

UW-Madison ILL Lending (GZM)  
728 State Street / Madison, WI 53706  
Email: gzmlend@wils.wisc.edu



GZM TN: 1716101

**Borrower:** CGU  
**Lending String:** \*GZM,GZM,TXH,TXH  
**Patron:** Brenner, Matthew C.

**Journal Title:** Journal of public child welfare. +++ please send vol 3, no 4, 2009, pp 372-390 +++

**Volume:** 3 **Issue:** 4

**Month/Year:** 2009 **Pages:** 372-390

**Article Author:**

**Article Title:** Educational goal advancement of foster youth and independent living programs

**OCLC Number:** 57990975

**ILL Number:** 70293959



**Location:** online  
**Call #:** socindex  
**Request Date:** 20101020

**Need By:**

**Shipping Address:**  
University of Chicago  
Interlibrary Loan Service  
University of Chicago Library  
1100 East 57th Street JRL 121  
Chicago, IL 60637

**Fax:** 773-834-2598

**Ariel:** 128.135.96.233

  
**PDF:** interlibrary-loan@lib.uchicago.edu

**MaxCost:** \$40IFM

**Borrowing Notes:** Borrowing Notes; SHARES

**Copyright Compliance:** CCG

ODYSSEY

## **Educational Goal Advancement of Foster Youth and the Independent Living Program**

TONI NACCARATO and KYOUNGDON PARK  
*University at Albany, Albany, NY, USA*

*This study looked at one county-administered Independent Living Program (ILP) through the interdisciplinary lens of child welfare and economics. Human capital as a theoretical framework is introduced and utilized as an ILP outcome measure and logistic regression models were used to investigate the relationship of youths' educational goals and ILP attendance. The study found that foster youths' self-reported goals for education had a statistical relationship to their attending ILP sessions related to education and employment. One recommendation is that to develop human capital, foster youths must invest in higher levels of education. Second, ILP record keeping must improve and standardized outcomes must be developed to accurately measure the intervention effectiveness.*

**KEYWORDS** *independent living skills, human capital, independent living services, life skills, older foster youth*

Every year an estimated 20,000 adolescents “age out” of the foster care system and find themselves living on their own (Courtney & Piliavin, 1998; Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Courtney, Terao, & Bost, 2004; Westat, 1991). This number is increasing and according to the United States Department of Health and Human Services (US DHHS) Adoption and Foster Care Analysis Reporting System (AFCARS) in 2005, 24,407 adolescents “aged out” of the foster care system to live independently (US DHHS, 2006). Foster youths often experience a more abrupt transition to independence than non-foster youths and often lack familial and social service system

---

Received: 1/12/08; revised: 7/6/09; accepted: 9/4/09

Address correspondence to Toni Naccarato, University at Albany, School of Social Welfare, 205 Richardson Hall, 135 Western Avenue, Albany, NY 12222. E-mail: tnaccarato@uamail.albany.edu

supports (Courtney et al., 2004; Hardin, 1988). To assist foster youths to make the transition from foster care to independent living the federally funded Independent Living Program (ILP) was enacted through the Consolidated Omnibus Budget and Reconciliation Act and Title IV-E Social Security Act of 1985. A subsequent Foster Care Independence Act of 1999 increased ILP financial entitlements and housing resources, decreased the age of eligibility to 14 years, and expanded Medicaid eligibility for foster youths (Children's Defense Fund, 1999).

National estimates of the number of foster youths who leave care with a high school diploma or pass the general equivalency exam range from 37% to 60%; however, much of this evidence is not current (Blome, 1997; McMillen & Tucker, 1998; Scannapieco, Schagrin, & Scannapieco, 1995; Westat, 1991). Foster youths' college entrance rates vary considerably. Studies completed more than 25 years ago reported rates of college entrance from 2% to 11% (Festinger, 1983; Frost & Jurich, 1983; Jones & Moses, 1984; Zimmerman, 1982). An 11.7% college entrance rate was reported in a Midwest study of youths who left the system one year prior (Courtney & Dworsky, 2006). Blome (1997) and Buehler, Orme, Post, and Patterson (2000) found significantly higher post high school education rates than the former studies mentioned. Blome (1997) found that 45% of a family foster care sample had taken at least one college course at age 20. Buehler et al. (2000) found a 29% college entrance rate of former foster youths' alumni who were now adults. These rates represent only college attendance and not completion. One of the positive outcomes of ILP may be to help foster youths to goal set and attain higher levels of education. Typically, the key person in referring and ILP goal setting is the foster youths' case manager who in many cases is a social worker.

This study examined ILP in one Northern California County and probed whether this ILP contributed to human capital accumulation given the link between education and potential of economic, employment, and vocational success. Human capital is an economic investment strategy that focuses on increasing education, vocation, health, and employment skills (Becker, 1964; 1993). Foster youths can be considered an at-risk population likely to accumulate the least human capital. It is assumed that increasing the levels of foster youths' human capital involving education would help decrease the levels of risk factors and result in an easier transition to adulthood. This article examines the relationship of foster youths' educational goals and their utilization of ILP.

## PURPOSE OF THE STUDY

The overall purpose of the study was to determine if there was a statistical relationship between the subjects in the study's planned educational goals

and ILP human capital session attendance. Moreover, if these goals had an effect, the study examined which educational goals positively or negatively influenced the attendance at ILP employment sessions or education sessions (human capital sessions). One of the study's purposes was to introduce human capital as a viable outcome measure for this population as there is evidence that an increase in education is positively associated with higher earnings (Becker, 1993) and there is also evidence that foster youths fall short in both education attainment and earnings (Courtney & Dworsky, 2006).

The three specific research questions that guided this study were as follows: 1) Which ILP sessions do foster youths attend and how frequently?; 2) Is there concordance between the social workers' and foster youths' stated educational goals?; and 3) Is there a relationship between youths' stated educational goals, social workers' stated educational goals for youths, gender, ethnicity, placement type, and ILP contract agency and ILP human capital session attendance? The third question was posed because prior research found statistical relationships between gender, ethnicity, and placement type and education attainment for foster youths (Biehal, Clayden, Stein, & Wade, 1994; Courtney & Barth, 1996; Courtney et al., 1998; English et al., 1994; Reilly, 2003). Thus, this study hoped to shed light on these findings and address practice and policy concerns in order to better provide ILP services, as well as highlight the need for more rigorous research, which begins by improving data sources and standardizing outcome measures.

## CONTEXT OF THE STUDY

There is a need to understand the factors associated with favorable and unfavorable outcomes experienced by foster youths who age out of the child welfare system (Courtney & Barth, 1996; Courtney et al., 2004). Many studies have found that youths transitioning out of foster care have risk factors and difficulties with school, employment, obtaining medical care, housing, homelessness, violence, teen parenthood, and high rates of involvement with the criminal justice system (Biehal, Clayden, Stein, & Wade, 1994; Courtney & Barth, 1996; Courtney et al., 1998; 2001; English, Kouidou-Giles, & Plocke, 1994; Montgomery, Donkoh, & Underhill, 2006; Naccarato & DeLorenzo, 2008; Reilly, 2003). Other risk factors include non-compliant behaviors, verbal aggression, sexually acting out, or running away (English et al., 1994).

To address these risk factors, ILP was designed and implemented nationally. ILP presupposes that youths in foster care have not had sufficient opportunity to learn and acquire the life skills to successfully transition to adulthood. According to Mallon (1992), "Childhood and adolescence are the developmental stages of life during which skills needed to live self-sufficiently are usually acquired" (p. 587). Moreover, the process of achieving

self-sufficiency is a long one that begins in childhood. Children in foster care cannot rely on their families so they must depend on child welfare agencies to provide opportunities for them to acquire life skills (Mallon, 1992). Further, there is an assumption that the possession of adequate life skills is necessary for maintaining psychological, social, and occupational well-being. People who lack social or life skills may be at risk for developing a range of problems, including social anxiety, loneliness, juvenile delinquency, alcoholism, emotional and antisocial behavior problems in children, and depression (Segrin & Givertz, 2003). According to Cook (1988), the concept of independent living services is twofold, comprising both a philosophical approach to delivering services, and the specific resources and services that lead to a successful transition to independence. According to Montgomery, Donkoh, and Underhill (2006) no randomized controlled trials of the intervention exist, but results from eight non-randomized controlled studies suggest that some ILPs may generate protective factors for youths leaving foster care involving educational attainment, employment, housing, health and other life skills. However, the weak methodologies of the studies decrease the generalizability and validity of the findings (Montgomery et al., 2006).

## HUMAN CAPITAL THEORY

As technological developments have altered certain types of mechanical equipment, production techniques, and other types of outputs, people have begun to realize that economic growth and progress involves not only changes in machinery, but also in people. The expansion of scientific and technical knowledge has raised the productivity of labor and other inputs in production. This focus on science and technology has greatly increased the value of college education, technical schooling and on-the-job training, as this growth in knowledge has become embodied in individuals who contribute to output (Becker, 1993). Further, an investment in people permits society to take advantage of technical progress and also sustain that progress. According to Weisbrod (1962),

Improvements in health make investment in education more rewarding by extending life expectancy. Investment in education expands and extends knowledge, leading to advances, which raise productivity and improve health. With investment in human capital and non-human capital both contributing to economic growth and welfare and in what is probably an interdependent manner, more attention should be paid to the adequacy of the level of expenditures on people. (p. 106)

Becker (1964, 1993) describes schooling, a computer course, medical care expenditures, and lectures on the virtues of punctuality and honesty as

improvements in people. Becker views these items as *human capital* that improves one's health, raises earnings, or adds to an individual's appreciation of literature over his/her lifetime. Expenditures on medical care, education, and training are investments in capital, but these produce human not physical or financial capital. According to Becker (1993), this is human capital because you cannot possibly separate a person from his/her knowledge, skills, health, or values the way it is possible to move financial and physical assets while the owner is somewhere else.

Heckman (1974, 2000) treats human capital as some combination of education, acquired skills, and innate ability as a stock that accumulates over time. Heckman further treats human capital accumulation as a positive trajectory where the quantity of human capital increases across the life span. Foster youths have special needs for integrated education, health, mental health, social services, and positive youth development; a broad conception of human capital. By extension, it is reasonable that the focus of ILP should be to increase foster youths' human capital potential.

This study offers an extension to the ILP knowledge base. No other study known to the current study's authors has applied human capital accumulation as a stated outcome measure for ILP. If effective services are to be aimed at adolescents aging out of care, then it is necessary to understand the characteristics of ILP and the adolescents who are being served. Moreover, services that advance human capital are of great importance in order to increase economic potential (Becker, 1993). This study's objective was to explore whether ILP contributed toward the human capital accumulation of ILP participants. Human capital for this study is operationalized as the participation in ILP sessions attended involving education and employment topics, such as career objectives, interviewing, job coaching, high school transcripts and educational resources, and post high school attainment.

## METHODOLOGY

First, this research examined the relationship between ILP attendance and foster youths' self-reported educational goals. It was hypothesized that if foster youths were expecting to obtain higher levels of education, then youths would be interested in attending ILP sessions that focused on higher education. A chi-square analysis tested whether foster youths' stated educational goals were associated with social workers' stated educational goals in order to determine concordance. Second, the study examined ILP attendance and subsequently grouped the sessions into three content areas: employment, education, and other personal functioning. This grouping occurred in order to test whether educational goal setting made any statistical difference in attendance of sessions according to their content. Again, it was assumed that if youths were interested in obtaining higher levels of education (college),

then it was to be expected that their attending of educational content sessions would be different from those youths interested in lower education levels (general equivalency diploma [GED], high school). Third, the relationships between youths' educational goals, social workers' stated educational goals for youths, gender, self-reported ethnicity, type of placement, ILP contract agency delivering service (independent variables), and ILP human capital session attendance (dependent variable) were tested.

### Sample

The sample was obtained from one large Northern California County (N = 365). ILP in this county during the time of this study was offered by five contract agencies. The youths were referred to the agency that was closest to their geographic location. Youths began ILP by attending a 17-week life skills program. These classes were designed to equip the participants with the skills needed to be self-sufficient.

Differences in sample sizes exist in the statistical model estimation due to the data sources having incomplete fields. Thus, not all sample sizes are equal to 365. All available data are reported and the statistical models used the largest sample sizes available for the variables of interest. Thus, some analyses dropped cases due to missing data.

### Measures

The ILP had seven basic state competencies or outcome measures: employment, daily living, survival skills, choices and consequences, social skills, education, and Internet knowledge. These competencies match the legislation goals when first established more than 23 years ago. Although, all foster youths were referred to ILP on their sixteenth birthday, they were not forced to attend. If youths did attend the seventeen week life skills session, they were free to attend whatever sessions they chose, in any order and frequency. It is important to note there is no standardization of the ILP sessions. Thus, the length of time spent in a session and whether sessions are sometimes "bundled" (more than one ILP weekly topic is combined into one session) could occur.

The independent variables included: ILP session attendance, youths' educational goals, social workers' educational goals for youth, gender, youths' self-reported ethnicity, placement type, and ILP contract agency. The educational goal data for the youths were measured by the participants' responses to: I will get my high school diploma or GED; I plan to attend a 2-year college; or, I plan to attend a 4-year college. A three-level categorical variable was created. The response was measured as high school diploma/GED, 2-year college, or 4-year college.

### Data Collection Procedures

Data were collected from five contract agencies providing ILP services in one Northern California County. Data were extracted by the principal investigator from case files of all youths ages 16–21 years who were offered ILP services during the fiscal year October 1, 2001, to September 30, 2002 (N = 365).

### Data Analyses Procedures

In the available data the dependent variable, ILP human capital session attendance, did not have interval level properties. Thus, the application of a logistic regression model offered a tool for investigating the relationship between the independent and dependent variables (Selvin, 1995). In Model 1, the dependent variable was measured with a binary variable coded 1 if youths attended one or more ILP sessions and was otherwise coded 0. In Model 2, the dependent variable was measured with a binary variable coded 1 if youths attended one or more employment sessions or one or more education sessions and was otherwise coded 0. In Model 3, the dependent variable was measured with a binary variable coded 1 if youths attended one or more other personal functioning ILP sessions not including employment or education sessions and was otherwise coded 0. All model estimations used STATA Version 9 econometric software (Stata Corporation, 2005) and determination of statistically significant variables was  $p < 0.05$  level.

## RESULTS

Within this sample, there were 181 (49.6%) females and 184 males (50.4%). The mean age of this sample in 2002 was 17.8 years (SD = 1.2, range = 15–23 years). Self-reported ethnicity of sampled youths included: 77 (51.3%) Hispanic, 52 (34.7%) White, and 21 (14.0%) Black (n = 150). For self-declared language preference, data were available for 217 youths. There were: 204 (94.0%) English-speaking, 3 (1.4%) Spanish-speaking, and 10 (4.6%) Other-speaking youths (n = 217).

The youths were placed in a variety of placement settings: 126 (51.6%) in group homes, 34 (13.9%) in foster homes, 48 (19.70%) in relative homes, and 36 (14.8%) in other arrangements (n = 244). The youths attended 67 different schools with 5 youths not attending school. The mean grade level of the sample (n = 198) was 10.8 years with a standard deviation of 1.4.

### Research Question 1: Which ILP Sessions Do Foster Youths Attend and How Frequently?

Frequency and attendance data for each of the 17 ILP sessions were examined, as shown in Table 1. The mode for all sessions was “0”; 12% (n = 39)



**TABLE 1** Summary Statistics of Independent Living Program (ILP) Session Data (n = 365)

| Variables                                       | Range in session attendance |    | Mean attendance | Standard deviation | n   | %    |
|---|-----------------------------|----|-----------------|--------------------|-----|------|
| Human capital sessions: Employment sessions     |                             |    |                 |                    |     |      |
| Baselines                                       | 0                           | 10 | 0.53            | 0.775              | 167 | 45.8 |
| Career objectives                               | 0                           | 10 | 0.73            | 1.097              | 166 | 45.5 |
| Interviewing                                    | 0                           | 5  | 0.51            | 0.804              | 130 | 35.6 |
| Job coach                                       | 0                           | 8  | 0.27            | 0.816              | 63  | 17.3 |
| Education sessions                              |                             |    |                 |                    |     |      |
| High school transcripts and education resources | 0                           | 4  | 0.24            | 0.583              | 67  | 18.4 |
| Post-high school                                | 0                           | 6  | 0.53            | 0.830              | 138 | 37.8 |
| Human capital sessions                          | 0                           | 6  | 2.00            | 1.6550             | 281 | 77.0 |
| Other personal functioning sessions             |                             |    |                 |                    |     |      |
| Personal records and community resources        | 0                           | 10 | 0.62            | 1.153              | 147 | 40.3 |
| Banking and credit                              | 0                           | 2  | 0.25            | 0.486              | 81  | 22.2 |
| Budget/Money                                    | 0                           | 3  | 0.43            | 0.662              | 125 | 34.2 |
| Housing/Legal rights                            | 0                           | 7  | 0.69            | 1.101              | 153 | 41.9 |
| Healthy development                             | 0                           | 5  | 0.49            | 0.824              | 122 | 33.4 |
| Values; goals; boundaries                       | 0                           | 6  | 0.62            | 1.005              | 137 | 37.5 |
| Addictions; drugs; peer pressure                | 0                           | 4  | 0.26            | 0.571              | 76  | 20.8 |
| Contraception and sex education                 | 0                           | 6  | 0.53            | 0.942              | 124 | 34.0 |
| Interpersonal and social skills                 | 0                           | 4  | 0.46            | 0.800              | 115 | 31.5 |
| Internet  | 0                           | 2  | 0.08            | 0.304              | 27  | 7.4  |
| Support/Advocacy                                | 0                           | 19 | 1.56            | 2.902              | 178 | 48.8 |
| Any other personal functioning sessions         | 0                           | 11 | 3.52            | 3.012              | 297 | 81.4 |
| Total number of sessions attended               | 0                           | 68 | 8.66            | 9.128              | 326 | 89.3 |

did not participate in any of the 17 sessions and only three youths (1%) completed all 17 sessions at least once (n = 365).

### Research Question 2: Is There Concordance Between the Social Workers' and Foster Youths' Stated Educational Goals?

A chi-square test indicated statistical significance ( $X^2 = 73.24$ ,  $p < 0.001$ ) when testing for whether youths' planned educational goals were associated with the social workers' planned educational goals for the youths (n = 200). Most of the association was attributed to the incongruence in the educational goal between the expected frequency of the goal and the observed frequency of the goal in each of the four different goal categories.

Research Question 3: Is There a Relationship Between Youths' Stated Educational Goals, Social Workers' Stated Educational Goals for Youths, Gender, Ethnicity, Placement Type, and ILP Contract Agency and ILP Human Capital Session Attendance?

To begin, the 17 sessions were grouped into three similar topics as a proxy for human capital, including: any ILP sessions, employment and education sessions, and other personal functioning sessions ( $n = 365$ ). The predictor variable utilized was youths' self-reported educational goals. Finally, gender, ethnicity, placement, and ILP contract agency were incorporated (See Table 2).

There were statistical relationships found in the logistic regression models between youths' education goals and ILP attendance in this sample. Table 3 reports each Model's sample size, beta coefficients, p-values, and odd ratios related to each logistic regression model. Statistical significance was determined using a p-value less than 0.05 and is indicated in Table 3 with an asterisk.

### Educational Goal Setting

Models 1–3 used logistic regression to test youths' attendance at one or more of any type of ILP sessions according to youths' self-reported educational goals. In most cases, there was no association between educational goals

**TABLE 2** Summary Statistics of Independent Living Program (ILP) Sessions, Educational Goal, Demographic Characteristics, and Services ( $n = 365$ )

| Variables  | n   | %    |
|--|-----|------|
| Dependent variables  |     |      |
| Attended one or more sessions  | 329 | 90.1 |
| Attended one or more employment sessions                                       | 256 | 70.1 |
| Attended one or more education sessions  | 165 | 45.2 |
| Attended one or more employment or education sessions                          | 281 | 77.0 |
| Binary variable of attending other sessions other than employment or education | 297 | 81.4 |
| Predictor variables  |     |      |
| No education goal  | 151 | 41.4 |
| High school/General equivalency diploma goal                                   | 20  | 5.5  |
| 2-year college goal  | 119 | 32.6 |
| 4-year college goal  | 75  | 20.5 |
| Social worker educational goal for youth                                       | 238 | 65.2 |
| Agency 1   | 30  | 8.2  |
| Agency 2   | 94  | 25.8 |
| Agency 3   | 127 | 34.8 |
| Agency 4   | 50  | 13.7 |
| Agency 5   | 64  | 17.5 |

**TABLE 3** Summary Results of All Logistic Regression Models with All Variables (n = 365)

| Variables                                       | Model 1:<br>Any sessions |            | Model 2:<br>Employment or<br>education sessions |            | Model 3:<br>Sessions other than<br>employment or education |            |
|---|--------------------------|------------|---|------------|--|------------|
|   | b                        | P( Z  > z) | b   | P( Z  > z) | b  | P( Z  > z) |
| High school/General<br>equivalency diploma goal | -0.7459                  | 0.579      | 0.4743  | 0.112      | 1.0745   | 0.272      |
| 2-year college goal                             | -0.4774                  | 0.642      | 0.6204  | 0.204      | -0.0939  | 0.872      |
| 4-year college goal                             | *-2.4287                 | 0.018      | 0.0881  | 0.983      | -0.5287  | 0.392      |
| Social worker educational<br>goal for youth     | *-0.5960                 | 0.041      | 0.5510  | 0.066      | -0.1223  | 0.574      |
| Female  | *1.2882                  | 0.014      | 3.6262  | 0.3483     | *0.9098  | 0.010      |
| Black   | -1.3396                  | 0.087      | 0.2619  | 0.062      | -1.1340  | 0.070      |
| White   | -0.3574                  | 0.643      | 0.6995  | 0.556      | -0.8103  | 0.144      |
| Hispanic  | -0.9046                  | 0.150      | 0.4047  | 0.171      | -0.7000  | 0.146      |
| Relative home                                   | -1.4597                  | 0.068      | 0.2323  | 0.605      | -1.2708  | 0.058      |
| Group home                                      | *-2.2075                 | 0.010      | 0.1100  | 0.066      | *-1.6057   | 0.018      |
| Foster care                                     | -0.8762                  | 0.334      | 0.4164  | 0.886      | -1.3455  | 0.067      |
| No placement information                        | -1.5447                  | 0.314      | 0.2134  | 0.241      | -1.5578  | 0.076      |
| Agency 1  | *5.8920                  | 0.000      | 362.1296  | 0.000      | *2.4228  | 0.001      |
| Agency 2  | *2.8248                  | 0.000      | 16.8577   | 0.006      | *2.0599  | 0.000      |
| Agency 3  | *3.6608                  | 0.000      | 38.8937   | 0.111      | *2.2487  | 0.000      |
| Agency 4  | *4.5371                  | 0.000      | 93.4168   | 0.000      | *4.3076  | 0.000      |
| Intercept                                       | *3.4641                  | 0.004      | —   | 0.080      | 1.3952   | 0.066      |

Note: \*p < 0.05 and indicates statistical significance.

and ILP session attendance with respect to employment or education in comparison to no goal (reference category). The reference category in logistic regression models is the baseline category to which all other categories are statistically compared.

Results from Models 1–3 found that youths' educational goals were related to ILP session attendance categorized by content (any type of ILP sessions, either education or employment sessions, other personal functioning sessions). Model 1 specified the relationship between youths' proposed educational goals and ILP session attendance. Table 3 presents the results of this estimation. Even though descriptive statistics show that 20 (26.7%) of the 75 youths with 4-year college goals did not attend any ILP sessions, youths whose educational goals were attending a 4-year college was statistically significant ( $\beta = -2.4287$ ,  $p = 0.018$ ). The foster youths' education goals decreased with any ILP session attendance. By contrast, none of the four possible educational goals achieved statistical significance on either education or employment (Model 2).

Model 1 found that the likelihood of attending any ILP sessions can be compared through odds ratios.<sup>1</sup> The results from the odds ratios indicated that, in comparison to those with no education goals, youths having college or high school/GED as educational goals had demonstrated no significant relationship to attendance at one or more of any type of ILP sessions. In contrast, youths in the sample with 4-year college goals were 91% less likely to attend one or more of any type of ILP sessions ( $1-OR = 1-0.09$ ,  $p < 0.05$ ) (Table 3). In Model 1, social workers who reported 4-year college as youths' educational goals attended 45% less of any type of ILP sessions than those with no goals ( $p < 0.05$ ) (Table 3).

### Gender and Ethnicity

Three logistic regression models took into account the effects of youths' self identified ethnicity and gender on youths' session attendance. Ethnicity had demonstrated no significant relationship to youths' attendance at one or more of any type of ILP sessions, both employment or education sessions, and other personal functioning sessions. In all models, ethnicity and gender were binary and indicator variables (1/0). Session attendance of females ( $\beta = 1.2882$ ,  $p = 0.014$  in Model 1 for any type of ILP sessions;  $\beta = 0.9098$ ,  $p = 0.010$  in Model 3 for other personal functioning sessions) was found to be statistically higher than the male group. The results showed that females had higher session attendance than males, by 3.63 times and 2.48 times, respectively.

### Placement and ILP Contract Agency

The logistic regression analyses confirmed that the five contract agencies provided ILP youths with different opportunities for session attendance.

Placement type and contract agencies were substantially different in the predictive power of session attendance in this sample. The regression results from Model's 1, 2, and 3 revealed that placement types were associated with session attendance. However, in Model 2, Agency 3 was not found to be statistically different from the baseline category of Agency 5 and in Model's 1 and 2 all agencies differed from the reference category.

Models 1–3 found that, as compared to the other types of placement, residing in a relative home was not a significant predictor for session attendance. In contrast, in Model 1, living in a group home ( $\beta = -2.2075$ ,  $p = 0.010$ ) was statistically significant. The odds ratios showed that youths in the group home placements were 89% ( $1-OR = 1- 0.1100$ ) less likely to participate in one or more of any type of ILP sessions ( $p < 0.05$ ). Youths placed in group homes attended fewer sessions other than employment or education sessions as compared to those in the other placement types ( $\beta = -1.6057$   $p = 0.018$  in Model 3). The results indicated that residing in a group home was associated with decreased session attendance. Thus, the different degree of placement restriction yielded variations in youths' session attendance.

Models 1–3 found that in comparison to youths at Agency 5, youths at the other four contract agencies were more likely to participate in one or more of any type of ILP sessions or sessions other than education and employment sessions ( $p < 0.01$ ). Youths who received services at Agency 1, Agency 2, and Agency 4 were more likely to attend either employment or education sessions (Model 2) relative to the reference category, Agency 5.

## DISCUSSION

Overall, the study found that youth in this sample had a low rate of attendance at ILP sessions in general. The mode for ILP session attendance was equal to zero for all 17 sessions. One explanation for this finding is that foster youths may believe that ILP is not useful. A second explanation may be that youths may also be receiving ILP services in an informal manner. For example, youths residing in relative homes may be receiving these services indirectly through their roles and responsibilities within their family and may not want to take the time to go to a formalized class in an outside location. Foster youths in general have low rates of educational attainment; thus, to require them to attend a formal ILP class may not be the best pedagogical approach.

The chi-square analysis found an association between youths' stated educational goals and the social workers' stated educational goals for youths. This finding diverges from other studies that found no association between youths' plans and the social workers' plans for youths (Mech, Dobson, & Hulseman, 1994). This is an encouraging finding for this sample because it appears that the social workers' and youths' were communicating about

educational goal setting at least during the ILP referral process when these data were collected.

When taking into account foster youths' gender and ethnicity, the results found that the differences in ILP attendance were higher for the female group than the male group. This finding should be viewed with caution based on the lack of generalizability of this small sample, and may be a result of the differences of both developmental and social expectations of youths in general. Youths' self-reported ethnicity had no relationship with ILP session attendance.

### Logistic Regression Models

In Model 1 the study found that foster youths' self-reported goals for education had a relationship to their attending ILP sessions related to education and employment. However, this statistical relationship was negative. The youths who attended any ILP sessions had lower educational goals. One explanation for this finding is that with exposure to ILP, youths may come to the realization that they may need to be employed to support themselves and college may not be a consideration. Moreover, this finding is important because if ILP is focusing on foster youths' educational attainment, it would be expected that sessions focusing on employment and education would be positively statistically related and be well attended by youths, which was not the case in this sample. Alternatively, it may be that youths with the lowest educational expectations recognize the need for ILP sessions.

The results of Model 2 found that foster youths' self-reported goals for graduating high school were not associated with employment or education session attendance. This was an unexpected finding as it would have been expected that statistical significance would be found between the ILP sessions related to employment and education and foster youths' goals of high school/GED. Further, it would have been expected that youths' lower educational goals were promoting ILP session attendance. However, this was not the case in this sample. This finding, together with the finding of Model 1, suggests that the sampled foster youths may be considering the importance of higher education, but know they must work to make a living.

The findings showed that youths' ILP attendance not including employment and education sessions among youths who resided in a group home were statistically different from those in other placement types. Youths residing in group homes demonstrated a statistically significant negative association with ILP session attendance of any type not including human capital sessions. One interpretation may be that youths residing in group homes may not see attending college as an option if their family members did not pursue higher education or if they were not encouraged by group home staff to pursue higher education. This was to be expected as youth residing in group homes tend to have higher levels of need as compared to

those residing in relative or foster homes. Further, based on the notion of these youths having higher levels of need, if youths were ever incarcerated or homeless, then they may have assumed that their situation was not a likely pathway for attending college.

Youths' educational goals did not influence youths' attendance at human capital sessions. Even foster youths with 4-year college goals did not show any statistical difference from those with no goals. This finding that youths' self-reported educational goals had no statistical association with human capital session attendance implies that youths' objectives may not necessarily be consistent with ILP session attendance. Perhaps, youth who did not actively participate in ILP but have higher educational goals may not see the need to participate. Maybe their higher educational aspirations emanate from their personal interests and learning that have nothing to do with ILP activities. From the policy standpoint, based on limited ILP attendance, social workers and agency staff need to help individual youth set realistic education goals and provide college application information in lieu of ILP. In addition, discussion regarding education goals should be regularly managed through frequent consultations in order to help build human capital accumulation for youth.

## IMPLICATIONS AND CONCLUSIONS

It has been argued that foster youths are ill prepared to enter the job market in the United States (Courtney et al., 1998, 2001). This study suggests that the very program designed to advance their preparation may not be emphasizing youths' attendance at employment or education sessions as a potential vehicle to success in the job market. The ILP, designed to help foster youths with successful transitions to adulthood, may be flawed. One critical deficiency may pertain to educational preparation and support. This leads to specific practice, policy, and research recommendations.

### Practice

Findings from this study suggest that ILP programming may not be tailored to individual youth's educational plans and that youth may not be guided to attend ILP sessions pertinent to their educational goals. It is unclear as to whether ILP influenced the educational pathway of these youths. Thus, from a return on investment perspective, it is ambiguous that ILP advances foster youths' later life educational success or any other areas of human capital accumulation such as employment or vocational training. From a practice perspective, since ILP may not be utilized by many youth, this gap in human capital related services might be filled via alternative interventions and inclusive of more collaboration between social workers, therapists, and foster parents or other caretakers.

Practitioners might also consider other explanations of why foster youths did not attend the ILP sessions. Foster youths may not have had transportation to get to an ILP location. Foster youths may have had conflicting work or school activities. Further, foster youths may not have been aware that the program exists due to the high caseloads of workers and their inability to discuss and offer ILP as a service. This may imply the need for ILP agencies to ensure that program information is available for better recruitment and outreach to these youth.

### Policy

From a policy standpoint, perhaps ILP programs could move away from didactic approaches and greater learning could be enhanced by designing and implementing ILP efforts that include more student immersion and hands-on learning activities. Many states such as California (e.g., California Youth Connection) and New York (Youth in Progress) have foster youth support and advocacy groups that are organized by youth who have left or remain in care. Perhaps, these groups could be a vehicle for providing a peer-mentoring ILP. This may increase youth's attendance at ILP or provide an alternative to the current didactic approach.

### Future Research

Research indicates that improving human capital can improve an individual's earning potential (Becker, 1993). Thus, it would seem that a program designed to help at-risk youths' transition to adulthood should track human capital accumulation while guiding foster youths toward their educational endeavors. It is argued, not only by the authors of this article, but also by economists that human capital is a viable theoretical framework for analyzing labor productivity. To this end, ILP research and evaluation should include a more systematic metric that enables a more precise ability to measure foster youth's human capital accumulation across a greater length of time. Finally, until this metric is developed, there is no procedure for knowing whether ILP is the correct way to prepare foster youths for independent living. Moreover, there is a need for longitudinal follow up studies across these youths' lives. It is also essential that future studies examine other variables, such as the amount of support provided by foster sibling(s), siblings, or foster parents or other caretakers, as studies have shown statistically significant relationships between parent involvement and children's educational aspirations (Cooper & Crosnoe, 2007). In particular, the role of social workers in providing goal support merits more in-depth work in order to move forward with increasing the number of foster youths achieving their educational goals. It is also possible that contract agencies may differ in ILP activities and service delivery. Thus, future studies may want to monitor the fidelity of



implementation of the ILP focus and activities. Finally, ILPs may consider other ILP service delivery systems (e.g., via a computer based life skills game and/or models that include one or more foster parents or other caregivers working with the youths) in order to make the intervention more interesting, engaging, and fun for youth.

### Limitations

There are several study limitations that warrant discussion; however, what was learned by this current study adds to this important area of research. Demographic information on youths was often incomplete. This resulted in missing data that could have biased this study's results. Youths who had complete case records with all data elements available may have been different from those whose records were incomplete. For example, social workers who sat down with foster youths and completed the data forms in a complete and thorough manner may also have provided more support to youths to attend ILP on a regular basis. These social workers' may have contacted youths to remind them of upcoming sessions, which may result in higher attendance. Workers who did not complete the forms may have believed that the program was not that important. This could result in a "creaming" effect in the data (Coulton, Rosenberg, & Yankey, 1981). Two, the study relied on foster youths' self-report data. It would have been more powerful to have multiple data sources such as foster parents/caretakers or case workers when testing youths' educational goals. Three, the study was performed in only one California County, which limits generalizability to other parts of the country. Finally, there were no educational attainment and follow-up data for youths after they are discharged from care. This study was completed in January 2004 and there are no follow up data that can be used to build on this study's findings. Thus, we do not know how well youths fare even one year after leaving the child welfare system. The limitations discovered may be found in other ILP research across the United States and future studies should consider how better to approach research in this important area.

### NOTE

1. The odds ratio is the ratio of the odds of an event occurring in one group to the odds of it occurring in another group (Selvin, 1995).

### REFERENCES

- Becker, G. S. (1964). *Human capital* (1st ed.). Chicago: University of Chicago Press.

- Becker, G. S. (1993). *Human capital: A theoretical and empirical analysis with special reference to education* (3rd ed). Chicago: University of Chicago Press.
- Biehal, N., Clayden, J., Stein, M., & Wade, J. (1994). Leaving care in England: A research perspective. *Children and Youth Services Review, 16*(3/4), 231–253.
- Blome, W. (1997). What happens to foster kids: Educational experiences of a random sample of foster care youth and a matched group of non-foster care youth. *Child and Adolescent Social Work Journal, 14*(1), 41–53.
- Buehler, C., Orme, J. G., Post, J., & Patterson, D. A. (2000). The long-term correlates of family foster care. *Children and Youth Services Review, 22*(8), 595–625.
- Children's Defense Fund. (1999). *Foster care independence act becomes a law* (PL 106-169). Retrieved on December 10, 2003, from <http://www.childrensdefense.org>
- Cook, R. (1988). Trends and needs in programming for independent living. In E. V. Mech (Ed.), *Independent-living services for at-risk adolescents* (pp. 1–18). Washington, DC: Child Welfare League of America.
- Cooper, C. E., & Crosnoe, R. (2007). The engagement in schooling of economically disadvantaged parents and children. *Youth & Society, 38*(3), 372–391.
- Coulton, C. J., Rosenberg, M. L., & Yankey, J. A. (1981). Scarcity and the rationing of services. *Public Welfare, 39*(3), 15–21.
- Courtney, M. E., & Barth, R. P. (1996). Pathways of older adolescents out of foster care: Implications for independent living services. *Social Work, 41*(1), 75–83.
- Courtney, M. E., & Dworsky, A. (2006). Early outcomes for young adults transitioning from out-of-home care in the USA. *Child and Family Social Work, 11*(3), 209–219.
- Courtney, M. E., & Piliavin, I. (1998). *Foster youth transitions to adulthood: Outcomes 12 to 18 months after leaving care*. Madison, WI: Wisconsin School of Social Work and Institute for Research on Poverty.
- Courtney, M. E., Piliavin, I., Grogan-Kaylor, A., & Nesmith, A. (2001). Foster youth transitions to adulthood: A longitudinal view of youth leaving care. *Child Welfare, 80*(6), 685–717.
- Courtney, M. E., Terao, S., & Bost, N. (2004). *Midwest evaluation of the adult functioning of former foster youth: Conditions of youth preparing to leave state care in Illinois*. Chicago, IL: University of Chicago, Chapin Hall Center for Children.
- English, D. J., Kouidou-Giles, & Plocke, M. (1994). Readiness for independence: A study of youth in foster care. *Children and Youth Services Review, 16*(3/4), 147–158.
- Festinger, T. (1983). *No one ever asked us: A postscript to foster care*. New York: Columbia University Press.
- Frost, S., & Jurich, A. P. (1983). Follow-up study of children residing in The Villages. Unpublished report. Topeka, KS: The Villages.
- Hardin, M. (1988). New legal options to prepare adolescents for independent living. In E. V. Mech (Ed.), *Independent-living services for at-risk adolescents* (pp. 33–50). Washington, DC: Child Welfare League of America.
- Heckman, J. J. (1974). Effects of child-care programs on women's work effort—Part 2: Marriage, family human capital, and fertility. *Journal of Political Economy, 82*(2), S136–S163.

- Heckman, J. J. (2000). Policies to foster human capital. *Research in Economics*, 54(1), 3–56.
- Jones, M. A., & Moses, B. (1984). *West Virginia's former foster children: Their experiences in care and their lives as young adults*. New York: Child Welfare League of America.
- Mallon, G. (November–December 1992). Junior life skills: An innovation for latency-age children in out-of-home care. *Child Welfare*, 121(6), 585–591.
- McMillen, J. C., & Tucker, J. (1998). The status of older adolescents at exit from out-of-home care. *Child Welfare*, 78(3), 339–360.
- Mech, E. V., Dobson, C. L., & Hulseman, F. S. (1994). Life-skills knowledge: A survey of foster adolescents in three placement settings. *Children and Youth Services Review*, 16(3/4), 181–200.
- Montgomery, P., Donkoh, C., & Underhill, K. (2006). Independent living programs for young people leaving the care system: The state of the evidence. *Children and Youth Services Review*, 28(12), 1435–1448.
- Naccarato, T., & DeLorenzo, E. (2008). Transitional youth services: Practice implications from a systematic review. *Child and Adolescent Social Work Journal*, 25(4), 287–308.
- Reilly, T. (2003). Transition from care: Status and outcomes of youth who age out of foster care. *Child Welfare League of America*, 82(6), 727–746.
- Scannapieco, M., Schagrin, J., & Scannapieco, T. (1995). Independent living programs: Do they make a difference? *Child and Adolescent Social Work Journal*, 12(5), 381–389.
- Segrin, C., & Givertz, M. (2003). Methods of social skills training and development. In J. O. Greene & B. R. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 135–178). Mahwah, NJ: L. Erlbaum Associates.
- Selvin, S. (1995). *Practical biostatistical methods*. Belmont, CA: Duxbury Press.
- Stata Corporation (2005). *Stata user's guide: Release 9 (software)*. College Station, TX: Stata Press.
- United States Department of Health and Human Services (US DHHS), Administration for Children and Families, Children's Bureau. (2006). *The AFCARS Report*. Retrieved on December 4, 2007 from [http://www.acf.hhs.gov/programs/cb/stats\\_research/afcars/tar/report13.htm](http://www.acf.hhs.gov/programs/cb/stats_research/afcars/tar/report13.htm)
- Weisbrod, B. A. (1962). Education and investment in human capital. *Journal of Political Economy*, 70(5: Part 2), 106–123.
- Westat, Inc. (1991). *A national evaluation of Title IV-E foster care independent living programs for youth—Phase 2 final report* (vol. 2). Rockville, MD: Author.
- Zimmerman, R. (1982). *Foster care in retrospect*. New Orleans, LA: Tulane University Press.

## CONTRIBUTORS

**Toni Naccarato's** research focuses on emancipation, welfare, and human capital accumulation of adolescents; social and economic policies and reforms; and research methods for increasing social and political changes in the Social Work arena. Dr. Naccarato has direct practice experiences in California and New York,

and applied research experiences at the policy level in Georgia, California, New York, and Washington, DC. Dr. Naccarato is an assistant professor at SUNY Albany's School of Social Welfare and currently collaborating with the New York State Office of Children and Family Services to better integrate research and data management emphasizing child welfare practitioners.

**Kyoungdon Park** is Research Fellow at the Public Budgeting and Finance Research Center in the Korea Institute of Public Administration. He was a research support specialist at the Office of Children and Family Services of New York State and holds a PhD in Public Administration and Policy from the State University of New York at Albany. His research interests include (quantitative) Policy Analysis, Health Care Policy, and Medicaid and Long Term Care insurance.

Copyright of Journal of Public Child Welfare is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.