CareerAdvance® Outcomes Study

Year 1 Report:
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CAP Family Life Study
ACF/HHS Award to the Community Action Project of Tulsa, Oklahoma (CAP) to Expand Career*Advance*®
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Health Profession Opportunity Grants

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EXECUTIVE SUMMARY

Career*Advance*®, launched by the Community Action Project of Tulsa County (CAP), is a healthcare workforce development program designed for low-income parents of young children enrolled in CAP's early childhood education programs. The dual-generation approach of Career*Advance*® is one of the only sectoral workforce development programs with the explicit goal of improving outcomes simultaneously for *both* parents and children.

The design of Career*Advance*® is based on a market analysis of Tulsa, Oklahoma, which revealed that credentials in healthcare would likely lead to family-supporting employment, job stability, and opportunities for career advancement and wage growth (King et al., 2009; Glover & King, 2010). Career*Advance*® provides education and training classes in two healthcare tracks, nursing and health information technology (HIT), along a career ladder that allows students to progress from one level of credentialing to the next. The program also provides a number of key supportive components—career coaches, financial incentives, and peer group meetings—to prepare parents for high-demand jobs in the healthcare sector.

The present evaluation of Career*Advance*® represents a strong collaboration between university research partners and CAP. The research partnership began in 2008 when nationally-recognized leaders in workforce program and policy development worked with CAP to design Career*Advance*®, which was launched in 2009. In early 2010, national experts in developmental science broadened the research scope of the study to focus on children's development and family functioning in addition to parents' education, training, and financial well-being.

CAP and its research partners then sought to expand the program and secure funding to examine the short-term synergistic effects of dual-generation programs on parents and children. In September 2010, the Administration for Children and Families (ACF) at Health and Human Services (HHS) funded a 5-year scale-up of Career*Advance*® and a two-part evaluation study through the Health Profession Opportunity Grant (HPOG) Program. The research component of this first HPOG award included: (1) a short-term small-scale outcomes study; and (2) an implementation study. The initial short-term outcomes study has a one-year focus and examines several areas: program participation and advancement; career credentialing; job readiness; earnings; and a small set of child and family outcomes. The implementation study examines the systems-level influences on the structure and implementation of

Career*Advance*®, focusing on the degree to which the various training pathways are successfully offered, coordinated, and integrated.

Recognizing the need to examine the longer-term influences of Career*Advance*®, the research team secured funding from Health and Human Services (HHS) Health Profession Opportunity Grant (HPOG) University Partnership in September 2011 to conduct a quasi-experimental, mixed-methods study of all Career*Advance*® participants and a matched comparison group. The goals of the second award are to examine: (1) possible long-term family, parent, and child outcomes as influenced by participation in Career*Advance*®; as well as (2) variations in program participation and their potential links to differential patterns of educational attainment, employment, and family health and well-being. The full research project is now referred to as the CAP Family Life Study.

The CAP Family Life Study has demonstrated a promising start in supporting the ambitious research agenda. Thus far, the university partners have developed the design and infrastructure across multiple institutions and agencies. These include: (1) creating the organizational capacity of the research team; (2) designing the quasi-experimental design of the study; (3) developing data systems; (4) designing the parent survey; and (5) selecting and recruiting families into the study. Although CAP enrolled 3 cohorts of participants between 2009 and 2011, the Family Life Study, as funded by ACF, begins with Cohort 4. Cohort 1-3 includes 35 parents in the nursing track. The health information technology (HIT) was added for Cohort 4, and so Cohort 4 includes 14 parents in the nursing track, and 15 parents in HIT. (A detailed description of Cohorts 1-3 can be found in the Implementation Report; see Section 1 Appendix).

A key goal of Year 1 was also to develop a theory of change (presented in Section 3 of this report) and design a study that examines the influence of Career*Advance*® on children and parents. In terms of testing possible change in parents and children over time, ideally we would have employed a randomized control trial to examine the causal effects of Career*Advance*® on short- and long-term outcomes. However, the program is relatively new, and CAP's immediate goal is to expand Career*Advance*® to all of its early childhood education centers with a seven-fold increase in participants over five years (from 29 participants in 2011 to approximately 210 participants in 2015). A randomized trial from a waitlist will be feasible only when the program is oversubscribed.

In order to account for the potentially non-random selection of participants in Career*Advance*®, we employed propensity score matching to identify pairs of families who are statistically indistinguishable on observable characteristics and behaviors except for the fact that one parent is enrolled in Career*Advance*® and one is not.

Propensity score matching used CAP's data set that was drawn from families' enrollment forms and meetings with support staff. As of January 2012, the CAP Family Life Study included all 29 Cohort 4 Career*Advance*® participants and 30 matched-comparison families. Overall, our results indicate that the comparison group is relatively well-matched to Cohort 4 Career*Advance*® participants across a number of demographic and psychological characteristics. Of note is that independent data from our individual interviews with parents confirm the strong equivalence of the matched-comparison group to the Career*Advance*® participants.

Focus group data collected in December 2011 with 25 of the 29 Career*Advance*® Cohort 4 Nursing and Health Information Track participants indicate that Career*Advance*® is highly valued by parents and may have important dual-generation influences. Parents seem to gain, for example, from increased confidence in returning to school, intensive peer and staff support, and enrolling in an all-expense paid training program. Children and parents appear to benefit from the learning and role modeling that occurs when their parents return to school. We find support for the peer cohort model of the program, especially its potential influence on educational persistence. Moreover, we have initial indications of important changes in parent-child interactions in the home that may influence positively children's development and academic achievement, as well as improve parenting practices. Bi-annual focus groups and longitudinal interview data will test further these hypotheses and provide important insights into the most effective elements of the Career*Advance*® training program and its potential for longer term impact on the academic, career, and financial success of parents and children.

This report reflects the development of a dual-generation evaluation design and initial baseline characteristics of the first cohort under study. The report has four sections: (1) developing design and organizational capacity; (2) expanding the scope of the study and seeking outside funding; (3) informing the theory of change and describing the first cohort of the CAP Family Life Study; and (4) learning from and disseminating to external audiences. The third and largest section of the report describes the following: (1) the strength of our quasi-experimental design; (2) baseline characteristics of Cohort 4 participants in four key domains; (3) the progress of Career*Advance*® participants in achieving initial levels of certification in two career tracks; and (4) parents' experiences and perceptions of the influences of early Career*Advance*® training experiences. Findings support the importance of dual-generation programs and their evaluation for an improved understanding of how parents and children influence the educational and career success of each other.

Section 1:

Developing Design and Organizational Capacity

Overview

The primary Year 1 goal of the ACF/HHS-funded Career*Advance*® Outcomes Study is to develop the organizational capacity and research design for what is now referred to as the CAP Family Life Study. The aim of the CAP Family Life Study is to provide systematic information on each of the predicted outcomes of Career*Advance*® as proposed in the Logic Model to ACF/HHS (see Appendix, Section 1) as well as additional outcomes identified through further research and work plan development. These outcomes are:

(1) Career*Advance*® parents of young children will advance from having a "job" to having a "career" in a high-demand occupation with a family-supporting wage and opportunities for wage growth.

(2) Career*Advance*® participants' families will improve their economic stability, leading to lower levels of stress and undesirable residential mobility.

(3) Career*Advance*® parents will increase their self-confidence, self-efficacy and expectations for success.

(4) Career*Advance*® parents will develop behaviors that are conducive to success in the academic and work worlds, which they model for their young children.

(5) Children of Career*Advance*® participants will attend preschool and school more regularly than children in preschool and school whose parents are not enrolled in Career*Advance*®

(6) Children of Career*Advance*® participants will show greater improvement in scores of cognitive and socioemotional assessments over time than children of parents not participating in Career*Advance*® but still enrolled in preschool.

(7) Career*Advance*® families will learn to better manage the combination of work, school, and raising children through effective time use patterns, household organization and other quality of family life indicators than families with children in preschool who do not have the benefits of the of Career*Advance*® program.

(8) Career*Advance*® families will improve their parenting skills as a result of participating in the Career*Advance*® program.

The following section provides a detailed description of the key processes, decisions, and outcomes in the development of the design and organizational capacity of the CAP Family Life Study.

Organizational Capacity

Creating a team. Our research partnership with CAP dates back to 2008 when nationally-recognized leaders in workforce program and policy development, Drs. King and Glover from The University of Texas at Austin and Dr. Yoshikawa from Harvard University, worked with CAP to design and launch Career*Advance*®. In 2010, national experts in developmental science, Drs. Chase-Lansdale from Northwestern University and Brooks-Gunn from Columbia University joined the team and enhanced the dual-generation perspective of the project.

A team of staff manages the daily implementation of the CAP Family Life Study led by Research Scientist Teresa Eckrich Sommer, Northwestern University, and Robert Glover, University of Texas at Austin. Dr. Sommer is the daily point person for communication with CAP, travels to Tulsa at key points in the study development, and oversees the hiring and daily work flow of research staff. Northwestern staff includes Terri Sabol, Postdoctoral Fellow; Emily Ross, Research Coordinator; Rayane Alamuddin, Doctoral student; Chandra Prevost and Jordan Love, Oklahoma State University (OSU) Research Assistants; and independent consultant and programmer Kate Samuels. A Tulsa-based Research Manager will be hired in March 2012 to assist with all aspects of the growing data collection efforts, including managing local research assistants, coordinating child assessments, and conducting a portion of survey assessments, individual interviews, and focus groups.

Team communication. This multidisciplinary team has worked effectively for the past 16 months due to clear delineation of roles and frequent, transparent communication. Examples of the partnership include: (1) weekly individual and group conference calls with CAP and the research team; (2) a shared website and calendar with a timeline of events, notes of weekly calls, protocols, and relevant reports and materials; (3) in-person research meetings in Tulsa; and (4) data collection and data management led by Northwestern and The University of Texas at Austin that is structured to avoid interference with CAP's service delivery processes.

Research and program staff participate in bi-monthly Northwestern-led research calls to address key design issues and solicit input on study implementation, as well as bi-monthly University of Texas-led program implementation conference calls to discuss Career*Advance*® program improvements and challenges. Northwestern and the University of Texas also maintain on-going communication to collaborate and further their research partnership. Northwestern researchers hold weekly phone meetings with OSU Research Assistants to track data collection, discuss study participant recruitment, and review data collection concerns. Northwestern research staff conducted 7 individual visits to Tulsa during the period September 2011 through January 2012 to promote the research-program partnership and coordinate with CAP staff on data collection procedures.

Study Design

In order to describe the possible implications of Career*Advance*® for parents and children, it has been essential to develop an enhanced dataset with systematic quantitative information on each of the eight outcomes above. We have built on CAP's existing data systems, including ChildPlus, child assessment and classroom quality data, and the progress tracking of Career*Advance*® participation. ChildPlus contains information compiled from enrollment applications to the Early Childhood program and attendance records. The child assessment data from CAP include performance of children on the Bracken assessment of academic achievement, as well as aggregate performance in each classroom. CAP measures the quality of teacher-child interactions through use of the preschool version of the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). The Career*Advance*® data systems include information obtained from enrollment applications as well as progress tracking, including test scores and grades, attendance, employment and wages obtained, and other participant achievements.

The CAP Family Life Study, as funded by the HPOG award to CAP, which expands the program and has a small research component, adds a baseline survey and one-year follow-up on participating individuals and their matched comparisons on every other cohort, beginning with Career*Advance*® Cohort 4 and continuing with Cohorts 6, 8, & 10. The HPOG-University Partners (HPOG-UP) and W. K. Kellogg Foundation awards to Northwestern University expand beyond this initial evaluation to conduct a 48-month, quasi-experimental, mixed-methods evaluation of Career*Advance*®. The expanded study now allows data collection on all cohorts 4 through 10 and up to *three* years beyond baseline and includes both quantitative (e.g. parent surveys and child assessments) and qualitative methods (e.g. individual interviews and focus groups).

This report describes (1) baseline survey data collected on Career*Advance*® Cohort 4 participants and matched-comparison parents; (2) child and classroom assessment results collected by CAP; and (3) focus group data from Career*Advance*® Cohort 4 participants. Please see the Year 1 Tasks and Timeline (Appendix, Section 1) for a detailed, monthly description of accomplishments. Future reports will include results from administrative data obtained from the Oklahoma Employment Security Commission (OESC) and the Oklahoma Department of Human Services (OKDHS).

Survey design and testing. The table below presents the measures included in the 75-minute Wave 1 parent survey developed, piloted, and implemented in Year 1 with Cohort 4. All measures in the parent survey are widely used and demonstrate strong reliability and criterion and predictive validity. The Wave 1 CAP Family Life Study Codebook provides a detailed history and empirical support for each measure selected, items associated with each measure, and suggestions for compositing the items (see Appendix, Section 1). The CAP Family Life Study Annotated Questionnaire provides the item-level questions of the survey (see Appendix, Section 1).

Construct	Measure & Source[a]
Demographic Characteristics	
Race, ethnicity, & language	Adapted from the Three-City Study
Relationship Status	Adapted from the Three-City Study
Education, Employment, & Income	
Education history	Developed for the present study with some items adapted from the NYU Birth Cohort Study
Employment & earnings	Adapted from the Center for Research on Culture, Development and Education Metrobaby Birth Cohort Study
Household income	Adapted from the Fragile Families Study
Financial strain and worry	Adapted from the New Hope Study and the Center for Research on Culture, Development and Education Metrobaby Birth Cohort Study
Self-Confidence and Self-Efficacy	
Optimism	Life-Orientation Test- Revised (LOT-R; Scheier et al., 1994)
Self-esteem	Rosenberg Self-Esteem Scale (RSE; Rosenberg, 1989)
Self-efficacy	State Hope Scale (SHS; Snyder et al., 1996)
Conscientiousness	Goldberg's AB5C 10-item scale (Golderberg, 1999)
Academic Expectations	
Academic expectations and goals for self and child	Child-related items were derived from the New Hope Study and adult-related items were

	developed by Northwestern Research team for the present study
Mobility	
Housing & mobility	Adapted from Moving to Opportunity & Three-City Study
Parenting Attitudes & Practices	
Parenting stress	Aggravation in Parenting Scale - Adapted from the Panel Study of Income Dynamics (Abidin, 1983) and the Fragile Families Study
Parental attitudes toward school	Adapted from the Parental Modernity Scale (Schaffer & Edgerton, 1985)
Parenting styles & behaviors	Adapted from the Alabama Parenting Questionnaire (Frick, 1991) and the Adult-Adolescent Parenting Inventory (AAPI; Bavolek, 1984)
Family routines & child-care	Adapted from the Fragile Families & Child Wellbeing Study, the National Center for Early Development and Learning Multi-State Pre-K study, and The Early Childhood Longitudinal Study, Birth Cohort (ECLS-B)
Home environment	Home Observation for Measurement of the Environment – Short Form (HOME-SF; Caldwell & Bradley, 1984) as used in the Three-City Study
Mental & Physical Health	
Perceived Stress	Perceived Stress Scale (Cohen et al., 1983)
Psychological Distress	Kessler 6 (Kessler et al., 2003)
General Health	Adapted from the Ad Health Study
Social Networks	
Relationship quality	Adapted from the Fragile Families Study
Social Support	Adapted from the Social Provision Scale (SPS; Cutrona & Russell, 1987)
Moving from Job to Career	
Attitudes towards work & career	Work Role Salience Questionnaire (Greenhaus & Sklarew, 1981)

[a] See the Wave 1 CAP Family Life Study Codebook Appendix for a detailed list of references

In July 2011, the Northwestern research team piloted paper survey interviews in Evanston, IL with low-income parents whose children were enrolled in one of two local early childhood education programs. The survey was further refined and translated into electronic form for use on laptops through the assistance of a consultant computer programmer using Snap software.

In August 2011, the research team trained two Masters-level Research Assistants from Oklahoma State University (OSU) to participate in the CAP Family Life Study. They were trained in the following: research goals, tools, and timelines; CAP and Career*Advance*® programs and operations; participant consent and IRB policies; and CAP child abuse and neglect reporting procedures (see Appendix, Section 1 for CAP Family Life Study Data Collection Protocol, Recruitment Flyer, Consent Form, and CAP Emergency Protocol: Reporting Suspected Child Abuse and Neglect). Our survey programmer (external consultant) trained the research assistants in use of the computer-assisted survey instrument. Research staff piloted the electronic version of the survey with additional Evanston parents.

After further revisions, the OSU research assistants tested the survey in Tulsa, OK, in August 2011, with low-income parents whose children were enrolled in an early childhood center not run by CAP. Pilot participants in both cities were selected purposefully to represent a range of gender, race/ethnicity, and family configurations. (See Pilot Consent Form and Recruitment Flyer). After piloting, the Wave 1 Family Life Study was uploaded with Snap survey software that allows for hosting online surveys and sending data to a Northwestern web server in real time.

Sample Selection. All 29 Cohort 4 Career*Advance*® participants were invited to participate in the CAP Family Life Study. In order to select the matched comparison families, we employed propensity score matching (Imbens & Rubin, 1997; Murnane & Willett, 2010; Rosenbaum & Rubin, 1983). The goal was to identify pairs of families who were similar on all available observable characteristics and behaviors except for the fact that one parent was enrolled in Career*Advance*® and one was not.

Matching Variables. We used a wide variety of variables to estimate the likelihood that a parent will participate in Career*Advance*®. The family-, parent-, and child-level variables originated with three sources: CAP's Head Start dataset (ChildPlus), the Career*Advance*® application, and an Education and Job Training Supplemental Survey (described in detail below).

Family, parent, and child characteristics: When a parent first enrolls his or her child in CAP, program staff collect data on parent and family characteristics. Parent demographic characteristics include age, race, gender, relationship to child, and number of children.[1] In addition, we included parents' education level, employment

1 Although we refer to adults as parents, the primary adult for a child may be a foster/step parent or grandparent.

status, primary language, English proficiency, and custody status of children. Family demographic characteristics include: household size, whether the child resides with one or two parents, and household income. Child characteristics collected by CAP include: race, gender, and program type (i.e., Early Head Start or Head Start).

Adult motivation and applicant score. In order to participate in Career*Advance*®*,* parents filled out an application and staff members then interviewed them. Based on this interview, the staff members assigned a score to each applicant that was based on a parent's interest in the health care field, motivation for joining a training and workforce development program, and interest in starting a new career. The applicants with the highest application score were selected into the program. In order to match Career*Advance*® participants and nonparticipants on these motivational characteristics, we developed the Education and Job Training Supplemental Survey (see Appendix, Section 1) that jointly assesses parents' potential motivation and interest in applying to Career*Advance*® and the likelihood that they would be accepted. The survey was conducted by Family Support Service staff in Tulsa, Oklahoma and was included in the Needs Based Assessment required for all Head Start families. Family Support Service staff members conducted the supplemental survey only with parents who are English proficient.

The Education and Job Training Supplemental Survey included seven questions that address similar factors assessed in the Career*Advance*® interview. In addition, the Family Support Services staff indicated whether they believed the parent would be a good candidate for Career*Advance*®. We used the survey to derive a score for families not in Career*Advance*® that would be comparable to the Career*Advance*® applicant score. Both the Career*Advance*® families and the pool of potential matched comparison families in CAP receive a score ranging from 1-5, with 5 indicating that the person would be a strong candidate for Career*Advance*®.

Neighborhood. Parents of children enrolled in one of 11 early childhood programs run by CAP were eligible to apply to Career*Advance*®. Past evidence suggests that matching techniques perform particularly well when individuals in the treatment and control group reside in the same local labor market (Heckman, Ichimura, & Todd, 1998; Smith & Todd, 2003). Thus, we identified groups of CAP early childhood education programs within a particular neighborhood. In order to determine the neighborhoods, we first calculated the distance between each program and grouped programs that are within a five mile radius of one another. Next, we consulted with CAP staff in Tulsa to determine whether our clusters of centers for each neighborhood matched their conceptualization of neighborhoods. Additionally, we matched our neighborhoods to asset maps, which identify a number of different community resources

(e.g. number of hospitals and clinics) across the county. The asset maps allowed us to better understand the degree to which centers in specific areas of the county had access to various resources. We also used census information to explore the characteristics of each neighborhood. Based on these multiple sources of information, we clustered the 11 centers across 3 distinct neighborhoods (see table below).

Neighborhood 1	Neighborhood 2	Neighborhood 3
Disney	Educare I-Kendall Whittier	Sand Springs
ECDC Reed	Educare II Hawthorne	
Eastgate	Eugene Field	
Reed	Frost	
Skelly	McClure	

Analytic Technique. We selected the matched comparison group based on a number of steps. First, we created subgroups that had exact matches on race/ethnicity, gender, neighborhood, and adult-type (i.e., parent or grandparent). We used a complete matching technique because these four variables may play important roles in determining participation and outcomes. The complete matching technique has been employed in previous studies (e.g. Bryson, Dorsett, & Purdon, 2002; Gormley. Phillips, Newmark, Perper, Adelstein, 2011; Heckman, Ichimura, Smith, & Todd, 1998) and is an effective method when effects are likely to be heterogeneous between certain groups (Caliendo & Kopeinig, 2005).

Second, we estimated the propensity scores for each of the subgroups (e.g. African American mothers who live in Neighborhood 1). The propensity score was generated by first estimating a logit model in which the response variable was a binary variable indicating whether the parent participated in Career*Advance*®, and the predictors were the family, parent and child characteristics listed above. The estimated logit equation was used to calculate each parent's propensity score, which indicates the probability of (or propensity for) participating in Career*Advance*®.

We employed a one-to-one nearest-neighbor matching technique in order to select 29 matched-comparison families. In nearest-neighbor matching, an individual from the comparison group is chosen as a matching partner for a treated individual that has the closest propensity score. This technique is most effective for settings where the goal is to select individuals for a comparison group (Stuart 2010); however, the results are potentially biased if the matched comparison adults have a propensity score that is far from that of the Career*Advance*® adults.

Lastly, we added three additional families to the matched comparison group to account for potential program attrition (i.e., a ~10% increase in matched-comparison sample size). We included these participants based on the concern that restricting the size of the comparison groups to the same size as the program groups may be problematic because matched-comparison families may not be as invested in the study, and thus may be harder to track over time. The loss of participants would lead to a reduction of power to detect effects. Additionally, the loss of participants may lead to biased estimates if attrition is non-random.

We randomly selected three additional matched comparison families from a list of the second closest nearest neighbor for each Career*Advance*® participant (in the event that the participant has another nearest neighbor). For future cohorts, we may implement a planned missing data design, where we oversample the number of matched comparison families at baseline and plan to only follow up with a certain percentage of families overtime and impute the missing time points for the remaining families.

Data collection. Data collected by Northwestern University and University of Texas at Austin in Year 1 include: (1) survey interviews of Career*Advance*® Cohort 4 participants and matched comparison parents; and (2) focus groups with Career*Advance*® Cohort 4 participants in both the Nursing and Health Information Technology career tracks.

Research staff met with Career*Advance*® and Family Support Services staff respectively to describe the study and choose a minimally intrusive method for recruiting families and conducting interviews. Program staff were provided a Summary of CAP Family Life Study, Recruitment Flyer, and Consent Form (see Appendix, Section 1). Researchers and program staff collectively decided the following: (1) program staff would explain the study to parents and seek parental permission to participate; and (2) research assistants would schedule interview appointments and conduct survey interviews. Research assistants attended the second Cohort 4 Career*Advance*® participant Partner Meeting in August 2011 to answer questions and schedule participant interviews. Research staff and assistants attended Family Support meetings in September 2011 and collaboratively developed a detailed process to recruit matched comparison parents (see Appendix, Section 1 for Recruitment Script for Matched-Comparison Group). Research assistants then met Family Support workers individually at their respective early childhood centers to be introduced to matched comparison parents.

Before study recruitment began, one parent left Career*Advance*®. Four originally-selected matched comparison parents exited CAP and were replaced in the study. During recruitment, three matched-comparison parents declined to consent and were replaced. In total, 29 Cohort 4 Career*Advance*® participants and 30 matched-comparison parents (an equal number of matched-comparison families plus approximately 10% to account for attrition) were given the 75-minute, in-person, computer-based survey from August through October 2011, and October 2011 through January 2012, respectively. Over the course of data collection, survey interviews had to be rescheduled at least once with 4 Career*Advance*® participants and 11 matched comparison participants. Comparison group parents were harder to reach and schedule.

The vast majority of interviews took place at a CAP Early Childhood Center with seven at another convenient location of the parent's choosing. Researchers entered participants' responses during the interview directly on the laptop using the Snap program that is converted easily to Stata for data analysis. Each parent was given a $40.00 gift card for participating in the interview. This payment type complies with HPOG guidelines and regulations.

To track study participant recruitment and scheduling, a secured tracking spreadsheet was updated daily during data collection by the Tulsa-based research assistants. This information was shared with the Northwestern research team who then provided weekly updates to Family Support staff. While conducting the online survey for Cohort 4, research assistants tracked survey-related issues on a document shared with the Northwestern research team. The Wave 1 survey was improved for future use in Years 2-5 of the CAP Family Life Study. Modifications to the Wave 1 survey included: (1) improved skip patterns; (2) additional response options for selected categorical variables; and (3) new questions about children's use of technology.

Data Preparation. The Wave 1 CAP Family Life Study Survey raw data were exported from Snap and uploaded onto a secure shared drive bi-weekly in order to ensure that the data were backed up. The dataset was then imported into Stata and cleaned for analysis. The cleaning process included: (1) renaming variable names and recoding values to match the items in the annotated survey; (2) renaming value labels; and (3) generating composites based on the individual items. Each of the composites is described in detail in the Wave 1 CAP Family Life Study Codebook.

Tracking participant retention. The Northwestern research team and CAP staff collaborated to track participants in the study and to update participants' contact information. On a bi-monthly basis during active data collection, CAP staff review a spreadsheet of contact information for every participant currently in the study and for

those who have exited. This contact information is updated and monitored to track participant retention. On a monthly basis, CAP staff review the attendance records to identify children in the CAP Family Life Study who are at risk of leaving CAP's Early Childhood Center and thus potentially more difficult to reach in the future.

Protection of sensitive and/or confidential information. The study has maintained confidentiality of all data – including surveys, focus groups, administrative data, and child assessments – in strict compliance with the Northwestern Institutional Review Board (IRB) for Social and Behavioral Sciences (see the Northwestern University IRB Approval Letter), in addition to the IRBs from partner institutions (see The University of Texas at Austin, IRB Approval Letter). Study findings have not and will not use identifying information for any individual or household. We have labeled individuals by an ID number only and have stored these data separately from identifying information. Electronic data transfers between CAP and the research team occur only through a secure electronic drop-box known as Vault. Vault is password protected and secured behind the Northwestern University firewall. Only IRB-approved research staff can access data stored on Vault.

List of Documents Included in Appendix, Section 1:

Section 2:

Expanding the Scope of the Study and Seeking Outside Funding

A key goal of Year 1 was to expand beyond the existing small evaluation study funded by ACF HPOG by seeking outside funding for the optimal large-scale, mixed methods CAP Family Life Study on Career*Advance*®. The research questions for the optimal study include:

1. Does participation in Career*Advance*® relate to longer-term outcomes for parents and children among a larger sample?
2. Are certain pathways through Career*Advance*® associated with better economic, psychological or developmental outcomes for some subpopulations of low-income families than others, and if so, why?
3. What are the strategies by which ethnically diverse, low-income parents of young children enrolled in early childhood education seek better employment and improved life circumstances, and which of these strategies are most successful over time?
4. In what ways, if any, does participation in early childhood education influence parents' work and career advancement over time?

Data collection efforts to answer the research questions for the optimal study include four key elements:

1. *Expanded structured parent surveys*

The structured 75-90 minute interview is conducted once at baseline, defined as within six weeks of initial enrollment, and then again each year for up to 3 years. All Career*Advance*® participants in both available career tracks, Nursing and Health Information Technology, are interviewed as well as the matched comparison sample of parents.

2. *Expanded child assessments*

Child assessments of 3- and 4-year-olds are completed annually with one child per family in both the Career*Advance*® and matched-comparison families. In successive waves, children will be followed in elementary school. Assessments will include direct measurements of children's English language and math proficiency, executive functioning, approaches to learning, and emotional and social skills from preschool to elementary school.

3. *Added intensive individual interviews and focus groups*
To augment the survey design, research staff conduct individual interviews and focus groups with parents as well as focus groups with Career*Advance*® and CAP program staff through Years 2-5. Up to 21 individual parent interviews, 8 focus groups, and 2 staff focus groups occur annually. These are informed by current advances in mixed methods research in the context of impact evaluations (Yoshikawa, Weisner, Kalil, & Way, 2008).

In an effort to fund the optimal study, in Year 1 the Institute for Policy Research at Northwestern University, in partnership with CAP and the Ray Marshall Center for the Study of Human Resources at the University of Texas at Austin, submitted grant proposals to two funding sources: (1) Administration of Children and Families, The Health Professions Opportunity Grant University Partnership (HPOG-UP); and (2) the W. K. Kellogg Foundation.

The HPOG-UP Awards are designed to augment national evaluations of HPOG demonstrations, in this case CAP's Career*Advance*® program. The research team submitted a grant proposal in the summer of 2011. In September 2011, our team was awarded $2 million to conduct a large-scale quasi-experimental, mixed-methods study of Career*Advance*®. The award supports four years of research, from September 2011 through September 2015 (see Appendix, Section 2 for the HPOG-UP Grant Summary and HPOG-UP Grant Proposal). Table 1 presents the expanded number of participants and the expanded data collection efforts in HPOG-UP.

Table 1. CAP Family Life Study Participants

	Number of Families			
	Career*Advance*®		**Matched**	**Total**
Cohort	Nursing	HIT	**Comparison**	
4	15	15	30	60
5	15	15	30	60
6	15	15	30	60
7	15	15	30	60
8	15	15	30	60
9	15	15	30	60
10	15	15	30	60
Total N	105	105	210	420
Key:	ACF Funded Study		HPOG UP Funded Study	

Table 2. CAP Family Life Study Structure of Data Collection

Data Collection: Family Assessments*											
	ACF Funded Study										
	Year 1		Year 2		Year 3		Year 4		Year 5		
			HPOG UP Funded Study								
			Year 1		Year 2		Year 3		Year 4		
	2011		2012		2013		2014		2015		
Cohort	S**	F	S	F	S	F	S	F	S	F	
4		60		60		**60**		**60**			
5			**60**		**60**		**60**		**60**		
6				60		60		**60**		**60**	
7					**60**		**60**		**60**		
8						60		60		**60**	
9							**60**		**60**		
10								60		60	
ACF Funded	60		120		120		120		60		
HPOG UP Funded Study	**0**		**60**		**180**		**300**		**300**		**Total: 1320**

*Family assessments include a 75-90 minute parent survey and child assessments.

** S=Spring; F=Fall

Additionally, the research team submitted a grant proposal to the W. K. Kellogg Foundation to support the ambitious research agenda of the CAP Family Life Study. This included a pre-proposal (submitted 8/12/11), an initial proposal (submitted 9/12/11, a full proposal (submitted 9/27/11), and answers to follow-up questions (submitted 12/13/11). In February 2012, the CAP Family Life Study was awarded $300,000 in funding from the W. K. Kellogg Foundation (see Appendix, Section 2 for the W. K. Kellogg Foundation Grant Proposal). The Kellogg award is key to the success of the study since the HPOG-UP award could not meet the full costs due to an agency funding cap.

List of Documents Included in Appendix, Section 2:

Section 3:

Informing the Theory of Change and Describing the First Cohort of the CAP Family Life Study

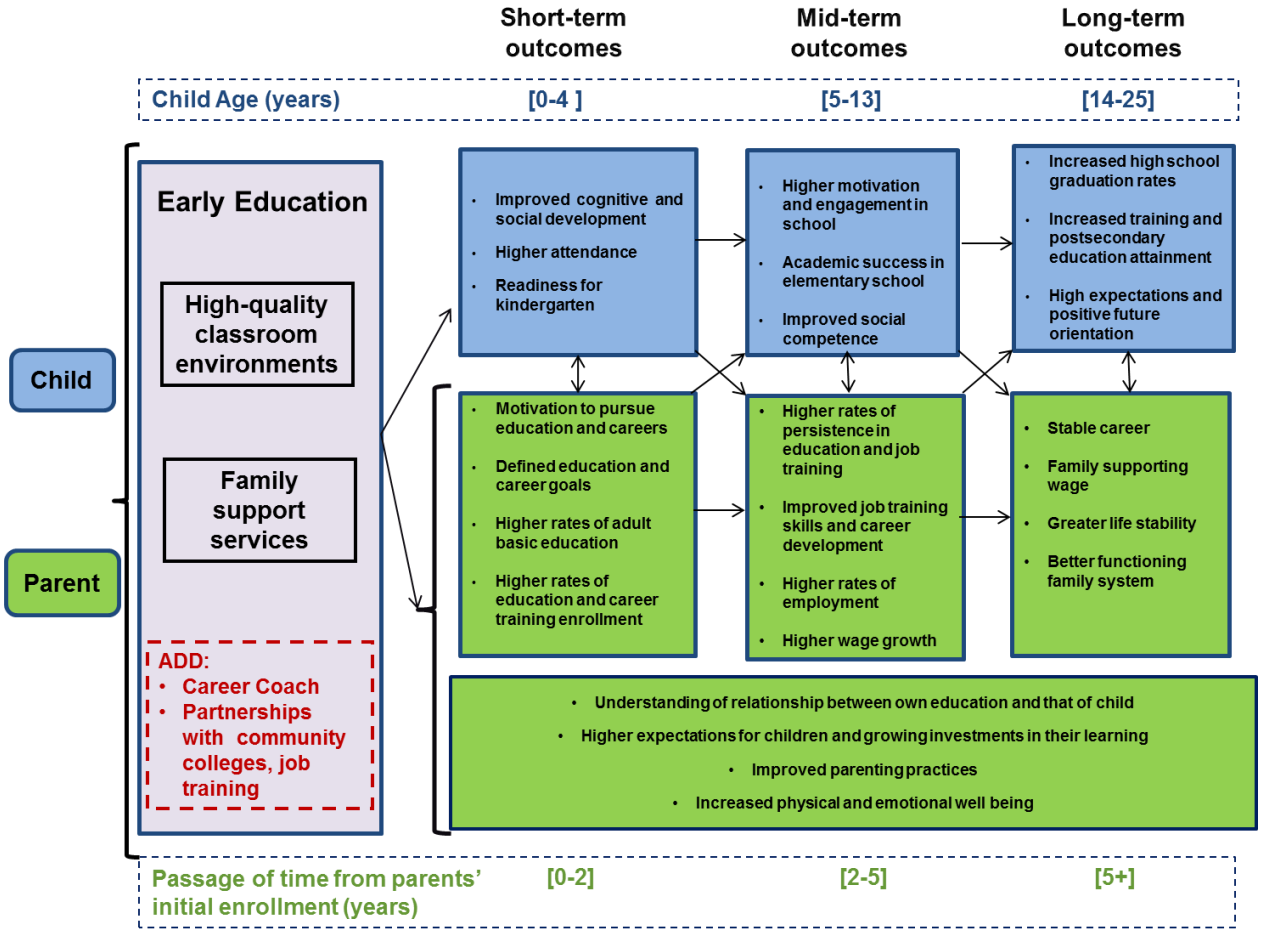
The theory of change of Career*Advance*® describes the relationship between child and parent education and hypothesized short- and long-term outcomes (see Figure 1 below). In illustrating the complexity of workforce pathways in Career*Advance*®, the theory of change also acknowledges that various pathways and associated exit points may produce better outcomes for certain subgroups and not others.

Short-term outcomes for parents in Career*Advance*® could include increased credentialing, career development, and self-efficacy (Gardner et al., 2012; Schuller et al., 2002). Parents who observe their children thriving in an early childhood education program may be more motivated to succeed in their own educational program (Sommer et al., 2012). However, given the multiple demands of work, school, and childrearing, Career*Advance*® respondents may experience elevated levels of stress in the short-term.

Long-term parent outcomes could include significant improvements in educational attainment, increased employment, earnings and wage growth, and improved financial stability. These workforce outcomes and the associated financial and psychological resources could take up to four years to achieve and could eventually lead to decreased undesirable residential mobility, lower levels of stress, and more effective parenting practices.

In terms of child outcomes, increased financial resources in early childhood have been shown to improve children's development across a number of domains, including academic achievement, executive functioning, approaches to learning, as well as socio-emotional competence (Duncan, Ziol-Guest, & Kalil, 2010; Magnuson et al., 2007; Yoshikawa, Weisner, & Lowe, 2006). Additionally, parents' higher education levels may increase their own optimism and motivation, which may then heighten parental expectations for their children's academic success, and improve child attendance at early childhood education centers and at elementary schools. Parents with more education and training may also be better equipped to navigate children's educational systems and assist their children with academic activities (Kalil & Crosnoe, 2010). Lastly, more highly educated parents may serve as better academic role models, which may promote children's motivation and engagement in school.

Figure 1. Career*Advance*® Theory of Change



The CAP Family Life Study aims to inform the theory of change and to address the dynamic relation among four domains for children and parents: (1) individual and family context (2) children's characteristics and development; (3) early childhood education and care experiences; and (4) education and career development. More specifically, the study examines:

1. *Individual and family context:* Parent age, gender, race/ethnicity, relationship status, relationship to target child, number of children, number in household, household income, income-to-needs ratio
2. *Children's characteristics and development:* Child age, gender, race/ethnicity, who child lives with, academic performance
3. *Early childhood education and care experiences:* Age child started attending CAP programs, attendance records, classroom quality, before and after care experiences, weekend care arrangements

4. *Parents' education and career development:* Level of education, employment status, earnings, wage growth, and previous training experiences among all respondents in the Family Life Study; progress in Career*Advance*® among Cohort 4 Career*Advance*® participants

A key goal of Year 1 is to select a matched-comparison group that closely resembles Career*Advance*® participants based on observable characteristics. Achieving balance on these baseline characteristics between Career*Advance*® participants and the matched-comparison group is essential in order to make valid inferences on the effects Career*Advance*® on the four domains listed above.

In the following section, we check the balance on baseline characteristics from CAP's data set that were used to generate the matched comparison group. We then check the balance against survey data directly collected from the parents themselves. Next, we present Cohort 4 baseline characteristics of the four key domains of respondents in the CAP Family Life Study and progress tracking of Career*Advance*® participants. We also include a description of the progress of the Career*Advance*® program and the Cohort 4 participants. Lastly, we present Cohort 4 participants' experiences and perceptions of the influences of early training experiences on themselves and their young children.

Checking Balance between Career*Advance*® Participants and the Matched Comparison Group

We selected the matched comparison group from a pool of CAP Families. CAP families were eligible to for the matched comparison group based on the following criteria:

1. Attended CAP early childhood programs from 2010-2011 (n=1643).
2. Attended CAP programs that were eligible to participate in Career*Advance*® (n=1467)
3. Parent was not in Career*Advance*® Cohort 1-3 (n=1451)
4. Parent filled out an Education Supplemental Survey (see Appendix Section 1). Only families who had a child enrolled in CAP 2011-2012 and were English proficient filled out a Supplemental Survey (n=484)
5. Parent had key demographic data in ChildPlus (e.g. race, education level, and employment status; n=451).

Table 1 presents the demographic and background information on all CAP families who were eligible to be selected for the matched comparison group (n=451) and Cohort 4 Career*Advance*® participants (n=29)[2]. Results are based on data from the ChildPlus data system maintained by CAP. The data in ChildPlus are collected when the parent first enrolls his or her child in CAP and are not updated over time. Table 1 presents the means, standard deviations, and standardized differences between the two groups. The standardized difference is the mean difference as a percentage of the average standard deviation. A score that is less than 0.25 is considered excellent (Rubin, 2001; Stuart, 2010).

As presented in Table 1, the standardized difference between eligible CAP families and Career*Advance*® families is outside of the acceptable range (>0.25) for a number of characteristics, including parent age, education level, household income, neighborhood, child age, and child gender. For instance, Career*Advance*® parents appear to have higher levels of education compared to eligible CAP parents. In addition, eligible CAP parents have lower motivation to improve their education and training and join the health care field. A failure to identify a comparison group that does not account for the differences between Career*Advance*® participants and eligible families in CAP would likely result in upwardly biased estimates of the effects of Career*Advance*®.

Table 1. Comparisons of Baseline Characteristics between All Eligible CAP Families (n=451) and Cohort 4 CareerAdvance® Families (n=29), Data Source=ChildPlus

	All Eligible CAP Families	*CareerAdvance*® Cohort 4	Stand diff
	n=451	n=29	
Parent			
Female	93%	97%	0.08
Age	28.84 (7.59)	30.00 (7.89)	0.42
Motivation and interest in education and training	2.92 (1.37)	4.06 (0.41)	1.20
Race/Ethnicity			
White	30%	34%	0.07
African American	41%	38%	0.05

[2] There were originally 30 participants in Cohort 4. However, one participant in the nursing track was terminated by Tulsa Community College and never attended classes with Cohort 4. This participant was subsequently re-enrolled in January 2012 and attended classes with Cohort 5. We conducted the baseline survey for this participant in March 2012 and will include results for this participant with Cohort 4 in subsequent reports.

Latino	10%	10%	0.01
Other	19%	17%	0.03
Education			
Less than high school	20%	3%	0.30
12th grade/No diploma	27%	45%	0.25
High School/GED	26%	17%	0.14
Adv. Training	18%	24%	0.10
Adv. Degree	8%	10%	0.04
Relationship			
Natural/Step	97%	93%	0.08
Foster/Legal guardian	1%	3%	0.06
Grandparent	2%	3%	0.04
Custody			
No Custody	0%	0%	0.02
Shared	5%	0%	0.15
Yes	95%	100%	0.16
English Primary	91%	93%	0.05
English Proficiency			
None	7%	3%	0.07
Little	3%	3%	0.01
Some	4%	3%	0.02
Proficient	85%	90%	0.07
Employed			
Employed Full-time	32%	38%	0.09
Employed Part-time	13%	17%	0.06
Not employed	55%	45%	0.14
Family			
Income	12044.45 (12317.95)	11832.83 (14345.59)	1.83
No. in household	3.79	3.72	0.06
No. of children	2.24	2.17	0.06
Child~			
Boy	52%	72%	0.30
Age	3.12 (0.99)	3.41 (1.09)	0.29
CAP ECP Neighborhood			
1	52%*	28%	0.35
2	40%	41%	0.01
3	8%**	31%	0.39

~ Variable had missing data in the matched comparison group

In order to account for the potentially non-random selection of participants in Career*Advance*®, we employed propensity score matching to identify pairs of families who are statistically indistinguishable on all characteristics and behaviors except for the fact that one parent is enrolled in Career*Advance*® and one is not. We used data from ChildPlus to conduct the matching. A detailed explanation of the procedures for selecting the match comparison group can be found in Section 1 of this report.

Based on results of the propensity score matching, we selected 29 matched comparison families, as well as 3 additional families to account for attrition. As of February 1, 2012, we had recruited 30 matched comparison families into the study. In Table 2, we check the balance between the Career*Advance*® participants (n=29) and the matched comparison group (n=30).

Overall, the Career*Advance*® and matched comparison groups appear to be relatively well-balanced in terms of their observable characteristics in the ChildPlus dataset. For nearly all matching characteristics, the standardized difference for each of the covariates after matching is smaller than before matching. The only exception is respondent age which has a slightly larger standardized difference after matching (0.73) compared to before matching (0.42). The standardized difference between Career*Advance*® and matched comparison families also is outside of the acceptable range for income and child age.

All other mean-level differences between Career*Advance*® and matched comparison families are within the acceptable range. Perhaps most importantly, the variable that captures motivation to participate in an education and training program is similar among Career*Advance*® participants and the matched comparison group, and the standardized difference is within the acceptable range (0.16).

Table 2. Comparisons of Baseline Characteristics between Matched Comparison Families (n=30) and Cohort 4* Career*Advance*® *Families (n=29), Data Source=ChildPlus

	Matched Comparison	*CareerAdvance*® Cohort 4	Stand diff
N	30	29	
Parent			
Female	97%	97%	0.00
Age	28.03 (6.55)	30.00 (7.89)	0.73
Motivation and interest in education and training	4.18 (0.77)	4.06 (0.41)	0.16
Race/Ethnicity			
White	37%	34%	0.03

African American	37%	38%	0.02
Latino	13%	10%	0.05
Other	13%	17%	0.06
Education			
Less than high school	10%	3%	0.13
12th grade/No diploma	30%	45%	0.21
High School/GED	30%	17%	0.24
Adv. Training	10%	24%	0.23
Adv. Degree	10%	10%	0.01
Relationship			
Natural/Step	97%	93%	0.08
Foster/Legal guardian	0%	3%	0.11
Grandparent	3%	3%	0.00
Custody			
No Custody	0%	0%	0.00
Shared	10%	0%	0.25
Yes	90%	100%	0.25
English Primary	90%	93%	0.06
English Proficiency			
None	3%	3%	0.00
Little	3%	3%	0.00
Some	3%	3%	0.00
Proficient	90%	90%	0.01
Employed			
Full-time	33%	38%	0.07
Part-time	13%	17%	0.06
Not employed	47%	41%	0.07
Family			
Income	11881.93 (114945.53)	11832.83 (14345.59)	0.43
No. in household	3.77	3.72	0.04
No. children	2.07	2.17	0.10
Child~			
Boy	61%	72%	0.17
Age	2.83 (1.07)*	3.41 (1.09)	0.56
CAP ECP Neighborhood			
1	30%	28%	0.04
2	43%	41%	0.03
3	27%	31%	0.06

~ Variable had missing data in the matched comparison group

We then checked the balance between the matched comparison and Career*Advance*® families using data from the Wave 1 CAP Family Life Study Survey. This is important because it allows us to cross-check the balance in the ChildPlus data with an independently collected data source. Table 3 presents the same baseline characteristics that were used to conduct the matching with ChildPlus data. The variables are constructed in the same way as they were in ChildPlus.[3]

Results indicate that we were largely successful in identifying a highly similar comparison group for Career*Advance*® Cohort 4 using propensity score matching with ChildPlus data. This is noteworthy and central to the success of the Family Life Study. The Career*Advance*® and matched-comparison families are relatively well-balanced in terms of their observable characteristics in the Wave 1 Family Life Study Survey. All standardized difference percentages are within the acceptable range, with the exception of income-to-needs, and child age (which is similar to the findings from the balance check with ChildPlus data).

However, there are a few discrepancies between results from ChildPlus and the Wave 1 CAP Family Life Study Survey, particularly in terms of variables that may change over time. For instance, Career*Advance*® families appear to have smaller household size compared to the matched comparison families in the survey data, but not in ChildPlus. The difference between ChildPlus and Career*Advance*® estimates of family size may occur because household size varies over time, and the ChildPlus and the CAP Family Life Study were collected at different points. There is also the potential that household size was asked in different ways in the two datasets. The discrepancy in household size may also result in differences in income-to-needs since income-to-needs is constructed by dividing the total household income by the poverty line, which is based on the number of adults and children living in the household.

Additionally, there are differences in some of the key variables used for matching, such as classification of adults' relationships to the child in ChildPlus and in the Wave 1 CAP Family Life Study Survey. For future cohorts, we would recommend that Career*Advance*® staff—who have personal relationships with the Career*Advance*® participants—consider double-checking the ChildPlus variables that we match exactly on (i.e. race/ethnicity, gender, neighborhood, and type of relationship of participant to their child) before we select the matched comparison group.

[3] The only exception is household income. The CAP Family Life Study survey did not collect household income in exact dollar amounts. Instead, categories of income were collected and used to create income-to-needs ratios, which are presented in Table 3.

Table 3. Comparisons of Baseline Characteristics between Matched Comparison Families (n=30) and Cohort 4 CareerAdvance® Families (n=29), **Data Source=Wave 1 CAP Family Life Study Survey**

	Matched Comparison	*CareerAdvance*® Cohort 4	Stand diff
N	30	29	
Parent			
Gender	97%	97%	0.00
Age	28.77 (1.19)	30.55 (1.48)	0.70
Motivation and interest in education and training	4.18 (0.77)	4.06 (0.41)	0.16
Race/Ethnicity			
White	40%	34%	0.08
African American	33%	38%	0.07
Latino	10%	3%	0.13
Other	17%	24%	0.12
Education			
Less than high school	3%	7%	0.08
12th grade/No diploma	13%	10%	0.05
High School/GED	27%	34%	0.11
Adv. Training	33%	34%	0.02
Adv. Degree	23%	14%	0.15
Relationship			
Natural/Step	97%	86%	0.20
Foster/Legal guardian	0%	3%	0.11
Grandparent	3%	10%	0.14
Custody			
No Custody	0%	0%	0
Shared	3%	7%	0.08
Yes	97%	93%	0.08
English Primary	93%	97%	0.07
English Proficiency			
None	0%	0%	0
Little	0%	0%	0
Some	7%	0%	0.19
Proficient	93%	100%	0.19
Employed			
Full-time	43%	31%	0.18
Part-time	7%	3%	0.07

Not employed	50%	66%	0.22
Family			
Income-to-needs ratio	0.91 (0.59)	1.35(0.80)	0.52
No. in household	4.53	3.90	0.59
No. children	2.37	2.10	0.25
Child~			
Boy	57%	69%	0.18
Age	3.43 (1.22)	3.90 (3.43)	0.42
CAP ECP Neighborhood			
1	28%	31%	0.05
2	41%	41%	0.00
3	31%	28%	0.05

Overall, results from ChildPlus and the survey data indicate that the matched comparison group is relatively well matched to Cohort 4 Career*Advance*® participants. Any differences between the two groups will be controlled for in future data analysis in order to control for non-random selection into Career*Advance*® and estimate the effects of participation in Career*Advance*® in the short- and long-term.

Baseline Characteristics of Career*Advance*® Cohort 4 and Matched Comparison Families

The following section presents baseline characteristics of Cohort 4 respondents— including 29 Career*Advance*® and 30 matched comparison families as a total sample of 59. We will present all of the key domains separately by Career*Advance*® participants and matched comparison group at a later point in the future when sample sizes are adequate to inform the Career*Advance*® theory of change and attempt to address the complex and synergistic implications for health and well-being of children and parents.

Baseline characteristics of the 59 participants in the CAP Family Life Study are categorized by four key domains**:** (1) individual and family context (2) children's characteristics and development; (3) early childhood education and care experiences; and (4) education and career development. Baseline characteristics for Cohort 4 are presented to set the stage for comparisons to future cohorts. Understanding baseline characteristics for each cohort also is essential for future aggregate analysis across all cohorts.

Cohort 4 characteristics are based on the Wave 1 CAP Family Life Study Survey, and child and classroom assessments from CAP. The child and classroom data from CAP are merged to the Wave 1 FLS Survey based on family id and child birthday. For

families with twins, we individually match the child assessments based on birthday, first name of child in Bracken assessment dataset, child name referenced by parent in interview, and family id. Items from Wave 1 CAP Family Life Study Survey used to derive the composites are presented in the CAP Family Life Study Codebook.

1. Individual characteristics and family context

All study participants responded to the individual and family context questions (n=59) unless otherwise noted. Table 4 presents basic demographic characteristics of adult respondents. Overall, respondents in the CAP Family Life Study are approximately 30-years-old (range 20 to 56). The average age of CAP Family Life Study parents is slightly older than the average age of the eligible CAP parent population (see Table 1).

There is only one male in Cohort 4 Career*Advance*® (and 1 matched comparison male), indicating that men are significantly underrepresented in Career*Advance*®. The race/ethnicity of respondents is fairly mixed, with the largest percentages of respondents White (37%; n=21) and African American (36%; n=21). The remainder of the respondents are American Indian, Eskimo, or Aleut (10%; n=6), other race/ethnicity (10%; n=6), or Latino (7%; n=4). Almost all of the respondents reported being born in the United States (93%; n=28).

Table* 4. Adult Respondents' Characteristics *at Wave 1, Cohort 4 (N=59)

	Total
Adult age	29.69(7.27)
Female	97%
Hispanic or Latino origin	15%
Adult race/ethnicity	
White	37%
Black/African American	36%
American Indian	10%
Latino	7%
Other/Two or more races/ethnicities	10%
Country of origin	
United States	95%
Mexico	3%
European Country	2%

[a]CA= Career*Advance*® respondents. All means are based on 29 respondents. For example, 97% of Career*Advance*® respondents (or 28 out of 29) are from the United States.
[b]MC= Matched comparison group. All means are based on 30 respondents. For example, 93% of the matched comparison group (or 28 out of 30) is from the United States.
M= Mean

Household characteristics at Wave 1 are used to understand the family context of Cohort 4 as well as to determine financial well-being (see Table 5). On average, there are 4 people per household with 2 children under age 18 living in the home. CAP Family Life Study respondents eligible to participate in Career*Advance*® have approximately the same number of children as CAP families.

We use poverty thresholds in the U.S. Census in the year preceding the interview (2010) to create a categorical measure for the household's income-to-poverty ratio. We divide the total household income by the poverty line, which is determined by the number of people living in the household, and number of children under age 18. The average income-to-needs ratio is 1.13 for families, meaning that the average family is living at or near the poverty line. Notably, eligibility for Early Head Start/Head Start includes foster child status regardless of family income. Families above the poverty line may have qualified for the Oklahoma Pilot Early Childhood Program, which sets eligibility at less than 185% of the poverty level.

We also categorize the income-to-needs ratio based on the following classifications: (1) poor or below the poverty line (income-to-needs ratio is less than one); (2) near poor/low income; 99-199 above the poverty line (income-to-needs ratio is between 1 and 2); and (3) above poverty; family's income is more than twice the poverty line (income-to-needs is greater than 2). Over half of the respondents in the Family Life Study are considered poor (n=32), followed by 35% who are near/poor low income (n=21), and 10% (n=6) who are above the poverty line. Again, this indicates that almost all respondents are living in poverty.

Table 5. Household Characteristics at Wave 1, Cohort 4 (n=59)

	Total
Household size	4.22(1.20)
Children who live in the home (under 18)	2.27(1.06)
Income-to-needs	1.13(0.73)
Poverty status (%)	
Poor	54%
Near poor/ low-income	36%
Above poverty line	10%

The Wave 1 CAP Family Life Study Survey also asked a series of questions related to respondents' relationship status and their partners' characteristics (see Table 6). Sixty-percent of the respondents in the CAP Family Life Study are either married or in a steady romantic relationship (n=41). The remainder are single (n=13), or in an on-again off again relationship (n=13). It appears that respondents' education level is somewhat higher than their spouses. For instance, 76% of partners have a highest level of education of a high school degree or less compared to 42% of respondents.

Table 6. Respondents' Relationship Status and Characteristics of Partners at Wave 1, Cohort 4

	Total
	%
Relationship Status (n=59)	
Married	34%
Steady romantic relationship	36%
On-again/ off-again relationship	7%
Single and not in a relationship	22%
Other	2%
Highest level of education of spouse/partner (n=43)	
Less than high school	16%
GED	12%
High school	49%

Career tech certificate	14%
Associate degree	5%
Bachelor's degree	2%
Other	2%

2. Children's characteristics and development:

Children's characteristics and development is a key component in the theory of change for both parents in Career*Advance*® and their children. The Wave 1 Family Life Study Survey asked parents a series of questions about their oldest child that attended CAP, herein referred to as the target child. In the case that a family had twins, respondents determined the child that was born first. Basic characteristics of the target child are presented in Table 7. Although CAP serves infants, toddlers and preschoolers, almost all target children are in preschool. The average age of the target child in the Family Life Study is 3.90 years, with a range from 11 months to 6 years. The CAP Family Life Study has more boys compared to the general CAP population (63% compared to 52%). The race/ethnicity of the children closely matches that of the adults, with the exception of one child in the matched comparison group who is classified as Asian. The discrepancy in race/ethnicity is more than likely due to the child being cared for by a legal guardian rather than her biological parent.

Table 7. Children's Characteristics at Wave 1, Cohort 4 (n=59)

	Total
Child age	3.66(1.23)
Boy	69%
Hispanic or Latino origin	10%
Child race/ethnicity	
White	36%
Black/African American	38%
Asian or Pacific Islander	3%
American Indian	3%
Latino	7%
Other/ Two or more races/ethnicities	10%

Table 8 presents the relationship between respondents and the target child. Almost all of the adults are the biological mothers, and almost all children live with biological mother during the week (88%; n=52). The remaining adults are grandparents, biological fathers, or legal guardians. Results indicate that the CAP Family Study respondents are typically the primary caregivers of the target child and that Cohort 4.

Table 8. Relationship between Respondents and Target Child, [Cohort 4 (N=59)]

	Total
Adult relationship to child	
Mother (biological)	88%
Father (biological)	3%
Grandmother (maternal)	5%
Grandmother (paternal)	2%
Legal Guardian	2%
Who child lives with for most of the week	
Mother (biological)	88%
Father (biological)	3%
Grandmother (maternal)	5%
Grandmother (paternal)	2%
Legal Guardian	2%
Number of nights child sleeps in same household as respondent [M(SD)]	6.90(0.44)

All children in CAP were assessed with the Bracken School Readiness Scale in the fall of 2011. The Bracken assesses children's knowledge of color, letter identification, number/counting, comparisons, and shape recognition (Bracken, 1984). In Cohort 4, 36 children have Bracken scores. A child may not have Bracken scores for a number of reasons including: (1) child no longer attends CAP because he/she is too old (n=7); (2) child is in the infant/toddler program at CAP and is too young for the Bracken (n=14); or (3) child attends an Educare program (n=2).

Table 9 presents the average Bracken score among children in the CAP Family Life Study, all children in CAP's Head Start programs, and national norms. The national Bracken score is 100 with a standard deviation of 15. CAP's Bracken scores are standardized in order to make them comparable to national norms. Children in the CAP Family Life Study have an average score of 97.16, which is close to the national mean average of 100. There is a relatively large range of Bracken scores in the Family Life Study, ranging from 59 to 125. Figure 2 demonstrates the distribution of Bracken scores among children in the Family Life Study. The distribution has a slight skew to the left,

meaning that the majority of the scores are concentrated in the upper end of the distribution, and there are relatively few low scores.

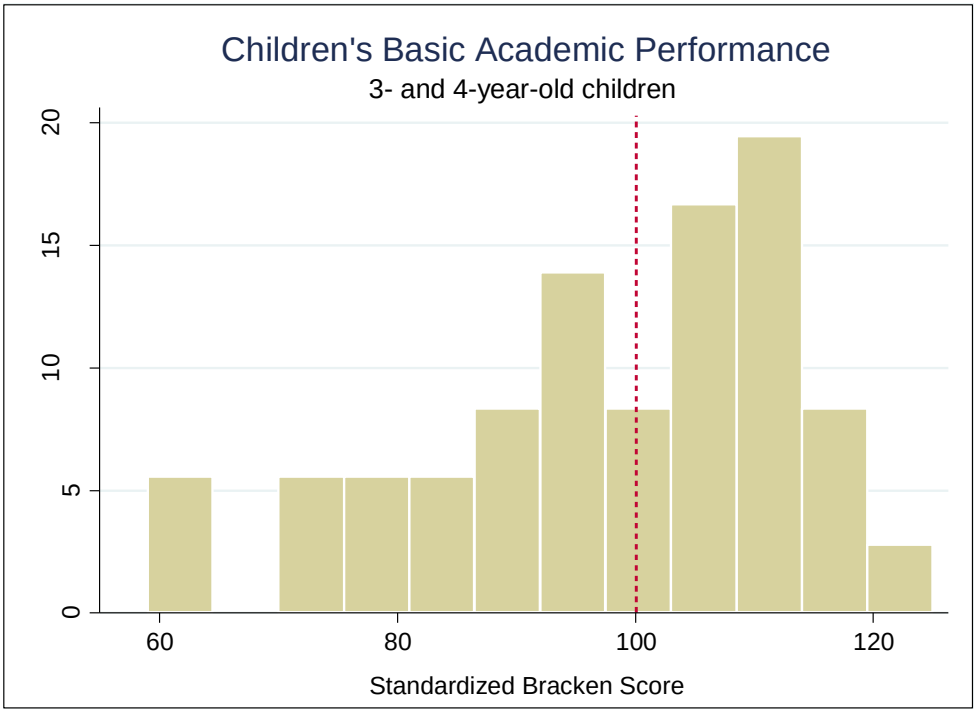
There are differences between children in the CAP Family Life Study and the average for all three- and four-year-old children enrolled in CAP's Head Start programs, Children in the study have Bracken scores that were eight points, or half a standard deviation, higher than total CAP population of preschool-aged children. Thus, children in the CAP Family Life Study are higher achieving, suggesting that they are potentially not a random sample of CAP children. This may reflect the higher levels of education of the Career*Advance*® participants, relative to other CAP parents.

Table 9. Children in the CAP Family Life Study and All CAP Children's Bracken Score, Fall 2011

	Total FLS	Total CAP*	National Average
	n=36	n=1027	
Individual child Bracken score	97.16 (15.90)	89.60	100 (15)

*Total CAP= Average Bracken score for all three- and four-year old children in CAP's early childhood education programs

Figure 2. Distribution of Bracken Scores Among Children in the CAP Family Life Study, Fall 2011 Cohort 4 (n=36)



Dashed red line= National average of Bracken score

3. Early childhood education experiences

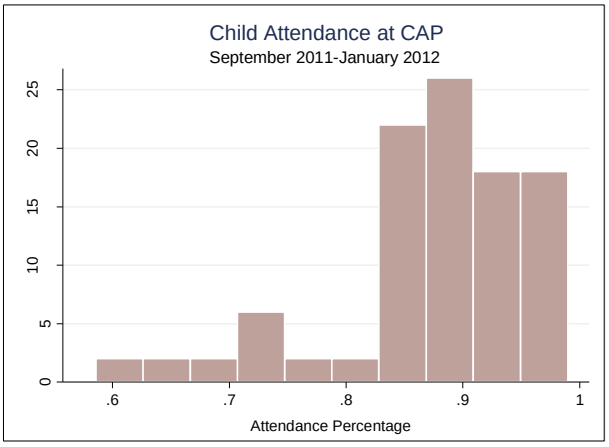
The dynamics of early childhood care may relate to children's development as well as parental outcomes and success in Career*Advance*® overtime. Assessments and tracking information from CAP provide information on the early childhood care experiences of children in the CAP Family Life Study at baseline. Children do not have attendance records (n=9) or age when they centered CAP (n=4) if they no longer attend CAP because they are too old to attend Head Start. On average, children first entered CAP when they were three-years-old (see Table 10). This indicates that most of these families join CAP when the child enters preschool and are potentially new to CAP's early education programs.

Table 10. Children's Attendance Rates from September to January and Age Child Entered CAP, Cohort 4

	Total
	M(SD)
Attendance (n=50)	0.88(0.09)
Age child enters CAP (n=55)	3.05(1.09)

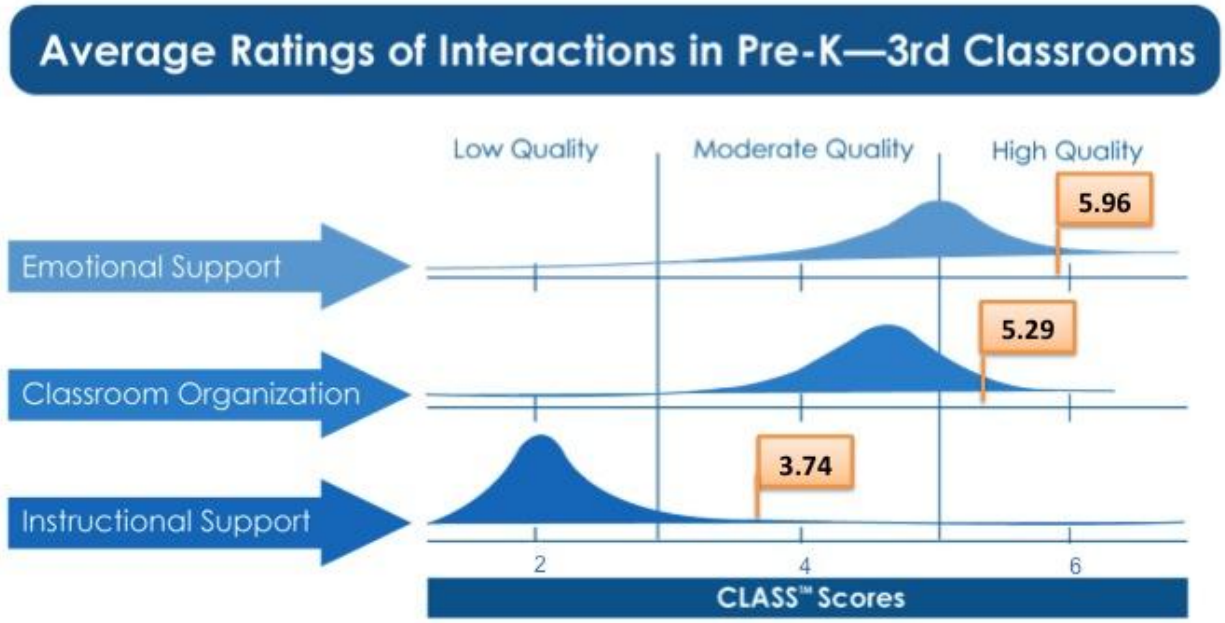
From September 2011- January 2012, children in the Family Life Study attended an average 88% of school days (range 58% to 99%). Almost 85% of children have an attendance rate that is 80% or higher. Yet 15% of the sample does have somewhat lower attendance, with some children missing a substantial number of school days (see Figure 3). This has important implications for the analysis, when we consider the effects of dosage of early childhood education on child outcomes.

Figure 3. Average Attendance Rate Among Children in the CAP Family Life Study Over Four Months, Cohort 4 (n=50)



The CAP Family Life Study is also interested in the quality of early childhood education and the extent to which it may strengthen or weaken the effects of Career*Advance.*® CAP assesses the quality of teacher-child interactions through use of the Classroom Assessment Scoring System Pre-Kindergarten (CLASS; Pianta, La Paro, & Hamre, 2008).The CLASS Pre-K organizes teacher-child interactions into three broad domains: Emotional Support, Classroom Organization and Instructional Support. In the CAP Family Life Study, the average score for Emotional Support is 5.96 (SD=0.57; Range 4.44-6.94), which CLASS Pre-K considers high quality. This score is slightly above the national average (see Figure 4).

Figure 4. Comparison between Family Life Study CLASS Domain Scores and National Averages in Pre-K to Third Grade Classrooms



= *Average CLASS Domain Score in Family Life Study*

The average Classroom Organization score for the CAP Family Life Study sample is 5.29 (SD=0.72; Range 4-6.58), which is considered high quality and is on the higher end of the national average of CLASS scores. The average Instructional Support score for the Family Life Study sample was 3.74 (SD=0.99, Range 2.17-5.75) which is in the moderate range. Figure 4 demonstrates that, on average, most children attend Pre-K-3rd classrooms in the low range of instructional support. For each of these three domains, CAP programs appear to have substantially higher scores than the national average.

Children in the CAP Family Life study also have additional nonparental care arrangements outside of the regular hours CAP. Two out of 59 children attend care before CAP, with one child being cared for by a relative, and one child being cared for by a day care center for an average of 10 hours per week (standard deviation=7.07). Twelve children receive after care, with most children being cared for by another relative (n=7), as well as CAP (n=2) or a day care center (n=3). Children attend after care approximately 12 hours per week (among those who receive after care). Five children receive regular weekend care from a relative for approximately 21 hours per weekend (standard deviation= 21.75). In sum, very few children attend before care, around a third of the children receive after care, and very few children have nonparental care arrangements on the weekend. The lack of nonparental care arrangements outside of regular CAP hours may have important implications for parents as they seek to balance work, school, and family.

4. Education and career development

In Wave 1, respondents are also asked a series of questions about their education levels, employment, and career development. For Career*Advance*® respondents, the interview occurred within six weeks of beginning the program. Results from the survey reflect any initial changes respondents may have made after applying and enrolling in Career*Advance*®, but not any changes that result from participation in the program. The longitudinal design of the study will allow us to examine how education and employment may change after participating in Career*Advance.*® All parents responded to the education and workforce development questions (n=59) unless otherwise noted.

Respondents in the CAP Family Life Study tend to have higher levels of education compared to the eligible CAP population (see Table 1 and Table 10). For instance, fewer CAP Family Life Study respondents have less than a high school education compared to CAP families (5% compared to 20%). For the remaining CAP FLS respondents, 5% (n=3) have less than a high school degree, 37% have a high school degree or GED (n=22), 39% have a career tech certificate (n=10), 17% have an Associate degree (n=10), and 2% have a Bachelor's degree (n=1).

Table 11. Respondents' Education Level, Cohort 4 (n=59)

	Total
Highest level of education	
Less than high school	5%
GED	3%
High school	34%
Career tech certificate	39%
Associate degree	17%
Bachelor's degree	2%

Results regarding employment suggest that the majority of the CAP Family Life Study respondents are not employed at baseline (see Figure 5). More specifically, over half of the respondents in the Family Life Study are not employed (57%, n=34), 37% are employed full-time (n=22) and 5% are employed part-time (n=3). The variability in the initial employment of CAP Family Study respondents is important to consider as we seek to understand the experiences of families in the study.

Figure 5. Employment Status of CAP Family Life Study Respondents, Wave 1 Cohort 4 (n=59)

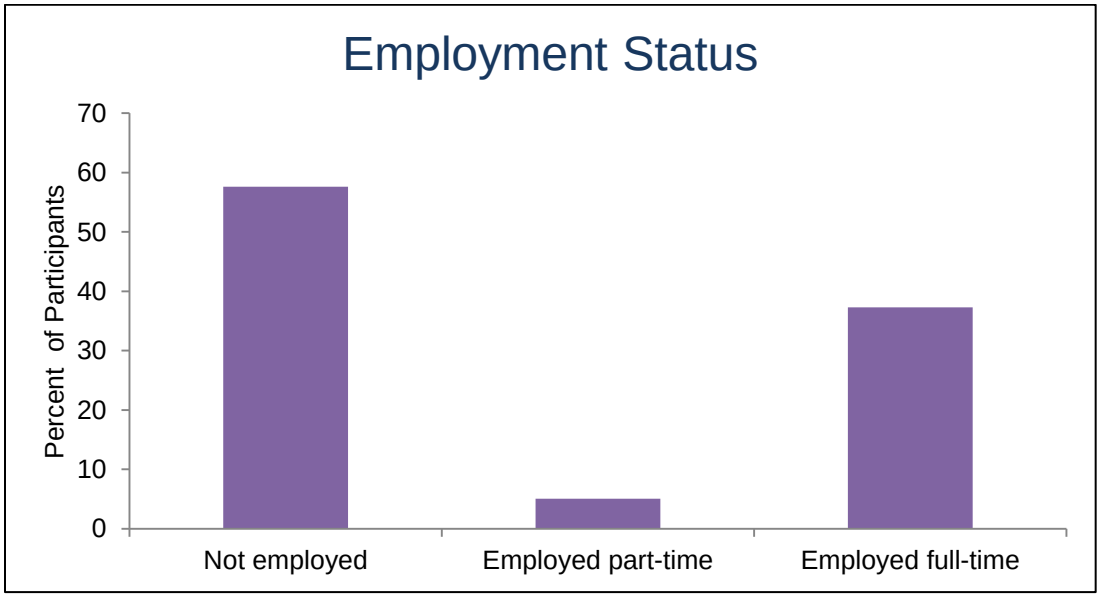


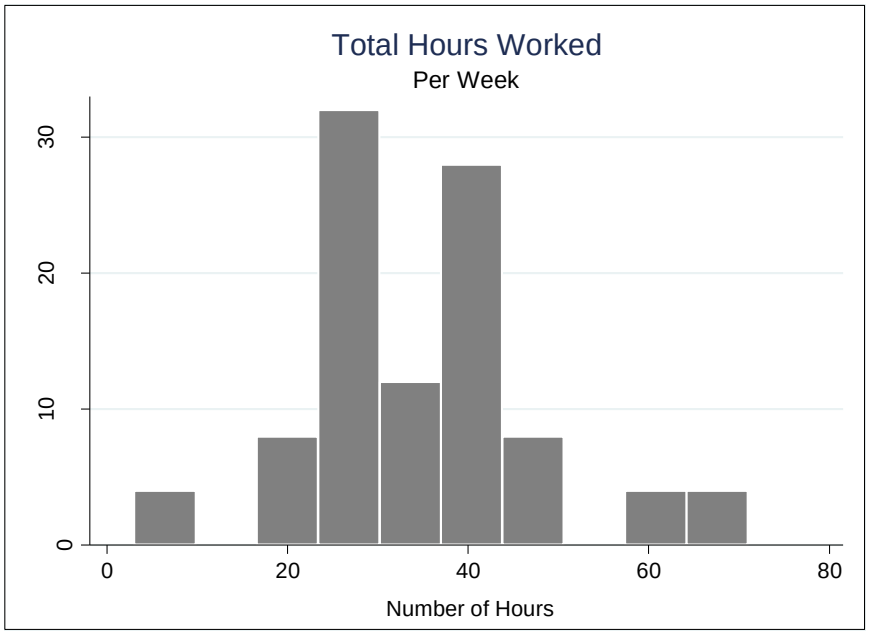
Table 12 presents the employment characteristics of the respondents who are employed at Wave 1 conducted from October to December 2011. Of the respondents who are employed (25 out of 59), most were working in 1 job (range 1 to 3 jobs). Figure

6 demonstrates the distribution of hours worked per week, which suggests a fairly large variation in the amount of time respondents work, ranging from 3 to 71 hours.

Table 12. Employment Characteristics of Respondents who were Employed at Wave 1 (n=25)

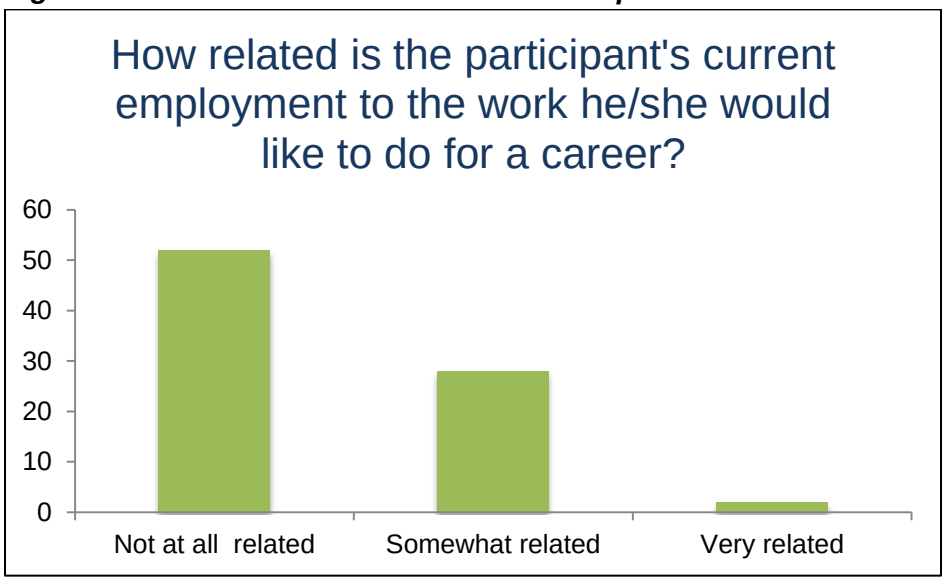
	Total
	M(SD)
	n=25
Total number of jobs	1.20 (0.50)
Total number of hours per week: primary job	31.16 (12.13)
Total number of hours per week: all jobs	34.12 (13.94)
How related this job is to the work you would like to do for a career?	
Not at all related	52%
Somewhat related	28%
Very related	20%

Figure 6. Average Hours Worked Per Week Among Employed Respondents (n=25)



A key component of the theory of change is that participation in Career*Advance*® will move respondents from a job to a career. At baseline, almost all respondents are working in jobs that are not, or only somewhat, related to the work they would like to do for a career (20 out of 25 employed respondents; see Figure 7).

Figure 7. Relatedness of Current Job to Respondents' Career Goals (n=25)



Overall, there is a fair amount of variability in the baseline characteristics of Cohort 4 across the four domains. The respondents in the CAP Family Life Study are ethnically diverse and are predominately low-income. Respondents in the CAP Family Life Study have somewhat higher levels of education compared to the eligible CAP population, yet almost half of the respondents still only have a high school degree or less. Almost all adults are the biological mother and primary caregiver of the target child, and a majority of the respondents are in a relationship. The children in the CAP Family Life Study have Bracken scores that are similar to national norms but somewhat higher than the average child attending CAP's early education program.

Future reports will include additional constructs—such as self-confidence, self-efficacy, academic expectations and goals for self and child, parenting attitudes and practices, and mental and physical health.

Progress of the Career*Advance*® Program and Participants in Cohort 4

Program progress. Career*Advance*® successfully implemented its first year of expansion under its HPOG grant. The program more than doubled the number of participants enrolled and implemented training for a new career path in medical assisting/health information technology. Staff refined the program's recruitment,

selection, and enrollment criteria and procedures. Staff also strengthened the program's ties with partner educational institutions and enhanced its approaches to supplement basic skills instruction and preparation for college.

Career*Advance*® met the enrollment goals projected in its proposal to the Administration for Children and Families. A total of 45 new students in Cohort 1-3 were enrolled in the program during its first expansion year of operation as an HPOG program. Cohort 4 is the first cohort examined in the CAP Family Life Study and included 29 students who began classes in August, 2011—– 14 participants in nursing and 15 in the new health information technology track.[4]

Career*Advance*® expanded eligibility for parents to participate, from 6 CAP Early Childhood Education centers for Cohort 3 to the entire CAP early childhood network (12 centers), as well as two Educare early childhood centers in Tulsa, for Cohort 4. At the same time, Career*Advance*® became more efficient, moving up the career coach-to-participant ratio from 1:15 in the pilot stage to a model of 1:30 under the expansion. A more detailed implementation study of Career*Advance*® during its first year as an HPOG program can be found in Section 3 of the Appendix to this report. An implementation study of the establishment of the Career*Advance*® program is also available for download from the Ray Marshall Center for the Study of Human Resources (Glover, King, Smith & Coffey, 2010).

During its first year as an HPOG program, Career*Advance*® continued to strengthen instruction in basic skills and preparation for college. From its inception, Career*Advance*® has offered assistance in obtaining a GED for participants who need GED certification to advance in health care**.** Further activities to improve basic skills have been added as the program has gained experience. Beginning with Cohort 2, any participant who performed at lower than 9th grade skill levels in reading and mathematics was placed into supplemental tutoring in the Academic Nursing Skills (ANS) program**.** In October 2010, beginning with Cohort 3, a new program entitled "Strategies for Academic Success" was added as a regular feature of Career*Advance*® to enhance preparation for success in college classes. All participants in Cohort 4's new medical assisting/health information technology program were enrolled in a program

[4] One participant in the nursing track failed to pass a mandatory Tulsa Community College test at the beginning of instruction in the fall semester and never attended classes with Cohort 4 beginning in August 2011. Therefore, this report includes 14 Cohort 4 nursing participants. This participant was subsequently re-enrolled in January 2012 and attended classes with Cohort 5. Subsequent reports will include this participant in Cohort 4 because the Career*Advance*® program is tracking this participant with her original cohort.

entitled “CORE” at the beginning of their studies. CORE is taught by Tulsa Tech for 10 hours per week over a 4-week period, and topics include study and test-taking skills, language proficiency, computer skills, and conflict resolution. Thus, all Career*Advance*® participants are enrolled in either the Strategies for Academic Success course or the CORE program at the start of Career*Advance*® prior to taking other classes.

Participant progress. Cohort 4 is the first cohort to participate in the CAP Family Life Study. This section presents the progress of Career*Advance*® participants in Cohort 4 along career pathways. Tracking such progress is a key factor as we seek to assess the outcomes of the Career*Advance*® program, to determine which career pathways work best for whom, and to understand the effects of the program on participating families. Tables 13 and 14 show the status of Cohort 4 participants at the end of December 2011. Among the 29 participants who enrolled in Cohort 4, only three had left Career*Advance*® as of the end of 2011. One nursing participant decided not to pursue a career in nursing after achieving CNA certification and two health information technology participants withdrew due to health problems. In our research we plan to follow-up all participants, regardless of whether they exited the program or not.

Table 13. Career*Advance*® Cohort 4 Participant Progress in the Nursing Career Path, as of December 31, 2011

Cohort	Enrolled in Career-*Advance*®	CNA					
		CNA 1 Completed	CNA Exam Passed	CNA 2 Completed	CNA 3 Completed	Geriatric Tech Certificate Obtained	CNA Employment Obtained
Cohort 4	14	14	14	13	13		

Source: CAP Career*Advance*® staff

NOTES:
(1) Data are as of December 31, 2011.
(2) Two participants had completed CNA 1 and obtained CNA certification prior to enrollment in Career*Advance*®. They attended partner meetings, Strategies for Academic Success classes, and participated in other Career*Advance*® activities with their peers in Cohort 4 from the program inception and joined in nursing classes beginning with CNA 2.
(3) One participant exited the program after passing CNA 1 and obtaining CNA certification, deciding not to pursue career in health care.

Table 14. Career*Advance*® Cohort 4 Participant Progress in the HIT Career Path, as of December 31, 2011

Cohort	Enrolled in Career-*Advance*®	Medical Assisting			Medical Coding 1		
		Participating	Completed	Achieved Certification	Participating	Completed	Achieved Certification
Cohort 4	15	13					

Source: CAP Career*Advance*® staff

NOTES:
(1) Data are as of December 31, 2011
(2) One of the enrolled Cohort 4 participants is taking medical assisting classes with Cohort 5
(3) Two participants exited HIT program due to personal health issues.

Table 15 provides an overview of Career*Advance*® activities to promote basic skills and college readiness among Cohort 4 participants**.** At the beginning of the program, all participants are enrolled in either "Strategies for Academic Success" (for nursing trainees) or CORE (for health information technology). Supplemental instruction is provided to individuals who need it through Academic Nursing Skills and GED studies.

Table 15. Career*Advance*® Activities to Promote Basic Skills and College Readiness, Cohort 4

Cohort	Enrolled In Career*Advance*®	Completed Strategies for Academic Success or CORE program	Attended Academic Nursing Skills	In GED Studies	Obtained GED
Cohort 4–Nursing	14	14	9	1	1
Cohort 4–HIT	15	15	12	2	
Totals	29	29	21	3	1

Source: CAP Career*Advance*® staff

NOTES:
(1) Data are as of December 31, 2011.

Baseline Experiences of Career*Advance*® Cohort 4 Participants: Focus Groups

As described earlier in the theory of change, various career pathways and exit points may be associated with different short- and long-term outcomes for parents and their children. This section describes the baseline experiences of Cohort 4 Career*Advance*® participants and their perceptions of the influences of their early

training experiences on themselves and their young children. It also explores indications of differences in subgroup experiences by career tracks. (Please see Appendix, Section 3 for all related focus group materials, including consent form, questions, and summaries of findings).

Thirteen of the original 15 Cohort 4 Nursing track participants in Career*Advance*® were interviewed in two focus groups of 6 and 7 participants, led by Teresa Eckrich Sommer and Robert Glover, respectively, on December 5, 2011. Similarly, 12 of 15 original Cohort 4 Health Information Technology track participants were interviewed in two focus groups of 6 participants each led by Robert Glover and Teresa Eckrich Sommer on December 6, 2011. The four Cohort 4 parents enrolled in the program at the time of the focus groups who did not participate experienced scheduling conflicts.

Influence of Career*Advance*® for Parents. Cohort 4 parents, like earlier cohorts (Glover et al., 2010; Glover, King, & Smith, 2012), highly value Career*Advance*® as a "once in a lifetime" opportunity. The most positive aspects of the program include: (1) the benefits of financial support and having training costs fully covered; (2) increased confidence in returning to school and enjoying the challenges of learning again; (3) the matching of their own school schedule to their child's, including the availability of before and after child care during training; (4) the value of peer support; and (5) the intensive staff support provided by CAP and Career*Advance*®. These parents also experience challenges associated with balancing work, school, and family, including (1) financial pressures as well as (2) physical and emotional stress, although the benefits of participation in Career*Advance*® for Cohort 4 families seem to far outweigh these costs at present.

> *It's amazing. You can't go anywhere where any program will literally pay for anything and support you all the way. That's what amazed me the most - the before and after care, the tuition, the scrubs, stethoscopes, books, dictionaries, shoes, watches, gas money…. You'd seem ungrateful if you dropped out and say 'No I'm not doing that.' You really wouldn't have an explanation.*

Most of these Career*Advance*® parents have not had an opportunity to enroll in cost-free workforce training or education. Many carry the burden of outstanding, sometimes defaulted student loans. The financial benefits parents receive may be an important component of their motivation to enroll in Career*Advance*®.

> *It's been so long since I've been in school. I spent almost the last 5 years at home being a mom, and you start doubting yourself and you don't think you can do it. Once you're back in the routine of it, and you're like, 'Yeah, it's still in there. Just clean off the cobwebs.'*

Parents often describe an improved sense of self as a result of their participation in Career*Advance*®. This mother expresses her new-found confidence since returning to school four months ago. The question of whether this confidence will persist as the academic challenges rise along increasing levels of training certification remains to be answered.

> *I like how they've made the program fit around the youngest child's schedule...the child that's in the Head Start program…. For the most part, all of us can still take the kids, kiss them goodbye, do our thing, and then be there to pick them up. So, in a traditional college setting, that's not always possible. So it doesn't seem to be as stressful because you're not having to juggle who's picking up who and when…feeling that you're not giving your all to your little ones.*

Parents articulate the high value they place on a coordinated parent-child school schedule. This coordination seems to give parents the opportunity to focus on training and skill development while their children attend school, thus at least partially reducing parental stress and concern about the attention the give their children.

> *I mean, it's just that we're not the typical college student. Like, we have kids and I have doctor's appointments and different things, but we're all, um…We all have kids, we all have the same kind of appointments and obligations, and…so we understand when one of us has to miss, and we go, 'Can you take notes for me because I have to take the kid to the pediatrician?' You know, you understand what that's like….. I can't imagine being in a class with a bunch of twenty-year-olds that don't have any kids and have no idea what I'm going through.*

Peer support, like quality, coordinated care of children, is a highly praised element of the Career*Advance*® program and not something typically facilitated for student parents. In addition to support with their studies, cohort peers in Career*Advance*® help each other with the care and transport of their children; parent car pools to and from classes, partner meetings, and clinical training; and small amounts of cash when budgets are tight.

> *I know if I tried to leave this program, I would have some people on my phone and that's the good thing about us being, that's the one good thing about us being a small group of people. If one of us tried to leave it, oh, we gonna be on that phone quick, 'Wait a minute what are you doing?'*

These small groups of low-income parents experiencing similar training and family life circumstances bond in important ways that seem to be associated with increased persistence in school. Parents feel that their program peers are invested in their success and will not allow them give up easily. In previous college experiences, many

parents lacked this kind of peer support, and its absence may have been a salient reason that they were unable to complete past training and college coursework (Engstrom & Tinto, 2007).

> *CAP and Family Services are like the parents I never had, you know? 'Cause CAP provides me the money and childcare, and Family Support staff. They like a Mama that says (mimicking) 'Oh, that's a good idea!' or 'No, you should try to do this, you know, in your parenting style….or tweak this…' and I really feel like that. You know? Now I'm some rich girl with really great parents. (Laughter)*

CAP and Career*Advance*® staff, including Family Support services, early childhood education teachers, and career coaches, augment these peer relationships with the kind of support often provided by parents. Program staff are like the mothers and fathers that may have been absent in some of these parents' early lives. "CAP helps you to be a better parent and to get involved.*"* Staff not only help parent participants but support them in their role as parents to their very young children as well.

> *Whereas some can say that poverty in itself kinda puts a weight on you that makes it hard for you to even want to try even harder to get out of that situation, but they kinda lift some of that off.*

Cohort 4 participants regard CAP and Career*Advance*® staff as central players in their future success as parents, teachers, and economic providers for their very young children.

> *She [the coach] is the best support system. She helps with everything, and she is there…. We need more people like her in the world!*

> *My favorite part is so much support we're getting. We can pretty much call her [the coach] anytime and be like, you know…. We constantly have the support not only from our classmates but also from our teachers and our coach. You know, and when I was in college before, it was just me against the world basically you know. So if I dropped out, nobody cared. It was just, I was only just disappointing myself. Now if anybody is missing too much class we'd call them and are like, you know 'Where are you at? Come to class.'*

Importantly, Career*Advance*® Cohort 4 participants believe that they could not succeed without the talents and skills of the Career*Advance*® career coaches. These staff play and important role in reducing the range of stresses often coupled with poverty, including emotional, relational, and lack of connection to resources. The combined support of the coach, training teachers, and peers are especially motivating for these parents, something they had not experienced in previous training and school programs.

I feel like now it's me time. I mean, I'm taking care of me. You know, and before I was taking care of everyone outside of myself. Now I can, you know, take all of that energy and put it towards me.

Many of these parents believe that investing in their educational and career success while their children are still young is likely to improve the future trajectories of their families.

Yet despite the benefits of Career*Advance*® participation, financial stress still weighs on most parents in Cohort 4. Providing sufficient income for their family while pursuing training, raising children, and managing their household poses a significant challenge.

See, coming into the program I was relying on getting that Pell grant refund, that Pell refund or whatever for living, cause I'm your classic welfare case. I'm on section 8 so I don't have rent if I don't have income. I'm on full-blown DHS assistance, which is maxed out food stamps, medical insurance, you know, whatever. So of course it looks like I don't have anything to pay, no bills whatever, I do. Um, the $200 a month incentive I get. That's my only income. Also I get a $99 utility allowance if I have no other income. That's $300. But whenever you figure in my gas, my electricity, my car insurance, my gas, cars, diapers, wipes – the $300 just went out the door. Now I'm just like $200 - $300 in the hole. I know how to make a penny stretch, you know, I know how to make a penny last a couple days, but there's just, I don't know….

Lost income from reducing or ending employment to enroll in in school, as well as losing Pell Grant support for living expenses, has led to increased financial stress for some parents that is not been fully offset by incentive payments and the complete coverage of training costs. These financial changes can be especially challenging for parents who rely primarily on public assistance.

I was working. 'Cause my family, we don't get any assistance, so I don't get day care, I don't get food stamps, I don't get WIC, I don't get [mumble], I don't get nothing so then I'm paying out of pocket. So when I quit my job, my financial…my income took care of things like gas, took care of things like school lunches, this, that. Well now that we've taken that away, that $200 a month….I feel like now sometimes you're robbing Peter to pay Paul. And that $200, once I get it, it's already gone. It's spent.

Parents who do not receive public assistance but have quit work altogether feel the daily strain as well. *"It's just harder for me because now I'm having to work, like, with any free time that I have, on the weekends or at nights or anything else."* Others try to juggle multiple jobs or shift their work hours to weekends or evenings. One Cohort 4

participant works as a health aide overnight, attends school during the day, and works an additional service job on the weekends. *"Cause if it comes down to choosing between school and work I have to pick work because I won't be able to make it."* For this parent, if she had to make a choice, work would come first. She is considering seriously dropping out of the program to move to another city where she and her husband will be near family who can provide the support and income needed to manage the financial stress of reduced earnings during training.

> *I'm constantly tired. I have no energy.… Because of the holidays and working so many hours now in the past couple weeks, I'm getting behind in my schoolwork. Not in my CNA-2 class, but I have my Comp 2 class and my U.S. History class which I was able to juggle, but now it's getting very overwhelming. Just stayed up till 2 AM last night trying to write a paper that's due ….*

Physical and emotional stress also surface with the financial stress. This parent is working 55 hours a week during the holidays and balancing training and pre-requisite courses, a situation that is likely not to be sustainable. The level and kinds of stress experienced varies across participants, but all would agree that program participation requires a shift in lifestyle, especially financially.

One parent and her husband pursued a budgeting class independently and found the advice essential to managing their family finances successfully. Many parents feel that increased information about budgeting concerns, especially the loss of Pell grant or other student support and reduced work hours due to training, before they entered the program would have helped them to plan better and perhaps adjust more easily as a result.

Yet as described at the beginning of this section, Career*Advance*® provides an important reduction in financial stress by offering cost-free career training over multiple years, and across training and educational institutions. Additionally, Career*Advance*® participants receive performance-based incentive payments that offset partially their reduced earnings and have been noted t be highly valuable. Additionally, some parents were not employed previous to enrollment in the program and thus do not experience lost wages as a result of participation.

> *This program has changed my life; it's changed my future, my family's future definitely. I mean, this has opened up so many opportunities for me and my family.*

Many of these parents also seem to believe in the long-term value of career training despite the shorter-term financial strain. They enroll in Career*Advance*® because they believe that their financial future will be enhanced as a result of their improved

employment and resulting wages, in addition to the support they receive for their families and their children.

Influence of Career*Advance*® for Children. The influence of Career*Advance*® participation for children, like its influence for parents and families, is perceived in terms of both benefits and challenges, although the benefits seem to outweigh the costs. Positive aspects of parents' return to school include (1) increased positive engagement and learning at home and (2) educational role modeling; negative aspects include (1) insufficient quality time with their children and (2) increased stress.

> *I tell my son about some of the words every once in a while just to, just to mess with him and tease him and stuff....you know, I'm learning more and I'm sharing it with him, he finds it interesting. But maybe the people with older kids might be a little bit different.*

> *My oldest one, yeah, as soon as I come home with my books, my oldest one…he, he loves science, and he had my A&P (Anatomy and Physiology) book, and yeah he sat there and looked at it all night, one night, and another night. If I don't have the book or I'm not doing homework, he's wanting to look at it. He loves that stuff, so, yeah…The little ones, eh, not so much, they know I go to school, they think it's cool, they see my scrubs on, they know I'm going to school.*

Cohort 4 parents discuss how their own schoolwork positively influences their children's learning, whether through direct conversations about new work-related vocabulary or through the sharing of text books. Parents' participation in workforce training seems to bring new concepts and exposure to health careers to the children in these families.

> *I'm the first person to even go to school. So it feels good to me to just know that I'm gonna make a better, like pave a better path for my son. The chances of him going to school if I complete school are so much higher. And that's you know, not only will I create a better life for him as a child, but it'll give him some encouragement and motivation, and I can be a role model for him to go to school when he's older. So it makes me feel a lot better I think.*

Importantly, these parents now see themselves as educational role models for their children who can influence positively their children educational futures.

> *I get used to being stressed out, I guess. Like what little time I do have at home, I try to spend with my family but, um, it's hard when you get home and you are torn in between like, spending the little time that you do have with your family or working on homework that you have that you know needs to be done or it's gonna like mess up, you know, what's gonna happen in the future if I don't make good grades now, then I know it's gonna hinder me from getting into nursing*

school. So it's really hard 'cause you want to spend time with your family but you don't have the time to spend with them you want to. Or you have your, you know, your toddler coming up to you, "Mama, mama" and you're like, oh, I have to write a paper, you know, that's really hard. Luckily I have my husband but he's been working a lot too so, I mean we don't have any family here at all, so it's just me, him and our son.

Parents also weigh these benefits against worries about spending enough time with family, especially young children. They are aware that participation in school, especially if they are employed as well, reduces the time they have for their family. This mother goes on to explain how she met another mother through Career*Advance*® and how they help each other with their school pressures and the care of one another's children.

That's the hardest part I think, as far as a downside with your children. Just cause you feel…Cause for me, I almost feel like I'm neglecting my son, like I know he's taken care of and I know, you know, but as far as spending time with him, and he's taking a hit, when it comes to like mommy and baby time. Because I don't have that extra time to spend with him anymore now that I am in this program. So that's kind of had an effect on him in a negative way. But I always just have to tell myself that in the long run, it's actually more beneficial. I mean the, the future is gonna weigh out you know how it is right now. Like, he might be not getting to spend as much time with me as he would like now, but you know, once the school is done, it's…it'll be different. I'll have more, I'll just be working one full-time job and be home with him and hopefully be able to be more involved in his school later on and set a good example for him.

Some of these mothers have a sophisticated understanding of the tradeoffs they are making, believing that the future benefits outweigh the short term costs.

Yeah, I think the biggest part about it, that I think is cool is that it's gonna prepare them for the fact that there is education after high school. My parents didn't go college so they didn't really… I mean they wanted me to go to college but they didn't really prepare me for the reality of it. Like, you know, trying to get scholarships, trying to take my ACT, my SAT, stuff like that. I didn't take my ACT until a couple months before I graduated and I was completely unprepared for college. I mean it's not my parents fault, but they didn't know what I needed to do. So this way, my kids will know. My son knows at 4 years old that he's not stopping his education after high school, he's gonna keep going. And he knows that now, and he's, you know…I think he's gonna be much more prepared than I was when I was in high school.

This mother expresses a similar point of view, believing that she is not only setting a good example for her child, but gaining the knowledge needed to concretely support her child's educational advancement.

> *I have found on a positive note, what school has done in our house is…Like my 9-year old has always struggled in math. And I have always struggled in math. It's never been a strong suit. I've always told her that, you know, sorry I can't really help you. And she's relied on that, "Well mommy can't help me. She doesn't get numbers…" Well when I got put in this math tutoring class, I felt like I could then relate to her more, and I felt like it was empowering me because it was giving me those skills that I left behind somewhere in high school and junior high. And so when I would get home, for the first couple of weeks, I'd be like, "I can help you." She's like, "No you can't, you don't know how to do this" and I was like, "No, really, I know how to do it now." So I feel like, I wasn't getting so upset with her because now I know the material and understand it and I'm getting it so it's helping her to feel better about herself, and I feel better about myself because for all those years, it was embarrassing to tell your 9-year old, "Sorry I can't help you with this because I don't know it myself….. So I feel like that's been a positive is that I can guide them better now, that I have the information, I can help them better.*

Some of the benefits to parental schooling have immediate payoffs that are connected to long-term outcomes. This parent is able to influence her child's school success by gaining the ability to help with math homework, a direct result of her training with Career*Advance*®. The application of these new skills also may improve this mother's relationship with her daughter and her ability to parent her.

> *P3 She's one of the reasons I'm doing this, you know, to have a better life for her -- a better future for her….. I just look forward to getting done. Whenever I want to, just stuff happens, and I'm just like she's just two right now. By the time I'm done she's six or seven, and she'll have a good place to live.*
>
> *P5: It's better to do it when they're little, I think. When parents go back to school when their kids are older… no, they need more attention when they're older.*
>
> *P6: Yeah my daughter is four and she'll be like only seven or eight. She'll be okay.*
>
> *P4: My daughter will be 11 or 12. She's 8 now.*

F: And what it is about doing it sooner rather than later that makes the difference?

P6: Because they'll still remember you now, but they're going to remember when they get older, that you are still there. You went to school, and they could have all they wanted and not have to worry about where you were going to get it from.

P1: Yeah, and I know like my oldest one, he's 4. And to notice that if there's something that he wants, mommy can't always go get it. He started to notice that we don't always have enough, now.

P4: I think the older they are, the more attention they need. I mean, not that kids don't need attention now, but kids go to bed earlier, they sleep more when they're younger. And if you think about teens, why do they get into stuff? Cause they don't have attention. You'll be able to give all that to them.

As this exchange demonstrates, Cohort 4 participants appear to weigh carefully the benefits and costs of participation in Career*Advance*® for their family and children. Timing parents' education when their children (or grandchildren) are still young is a significant motivation to enroll now. These parents pursue school with very young children so that they can provide financially as well as have more time available for important later stages of development, particularly the teenage years, suggesting early results in line with the theory of change described above.

Differences in Subgroups by Career Tracks. As acknowledged in the theory of change, we expect that various pathways and associated exit points may produce better outcomes for certain subgroups and not others. At baseline, we examine differences in participants' experiences by career track, Nursing and Health Information Technology. In future reports, we will consider subgroups of other kinds (e.g., family structure, neighborhood, and number of children) and across different pathways through Career*Advance*® with longitudinal data.

At the time of the focus groups, parents in Cohort 4 Nursing track were in the third of four weeks of the Certified Nursing Assistant (CNA) level 2, having completed CNA level 1 training, passed the assessment, and achieved certification. These women have chosen nursing for the following reasons: (1) exposure to the field because they have cared for a sick member of their family or watched other family members working in the profession; (2) they felt a calling or strong desire to help and care for people; and/or (3) they have work experience in the nursing profession. All have the goal of achieving a Registered Nursing (RN) degree, and most believe that the CNA track is a necessary but not highly-valued part of achieving this goal*: "You just have to go through*

this so that you can get to the next step," although evidence from past cohorts indicates that parents who leave the program enter CNA jobs with some regularity, perhaps due to the financial pressure described above.

Parents in the Cohort 4 Health Information Technology track, the first participants in this new CareerAdvance track, were working toward their certificate in Medical Assisting at the time of the focus groups.

> *I've always wanted to stay in the medical field and not be in direct care. The chance to make your own schedule and normal hours (7 am-3 pm) is what keeps me going. I made the commitment [to the program].*
>
> *I like the opportunity to be, you know, you can, with being medical assistant, we can have jobs working with people, we can be in the back office, we could get a medical coding job, we could eventually work at home. I just love the flexibility, the different opportunities.*

These parents are excited and engaged in the program. Many cited the value of a health career without involvement in direct patient care or blood and urine. The majority plan to follow the track to an Associate degree in Health Information Technology. A few plan to stop at the medical assistant or certified medical coding certificate levels. One would prefer to switch to nursing and laments that she would have to start over to do so. Some would like more flexibility to be able to switch from Health Information Technology track to the Nursing track, or vice versa, although most seemed to have thought carefully about the kind of work they plan to pursue and the hours available to them (regular, day-time shifts, working on a computer or at desk job, less involvement with people, greater independence and flexibility, possible opportunity to work from home). One believed that the "triple threat" of certification as a medical assistant and medical coder and an associate's degree in Health Information Technology would greatly improve the chances of employment with higher wages. This career track provides a valuable, complementary alternative to the Nursing track.

Conclusion

Descriptive qualitative and quantitative data from Cohort 4 at baseline provide initial insights into how simultaneous participation in quality early childhood education for children and an intensive, sector-based training for parents may influence short term outcomes for both generations. Parents gain, for example, from increased confidence in returning to school, intensive peer and staff support, and enrolling in all-expense paid training program for careers in the health field that is coordinated with their children's school schedule. Likewise, children benefit from participation in quality early education and the learning and role modeling that their parents bring home as a result of returning

to school. Future reports will allow us to examine further these initial insights using data from additional cohorts and waves of data collection, including survey interviews, child assessments, and interview and focus group data. These combined quantitative and qualitative data will allow us to compare gains between cohorts, across cohorts, and between participant and matched-comparison families. We also will begin to assess program influences on shorter and longer term child, parent, and family outcomes and how the direction and/or level of these influences may change over time.

At this point though, we have important indications that the program is highly valued by participants, including the opportunity for two distinct types of career in the health professions according to their level of interest in direct patient. Also, we find support for the peer components of the program, especially its potential influence on educational persistence over time. Moreover, we have initial indications of important changes in parent-child interactions in the home that may influence positively children's emotional and social well-being and academic achievement. As parents increase their confidence in their own academic abilities as well as their academic and career skills, they may have higher expectation for their children's academic achievement and growing investments in their children's learning. Such benefits, if supported by further waves of data and analysis, could have lifelong impacts on children's development and academic, career, and financial success of parents and children.

List of Documents Included in Appendix, Section 3:

Section 4:

Learning From and Disseminating to External Audiences

Our cross-disciplinary research team is committed to collaboration among program and institutional partners as well as participation in a wide variety of policy, program, and research forums and conferences. Our goals are to: (1) maximize the rigor and quality of the study; (2) foster dialogue about study findings; and (3) contribute to the nascent field of dual-generation programs and broader workforce policy at the federal, state, and local level. From September 2011, through January 2012, we participated in and/or presented to (1) CAP-led All Partner meetings; (2) meetings and forums with external audiences, and (3) national policy conferences. Please see Appendix, Section 4 for related meeting and conference materials, including agendas, presentations, and papers.

We participated in the following CAP All Partner meetings:

- January 27, 2011 (presenter Lindsay Chase-Lansdale; participants Teresa Eckrich Sommer and Robert Glover)
- April 25, 2011 (participants Teresa Eckrich Sommer, Robert Glover, and Emily Ross)
- January 26, 2012 (presenters Christopher King and Teresa Eckrich Sommer)

As researchers and advocates for the growing field of dual-generation interventions, members of our cross-university research team presented at the following meetings:

- Foundation for Child Development, *Planning for Dual-Generation Strategies*, February 11, 2011, New York, NY (presenter Christopher King; participants Teresa Eckrich Sommer, Lindsay Chase-Lansdale, and Hirokazu Yoshikawa)

- Annie E. Casey Foundation, *Dual Generation: Linking Economic Strategies and Childhood Programs*, Consultative Session, June 29, 2011, Baltimore, MD (presenters Lindsay Chase-Lansdale and Christopher King; participant Teresa Eckrich Sommer)

- Annie E. Casey Foundation, *Funders Visit to Community Action Project of Tulsa County*, *Inc.,* September 8-9, 2011, Tulsa, OK (participants Christopher King and Terri Sabol)

- Aspen Institute, *Two Generations: One Future,* Ascend Dinner & Roundtable, March 28-29, 2011, Washington D.C. (presenters Lindsay Chase-Lansdale and Steven Dow; participant Christopher King)

- Aspen Institute, *Two-Generation Strategies in Education* Roundtable*,* co-sponsored by Ascend, the Foundation for Child Development, and the Ray Marshall Center at the University of Texas at Austin; October 14, 2011,

Washington, D.C. (presenters Christopher King, Lindsay Chase-Lansdale, Robert Glover, and Steven Dow; participants Teresa Eckrich Sommer and Tara Smith)

- ACF/HHS, *Kick-off Meeting for the University Partnership Research Grants for HPOG*, November 1-2, 2011, Washington, D.C. (presenters Lindsay Chase-Lansdale and Christopher King)

- ACF/HHS, *Administration for Children and Families HPOG Site Visit, Mark Greenberg, Deputy Assistant Secretary*, January 27, 2012, Tulsa, OK (presenters Christopher King and Teresa Eckrich Sommer)

- George Kaiser Family Foundation, Career*Advance*® Update with George Kaiser, January 26, 2012, Tulsa, OK (presenters Christopher King and Teresa Eckrich Sommer)

We also convened symposia and presented at the following Association of Public Policy and Management Annual Research Conferences:

- Association of Public Policy and Management (APPAM) 32nd Annual Research Conference, November 4-6, 2010, Boston, MA
    - Organized and convened Symposium, *Harnessing Parental Investments in Young Children's Learning: Innovative Educational Interventions for Low-Income Parents*; conveners Lindsay Chase-Lansdale and Teresa Eckrich Sommer)
    - Presented paper, *Early Childhood Education Centers: A Promising Platform for Promoting Low-Income Mothers' Postsecondary Success* (Sommer, Chase-Lansdale, Brooks-Gunn, Gardner, Rauner, & Freel, 2010); presenters Lindsay Chase-Lansdale and Teresa Eckrich Sommer

- Association of Public Policy and Management (APPAM) 33rd Annual Research Conference, November 3-5, 2011, Washington, D.C.
    - Organized and convened Symposium, *The Prospects And Promise of Two-Generation Anti-Poverty Programs;* conveners Christopher King and Robert Glover
    - Presented paper, *Promoting Dual-Generation Anti-Poverty Programs for Low-Income Families: Three Approaches and Their Implications for Practitioners* (Sommer, Chase-Lansdale, & Brooks-Gunn, 2011); presenter Teresa Eckrich Sommer
    - Presented paper, *Opportunities and Challenges Confronting Dual-Generation Strategies: Achieving Larger, More Lasting Impacts from Declining Resources* (King, Glover & Smith, 2011); presenter Christopher King
    - Presented paper, *Barriers to Immigrant Families' Access to Dual-Generation Programs* (Yoshikawa, 2011); presenter Hirokazu Yoshikawa

- Presentation, *Investing in Children* and *Parents: Fostering Dual Generation Strategies in the United States;* presenters Christopher King, Robert Glover, and Tara Smith

List of Documents Included in Appendix, Section 4:

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