.....	26
Outcome 5A: Increased Stability of Income for Facilities .....	26

Outcome 5B: Decreased Problems with Parent Non-Payment.....	28
Question 6: Are Providers More Likely to Stay in the Field Longer?.....	29
Outcome 6A: Increased Provider Retention .....	29
Outcome 6B: Decreased Provider Stress .....	30
Question 7: Are Providers More Likely to Make Facility Improvements? .....	32
Outcome 7A: Increased Number of Facility Improvements.....	32
Outcome 7B: Increased Environmental Quality.....	33
Question 8: Are Children Experiencing Higher-Quality Childcare?.....	37
Outcome 8A: Increased Quality of Caregiver-Child Interactions .....	37
Outcome 8B: Increased Quality of Social-Emotional Development Environment .....	39
Outcome 8C: Increased Quality of Cognitive/Language Development Environment .....	41
DISCUSSION .....	45
Program Impact on Parents.....	45
Program Impact on Providers .....	46
Professional Development .....	46
Income and Revenue.....	47
Retention and Job Stress.....	47
Childcare Quality .....	47
Conclusion and Recommendations.....	48
APPENDIX A: LOGIC MODELS.....	51
LIST OF TABLES	
Table 1. Outcome Study Research Questions and Outcomes.....	2
Table 2. Study Sites .....	4
Table 3. CCEP Expenditures .....	11
Table 4. Provider Demographics .....	12
Table 5. Provider Professional Characteristics.....	13
Table 6. Parent Demographics.....	14
Table 7. Provider Satisfaction with CCEP.....	14
Table 8. Parent Financial Stress.....	19
Table 9. Impact of CCEP Subsidy on Family Finances .....	19
Table 10. Mean Parental Assessment of Quality Scores .....	21
Table 11a. Mean Family Provider Motivation for Professional Development Scores.....	23
Table 11b. Mean Center Provider Motivation for Professional Development Scores .....	23
Table 12a. Mean Family Provider Financial Stress Scores .....	25
Table 12b. Mean Center Provider Financial Stress Scores.....	25
Table 13. Month-to-Month Stability of Facility Revenue .....	26



Table 14. Changes in Facility Revenue Over Time.....	27
Table 15. Frequency of Facility Reminders to Parents Regarding Payment.....	28
Table 16. Facility Owner/Director Assessment of Effectiveness of Billing System.....	29
Table 17a. Mean Family Provider Stress Ratings.....	31
Table 17b. Mean Center Provider Stress Ratings.....	31
Table 18. Types of Facility Improvements.....	32
Table 19. Mean Expenditures on Facility Improvements.....	33
Table 20a. Family Provider Environmental Quality as Measured by the QUEST.....	35
Table 20b. Center Classroom Environmental Quality as Measured by the QUEST.....	36
Table 21a. Quality of Family Caregiver-Child Interactions as Measured by the QUEST.....	38
Table 21b. Quality of Center Caregiver-Child Interactions as Measured by the QUEST.....	39
Table 22a. Family Provider Social-Emotional Development Quality as Measured by the QUEST.....	40
Table 22b. Center Provider Social-Emotional Development Quality as Measured by the QUEST.....	41
Table 23a. Family Provider Cognitive and Language Development Quality as Measured by the QUEST.....	42
Table 23b. Center Provider Cognitive and Language Development Quality as Measured by the QUEST.....	43

#### LIST OF FIGURES

Figure 1. CCEP Evaluation Data Collection Activities.....	7
Figure 2. CCEP Funds as a Percentage of Total Expenditures.....	11
Figure 3. Enrollments on the Oregon Registry.....	22



## EXECUTIVE SUMMARY

In 2003, the Oregon Legislature enacted the Oregon Childcare Contribution Tax Credit. Taxpayers who make a contribution to the program receive a 75-cent Oregon state tax credit on every dollar. Proceeds from the 2005 tax year were used to fund the Lane County Childcare Enhancement Project (CCEP) administered by Lane Family Connections. CCEP was designed to address three issues: affordability of childcare, provider compensation, and childcare quality.

First, the project subsidizes the cost of childcare for parents whose income is at or below 85% of the state median income and whose children are enrolled in participating childcare facilities. Second, the program offers providers wage enhancements linked to participation and advancement on the Oregon Registry. Third, the program offers facility enhancement funds and mentoring and technical assistance aimed at enhancing childcare quality.

NPC Research, a Portland-based research and evaluation firm, received a contract to conduct a process and outcome evaluation of CCEP. Program-level, provider-level, and parent-level data were collected from a group of CCEP facilities (10 family childcare facilities with 14 staff and 2 center facilities with 14 staff), a group of control facilities, most of whom were participating in CARES (10 family childcare facilities with 11 staff and 3 center facilities with 18 staff), and a group of no-treatment facilities who were not participating in any substantive childcare improvement intervention (12 family childcare facilities with 12 staff and 3 center facilities with 6 staff). During Year 1, baseline and a 6-month follow-up round of data were collected from CCEP and control providers, and baseline data were collected from no-treatment providers. Baseline data were collected from CCEP and control parents (no parent data collection was conducted for the no-treatment group).



### CCEP Activities

CCEP accomplished the following during the first year of the program:

- 95 families received subsidies;
- 15 CCEP providers were enrolled on the Oregon Registry at a Step 5 or higher, qualifying them for wage enhancements that ranged from \$1,000 to \$5,000;
- CCEP family facilities received \$1,000 facility-improvement grants and CCEP center facilities received \$2,000 facility-improvement grants;
- All CCEP facilities received technical assistance and supports from the Project Director. The Project Director logged almost 200 site visits, 800 phone calls, and 200 emails with providers during the first year of the program; and
- The technical assistant provided included helping providers use their space most effectively, encouraging providers to use and display art, helping providers establish schedules and curriculum, teaching providers about child development stages, helping providers enroll on the Oregon Registry, helping providers develop and modify contracts, billing systems, and rate schedules, and referring providers to classes and helping secure scholarships for these classes.

## Parent Outcomes

Parent data included information on family finances and financial stress, the impact of the subsidy on families' finances, and parental satisfaction with care.

- 95 families received a subsidy aimed at capping their childcare payments at 10% of their families' incomes. However, a majority of CCEP subsidy parents reported spending more than 10% of their income on childcare, perhaps due to the fact that subsidy rates were set at the time of program enrollment and were not adjusted unless parent incomes changed by more than 50%.
- 95% of CCEP subsidy parents who were surveyed reported that the subsidies helped them cover basic expenses such as rent, food, and clothing, and reported that the subsidy increased their standard of living.
- CCEP parents were significantly more satisfied with the care their children were receiving than were control parents.

## Provider Outcomes

The evaluation collected data to measure provider outcomes in several different areas, including professional development, income and finances, retention and job stress, and childcare quality.

### PROFESSIONAL DEVELOPMENT

- More CCEP than control providers enrolled on the Oregon Registry between baseline and follow-up data collection (4 CCEP providers and no control providers). However, almost half (13) of the CCEP providers were still not enrolled by the end of Year 1.
- Almost all providers across groups (CCEP, control, and no-treatment) were highly motivated for professional development, but no-treatment providers were

significantly less motivated than others, and CCEP center providers were significantly less motivated for professional development at follow-up than at baseline.

- CCEP family providers reported a significant increase in sense of community between baseline and follow-up; these gains were not seen for CCEP center providers or control or no-treatment providers.



### FINANCES

- There were no differences between baseline and follow-up for financial stress among CCEP family providers or control providers, but CCEP center providers had significantly more financial stress at follow-up than at baseline. CCEP center providers also reported significantly more month-to-month fluctuation in their incomes at follow-up than at baseline.
- Fewer CCEP facility owner/directors reported at follow-up that they always had to remind parents about payments (67% at baseline; 42% at follow-up); this trend was not apparent for the control group.
- More CCEP facility owner/directors felt they had good billing systems at follow-up than at baseline (42% at baseline, 58% at follow-up), a trend that was not apparent for control group providers.

## RETENTION AND JOB STRESS

- Between baseline and follow-up data collection, 2 CCEP and 4 control group providers left their positions. All of these providers worked at centers.
- CCEP center staff indicated significantly higher job stress than all other providers.

## CHILDCARE QUALITY

The evaluation included providers' self-reports of changes in their practice along with observational measures of childcare quality in several domains, including environmental quality, the quality of caregiver-child interactions, social-emotional development quality, and the quality of the language-cognitive development environment.

- Almost all providers indicated making environmental improvements at both baseline and follow-up.
- There was a trend for CCEP family providers to report changes in guidance and discipline strategies at follow-up, including being more proactive in dealing with potential problems, an increased use of positive guidance techniques, and a more consistent use of structure and boundaries. This trend was not apparent for CCEP center providers or control providers.
- CCEP family providers also reported significantly more changes in things they did to promote social growth and development at follow-up, including an increased use of child-focused promotional strategies, an increased use of positive guidance, and an increase in interactions between providers and children.
- Observational data on environmental quality, the quality of caregiver-child interactions, social emotional quality, and the quality of the language and cognitive learning environments all followed the same pattern. Ratings for CCEP family

providers improved over time, while control family providers did not, while ratings for CCEP center providers stayed the same or decreased over time, while control center providers' scores improved. CCEP center providers' scores were consistently higher at baseline, compared to controls, so this may indicate a "regression to the mean" effect for these analyses.

## Conclusions

Results of this evaluation paint a somewhat mixed picture of the outcomes of the CCEP program. First, evaluation data indicate that CCEP family providers made numerous gains in childcare quality over the course of the first year. Parents of children being cared for by CCEP providers were also significantly more satisfied with the quality of care being provided. These gains are particularly noteworthy given the fact that much of the technical assistance and support the providers received was administrative in nature. It is likely, therefore, that by increasing technical assistance geared at substantive early childhood care issues, there may be even more quality gains in future years. Related to the business-related technical assistance, CCEP family providers reported better billing systems at follow-up, relative to controls. CCEP family providers also reported an increased sense of community with other providers, which may be importantly related to reducing the isolation experienced by many family care providers. CCEP family providers were also more likely than controls to have enrolled in the Oregon Registry, although a significant number of providers remained un-enrolled at follow-up.

At the same time, however, results were much less positive for CCEP center-based providers. Evaluation data suggest that CCEP center providers felt less engaged in CCEP than CCEP family providers, were less motivated for professional development; felt more financial stress at follow-up than at baseline;

felt less a part of a community than CCEP family providers; and may have decreased in quality over time, relative to control providers. On the observational measures, while the CCEP center providers started out higher on many measures (at baseline) compared to control center providers, there was more likely to be a decrease (worsening) over time in the CCEP center group as compared to controls. Whether this actually reflects decreasing quality or represents a 'regression to the mean' for the highest-scoring providers is not clear. Thus, it may be that while CCEP is successfully engaging center *owner/directors* into the program, the benefits of CCEP may not be impacting the center staff. In order to improve the quality of care for children served by these centers it will be necessary to actively engage individual center providers in the program.

In addition, almost half of the CCEP providers are not enrolled in the Oregon Registry

and therefore are not receiving wage enhancements. It is unlikely that the program will see substantial gains in key provider outcomes such as increased income, increased participation in professional development activities, and improved quality unless these providers enroll on the Oregon Registry and receive the wage enhancements.

Finally, it should be noted that the intended goal of reducing the proportion of family income spent on childcare was not met for many parents, despite the significant monetary subsidies being provided. The goal of spending no more than 10% of family income on childcare may need to be re-evaluated. Impacts of the subsidy on families' overall financial situation were difficult to evaluate because the CCEP parents were considerably lower income compared to the other parents participating in the study.



## INTRODUCTION

### What is the Childcare Enhancement Project?

In 2003, the Oregon Legislature enacted the Oregon Childcare Contribution Tax Credit. Taxpayers who make a contribution to the program receive a 75-cent Oregon state tax credit on every dollar. Proceeds from these credits were used to fund a childcare enhancement pilot project awarded through a Request for Proposals process administered by the Oregon Employment Department's Childcare Division. Lane Family Connections at Lane Community College submitted the winning proposal for the Childcare Enhancement Project (CCEP). CCEP was designed to address three issues: childcare affordability, provider compensation, and childcare quality. CCEP has three goals:

1. To decrease the cost of childcare to 10% of gross family income;
2. To increase and stabilize childcare provider wages; and
3. To increase childcare quality through provider access to professional development and other enhancements.

CCEP consists of three components: a parent subsidy component and a provider enhancement component. First, the project subsidizes the cost of childcare for parents who meet income eligibility criteria and whose children are enrolled in participating childcare facilities. To be eligible for a parent subsidy, a family's income must be at or below 85% of the state median income.

Second, the program offers wage enhancements for providers who enroll and advance on the Oregon Registry at Step 5 and above.

Third, the program offers a variety of supports for participating providers, including facility enhancement funds and mentoring



and technical assistance aimed at enhancing quality.

### What is the CCEP Evaluation?

In addition to overseeing the administration of CCEP, the Oregon Employment Department's Childcare Division is overseeing an evaluation of the program. NPC Research, a Portland-based research and evaluation firm, received the evaluation contract from the Childcare Division. Below we describe the study design and research questions, sample selection, and the evaluation methodology.

### STUDY DESIGN AND RESEARCH QUESTIONS

NPC Research received a contract to conduct a 3-year evaluation of CCEP, which includes both a process and an outcome study. The process study focuses on documenting, describing, and explaining program implementation. A process study allows evaluators to determine whether a program is implemented as intended, highlight program accomplishments and challenges, and share lessons that may be useful to others seeking to implement similar projects.

The CCEP process study addresses several key research questions:

1. How well was CCEP implemented and to what extent did it produce desired outputs?
2. What were the barriers and facilitators of successful implementation?
3. How were project funds expended?
4. Are the number and characteristics of parents, children, and providers different for the CCEP and control groups?

5. Are CCEP providers satisfied with the CCEP pilot project?

The second component of the evaluation is an outcome study. The purpose of the outcome study is to understand the outcomes of the project on participating providers and families. Table 1 lists the study’s research questions and related outcomes. Appendix A includes logic models that link the three program components to expected outcomes.

**Table 1. Outcome Study Research Questions and Outcomes**

<b>Research Questions</b>	<b>Outcomes</b>
1. Are CCEP parents spending less than 10% of their household income on childcare?	1a. Increased affordability of care 1b. Reduced parental financial stress
2. Are CCEP parents more satisfied with their childcare arrangements?	2a. Increased stability of care 2b. Greater parental workforce productivity 2c. Increased satisfaction with care
3. Do CCEP providers show more evidence of engagement in professional development activities?	3a. More professional development activities, as measured by numbers of trainings/classes and OR advancement 3b. Increased motivation for professional development 3c. Increased provider networking supports
4. Are CCEP providers compensated at a rate commensurate with their level of training and education?	4a. Increased provider income 4b. Decreased provider financial stress
5. Are CCEP facilities more likely to have stable revenue and less likely to have problems with issues of parent non-payment?	5a. Increased revenue stability 5b. Decreased problems with parental non-payment
6. Are CCEP providers more likely to stay in the field longer?	6a. Increased provider retention 6b. Decreased provider stress
7. Are CCEP providers more likely to make facility improvements?	7a. Increased number and type of improvements 7b. Increased environmental quality of care
8. Are CCEP children experiencing higher quality childcare?	8a. Increased quality of child-caregiver interactions 8b. Increased quality of social-emotional development environment 8c. Increased quality of cognitive/language development environment



## SAMPLE SELECTION

The evaluation employed a randomized design, with providers assigned to either the CCEP intervention or to a control group. Lane Family Connections publicized the project among Lane County providers, and those providers that expressed interest in participating were assigned to either the CCEP group or the control group. Providers in both groups had to agree to participate in the evaluation, and were promised \$1,000 for their completion of the first year's evaluation activities. The CCEP group consists of 12 facilities, representing 10 family childcare providers and 2 childcare centers. The control group consists of 13 facilities representing 10 family childcare providers and 3 centers. However, once the groups were selected, it became apparent that the control group was not a no-treatment group, as all of the 10 family childcare providers (but none of the 3 centers) were participating in CARES, and therefore were receiving wage enhancements and taking part in professional development activities similar to what CCEP was designed to provide. Therefore, the evaluation team added a third, no-treatment group of providers to the study.

To select the no-treatment group, Lane Family Connections provided NPC Research with a comprehensive list of 447 Lane County providers who met several criteria: providers included on the list could not be participating in childcare improvement projects such as CCEP or CARES, had to speak English, and had to serve 40 or fewer children. Next, NPC took a random stratified sample of 122 facilities (85% family childcare, 15% centers). The CCEP Project Director removed 17 facilities from this list because they were known to be out of business. Of the remaining 105, the evaluation team were unable to contact 10 due to out of date contact information. NPC spoke to the remaining 95; these calls served to both screen the provider for eligibility for the study and to further explain

the study and ask for participation from those who were eligible. The eligibility screening process allowed NPC to verify that the provider was still in business, enrolled more than one child, served children under the age of 6, and worked more than 20 hours per week. This eligibility screening was necessary in order to select facilities that were similar to facilities in the CCEP and control groups. Of these 95 facilities; of these, 15 (12 family childcare providers and 3 centers) were eligible for, and agreed to participate in, the study (21 did not meet the study eligibility criteria and 74 declined to participate in the study).

Table 2 summarizes the composition of the three study groups for baseline data collection (baseline data collection took place in the winter of 2006 for the CCEP and control groups and in the summer of 2006 for the no-treatment group).<sup>1</sup>

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<sup>1</sup> Three providers (one at a CCEP site and two at control sites) started their jobs after our baseline data collection in winter 2006; these providers received their baseline data collection in the summer of 2006 rather than during our winter baseline data collection. In addition, the composition of the samples changed slightly at the time of the Round 2 data collection: 6 control group providers and 3 CCEP providers did not participate in Round 2. This attrition was due to several factors: 6 providers (4 control and 2 CCEP) were no longer at their jobs, 1 CCEP provider was now working only part-time (less than 20 hours per week), and 2 control family childcare providers were unable to participate in the follow-up data collection (one facility had recently been flooded and was closed at the time of the data collection; one facility had just moved locations and currently did not have any children enrolled).

**Table 2. Study Sites**

	<b>CCEP Group</b>	<b>Control Group</b>	<b>No-treatment Group</b>
<b>Family Childcare</b>			
Number of facilities	10	10	12
Number of providers	14	11	12
<b>Center Childcare</b>			
Number of facilities	2	3	3
Number of providers	14	18	6
<b>Families Served</b>			
Number of families	200	167	NA
Number of children	280	197	NA

**METHODOLOGY**

The process and outcome evaluations rely on information gathered from a variety of different sources, using several methodologies. The three types of information used for the evaluation include program-level data, provider-level data, and parent-level data. The data collected from each of these groups is discussed below.

***Program-level Data***

In order to address many of the key process study questions, it was necessary to gather information about program implementation, and to this end, the NPC evaluation team worked with CCEP staff to create a template for quarterly reports. These reports include information about the number of providers and families served, the types of CCEP activities conducted, and the allocation of funds. Findings in this report reflect data submitted on the first four quarterly reports (covering the period from July 2005 through June 2006). In addition to these quarterly reports, NPC staff members were in frequent phone, email and in-person contact with CCEP staff members to exchange information about project and evaluation activities.

***Provider-level Data***

The second type of data necessary for both the process and outcome evaluations is information from providers themselves. CCEP providers can share their perceptions of the services they are receiving, and data from providers in all three study groups can be used to highlight differences in key outcomes such as income stability and quality of care. All participating providers completed a written survey at the start of the project. In addition, CCEP and control group providers will participate in a total of four rounds of site visits (two during Year 1, and one each during Years 2 and 3), and no-treatment group providers will participate in a total of three rounds of site visits (one each year). These site visits consist of an observation, an interview with the provider, an interview with the facility owner/director, and a paper-and-pencil survey. Each of these components is described in more detail below.

*Participant Enrollment Survey.* At the start of the project, all providers were asked to complete the Participant Enrollment Survey.<sup>2</sup> This written survey includes sections on

<sup>2</sup> Not all providers completed the PES promptly, and as a result, PES data were collected throughout the first year of the evaluation, and therefore for some providers it is not a true baseline measure.

background and demographic information, provider confidence in a variety of domains, provider commitment to the field, and professional development activities. This measure was developed by the Oregon Childcare Research Partnership for use with all State-funded childcare projects.

*Site Visits.* Site visits consist of observations, provider interviews, facility owner/director interviews, and a written survey, as described below. Most CCEP and control providers took part in two site visits during Year 1 (in winter and summer of 2006)<sup>3</sup>, and no-treatment providers took part in one site visit (in the summer of 2006).

A. *Observations:* NPC staff members conduct observations with every provider in the three study groups using the Quality of Early Childhood Care Settings (QUEST) instrument developed by Abt Associates. This instrument consists of multiple subsections that measure environmental quality, the quality of the cognitive development environment, and social/emotional quality. The environmental quality subsections include ratings of health and safety in a variety of areas and the appropriateness/adequateness of equipment and materials. The subsections focusing on cognitive development include ratings of instructional style, learning opportunities, and language development. The subsections that focus on social/emotional quality include ratings of the caregiver's use of positive guidance, supervision style, and supporting social development and play. Each observation takes between 2 and 3 hours.

B. *Provider Interview:* In addition to the observation, NPC staff conduct in-person interviews with each provider. NPC developed this interview instrument for its

evaluation of the Oregon Childcare Quality Improvement (CCQI) Project in 2004. The instrument asks providers to describe changes to their practice in a variety of topic areas, including social growth and development, discipline techniques, and infant care and development. In addition, for the current evaluation, NPC added questions to ascertain providers' satisfaction with CCEP.

C. *Facility Owner/Director Interview:* The facility owner/director interview, developed for this evaluation by NPC, is administered in-person with each facility owner/director. The purpose of this instrument is to gather information about enrollment and revenue fluctuations along with information about facility improvements. (For family childcare facilities, where the provider *is* the facility owner/director, the provider takes part in both the provider and facility owner/director interviews.)

D. *Provider Follow-up Survey:* At each site visit, providers are asked to complete a paper-and-pencil survey that serves as a follow-up instrument to the PES. This brief survey includes a subset of PES items that we want to track over time (i.e., advancements on the Oregon Registry) along with additional items developed for this evaluation, including a measure of financial stress.

The provider information presented in the remainder of this report is from the PES, the first two rounds of site visits for the CCEP and control providers, and the first round of site visits for the no-treatment group providers.

### ***Parent-level Data***

In addition to program-level and provider-level data, the evaluation includes a parent data collection component. Due to budgetary constraints, the parent data collection activities are conducted just with parents in the

<sup>3</sup> Three providers (1 CCEP and 2 control) were not employed at the time of the first site visits and therefore only took part in the second round.

CCEP and control group; no parent-level data collection is conducted with no-treatment group parents. The two parent-level data collection activities (conducted once during each of the three evaluation years) are a mail survey and a telephone interview.



In order to protect parents' confidentiality, their names and contact information were not released to NPC unless they had signed a *consent to contact form*. Providers were asked to give parents a flyer explaining the study along with a *consent to contact form*, and were asked to encourage parents to return the form. Those parents who returned signed *consent to contact forms* (106, 63 from CCEP providers and 43 from control providers) became the sample of parents used for the parent survey. The CCEP parents who signed a *consent to contact* comprise 32% of families served by CCEP providers and 26% of the families served by control providers. Clearly, a goal of next year's evaluation will be to devise a better strategy for recruiting CCEP and control parents to ensure a more representative sample.

*Parent Survey.* The parent mail survey, developed by NPC for this study, includes questions about parental satisfaction with care, stability of care, amount spent on childcare, financial stress, and work productivity. Surveys were mailed to 100 parents (of the 106 *consent to contacts* we received, 5 CCEP parents and 1 control parent gave incomplete contact information), and NPC conducted follow-up phone calls and second mailings to all parents who did not return their survey. This methodology resulted in an eventual 68 surveys (38 from CCEP parents and 30 from control parents), for a 66% response rate for consenting CCEP parents and a 71% response rate for consenting control parents. These parents represented approximately 20% of the families served by the CCEP and control facilities. In exchange for their participation in the mail survey, each parent received a \$15 gift card to Fred Meyer.

*Parent Interview.* A subset of parents who returned the mail survey were invited to participate in a follow-up telephone interview in return for a \$20 Fred Meyer gift card. Fifteen CCEP parents and 15 control parents were selected that represented all providers in each group. The CCEP parents selected were parents who received a CCEP subsidy, as the interview instrument included questions about the subsidy. All 15 control group parents agreed to participate in the interview, and 11 CCEP group parents agreed to participate, for a total of 26 interviews. The interview instrument, developed by NPC for this study, includes open-ended questions about changes parents may have seen in the quality of care, parental satisfaction with care, the impact of the CCEP subsidy (for the CCEP parents only), and the impact that paying for childcare has on family finances (for the control group).

The parent information presented in the remainder of this report is from the first round of parent surveys and interviews.

Figure 1 summarizes all of the evaluation data collection activities for each of the three evaluation years.

**Figure 1. CCEP Evaluation Data Collection Activities**

Data Type	Year 1 Evaluation 7/05–6/06	Year 2 Evaluation 7/06–6/07	Year 3 Evaluation 7/07–6/08
<b>Program-Level</b>	CCEP Quarterly Reports 1-4	CCEP Quarterly Reports 5-8	CCEP Quarterly Reports 9-12
<b>Provider-Level</b>	<b>CCEP and Control Providers:</b> — PES — Round 1 Site Visits* — Round 2 Site Visits* <b>No-Treatment Providers:</b> — PES — Round 1 Site Visits*	<b>CCEP and Control Providers:</b> — Round 3 Site Visits* <b>No-Treatment Providers:</b> — Round 2 Site Visits*	<b>CCEP and Control Providers:</b> — Round 4 Site Visits* <b>No-Treatment Providers:</b> — Round 3 Site Visits*
<b>Parent-Level</b>	<b>CCEP and Control Providers:</b> — Round 1 Parent Surveys — Round 1 Parent Interviews	<b>CCEP and Control Providers:</b> — Round 2 Parent Surveys — Round 2 Parent Interviews	<b>CCEP and Control Providers:</b> — Round 3 Parent Surveys — Round 3 Parent Interviews

\*Site visits include provider observations, provider interviews, provider written surveys, and facility director interviews.

## About This Report

The remainder of this report includes the Year 1 (July 2005-June 2006) evaluation findings. The next section details the imple-

mentation of CCEP (the process evaluation), followed by a section on CCEP outcomes (the outcome evaluation). The final section of the report provides discussion and recommendations.



## CCEP IMPLEMENTATION

To answer the process study research questions listed above, the evaluation team focused on CCEP activities and expenditures, the demographic characteristics of providers and parents, provider satisfaction with the program, and the challenges and successes of the first year of implementation.

### CCEP Activities and Expenditures

CCEP was designed to include subsidies to help families afford childcare, wage enhancements to increase provider compensation, and facility grants and mentoring and technical assistance to improve childcare quality. The first quarter of the project (July-September 2005) consisted of a variety of start-up activities, including recruiting providers and spreading the word about the program through mailings and word-of-mouth. In September the Project Director assigned providers to the CCEP and control groups. During this first quarter, the Project Director developed necessary forms and paperwork (e.g., parent income verification forms) and provided assistance to the CCEP providers in completing all the necessary paperwork and the steps necessary to enroll on the Oregon Registry (providers need to enroll on the OR in order to receive their wage enhancements). During the second quarter of the project (October-December 2005) the primary activities were enrolling families, providing wage and program enhancements, and providing ongoing support to providers. During the third quarter (January-March 2006), the project reached the limit in terms of available funds for parent subsidies and therefore stopped enrolling families. Activities during the third and fourth quarter consisted of wage and program enhancements along with continued mentoring and technical assistance for providers.



### ACTIVITIES TO PROMOTE CHILDCARE AFFORDABILITY

During the first year, a total of 95 families (representing 130 children) received subsidies, out of a total of 200 families served by CCEP providers. Those families who did not receive subsidies either were not interested in participating or did not meet the income eligibility criteria. The program paid subsidies directly to the providers each month; parents were responsible for paying the providers the remainder of their childcare bill, which totaled 10% of the family's income.

### ACTIVITIES TO INCREASE PROVIDER COMPENSATION

Each CCEP provider who enrolled on the Oregon Registry (OR) at Step 5 or above was eligible for wage enhancements. Fifteen providers enrolled on the OR at Step 5 or above during Year 1. The wage enhancements were based on a provider's OR step and ranged from \$1,000 to \$5,000 per year.

### ACTIVITIES TO PROMOTE CHILDCARE QUALITY

Each participating CCEP family facility received a \$1,000 program enhancement grant and each center facility received a \$2,000 grant. The CCEP Program Director worked



with each program to identify priorities for facility improvements. Facilities used these grants for toy, equipment, and furniture purchases; home repairs; and staff training.

The mentoring and technical assistance provided by the program took several forms, including monthly networking meetings for the providers, monthly (and sometimes more frequent) site visits from the Project Director, and frequent telephone contact between the Project Director and the providers. Indeed, over the course of the first year, in addition to monthly provider networking meetings, the Project Director logged 193 site visits, 796 phone calls, and 172 email contacts with providers. The Project Director provided assistance in a variety of areas; assistance included quality-oriented topics as well as business-oriented topics. The quality-oriented topics addressed included the following:

- Helping providers determine the provider to child ratio that would be the best fit for each program and helping providers identify whether there were certain age groups with which they worked best;
- Helping providers use their space most efficiently in terms of the arrangement of toys, furniture, and equipment—helping providers create work zones, make their space visually appealing and “fun;”
- Working with providers to display and share art projects;
- Establishing schedules and curriculum;
- Building an understanding of child development stages to help providers identify normal and abnormal behavior;
- Providing trainings with certificates for completion to the providers in the following topics: diversity, OR registration, classroom management, ADHD, health and safety, science for young children, and DHS subsidy regulations;

- Providing information, resources, and referrals on dealing with children with challenging behaviors, learning or developmental delays, or medical problems; and
- Using the QUEST instrument to identify areas for future growth and improvement.

The business-oriented issues that the Project Director addressed with providers included the following:

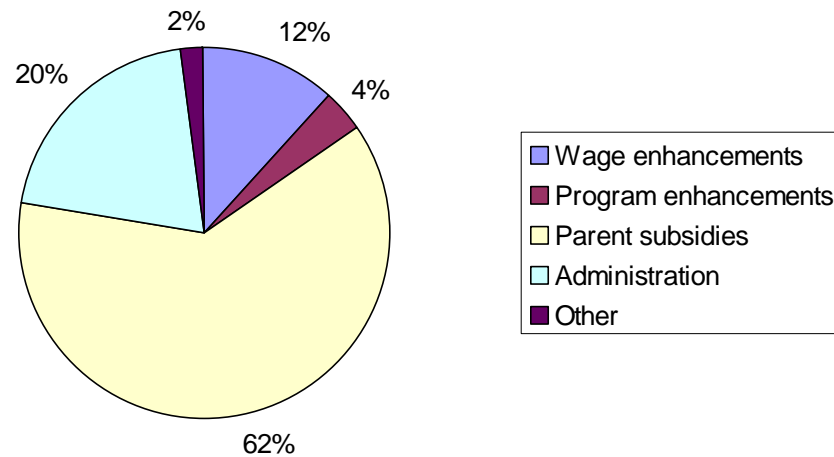
- Helping providers enroll on the Oregon Registry;
- Explaining the process and requirements for wage enhancement payouts;
- Explaining the parent subsidy process to providers and helping them enroll parents;
- Helping providers develop or modify contracts, billing systems, and rate schedules;
- Consulting with providers on the process and benefits of the DHS subsidy program; and
- Referring providers to classes and trainings and helping secure scholarships for these.

Table 3 and Figure 2 display the expenditures between July 1, 2005, and June 30, 2006, on wage enhancements, program enhancements, parent subsidies, project administration, and other miscellaneous expenses, as reported on the Quarterly Reports. The majority of CCEP expenditures (62%) were for the parent subsidy component of the project. Project administration made up 20% of the expenditures; a large portion of these funds was for the Project Director salary. Wage enhancements (12%) and program enhancements (4%) comprised a much smaller portion of the expenditures.



**Table 3. CCEP Expenditures**

<b>Activity</b>	<b>Amount</b>
Parent subsidies	\$210,854 for 95 families (about \$2,220 per family)
Wage enhancements	\$40,500 for 15 providers (about \$2,700 per provider)
Program enhancement grants	\$12,886 for 12 facilities (about \$1,075 per facility)
Administration (includes Project Director salary)	\$69,779
Other (materials, mail, telephone, incentives to control sites)	\$7,016
<b>Total</b>	<b>\$341,035</b>

**Figure 2. CCEP Funds as a Percentage of Total Expenditures**

## CCEP Provider and Parent Characteristics

Table 4 presents demographic information for the providers in the CCEP, control, and

no-treatment groups. Most providers in all study groups were women and were Caucasian.

**Table 4. Provider Demographics**

<b>Characteristic</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Gender</b>	N=28	N=29	N=18
Female	93% (26)	93% (27)	100% (18)
Male	7% (2)	7% (2)	0%
<b>Age</b>	N=24	N=18	N=18
25 and under	21% (5)	0%	17% (3)
26 to 35	25% (6)	56% (10)	28% (5)
36 to 46	4% (1)	11% (2)	39% (7)
46 and older	50% (12)	33% (6)	17% (3)
<b>Race/ethnicity</b>	N=26	N=26	N=18
White	85% (22)	85% (22)	94% (17)
Hispanic	12% (3)	12% (3)	0%
African American	0%	4% (1)	0%
Asian/Pacific Islander	4% (1)	0%	0
American Indian/ Native Alaskan	4% (1)	0%	6% (1)
<b>Primary Language</b>	N=25	N=20	N=18
English	96% (24)	75% (15)	100% (18)
Spanish	4% (1)	15% (3)	0%
Other	0%	0%	0%
<b>Highest Education Level</b>	N=25	N=18	N=18
Masters degree	4% (1)	0%	0%
Bachelors degree	20% (5)	17% (3)	28% (5)
Associates degree	8% (2)	17% (3)	22% (4)
Certification (child-related or other)	16% (4)	17% (3)	0%
High school diploma/GED	48% (12)	50% (9)	44% (8)
Less than high school	4% (1)	0%	6% (1)

Table 5 present providers' professional characteristics. Providers across all groups tended to have been in the childcare field for over 5

years. All providers made less than \$30,000 annually from their childcare work.

**Table 5. Provider Professional Characteristics**

<b>Characteristic</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Type of position</b>	N=28	N=29	N=18
Owner/director	46% (13)	38% (11)	72% (13)
Staff	54% (15)	62% (18)	28% (5)
<b>Length of time at job</b>	N=24	N=15	N=17
Over 5 years	50% (12)	53% (8)	77% (13)
3 to 5 years	0%	20% (3)	18% (3)
1 to 2 years	25% (6)	20% (3)	0%
Less than 1 year	25% (6)	7% (1)	6% (1)
<b>Length of time in field</b>	N=25	N=18	N=18
Over 5 years	68% (17)	78% (14)	72% (13)
3 to 5 years	4% (1)	17% (3)	17% (3)
1 to 2 years	20% (5)	6% (1)	11% (2)
Less than 1 year	8% (2)	0%	0%
<b>Income from childcare</b>	N=23	N=18	N=16
\$15,000 or less	70% (16)	67% (12)	50% (8)
\$30,000 or less	100% (23)	100% (18)	100% (11)
<b>Childcare percent of total income</b>	N=26	N=18	N=18
Only source of income	19% (5)	39% (7)	17% (3)
More than half of income	8% (2)	6% (1)	22% (4)
About half of income	35% (9)	11% (2)	0%
Less than half of income	39% (10)	44% (8)	61% (11)

Demographic information about CCEP parents is only available from those parents who participated in the parent survey. Parents who participated in the mail survey provided information including age, race, primary language spoken at home, and education level. Table 6 displays the demographic information for CCEP and control parents. Most par-

ents were between the ages of 26 and 46 and were Caucasian.

It should be noted that these parents represent a subset of the families served by the providers; as described above, 19% of families served by CCEP providers and 18% of families served by control providers participated in the mail survey.

**Table 6. Parent Demographics**

<b>Characteristic</b>	<b>CCEP Parents % (n)</b>	<b>Control Par- ents % (n)</b>
<b>Age</b>	N=37	N=31
25 and under	14% (5)	7% (2)
26 to 35	49% (18)	48% (15)
36 to 46	27% (10)	36% (11)
46 and older	11% (4)	10% (3)
<b>Race/ethnicity</b>	N=37	N=31
White	95% (35)	90% (28)
Hispanic	8% (3)	7% (2)
African American	0%	0%
Asian/Pacific Islander	3% (1)	0%
American Indian/Native Alaskan	0%	7% (1)
<b>Primary Language</b>	N=37	N=30
English	97% (36)	100% (30)
Spanish	3% (1)	0%
<b>Highest Education Level</b>	N=37	N=30
Bachelor's degree or higher	38% (14)	33% (10)
Associate's degree	19% (7)	23% (7)
Certification	8% (3)	17% (5)
Some vocational/trade school	11% (4)	7% (2)
High school diploma/GED	19% (7)	17% (5)
Less than high school	5% (2)	3% (1)

**Table 7. Provider Satisfaction with CCEP**

	<b>Dissatisfied % (n)</b>	<b>Neutral % (n)</b>	<b>Satisfied % (n)</b>
<b>CCEP FCC (n=10)</b>			
Baseline	0%	0%	100% (12)
Follow-up	0%	0%	100% (12)
<b>CCEP Center (n=12)</b>			
Baseline	0%	33% (3)	67% (6)
Follow-up	11% (1)	11% (1)	78% (7)

## CCEP Provider Satisfaction

The provider interview included questions for the CCEP group on why they were participating in the project and what they found most beneficial about the project. At baseline providers explained that they were drawn to the project because of the opportunity for wage enhancements and program improvement grants, to help families by providing the parent stipends, to meet other providers, and to benefit from mentoring by the Project Director. At follow-up, providers reported that the most beneficial aspects of CCEP had been the knowledge they had gained through the classes they had taken and mentoring they had received, the wage enhancements and program improvement funds, and the networking opportunities with other providers.

Providers were also asked to indicate their overall level of satisfaction with CCEP. Twelve family CCEP providers and 9 center CCEP providers participated in the provider interviews at both baseline and at follow-up. As illustrated in Table 7, all family providers were satisfied with CCEP at both baseline and follow-up. However, one-third (3) of the center providers were neutral about CCEP at baseline, and at follow-up 1 (11%) was dissatisfied and 1 (11%) was neutral. These providers explained that they were told that their centers were participating in CCEP, but that they were unaware of any activities related to the project and stated that the project did not have any relevance to them personally. They stated that they wished the project would focus more on helping individual classroom teachers and not just facility owner/directors.

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**“I am participating to enrich and develop my mind and abilities so I can be the best nurturer to my children.”**

— CCEP provider

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## Implementation Challenges and Successes

### IMPLEMENTATION CHALLENGES

As can be expected when implementing a new project, project staff faced several challenges during the first year. First, there were the challenges associated with a fast start-up of a new program; the Project Director needed to develop forms and systems from scratch. The Project Director characterized her approach as trial-and-error as she created the protocols and forms necessary for the providers and parents. Another related set of challenges encountered during the first year was the demands inherent in a job that involved multi-tasking and tight timelines. The Project Director, as the sole staff person for the project, had to take on myriad roles, including, but not limited to, mentor and technical assistance provider to the providers, bookkeeper, receptionist, and data entry person. Finding the time for all the required activities as well as a balance between these activities was a constant negotiation. Indeed, as evidenced by the types of technical assistance the Project Director provided, much time was needed to help providers with logistical and administrative tasks, leaving little time leftover for mentoring and assistance on more substantive, quality-of-care-oriented topics.

The project also faced challenges around recruitment, both of providers onto the Oregon Registry and of parents into the parent subsidy component. Providers, as described above, must enroll on the Oregon Registry in order to receive wage enhancements. While 15 providers were enrolled on the OR by the end of Year 1 and received wage enhancements; 11 of these providers were enrolled prior to the start of CCEP. The remaining 13

CCEP providers did not enroll, or were not at a Step 5 or higher. The Project Director spent time working with providers to help them with this process, but some providers were slow or resistant toward gathering all the necessary paperwork (e.g., certificates from trainings attended) for submission to the OR. Furthermore, the OR in some cases delayed the processing of providers' applications and/or requested further documentation before enrolling providers. These delays resulted in some providers not receiving wage enhancements until the third or fourth quarter of the project, and almost half of the CCEP providers did not receive wage enhancements at all.

While the project was successful in enrolling parents into the parent subsidy component (indeed, by the third quarter the program could enroll no more families due to budget constraints), there were initial challenges with this effort as well. Some parents assumed that they would not be eligible for the parent subsidies because, based on their income, they had traditionally been ineligible for other types of public support. The Project Director revised the publicity materials for parents to make the program more inviting; the revised materials did not stress that the program was for low-income parents. Instead, the materials advertised help with paying for childcare and invited all parents to see if they qualify.

### IMPLEMENTATION SUCCESSES

Perhaps the most fundamental success of the first year of the project was simply the crea-

tion of all necessary systems for administering the provider enhancements as well as the parent subsidies. The program now has forms and protocols that can be used not only for subsequent years of this project, but for other similar projects as well.

The other primary accomplishments of the project have been getting families enrolled in the parent subsidy component and generating enthusiasm and cohesion among the participating providers. As mentioned above, 95 families participated in the subsidy component during the first year. On pages 17-

20 we present data from parents themselves about how the subsidies have made a difference in their lives.

Another positive feature of the project during the first year was the growing cohesion and excitement among participating providers. As the year progressed, the participating providers became

more engaged in the monthly networking meetings by volunteering to host and present mini-trainings at these meetings. For example, one CCEP provider presented on cultural diversity during one monthly meeting, and another provider presented on classroom management techniques. The Project Director also introduced the providers to the QUEST instrument and helped them use this instrument as a self-assessment tool that generated reflection and ideas for future growth and improvement. Later in this report we examine whether this increased enthusiasm among providers resulted in any quality improvement outcomes (see pages 37-43).

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**“I stay engaged [in CCEP] because of the trainings, meetings, visiting other providers, and the subsidy. Gaining experience/training on running a successful daycare business is the most important to me. In the past I didn’t have any form of guidance. I had to learn as I went. There was no way of knowing how to run a business. Now there is guidance, with [the Project Director] and the other providers.”**

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— CCEP provider

## CCEP OUTCOMES

Data from the provider site visits (observations, provider interviews, facility owner/director interviews, and provider surveys) and from the parent surveys and interviews provided the information necessary to answer the evaluation's outcome questions. Each question and its related outcomes are presented below.

### Question 1: Are parents spending less than 10% of their income on childcare?

The evaluation examined two outcomes related to the income assistance provided by the subsidies: increased affordability of care, and reduced financial stress. Both of these outcomes were assessed via the parent survey, and thus results should be interpreted with caution given the relatively low number of parents recruited.

#### OUTCOME 1A: INCREASED AFFORDABILITY OF CARE FOR PARENTS

During CCEP's first year, 95 families received subsidies that capped the families' childcare payments at 10% of their income. Parents were asked on the parent survey to indicate their income and their monthly childcare expenditures, which allowed the evaluation team to determine the proportion of family income spent on childcare. Interestingly, CCEP subsidy parents' self report data indicated that on average these families were spending slightly more than 10% of their income on childcare (13%), and only 21% reported spending less than 10% of their income on childcare. This discrepancy could be

due to the problems associated with self-report data (including inaccurate recollections of monthly income or childcare expenses), but also could be due to the fact that each family's subsidy rate was determined at the time of their enrollment in the program; if family incomes fluctuated after enrollment the percentage of income spent on childcare also would change.

#### OUTCOME 1B: PARENTS HAVE REDUCED FINANCIAL STRESS

The parent survey also included a series of questions about potential financial stressors in parents' lives. Parents were asked if they worried about whether they could pay their

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**“Oh my gosh, [CCEP has] helped so much. I got better housing, finished college, and it allows me to keep my daughter at that daycare. I can work more hours at my job and don't have to worry about bills and rent anymore.”**

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—CCEP parent describing how the subsidy has helped her family

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childcare bills, whether they worry about finances overall, and whether they worry about meeting a variety of needs, including mortgage/rent payments, food, clothing, and medical care.<sup>4</sup> Table 8 displays the number of parents who agreed or strongly agreed that they often worried

about these financial stressors. There were no significant differences in the average rating on these items between CCEP subsidy parents, CCEP non-subsidy parents, and control parents on any of these items.<sup>5</sup> Approximately one-quarter of parents in all three groups worried about meeting their families' financial needs, and over half of the CCEP subsidy parents and control parents worried

<sup>4</sup> Seven items made up this financial stress subscale, with  $\alpha=.9$ .

<sup>5</sup> We also ran this analysis controlling for family income, and again found no significant difference between groups.

about their families' finances overall (just under half of the CCEP non-subsidy parents shared this worry). One-quarter of CCEP subsidy parents, just over 10% of CCEP non-subsidy parents, and one-third of control parents worried about affording childcare expenses. It is important to note that it may not be reasonable to expect CCEP subsidy parents to show significantly lower levels of financial stress than the other groups of parents: we do not have a measure of parents' financial stress *prior* to receiving the CCEP subsidy—it could be that CCEP subsidy parents were more stressed over finances than the other groups prior to receiving the subsidy, and the subsidy, therefore, has reduced their stress to the levels seen in the other parents. This is especially likely given the lower income generally of the CCEP parents.

CCEP subsidy parents also answered survey questions about whether and how the subsidy had helped their families. Parents rated, on a scale from strongly disagree to strongly agree, whether the subsidy had helped their family with a variety of financial needs, as illustrated in Table 9. All parents strongly agreed that the subsidy had helped their family overall, all but one agreed or strongly agreed that the subsidy had helped their families meet their basic needs<sup>6</sup> and had improved their standard of living, and 57% (12 parents) agreed or strongly agreed that the subsidy allowed them to save for long-term goals.

While the parent survey collected quantitative data on family finances and financial stress, the parent interview provided an op-

portunity to gather more open-ended and qualitative information from parents. CCEP parents who participated in the telephone interviews discussed how the subsidy had helped them. Eight of the 11 (73%) CCEP-subsidy parents who participated in the phone interview said that having the subsidy allowed them to put money toward basic living expenses like food, rent, and clothing. Two parents explained that with CCEP helping to cover childcare expenses, they were able to go back to college. One parent stated that having the CCEP subsidy allowed the family to move into better housing, and one parent said that the subsidy allowed the family to put money toward discretionary purchases such as new furniture.

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**“We’re not low income enough to get other subsidies and it would be impossible without it. I used to pay \$1,000 a month and that’s how much I would make at work for the month, so I was working to pay childcare. It frees up money for bills and rent.”**

—CCEP parent describing how the subsidy has helped her family

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<sup>6</sup> This basic needs rating is an average of responses on five items; these five items had acceptable reliability with alpha=.9.



**Table 8. Parent Financial Stress**

<b>Parents who agree with the following statements:</b>	<b>CCEP</b>		
	<b>CCEP Subsidy Parents % (n)</b>	<b>Non-subsidy parents % (n)</b>	<b>Control Parents % (n)</b>
I often worry about whether I will be able to pay my childcare bills.	24% (5)	13% (2)	32% (10)
I often worry about my family's finances overall.	62% (13)	44% (7)	58% (18)
I often worry about meeting my family's financial needs (e.g., mortgage/rent, food, etc.).	24% (5)	25% (4)	29% (9)

**Table 9. Impact of CCEP Subsidy on Family Finances**

<b>This CCEP subsidy:</b>	<b>Strongly Disagree % (n)</b>	<b>Disagree % (n)</b>	<b>Agree % (n)</b>	<b>Strongly Agree % (n)</b>
Has helped our family	0%	0%	0%	100% (19)
Has helped us to afford our basic needs (e.g., food, mortgage/rent, etc.)	5% (1)	0%	47% (9)	47% (9)
Has improved our standard of living	0%	5% (1)	42% (8)	52% (10)
Has helped us be able to save for our long-term goals	5% (1)	15% (4)	26% (5)	37% (7)

Control parents who participated in the telephone interviews were asked whether paying for childcare interfered with their ability to afford other things. Eight parents (57%) indicated that paying for childcare interferes with their ability to afford other things, four parents (29%) said that they could afford what they needed despite paying for childcare, and two parents (14%) said that with the help of a

DHS subsidy they could afford what they needed. Next, these parents were asked what they would do if they spent just 10% of their income on childcare. The most common response was parents stating that they would save or invest the extra money (5 parents, or 36%), but parents also indicated they would use the extra money for a variety of family-oriented purchases, such as vacations, field

trips (e.g., the zoo), activities (e.g., soccer), and toys. Two parents (14%) said that the extra funds would help them make ends meet with basic expenses.

## **Question 2: Are CCEP Parents More Satisfied With Their Childcare Arrangements?**

The parent subsidy component of the project, by providing tangible financial assistance to parents, could influence several outcomes for families, including the number of changes in childcare arrangements, parental work productivity, and parental assessments of the quality of care. Each of these outcomes is addressed below.

### **OUTCOME 2A: STABILITY OF CARE**

Parents were asked on the parent survey how many times they had changed childcare arrangements since September 2005. There were no significant differences between the three groups of parents, but four (19%) CCEP subsidy parents reported one childcare change and one (5%) reported two changes; CCEP non-subsidy parents reported no changes; and four (13%) control parents reported one change and two (7%) reported two changes. Parents gave the following explanations for the changes:

- Parents needed to find cheaper care (2 CCEP subsidy and 2 control parents);
- Concerns about quality (1 CCEP subsidy and 2 control parents);
- The provider went out of business (1 CCEP subsidy and 1 control parent);
- The provider moved (2 CCEP subsidy parents);
- The family moved (1 CCEP subsidy parent); and
- The parent's work hours were reduced (1 control parent).

It is important to note that it could be that some of the changes reported by the CCEP

subsidy parents were due to the start of the CCEP project; parents could have made changes in their childcare provider in order to enroll their child in a CCEP-participating provider. Therefore, the evaluation will track stability over time; it is reasonable to hypothesize that at the time of the next parent survey in 2007 there would be more stability among CCEP subsidy families.

Seven of the 21 (35%) CCEP subsidy parents who completed the parent survey stated that if they did not have the CCEP subsidy they would have taken their child out of their current childcare arrangement; similarly, 6 of the 11 (55%) CCEP subsidy parents who participated in the telephone survey stated that without the subsidy they would not be able to keep their current childcare arrangement.

### **OUTCOME 2B: PARENTAL WORK PRODUCTIVITY**

The parent survey included a question about how many days of work parents had missed since September 2005 due to changes in childcare arrangements. CCEP subsidy parents reported missing significantly more days of work than CCEP non-subsidy parents or control parents (CCEP subsidy parents missed an average of 1.4 days of work, CCEP non-subsidy parents missed an average of 0.1 days of work, and control parents missed an average of 0.8 days of work). This finding could be explained by the fact that several CCEP subsidy parents reported changing childcare arrangements during this same time period.

### **OUTCOME 2C: PARENTAL ASSESSMENT OF QUALITY**

The evaluation team collected measures of parents' perceptions of the quality of care through several items on the parent survey. Parents were asked how much they agreed that their childcare provider was just what their child needed and how much they agreed their provider was a skilled professional (on a scale from 1, strongly disagree to 5,

strongly agree). In addition, the survey included a 17-item assessment of quality scale developed by Arthur Emlin.<sup>7</sup> Table 10 displays parents' satisfaction ratings for CCEP parents (subsidy and non-subsidy parents are combined for this analyses, as both of these groups of parents were sending their children to the same group of providers) and control parents. As illustrated in the table, CCEP parents assessed quality as significantly higher than control parents.

**Table 10. Mean Parental Assessment of Quality Scores**

	<b>CCEP Parents (N=37)</b>	<b>Control Parents (N=31)</b>
Satisfaction with quality of care scale score**	4.8	4.6
Care arrangement is just what child needs*	4.8	4.4
Provider is a skilled professional*	4.9	4.7

\*Significant at  $p < .05$ .

\*\*Significant at  $p < .01$ .

Parents who participated in the telephone interview were asked whether there was anything they would like their provider to change. All but one of the CCEP parents (91%) stated there was nothing they would like their provider to do differently; one CCEP parent said she wished her provider would serve more nutritious food. In contrast, just 64% (9) of the control parents said there was nothing they wished their provider would do differently. The five parents who did wish for changes wished for the following things: longer hours, infant care, more

projects/activities for the children, more space, and more field trips.

### **Question 3: Do CCEP Providers Show More Evidence of Engagement in Professional Development Activities?**

During Year 1, CCEP provided wage enhancements to 15 providers who were enrolled on the Oregon Registry at Step 5 or higher. The evaluation examined three outcomes related to professional development: increased participation in professional development activities, increased *motivation* for professional development, and increased participation in supportive peer networks. It is worth noting that providing wage enhancements based on OR enrollment and advancement is a primary component for the CARES program as well, and most of the control group providers were participating in CARES. Thus, it may be that CCEP and control group providers have similar outcomes in this domain.

### **OUTCOME 3A: INCREASED PROVIDER PROFESSIONAL DEVELOPMENT ACTIVITIES**

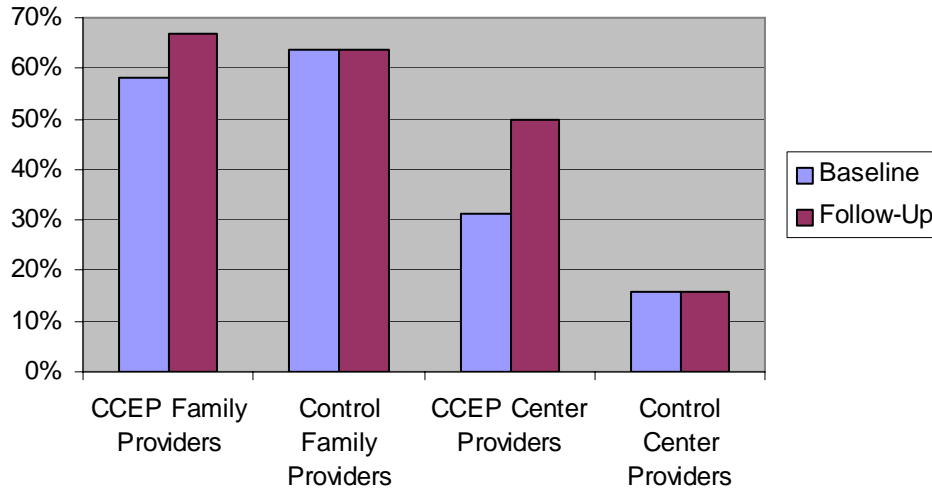
Because one of the primary interventions of CCEP is to provide wage enhancements based on providers' Oregon Registry step, a major goal of the project was to assist providers in registering and advancing on the OR. As illustrated in Figure 3, one CCEP family provider and three CCEP center providers enrolled on the OR between baseline and follow-up, while the number of control providers enrolled on the OR stayed the same over that same time period. While several CCEP providers enrolled on the OR between baseline and follow-up, no CCEP providers advanced steps during this time period, while two control family providers and one control center provider advanced one or more steps. All CCEP and control providers who were on the OR were at least at Step 5. Seven no-treatment family providers and one no-treatment center provider were enrolled on

<sup>7</sup> Reliability for this scale was acceptable with  $\alpha = .9$ .

the OR at the time of their baseline data collection (no-treatment providers took part in

baseline data collection only during Year 1), and all of these providers were below Step 5.

**Figure 3. Enrollments on the Oregon Registry**



**OUTCOME 3B: INCREASED MOTIVATION FOR PROFESSIONAL DEVELOPMENT**

On the provider survey providers were asked to rate their level of agreement (from 1, strongly disagree to 5, strongly agree) with two questions about provider motivation for professional development: “I would like to improve my education and training in childhood care and education” and “It is important to me to improve my training and education in childhood care and education.” Almost all providers in all groups were highly motivated for professional development at both baseline and follow-up (for example, at baseline, all but five providers stated they agreed or strongly agreed that it was important to them to improve their train-

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**The most beneficial thing about CCEP is the knowledge I’m gaining to become a better provider. CCEP has given me the push to grow professionally...I’ve learned a lot in one year. I’ve taken tons of classes. I know I was good at my job in the past (I’ve been doing it for 22 years) but now I’m even better at it.**  
 —CCEP provider

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ing and education). However, no-treatment family providers were significantly less motivated for professional development at baseline than all other groups ( $p < .01$ ) and surprisingly given their CARES involvement, control family providers were significantly lower than both CCEP family and CCEP center providers ( $p < .01$ ). There were no significant differences in motivation between baseline and follow-up for CCEP family providers, control family providers, and control center providers. However, CCEP center providers were significantly *less* motivated for professional development at follow-up. Baseline and follow-up average scores on these items are presented in Tables 11a and 11b.

**Table 11a. Mean Family Provider Motivation for Professional Development Scores**

	<b>CCEP (N=12)</b>	<b>Control (N=8)</b>	<b>No- treatment (N=9)</b>
<b>I would like to improve my education and training in childhood care and education</b>			
Baseline	4.8	4.1	3.7
Follow-up	4.7	4.4	NA
Change	-0.1	0.3	NA
<b>It is important to me to improve my education and training in childhood care and education</b>			
Baseline	4.8	4.4	3.9
Follow-up	4.6	4.4	NA
Change	-0.2	0	NA

**Table 11b. Mean Center Provider Motivation for Professional Development Scores**

	<b>CCEP (N=10)</b>	<b>Control (N=11)</b>	<b>No- treatment (N=6)</b>
<b>I would like to improve my education and training in childhood care and education</b>			
Baseline	4.8	4.3	4.3
Follow-up	4.3	4.3	NA
Change	-0.5*	0	NA
<b>It is important to me to improve my education and training in childhood care and education</b>			
Baseline	4.8	4.4	4.5
Follow-up	4.3	4.5	NA
Change	-0.5*	+0.1	NA

\*Significant at  $p < .05$ .

### **OUTCOME 3C: INCREASED SUPPORTIVE NETWORKS**

The provider survey included a provider sense of community subscale consisting of 4 items.<sup>8</sup> At baseline there were no significant

differences between any of the groups of providers on scores on this scale; however, at follow-up, CCEP family providers scored significantly higher on this scale than did CCEP and control center providers ( $p < .01$ ); none of the other groups were significantly different from each other. CCEP family providers' scores increased between baseline and follow-up ( $p < .10$ ), likely due to the

<sup>8</sup> This subscale had acceptable reliability with  $\alpha = .8$ .

monthly networking meetings and other supports these providers received from the program. There were no significant differences between baseline and follow-up scores on this scale for any of the other groups.

### **Question 4: Are Providers Compensated at a Rate Commensurate With Their Level of Training and Education?**

As discussed above, one of the components of the CCEP project is to offer wage enhancements to providers who enroll and advance on the Oregon Registry, with the hope that these enhancements will result in increased wages and reduced financial stress. Again, it is worth noting that wage enhancements are a key component of the CARES program, and therefore control providers may exhibit positive outcomes in this domain as well.

#### **OUTCOME 4A: INCREASED INCOME FOR PROVIDERS**

The provider interview asks about annual income, and therefore it will be possible to determine whether there are any increases in income over the life of providers' participation in CCEP. There were no significant differences in income between baseline and follow-up for any of the provider groups (CCEP family providers, control family providers, CCEP center providers, or control center providers). This could be due to the abbreviated follow-up period during the first year; it may be unrealistic to expect significant change in income during a 6-month period of time, particularly in light of the fact that, as discussed previously, almost half of the CCEP providers did not receive wage enhancements during the first year because they were not on the OR at Step 5 or higher. During subsequent years of the evaluation we will be able to examine income over a longer timeframe.

CCEP family providers stated they brought home approximately \$23,000 annually, while control family providers stated they brought home approximately \$10,000 annually. CCEP center providers and no-treatment family providers made approximately \$15,000, and control center and no-treatment center providers made approximately \$12,000.<sup>9</sup> While we examined differences between baseline and follow-up, we did not test for significant differences in income between provider groups. Income is closely tied to the number of hours worked, and therefore knowing simply that CCEP family providers make significantly more than control family providers does not tell the whole story; it could be that CCEP family providers work more hours. We will examine the interplay of income and hours worked in subsequent evaluation reports.

#### **OUTCOME 4B: PROVIDERS HAVE REDUCED FINANCIAL STRESS**

The provider survey included a meeting financial needs scale consisting of 7 items that measured the degree to which providers could meet their families' basic needs (such as housing, food, and clothing).<sup>10</sup> In addition, the survey asked providers whether they worried about their income from childcare and whether they worried about their families' finances overall. There were no significant differences between the groups at baseline. At follow-up, CCEP family providers were significantly less likely to worry about income from their childcare job than were CCEP center or control family providers ( $p < .10$ ). There were no significant differences between baseline and follow-up for CCEP family providers and for control family and center providers. However, CCEP center providers reported significantly *more*

<sup>9</sup> Some providers were able to give us gross income, while others gave us net income. We estimated net income for those who provided gross income by reducing the gross income by 25%.

<sup>10</sup> The alpha for this subscale was .9.

worries about their childcare income and their family finances at follow-up than at baseline ( $p < .10$ ). Tables 12a and 12b display

the average scores for these items at baseline and follow-up.

**Table 12a. Mean Family Provider Financial Stress Scores**

	<b>CCEP (N=12)</b>	<b>Control (N=8)</b>	<b>No- treatment (N=9)</b>
<b>Meeting Financial Needs Scale</b>			
Baseline	4.1	3.7	3.6
Follow-up	4.1	3.1	NA
Change	0	-0.6	NA
<b>Worry about childcare income</b>			
Baseline	3.3	3.9	3.0
Follow-up	3.2	4.1	NA
Change	-0.1	+0.2	NA
<b>Worry about finances in general</b>			
Baseline	3.5	3.8	3.2
Follow-up	3.5	3.6	NA
Change	0	+0.2	NA

**Table 12b. Mean Center Provider Financial Stress Scores**

	<b>CCEP (N=10)</b>	<b>Control (N=11)</b>	<b>No- treatment (N=6)</b>
<b>Meeting Financial Needs Scale</b>			
Baseline	3.9	3.3	3.4
Follow-up	3.8	3.4	NA
Change	-0.1	+0.1	NA
<b>Worry about childcare income</b>			
Baseline	3.0	3.1	3.0
Follow-up	4.1	3.1	NA
Change	+1.1*	0	NA
<b>Worry about finances in general</b>			
Baseline	3.0	3.0	3.0
Follow-up	3.7	3.6	NA
Change	+0.7*	+0.6	NA

\*Significant at  $p < .05$ .

### Question 5: Are Facilities More Likely to Have Stable Income and Less Likely to Have Problems With Issues of Parent Non-Payment?

The parent subsidies, by covering a portion of each family’s childcare expenses, provide a guaranteed source of income for facilities, and as a result, it is hoped that CCEP facilities will experience an increase in the stability of their revenue along with decreased problems with parental nonpayment.

#### OUTCOME 5A: INCREASED STABILITY OF INCOME FOR FACILITIES

The facility owner/director interview asked whether the facility’s revenues during the

past year fluctuated a lot month-to-month, fluctuated a little month-to-month, or remained the same month-to-month. Table 13 displays the data for those facilities that completed both a baseline and follow-up interview. CCEP providers showed no differences between baseline and follow-up and were fairly evenly split between the three answer choices. There were few changes in the control group either, though one facility that stated at baseline that revenues changed a little month-to-month stated at follow-up that revenues remained stable. The majority of no-treatment facilities indicated that income remained stable month-to-month.

**Table 13. Month-to-Month Stability of Facility Revenue**

<b>Would you say your income/revenue from childcare this past year:</b>	<b>CCEP N=12</b>	<b>Control N=11</b>	<b>No-treatment N=15</b>
<b>Remained the same month-to-month</b>			
Baseline	25% (3)	36% (4)	60% (9)
Follow-up	25% (3)	45% (5)	NA
<i>% Change</i>	<i>0%</i>	<i>+25%</i>	<i>NA</i>
<b>Changed a little month-to-month</b>			
Baseline	42% (5)	45% (5)	40% (6)
Follow-up	42% (5)	36% (4)	NA
<i>% Change</i>	<i>0%</i>	<i>-20%</i>	<i>NA</i>
<b>Changed a lot month-to-month</b>			
Baseline	33% (4)	18% (2)	0
Follow-up	33% (4)	18% (2)	NA
<i>% Change</i>	<i>0%</i>	<i>0%</i>	<i>NA</i>

The facility owner/directors who said their revenues fluctuated month-to-month gave reasons for this fluctuation. The most common response was that their enrollments fluctuated

month-to-month. Indeed, for all three types of facilities—CCEP, control, and no-treatment—approximately half of the owner/directors gave enrollment fluctuations



as the reason for their monthly revenue fluctuations. The only other explanation that was mentioned by more than one owner/director was parents not always paying on time; all three types of facilities mentioned this reason. Other reasons given by the owner/directors for month-to-month fluctuations included a variety of issues, such as personal illness that required a family provider to scale back her business for a period of time.

Because the facility owner/director interview asked about monthly revenue fluctuations for the *entire facility*, providers were asked on the provider survey to rate their agreement with the statement “I never know month-to-month how much money I’ll make from childcare” in order to examine *individual providers’* monthly income fluctuations. There were no differences between groups at baseline or at follow-up, and there were no differences between baseline and follow-up

for control center providers, but CCEP center providers reported significantly *more* monthly fluctuations in their income at follow-up than at baseline ( $p < .05$ ).

The facility owner/director interview also asked whether facility revenues were the same, more, or less than a year ago. As illustrated in Table 14, while at baseline one CCEP facility owner/director said that revenue was less than a year ago, at follow-up no CCEP facility owner/directors reported this; in fact, at follow-up, 10 (83%) of the CCEP facility owner/directors reported more revenue than a year ago, compared to 8 (67%) reporting this at baseline. Most control group facility owner/directors indicated at both baseline and follow-up that their revenue was the same as a year ago, however, two control group facility owner/directors stated at baseline that revenue was the same as a year ago, but at follow-up stated that revenue was now more than a year ago.

**Table 14. Changes in Facility Revenue Over Time**

<b>Would you say your income from childcare now is:</b>	<b>CCEP N=12</b>	<b>Control N=11</b>	<b>No-treatment N=14</b>
<b>Less than a year ago</b>			
Baseline	8% (1)	9% (1)	21% (3)
Follow-up	0	9% (1)	NA
<i>% Change</i>	<i>+100%</i>	<i>0%</i>	<i>NA</i>
<b>The same as a year ago</b>			
Baseline	25% (3)	73% (8)	29% (4)
Follow-up	17% (2)	55% (6)	NA
<i>% Change</i>	<i>-33%</i>	<i>-25%</i>	<i>NA</i>
<b>More than a year ago</b>			
Baseline	67% (8)	18% (2)	50% (7)
Follow-up	83% (10)	36% (4)	NA
<i>% Change</i>	<i>+25%</i>	<i>+100%</i>	<i>NA</i>

**OUTCOME 5B: DECREASED PROBLEMS WITH PARENT NON-PAYMENT**

The facility owner/director interview included questions about parental non-payment, including how often this occurred, how bothered owner/directors were by it, and how confident they felt about their record keeping procedures.

Owner/directors were asked whether they had to remind parents about paying their childcare bills always, every once in a while, or never, as displayed

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**“I can depend on the monthly checks, which lets me buy the things I need to run my business—in other words, the steadiness in income is the most beneficial [part of CCEP].”**  
—CCEP provider

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in Table 15. At follow-up, fewer CCEP facility owner/directors stated that they had to always remind parents about payments than at baseline (67%, or 8 facilities, at baseline as compared to 42%, or 5 facilities, at follow-up); one control center followed this pattern. It is interesting to note that while no control facility owner/directors and only 1 CCEP facility owner/director indicated that they never have to remind parents about payment, 27% of the no-treatment facility owner/directors indicated this.

**Table 15. Frequency of Facility Reminders to Parents Regarding Payment**

<b>How often do you have to remind families about paying their childcare bills?</b>	<b>CCEP N=12</b>	<b>Control N=11</b>	<b>No-treatment N=15</b>
<b>Never</b>			
Baseline	8% (1)	0%	27% (4)
Follow-up	17% (2)	0%	NA
<i>% Change</i>	<i>100%</i>	<i>0%</i>	<i>NA</i>
<b>Every once in a while</b>			
Baseline	25% (3)	45% (5)	45% (7)
Follow-up	42% (5)	55% (6)	NA
<i>% Change</i>	<i>+67%</i>	<i>20%</i>	<i>NA</i>
<b>Always</b>			
Baseline	67% (8)	55% (6)	27% (4)
Follow-up	42% (5)	45% (5)	NA
<i>% Change</i>	<i>-38%</i>	<i>-17%</i>	<i>NA</i>

Facility owner/directors also were asked how bothered they were by issues of parental nonpayment. Most CCEP, control, and no-treatment facility owner/directors indicated at both baseline and follow-up that they were somewhat or very bothered by parental nonpayment issues.

Facility owner/directors also indicated the effectiveness of their system for keeping track of billing and payments. As illustrated in Table 16, more CCEP facility

owner/directors indicated that their billing system was very effective at follow-up than at baseline (58% at follow-up, 42% at baseline); this trend was not apparent in the control group; indeed, for the control group, more facility owner/directors indicated they had effective systems at baseline than at follow-up. A majority of the no-treatment facility owner/directors indicated that they felt their systems were very effective.

**Table 16. Facility Owner/Director Assessment of Effectiveness of Billing System**

<b>How effective do you think your system for keeping track of billing and payments is?</b>	<b>CCEP N=12</b>	<b>Control N=11</b>	<b>No-treatment N=15</b>
<b>Not very effective</b>			
Baseline	0%	18% (2)	7% (1)
Follow-up	8% (1)	9% (1)	NA
<i>% Change</i>	<i>+100%</i>	<i>-50%</i>	<i>NA</i>
<b>Pretty effective</b>			
Baseline	58% (7)	18% (2)	40% (6)
Follow-up	33% (4)	45% (5)	NA
<i>% Change</i>	<i>-42%</i>	<i>+150%</i>	<i>NA</i>
<b>Very effective</b>			
Baseline	42% (5)	64% (7)	53% (8)
Follow-up	58% (7)	45% (5)	NA
<i>% Change</i>	<i>+40%</i>	<i>-29%</i>	<i>NA</i>

### **Question 6: Are Providers More Likely to Stay in the Field Longer?**

One goal of CCEP is to foster the conditions that would encourage providers to stay in the field; indeed, it is hypothesized that all of the components of CCEP (parent subsidy, provider wage enhancements, and funds and technical assistance for quality improve-

ments) could lead to increased retention and decreased provider stress.

### **OUTCOME 6A: INCREASED PROVIDER RETENTION**

Providers were asked during their interview whether they planned on staying in the child-care field beyond the next year, and why or why not. At baseline, 100% of CCEP family providers, control family providers, no-treatment family providers, and CCEP center

providers planned on staying in the field beyond the next year, 16 (89%) control center providers planned on staying in the field beyond the next year, and 5 (83%) no-treatment center providers planned on staying in the field beyond the next year. In fact, a total of 6 center providers who took part in the baseline data collection were no longer at their jobs at the time of our follow-up data collection: 4 of these providers were in the control group (representing 21% of the control group center providers) and 2 were in the CCEP group (representing 13% of the CCEP group center providers); all family providers in both groups were still employed at follow-up.<sup>11</sup> The evaluation team attempted to conduct a brief telephone interview with providers who left their positions, but due to the unavailability of home contact information, only one such interview was completed. The provider who participated in the exit interview stated that she left her position for a job in a field unrelated to childcare, and explained that she made this change because the new job came with a higher salary.

For those providers who took part in follow-up data collection, all CCEP providers (family and center) reiterated that they planned to stay in the field beyond the next year, while 1 control family provider and 1 control center provider indicated that they planned to leave the field. The most common reason for staying in the field given by providers in all groups was a love of children and the work; many providers described their compulsion to work with children and their great satisfaction in watching children learn and develop. Some providers also said that they would stay in the field because it allowed them to be home with their own young children. Those few providers who indicated they planned to

leave the field cited finances and other personal concerns (e.g., illness).

## **OUTCOME 6B: DECREASED PROVIDER STRESS**

The provider survey included 8 items to measure providers' feelings of accomplishment in regard to their positions as childcare providers<sup>12</sup> along with two items to measure job stress: "Dealing with children with challenging behaviors adds stress to my role as a childcare provider" and "Overall, being a childcare provider is stressful for me." Results for these items are displayed in Tables 17a and 17b. The groups did not differ at baseline or at follow-up on sense of accomplishment subscale scores (all groups' average scores were approximately 4 out of a possible 5), nor were there differences between baseline and follow-up scores for CCEP family or center or control family providers. Control center providers, however, showed a significant increase in scores on this scale between baseline and follow-up ( $p < .01$ ). CCEP center providers reported significantly more stress in dealing with children with challenging behaviors ( $p < .01$ ), and significantly more stress with their job overall than the other groups of providers ( $p < .05$ ). There were no significant differences between baseline and follow-up for CCEP and control family providers, but both CCEP and control center providers decreased their overall job stress between baseline and follow-up ( $p < .10$ ).

<sup>11</sup> Two control family providers, though they did not leave the field, did not take part in the follow-up data collection due to other reasons (one provider had recently relocated and had not yet started enrolling children, and another provider had recently been flooded and was temporarily closed).

<sup>12</sup> These 8 items had an  $\alpha = .8$ .

**Table 17a. Mean Family Provider Stress Ratings**

	<b>CCEP (N=12)</b>	<b>Control (N=8)</b>	<b>No- treatment (N=9)</b>
<b>Feelings of Accomplishment Scale</b>			
Baseline	4.3	4.1	4.0
Follow-up	4.3	4.2	NA
Change	0	+0.1	NA
<b>Stress with children with challenging behaviors</b>			
Baseline	2.4	1.7	2.2
Follow-up	1.9	2.0	NA
Change	-0.5	+0.3	NA
<b>Overall being a childcare provider is stressful</b>			
Baseline	3.3	3.6	3.6
Follow-up	3.7	3.8	NA
Change	+0.4	+0.2	NA

**Table 17b. Mean Center Provider Stress Ratings**

	<b>CCEP (N=10)</b>	<b>Control (N=11)</b>	<b>No- treatment (N=6)</b>
<b>Feelings of Accomplishment Scale</b>			
Baseline	4.3	3.8	3.9
Follow-up	4.3	4.1	NA
Change	0	+0.3*	NA
<b>Stress with children with challenging behaviors</b>			
Baseline	3.3	2.3	2.8
Follow-up	3.1	2.4	NA
Change	-0.2	+0.1	NA
<b>Overall being a childcare provider is stressful</b>			
Baseline	4.6	3.3	3.7
Follow-up	4.2	3.0	NA
Change	-0.4*	-0.3*	NA

\*Significant at  $p < .10$ .

## Question 7: Are Providers More Likely to Make Facility Improvements?

During the first year of the project, CCEP gave all participating family childcare facilities \$1,000 and all center facilities \$2,000 to use for facility improvements.

### OUTCOME 7A: INCREASED NUMBER OF FACILITY IMPROVEMENTS

Data on the extent and type of facility improvements was gathered through the facility owner/director interviews and the provider interviews. The facility owner/director interviews provided information about overall facility purchases, repairs, and improvements, while the provider interview gave the evaluation team information about changes made by individual providers in individual classrooms.

On the facility owner/director interview, almost all owner/directors across the three study groups, at both baseline and follow-up,

indicated that they had made facility improvements in the past year: at baseline, 78% of CCEP family providers, 92% of no-treatment family providers, and 100% of control family providers, CCEP centers, control centers, and no-treatment centers had made improvements, and at follow-up all providers except one control family provider had made facility improvements. Facilities made improvements and investments in a variety of areas, as displayed in Table 18 (this table displays improvements discussed at the time of the follow-up interview; the types of improvements discussed at the baseline interview were similar).

Facility owner/directors also indicated how much money they had spent on these improvements. Table 19 displays these expenditures for those facility owner/directors who provided this information at both baseline and follow-up. There was great variability in expenditures within each group, and no significant differences over time on the expenditures made.

**Table 18. Types of Facility Improvements**

<b>Type of Improvement</b>	<b>CCEP N=12</b>	<b>Control N=13</b>	<b>No-treatment N=15</b>
Toy purchases	33% (4)	54% (7)	60% (9)
Craft purchases	0%	23% (3)	27% (4)
Book purchases	25% (3)	15% (2)	13% (2)
Furniture purchases	42% (5)	15% (2)	20% (3)
Indoor equipment purchases	25% (3)	31% (4)	13% (2)
Outdoor equipment purchases	42% (5)	31% (4)	27% (4)
Repairs or remodels	75% (9)	62% (8)	20% (3)
Vehicle purchase or repair	0%	8% (1)	0%
Staff training	25% (3)	46% (6)	7% (1)

**Table 19. Mean Expenditures on Facility Improvements**

<b>How much did you spend on facility improvements in the past 6 months?</b>	<b>CCEP (N=8)</b>	<b>Control (N=8)</b>	<b>No-treatment (N=14)</b>
Baseline	\$3,397	\$12,237	\$2,653
Follow-up	\$2,643	\$4,717	NA

While the facility owner/director interview focused on purchases and improvements for the overall facility, the provider interview focused upon changes providers may have made to individual classroom environments. Providers were asked to indicate the extent of changes they had made in the past 6 months at both baseline and follow-up on a scale of 1 (no change) to 3 (a lot of change). CCEP family childcare providers reported significantly more change in the past 6 months at follow-up than at baseline ( $p < .01$ ). CCEP center providers and control family providers did not report any more change at follow-up than at baseline, and control center providers reported significantly *less* change to their classrooms at follow-up than at baseline ( $p = .05$ ).

The types of changes providers reported fell into three categories: many providers reported rearranging the room set-up to create different zones or different traffic flow, several providers reported introducing new toys and equipment, and some providers reported rearranging to make materials more accessible to the children.

### **OUTCOME 7B: INCREASED ENVIRONMENTAL QUALITY**

To examine the influence of the CCEP program on the quality of childcare environments being provided to children, the Quality of Early Childhood Care Settings (QUEST) observational assessment was used. The QUEST taps six dimensions of environmental quality: (1) the quality and comfort of the general space provided (e.g., enough space for children, areas for active and quiet play, adequate lighting, etc.); (2) quality and developmental appropriateness of equipment, for children less than one year old; (3) children one to three years; (4) children aged three through five; and (5) adequacy of materials to support language and literacy development (e.g., functional print items such as calendars, menus, schedules, reading areas, adequate numbers and variety of books, materials with alphabet letters used, etc.); and (6) safety of equipment and materials. Twenty-two CCEP providers (12 family and 10 center) and 23 control (8 family and 15 center) were observed at both time points. Additionally, 18 no-treatment providers (12 family and 6 center-based) re-

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**“I added a reading area with an inviting soft place to read and an open-faced bookshelf. I got a sensory table. I am going to make a science area now. I moved the manipulative area into a bigger area. I expanded the dramatic play section because I moved out all my storage and opened the room up for dramatic play. I added a puppet theatre to that room.”**  
—CCEP provider

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ceived a baseline observation only (follow-up observations will be made next year). It is important to note that the sample sizes for these analyses are quite small; however, data were examined for the presence of outliers which could unduly skew the results; no clear outliers were identified. However, because of these small sample sizes, and the relatively large number of statistical tests performed, it is important to view these results in context, and attend to the general patterns that occur over multiple measures, rather than generalizing too broadly from individual findings.



As shown in Tables 20a & 20b, CCEP family and center providers were generally higher at both assessment points in these areas, with the exception of the adequacy of materials for language and literacy development provided by CCEP family care providers. However, the percentage of CCEP family providers with adequate language/literacy materials increased from baseline to follow-up (although neither time point was significantly different from controls). At follow-up, CCEP family providers were significantly more likely to have developmentally appropriate equipment for infants and preschoolers,

compared to controls. The percent change indicates the percent increase (or decrease) in the number of providers who were scored as “adequate” or higher at the follow-up observation.

To test the significance of any change over time with the highest level of statistical power, we ran a repeated-measures analysis of variance (ANOVA), comparing individual providers’ scores at baseline to their scores at follow-up, to see if change in the CCEP group was greater (and more positive) than change in the control group. In addition to allowing a comparison between the same person at baseline and follow-up, the ANOVA examines differences in the average scores for individuals, rather than examining the number achieving the “cut-off” for adequate quality—this approach retains more statistical power for analysis. Because the data below suggested that patterns for family and center-based providers were different, we conducted the repeated-measures analysis separately for these two groups.

Although sample sizes were small, results showed that there was a significant interaction between time period and treatment group ( $F(1,18)=4.65, p<.05$ ) such that CCEP family providers improved more in terms of the adequacy of equipment for preschoolers, compared to control providers, whose scores worsened somewhat.

For center-based providers, the pattern was different: there was a significant time by group interaction (for equipment for toddlers, preschoolers, and literacy materials), but it appeared that CCEP center-based providers had somewhat poorer scores at the follow-up, while controls stayed the same or improved slightly (toddlers,  $F(1,12) = 4.84, p<.05$ ; preschoolers,  $F(1,10) = 4.02, p<.10$ ; literacy,  $F(1,21) = 9.44, p<.05$ ).



**Table 20a. Family Provider Environmental Quality as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Space and Comfort</b>			
	N=12	N=8	N=12
Baseline	100% (12)	100% (8)	92% (11)
Follow-up	100%(12)	100%(8)	NA
<i>% Change</i>	<i>0%</i>	<i>0%</i>	<i>NA</i>
<b>Equipment and materials to support developmentally appropriate play – infants</b>			
	N=5	N=4	N=7
Baseline	20% (1)	50% (2)	14% (1)
Follow-up	75%(3) <sup>13</sup>	0% (0)*	NA
<i>% Change</i>	<i>+275%</i>	<i>-100%</i>	<i>NA</i>
<b>Equipment and materials to support developmentally appropriate play – toddlers</b>			
	N=12	N=8	N=12
Baseline	70% (7)	50% (4)	50% (6)
Follow-up	83% (10)	50% (4)	NA
<i>% Change</i>	<i>+43%</i>	<i>0%</i>	<i>NA</i>
<b>Equipment and materials to support developmentally appropriate play – preschoolers</b>			
	N=12	N=8	N=12
Baseline	75% (9)	63% (5)	36% (4)
Follow-up	92% (11)	38%(3)*	NA
<i>% Change</i>	<i>+22%</i>	<i>-40%</i>	<i>NA</i>
<b>Equipment and materials to support language and literacy development</b>			
	N=12	N=8	N=12
Baseline	50% (6)	63% (5)	58% (7)
Follow-up	75% (9)	75% (6)	NA
<i>% Change</i>	<i>+50%</i>	<i>+20%</i>	<i>NA</i>
<b>Safety of home furnishings and materials</b>			
	N=12	N=8	N=12
Baseline	100% (12)	100% (8)	92% (11)
Follow-up	100% (12)	100% (8)	NA
<i>% Change</i>	<i>0%</i>	<i>0%</i>	<i>NA</i>

\* CCEP group significantly higher quality than control group at follow-up,  $p < .05$ .

<sup>13</sup> One provider was missing the rating for this subscale at the follow-up observation.

**Table 20b. Center Classroom Environmental Quality as Measured by the QUEST**

<b>Classrooms rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Space and Comfort</b>			
	N=10	N=15	N=6
Baseline	100% (10)	73% (11)	100% (6)
Follow-up	100% (10)	93% (14)	NA
<i>% Change</i>	0	+27%	NA
<b>Equipment and materials to support developmentally appropriate play – infants</b>			
	N=2	N=7	N=1
Baseline	100% (2)	23% (2)*	100%
Follow-up	100% (2)	29% (2)*	NA
<i>% Change</i>	0	0	NA
<b>Equipment and materials to support developmentally appropriate play – toddlers</b>			
	N=7	N=15	N=4
Baseline	100% (7)	40% (6)	75% (3)
Follow-up	57% (4)	56% (5)	NA
<i>% Change</i>	-43%	-17%	NA
<b>Equipment and materials to support developmentally appropriate play – preschoolers</b>			
	N=5	N=10	N=4
Baseline	100% (5)	30% (3) *	100% (4)
Follow-up	72% (4)	57% (4)	NA
<i>% Change</i>	-20%	+33%	NA
<b>Equipment and materials to support language and literacy development</b>			
	N=9	N=10	N=6
Baseline	67% (6)	33% (5) <sup>a</sup>	67% (4)
Follow-up	60% (6)	36% (5)	NA
<i>% Change</i>	0	0	NA
<b>Safety of home furnishings and materials</b>			
	N=10	N=15	N=6
Baseline	100% (10)	100% (15)	100% (6)
<i>Follow-up</i>	100% (10)	100% (15)	NA
<i>% Change</i>	0	0	NA

<sup>a</sup>CCEP group significantly higher quality than control group at baseline, p<.05.

\*\* CCEP group significantly higher quality than control group at follow-up, p<.05.

## Question 8: Are Children Experiencing Higher-Quality Childcare?

One of the ultimate goals of CCEP, indeed, of any childcare enhancement project, is to improve the quality of care received by children. We investigated three dimensions of quality of care: the quality of caregiver-child interactions, the quality of the social-emotional development environment, and the quality of the cognitive/language development environment. Each of these dimensions of quality is discussed below.

### OUTCOME 8A: INCREASED QUALITY OF CAREGIVER-CHILD INTERACTIONS

The QUEST measure also assesses the quality of caregiver-child interactions, as rated by a trained observer. Tables 21a and 21b present information about the quality of caregiver-child interactions in terms of (1) general caring and responding (e.g., responsiveness to verbal and nonverbal cues from children, warmth and affection, recognition and responsiveness to distress, etc.); (2) use of positive guidance techniques (states limits, talks through conflicts, redirects children, etc.); and (3) adequacy of supervision (e.g., caregiver can see/hear children, super-

vision appropriate to age is provided). Based on Chi-Squared analysis at the follow-up time-point, CCEP family providers were significantly higher in the use of positive guidance techniques at follow-up, compared to controls. CCEP center-based providers were higher at baseline on two of the three subscales, compared to controls, and there were no significant differences in quality between CCEP and control center-based providers at follow-up. The percent change indicates the percent increase (or decrease) in the number of providers who were scored as “adequate” or higher at the follow-up observation.

Using the repeated-measures approach described above, we tested whether the CCEP groups changed more over time, compared to the control groups. For family providers, there was a significant group by time interaction for the extent of caring and responding, such that CCEP providers improved some-

what over time, while control providers scored slightly lower at follow-up ( $F(1,17) = 9.32, p < .01$ ).

However, for center-based providers, the pattern was reversed: CCEP center providers’ scores decreased

somewhat over time, while control providers’ scores improved slightly. For center providers, this effect was significant for caring and responding ( $F(1,18) = 10.79, p < .01$ ) and for positive guidance ( $F(1,23) = 7.51, p < .05$ ).

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**“I try harder to understand where the kids are coming from, to be more observant about when their behavior occurs. I'm also more sensitive about why they act up.”**

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—CCEP provider

**Table 21a. Quality of Family Caregiver-Child Interactions as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Caring and responding</b>			
	N=11	N=6	N=12
Baseline	91% (10) <sup>14</sup>	100% (6)	67% (8)
Follow-up	92% (11)	75% (6)	NA
<i>% Change</i>	<i>0%</i>	<i>0%</i>	<i>NA</i>
<b>Using positive guidance and discipline</b>			
	N=12	N=8	N=12
Baseline	75% (9)	88% (7)	75% (9)
Follow-up	100% (12)	63% (5) <sup>*</sup>	NA
<i>% Change</i>	<i>+33%</i>	<i>+33%</i>	<i>NA</i>
<b>Supervision</b>			
	N=12	N=8	N=12
Baseline	100% (12)	100% (8)	67% (8)
Follow-up	92% (11)	88% (7)	NA
<i>% Change</i>	<i>-8%</i>	<i>-13%</i>	<i>NA</i>

<sup>\*</sup>Chi-squared tests at follow-up indicate that the CCEP group was rated as significantly higher in quality than control group,  $p < .05$ .

<sup>14</sup> One provider was missing data for this subscale at follow-up.

**Table 21b. Quality of Center Caregiver-Child Interactions as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Caring and responding</b>			
	N=10	N=12	N=6
Baseline	100% (10)	66% (8)*	67% (4)
Follow-up	90% (9)	84% (11)	NA
<i>% Change</i>	<i>-10%</i>	<i>+38%</i>	<i>NA</i>
<b>Using positive guidance and discipline</b>			
	N=10	N=15	N=6
Baseline	100% (10)	33% (5)*	83% (5)
Follow-up	70% (7)	73% (11)	NA
<i>% Change</i>	<i>-30%</i>	<i>+120%</i>	<i>NA</i>
<b>Supervision</b>			
	N=10	N=15	N=6
Baseline	90% (9)	73% (11)	6 (100%)
Follow-up	100% (10)	93% (14)	NA
<i>% Change</i>	<i>+11%</i>	<i>+27%</i>	<i>NA</i>

\*CCEP group significantly higher quality than control group at baseline,  $p < .10$ .

In addition to observing providers' guidance and discipline strategies and rating these using the QUEST, the baseline and follow-up provider interview included questions about what changes, if any, providers had made in their discipline techniques over the past 6 months. While there were no significant differences for providers in any group between baseline and follow-up; there was a trend for CCEP family providers to report more changes at follow-up than at baseline, while providers in all other groups reported slightly fewer changes at follow-up than at baseline. The types of changes reported by providers included being more proactive in dealing with potential problems, an increased use of positive guidance techniques, and a more consistent use of structure and boundaries. This is consistent with observations showing that CCEP family providers increased their

use of positive guidance techniques from baseline to follow-up.

### **OUTCOME 8B: INCREASED QUALITY OF SOCIAL-EMOTIONAL DEVELOPMENT ENVIRONMENT**

Promotion of children's social-emotional development is a critical role for early childhood care providers. The QUEST assesses the extent to which providers support children's social emotional development in general (e.g., provides opportunity for pro-social activities and positive peer interactions, teaches social rules, etc.) as well as specific support for children's play (e.g., provides ample free choice opportunities, interacts appropriately during play, etc.). As illustrated in Tables 22a and 22b, CCEP family providers scored quite positively on both these dimensions at both baseline and follow-up, and

CCEP center providers were rated higher for support of social development at baseline, compared to controls. However, scores for CCEP center providers were somewhat lower at follow-up, compared to their baseline scores. In general, center-based providers were quite low in terms of adequacy of support for social-emotional development. The percent change indicates the percent increase (or decrease) in the number of providers who were scored as “adequate” or higher at the follow-up observation.

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**“I take time to work situations out and I have the kids understand problems instead of just saying ‘stop it’ or ‘time out.’”**  
—CCEP provider

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significant increases in their support for children’s social emotional development over time, while control family providers’ scores decreased somewhat ( $F(1,18) = 8.49, p < .01$ ). There were no differences in the amount of change over time for the two groups for support of play. Once again, however, for center-based CCEP providers, there were significant decreases in quality over time, while for control providers, scores improved slightly (social-emotional support,  $F(1,18)=14.61, p < .01$ ; play, ( $F(1,23) = 5.72, p < .05$ ).

Using the repeated-measures approach, we found that CCEP family providers showed

**Table 22a. Family Provider Social-Emotional Development Quality as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Supporting social-emotional development</b>			
	N=12	N=8	N=12
Baseline	83% (10)	88% (7)	67% (8)
Follow-up	83% (10)	50% (4)	NA
<i>% Change</i>	<i>0</i>	<i>-43%</i>	<i>NA</i>
<b>Supporting play</b>			
	N=12	N=8	N=12
Baseline	75% (9)	88% (7)	58% (7)
Follow-up	100% (12)	75% (6)	NA
<i>% Change</i>	<i>+33%</i>	<i>-14%</i>	<i>NA</i>

**Table 22b. Center Provider Social-Emotional Development Quality as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Supporting social-emotional development</b>			
	N=10	N=14	N=6
Baseline	50% (5)	7% (1) *	50% (3)
Follow-up	11% (1)	18% (2)	NA
<i>% Change</i>	<i>-80%</i>	<i>+100%</i>	<i>NA</i>
<b>Supporting play</b>			
	N=10	N=15	N=6
Baseline	100% (10)	73% (11)	83% (5)
Follow-up	90% (9)	87% (13)	NA
<i>% Change</i>	<i>-10%</i>	<i>+18%</i>	<i>NA</i>

\* CCEP group significantly higher quality than control group at baseline,  $p < .05$ .

The provider interview also included questions about changes in things providers do to promote social growth and development as well as changes in things providers do to promote infant development. Providers were asked, at both baseline and follow-up, how much change they had made in the past 6 months in these areas, and were asked to describe these changes. CCEP family providers were significantly more likely to report changes at follow-up than at baseline for things they did to promote social growth and development ( $p < .05$ ), while the other groups showed no difference between baseline and follow-up on level of change. Providers across all groups reported the same level of change at baseline and follow-up for things they did to promote infant development.

The types of changes providers indicated they had made in strategies to promote social growth and development included an increased use of child-focused promotional strategies, an increased use of positive guidance, and an increase in interactions between providers and children. Those providers who reported changes in things they do to promote social growth and development ex-

plained that they had changed in the following areas: having more awareness of the stages of infant development, having more appropriate toys and equipment, and spending more time talking and playing with infants. It is important to note that these kinds of changes are not assessed by the social-emotional development scale of the QUEST measure.

### **OUTCOME 8C: INCREASED QUALITY OF COGNITIVE/LANGUAGE DEVELOPMENT ENVIRONMENT**

Support for children's cognitive and language development is assessed on the QUEST measure through three subscales: (1) using an instructional style that promotes cognitive development (e.g., builds on teachable moments, helps children interact with materials to support cognitive development, encourages questioning, and helps teach specific age-appropriate cognitive skills); (2) providing a variety of activities that support fine motor, dramatic play, early math, natural environment, and art and music-related skills; and (3) supporting language and early literacy by reading to children, encouraging

children to look at books, drawing attention to features of print, encouraging writing and sounding out letters and words. Chi-square analysis found that CCEP family providers offered significantly greater range of activities to support cognitive development at follow-up than did control providers, but offered fewer literacy activities at baseline. CCEP center-based providers were significantly higher at baseline than controls in terms of both the extent of a supportive instructional style and support for early literacy. The percent change indicates the percent increase (or decrease) in the number of providers who were scored as “adequate” or higher at the follow-up observation.

Using repeated measures ANOVA, results showed once again that CCEP family providers improved significantly over time, while

control family providers worsened. This was true for both the extent that instructional style supported cognitive development ( $F(1,18) = 8.81, p < .01$ ) and for the teacher’s support of language development ( $F(1,17) = 17.43, p < .01$ ); this effect approached significance for the activities subscale ( $F(1,18) = 2.79, p = .11$ ).

However, similar to results found for other dimensions of quality, CCEP center-based providers had somewhat lower scores at follow-up than at baseline, while center-based controls improved slightly (instructional style,  $F(1,15) = 4.99, p < .05$ ; language support,  $F(1,14) = 6.32, p < .05$ ). There were no differences in the level of activities supporting cognitive and language development for center-based providers. These results are illustrated in Tables 23a and 23b.

**Table 23a. Family Provider Cognitive and Language Development Quality as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Supportive instructional style</b>			
	N=12	N=8	N=12
Baseline	67% (8)	87% (7)	67% (8)
Follow-up	92% (11)	75% (6)	NA
<i>% Change</i>	<i>+38%</i>	<i>-14%</i>	<i>NA</i>
<b>Learning activities and opportunities</b>			
	N=12	N=8	N=12
Baseline	67% (8)	50% (4)	25% (3)
Follow-up	83% (10)	37%* (3)	NA
<i>% Change</i>	<i>+25%</i>	<i>-25%</i>	<i>NA</i>
<b>Supporting language development and early literacy</b>			
	N=12	N=8	N=12
Baseline	33% (4)	87% (7)**	42% (5)
Follow-up	55% (6)	42% (3)	NA
<i>% Change</i>	<i>+50%</i>	<i>-57%</i>	<i>NA</i>

\*\*Control group significantly higher quality than CCEP group at baseline,  $p < .10$ .

\*CCEP group significantly higher quality than control group at follow-up,  $p < .05$ .



**Table 23b. Center Provider Cognitive and Language Development Quality as Measured by the QUEST**

<b>Providers rated as above adequate on:</b>	<b>CCEP % (n)</b>	<b>Control % (n)</b>	<b>No-treatment % (n)</b>
<b>Supportive instructional style</b>			
	N=10	N=13	N=6
Baseline	80% (8)	54% (7)	67% (4)
Follow-up	88% (7)	70% (7) <sup>15</sup>	NA
<i>% Change</i>	<i>-13%</i>	<i>0%</i>	<i>NA</i>
<b>Learning activities and opportunities</b>			
	N=10	N=15	N=6
Baseline	80% (8)	40% (6)*	50% (3)
Follow-up	50% (5)	47% (7)	NA
<i>% Change</i>	<i>-38%</i>	<i>+17%</i>	<i>NA</i>
<b>Supporting language development and early literacy</b>			
	N=10	N=12	N=6
Baseline	70% (7)	25% (3)*	40% (2)
Follow-up	38% (3)	25% (3)	NA
<i>% Change</i>	<i>-57%</i>	<i>0%</i>	<i>NA</i>

\*CCEP group significantly higher quality than control group at baseline,  $p < .10$ .

<sup>15</sup> One provider had missing data for this subscale at follow-up.



## DISCUSSION

The previous sections of this report have documented the implementation of CCEP along with a presentation of the outcomes achieved. Below we summarize the program's impacts on parents and as well as on providers and then present our conclusions and recommendations.

### Program Impact on Parents

One of the primary goals of CCEP is to assist parents by providing a subsidy for childcare expenses. Parents with incomes at or below 85% of the state median income are eligible for subsidized childcare that caps the family contribution at 10% of their income. Indeed, during the first year of the program, 95 families received subsidies. However, evaluation data suggest that just 21% of CCEP subsidy parents who completed the parent survey spend 10% or less of their income on childcare. As discussed earlier, this could be due to the fact that the subsidy determination was made at the time of parents' enrollment in the program and it was not adjusted unless parents' incomes changed by 50% or more. Therefore, if family income decreased after the initial eligibility determination, their proportional share of the childcare costs could increase. To address this issue, in subsequent years, the program will require an automatic re-evaluation every 6 months so that subsidy levels can be adjusted as necessary.

It was hoped that by providing families with a childcare subsidy, families would have fewer worries about finances, fewer changes in childcare arrangements, and increased parental work productivity. While the evaluation data did not indicate any differences between subsidy parents and non-subsidy parents who participated in the parent survey on measures of financial stress, it is important to note that we did not have an indicator of financial stress *prior* to subsidy receipt. Therefore, it is possible that CCEP subsidy parents



were more stressed than the non-subsidy parents before they started receiving their subsidies, and that the subsidies evened the playing field, resulting in no differences in financial stress levels among the groups. Parents who received the subsidies provided detailed information about how the subsidies have helped their families:

- 86% agreed that the subsidies helped their families meet their basic needs;
- 86% agreed that the subsidies improved their families' standard of living; and
- 57% agreed that the subsidies helped their families to save for long-term goals.

Families explained that the subsidies helped them put money toward basic living expenses like food, rent, and clothing. Two parents stated that the subsidies allowed them to return to college, and one parent said that the subsidy allowed the family to move into more adequate housing.

Data from the control parents suggest that this group of parents, by chance, is doing fairly well financially. These parents reported an average income on par with the CCEP parents who do *not* receive a subsidy, an average income appreciably higher than the income reported by CCEP subsidy parents.

Furthermore, almost half of the control parents indicated that paying for childcare does not interfere with their ability to afford other things. When asked how they would use the extra money if they spent just 10% of their income on childcare, just two parents indicated that this money would help with basic expenses; the other parents indicated that they would either save or invest the money, or would use it for a variety of discretionary purchases such as vacations, activities, and toys. Having a control group of parents that look “good” on these financial measures means that it will be difficult for the CCEP subsidy parents to look “better” than the controls, even with the income now available to them as a result of the subsidy. A larger sample of parents matched for income level with the CCEP subsidy parents could help to provide a better comparison group.

In addition to impacting family finances, it was hypothesized that the parent subsidies would impact the stability of care arrangements as well as parent work productivity. These outcomes will be investigated more fully in the second and third years of the CCEP evaluation; the first year of the evaluation included just one round of parent data collection so it was not possible to investigate change over time in these outcomes. Indeed, during the first year, 5 CCEP subsidy parents reported making changes in childcare arrangements (along with some missed days of work), but these changes could be due to the start of the program: wanting to enroll their child in a CCEP facility could have prompted some of these moves. At the time of the next parent data collection (in the spring of 2007), we could expect to see fewer changes in childcare arrangements among the CCEP subsidy parents.

It is important to note the limitations to the parent data collected for this evaluation. The parents who participated in the parent survey and interviews represent a subset of all of the parents served by the CCEP and control facilities. Indeed, just under 20% of the fami-

lies served by the CCEP and control facilities took part in the evaluation activities. It could be that those parents who signed consent-to-contact forms and who then completed the surveys and interviews are in some way systematically different from those parents who did not. In subsequent years of the evaluation we will explore ways to generate more parent participation in evaluation activities in order to ensure larger, and more representative, samples.

## **Program Impact on Providers**

### **PROFESSIONAL DEVELOPMENT**

The program’s focus on providers included encouraging providers to enroll and advance on the Oregon Registry. There was some success in this area, as significantly more CCEP providers than control providers enrolled during Year 1. However, by the end of the year almost half of the CCEP providers still had yet to enroll. These providers, therefore, were not eligible to receive wage enhancements, one of the primary interventions of the program, which could have had repercussions for the results on provider income, discussed below.

Despite the fact that many CCEP providers did not enroll on the OR, most CCEP and control providers indicated they were motivated for professional development, though control family providers were less motivated than CCEP providers. Surprisingly, CCEP center providers showed a *decrease* in motivation at follow-up as compared to baseline. Similarly, CCEP family providers showed an increase in feelings of community and support while CCEP center providers showed a *decrease* in sense of community between baseline and follow-up. These results could be explained by the fact that while all CCEP family providers were satisfied with the CCEP program and spoke about what interested them and kept them motivated about the program (including the opportunities to network with others and the support and

mentoring they received from the Project Director), some CCEP center providers were less familiar with the program and/or less positive about it and explained that the program had not done anything for them as individuals (as opposed to for their center as a whole).

### **INCOME AND REVENUE**

Based on self-report data from the providers, there were no changes in income between baseline and follow-up. There are several possible explanations for this finding: (1) the follow-up period was just 6 months, which is a short timeframe to expect income changes, (2) as discussed above, almost half of the CCEP providers were not getting wage enhancements, and (3) there were inconsistencies in the self-report income data obtained from providers; some providers gave gross income, some gave net, and some gave a range or 'guesstimate'.

While the data did not suggest a change in income between baseline and follow-up, CCEP family providers were significantly less likely to worry about finances at follow-up than the other groups of providers, fewer CCEP family providers had to remind parents to pay their bills at follow-up than at baseline, and more CCEP family providers reported having good billing systems in place at follow-up than at baseline. These results do indicate increased income stability, and are likely to be related to the fact that helping providers with business practices was a major focus of the technical assistance they received from the Project Director. However, CCEP center staff reported more worries about finances, more month-to-month fluctuations in income, and less confidence in billing systems at follow-up than at baseline.

### **RETENTION AND JOB STRESS**

By providing support and professional development activities to providers, the program hopes to increase retention and decrease job stress among providers. Between

baseline and follow-up data collection, 6 providers left their jobs, all from centers. Four of these providers were from the control group (representing 21% of the control center providers) and 2 were from the CCEP group (representing 13% of the CCEP center providers). Subsequent years of evaluation data will allow us to look at retention over time for both CCEP and control providers.

Baseline data on the providers indicates that most of the providers served by the program have been in the field for a while (indeed, many have been in the field for over 5 years), which suggests that the program is not serving newer (and perhaps needier) providers. This could be a result of the fact that participation in the program was voluntary; providers had to be motivated and had to express interest in joining, something that may be easier for established providers than for providers new to the field.

Evaluation data on provider stress and sense of accomplishment indicate that family providers (both CCEP and control) did not change their stress levels over time, but stress levels decreased in center providers (both CCEP and control) over time.

### **CHILDCARE QUALITY**

The evaluation collected data on several different areas of quality, including environmental quality, caregiver-child interactions, social-emotional quality, and language and cognitive development quality. Almost all providers, across all groups, reported making environmental improvements at both baseline and at follow-up. However, CCEP family providers reported more environmental improvements at follow-up while control center providers reported less change at follow-up. Both CCEP family and center providers had higher ratings of environmental quality than control providers at baseline and at follow-up. However, while CCEP family providers showed significant improvement between baseline and follow-up on ratings of envi-

ronmental quality, CCEP center providers showed significant decreases in environmental quality over time.

Data on the quality of caregiver-child interactions, social emotional quality, and the quality of the language and cognitive learning environment followed a similar pattern: ratings for CCEP family providers increased over time as opposed to control family providers, while ratings for CCEP center providers stayed the same or decreased over time as compared to control center providers. Thus, on a variety of measures, CCEP family providers were more likely to show improvement compared to control family providers. While CCEP center providers started out higher on many measures (at baseline) compared to control center providers, there was more likely to be a decrease (worsening) over time in the CCEP center group as compared to controls. These results could be due, in part, to regression to the mean.<sup>16</sup> However, given the consistency in findings about CCEP center providers across domains (e.g., decreased professional motivation, increased financial stress, decreasing quality), it is likely that regression to the mean is not the sole explanation for these results. Further discussion of this topic, along with our recommendations, is presented below.

## CONCLUSION AND RECOMMENDATIONS

Three primary conclusions and recommendations follow from the evaluation data presented above.

### ***Increase the focus on center providers***

As discussed above, CCEP center providers felt less engaged in CCEP than CCEP family providers, were less motivated for professional development at follow-up; felt more financial stress at follow-up than at baseline;

<sup>16</sup> Regression to the mean is a statistical phenomenon in which, over time, scores tend to migrate to the mean; that is, scores that start of higher have a tendency to get lower (closer to the mean), while scores that start of lower have a tendency to get higher.

felt less a part of a community than CCEP family providers; and showed decreases in a variety of measures of quality. While CCEP may be successfully engaging center *owner/directors* in the program, the benefits of CCEP may not be impacting the center staff. In order to improve quality of care for the children served by these centers it will be necessary to actively engage center providers in the program. During subsequent years, the program may wish to focus attention on increasing outreach, mentoring, and technical assistance to all of the center staff employed by the CCEP centers. Alternatively, the program might choose to focus its efforts exclusively on family providers, who clearly showed positive gains from the CCEP program, and to develop different strategies for work in the center context.

### ***Redouble efforts to enroll providers on the Oregon Registry***

As discussed above, just under half of the CCEP providers are not enrolled on the OR and therefore are not receiving wage enhancements. It is unlikely that the program will see substantial gains in key provider outcomes such as increased income, increased participation in professional development activities, and improved quality unless these providers enroll, and advance, on the OR. Therefore, continuing to focus on OR enrollments and advancements during Year 2 should be a primary focus of the program.

### ***Continue to provide technical assistance and support around issues of childcare quality***

Evaluation data indicate that CCEP family providers made numerous gains in childcare quality over the course of the first year. It is clear that the supports given to the providers in the area of quality improvements made an impact on the providers' practices. It is likely, therefore, that continuing technical assistance geared at substantive areas will result in even more gains in childcare quality in future years.

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***Continue to monitor the parent subsidy process.***

These data suggested that the parent subsidies, although clearly perceived as helpful by CCEP parents, were not as successful as might have been hoped in reducing the proportion of family income spent on childcare, and reducing financial stress among recipient parents. Closer monitoring of changes in parent income levels (and associated modification of subsidy levels) may help increase the number of parents who are spending less

than 10% of their income on childcare. Further, because the study design was based on random assignment of providers, the CCEP subsidy group was by nature different in terms of income than non-subsidy CCEP parents and control group parents. This makes appropriate comparisons on the financial variables more difficult. Future years' evaluation studies may want to try to increase the parent sample size, and use matching variables to try to equate these groups in terms of income level.

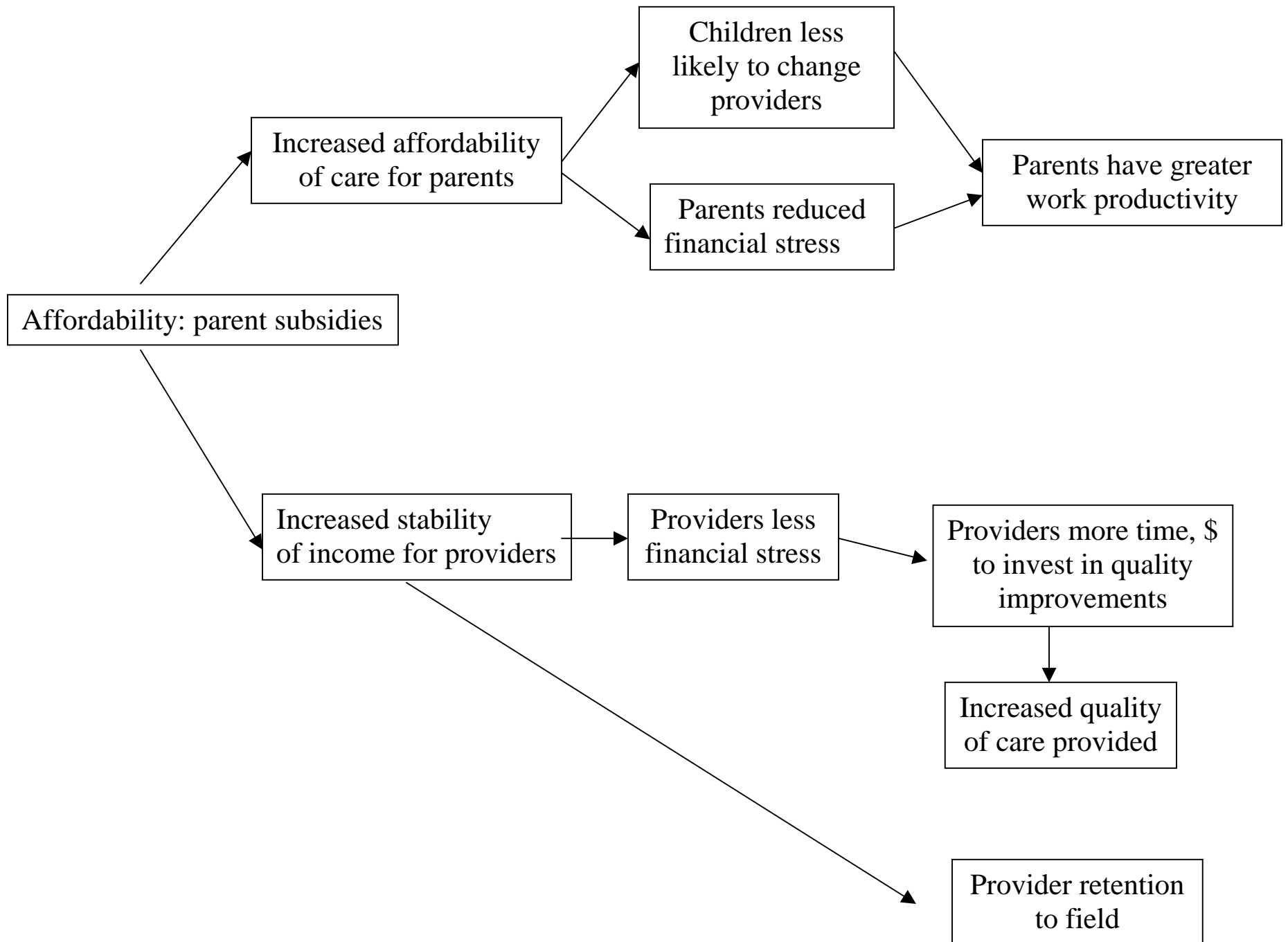




## **APPENDIX A: LOGIC MODELS**

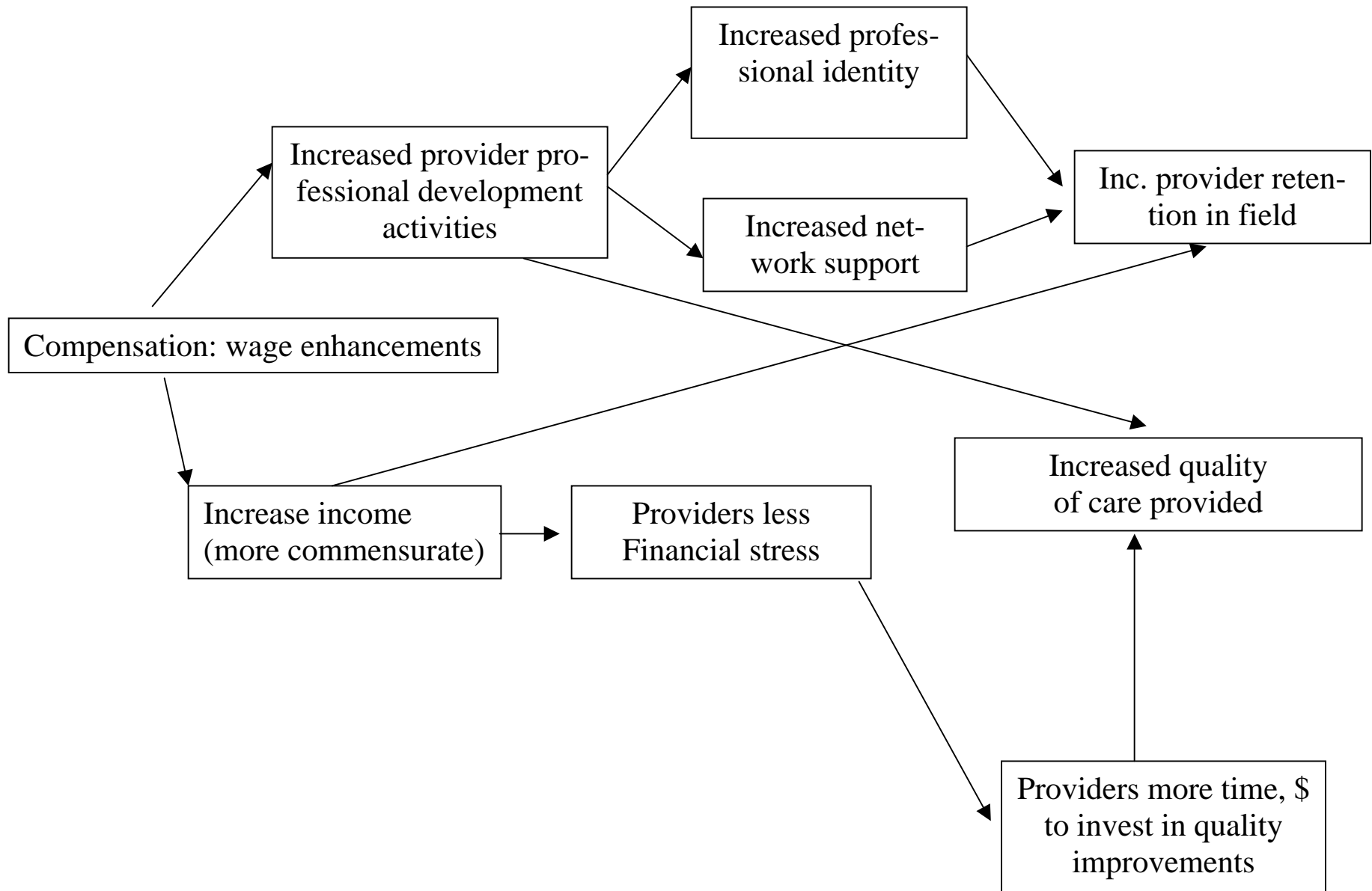


# Logic Model for The Effects of Parent Subsidies on Parent & Provider Outcomes





# Logic Model for the Effects of Wage Enhancements on Parent & Provider Outcomes





# Logic Model for the Effects of Program Enhancement Funds and Technical Assistance

