

A Comparison of Foster Care Outcomes Across Four Child Welfare Agencies

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Abstract. A post-discharge outcomes interview for alumni of foster was designed by four peer foster care agencies. Across all four agencies, 222 alumni were interviewed six months after being discharged from foster care services. Outcome domains, based on common measurement practices in child welfare and on social validation studies, include type of living environment (e.g., restrictiveness), placement stability, homelessness, school performance, employment, self-sufficiency, aggression, criminal behavior, substance use, relationships, community involvement, protection from harm, satisfaction, and impact of services. Results of the outcomes were compared to nationally sampled studies of children not in care. Generally, alumni reported positive outcomes across the various domains. The type of foster care, length of care, and age of alumni influenced the results. Implications for expanding this study to establish national benchmarks for outcomes, service use, and cost in foster care conclude the article.

Key Words. Foster care, outcomes, benchmarking, QOLA

Note: This is a pre press document. Final press document subject to change.

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Introduction

The United States federal government has estimated that almost 588,000 children were placed in substitute care in the first half of year 2000 (U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2001). Even though the child welfare industry emphasizes preventing the placement of children in foster care, many children will spend a substantial amount of their childhood living in foster care homes (Wulczyn & Goerge, 1992). Often, children who are placed in foster care will remain there for a year or longer. For example, of those children still in foster care as of April 2001, 65% had been there for 12 months or longer. Of those children who left care during fiscal year 1999, 54% had been in care 11 months or less (U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2001). Clearly, foster care services is one of the most substantial forms of child welfare service in this country.

Relatively few empirical studies have examined factors associated with foster care outcomes. The evidence from the limited number of published foster care studies provides mixed results. Some studies indicate that children who receive foster care services show positive improvements in physical health, emotional adjustment, school performance and behavioral functioning (e.g., Biehal & Wade 1996; Coulling, 2000; Goerge, Wulczyn, & Fanshel, 1994). Other studies suggest children in foster care are at greater risk for becoming involved in criminal activities, have high unemployment rates, or suffer from more frequent and debilitating mental disorders (e.g., Barth, 1990; Jones & Moses, 1984; Minty, 1999).

Furthermore, most of the published studies of children in foster care have relatively small sample sizes - usually less than 50 subjects (e.g., Barth, 1990; Holdaway & Ray, 1992; Jacobson & Cockerum, 1976; Rice & McFadden, 1988). Such studies typically do not have enough subjects to include control groups or permit valid comparisons to the general population. This weakens the ability to draw powerful conclusions from the results. The dearth of published studies on the outcomes of foster care and the limited sample sizes of existing studies has made establishing consistent outcomes for foster care difficult. Indeed, given the vast number of children involved in foster care, establishing common standards of care and service effects across the varied forms of foster care is desirable. Efforts at the federal level to establish common outcomes or standards of care in foster care have not yet been successful, except perhaps in identifying common demographics and rates of placement and harm (e.g., U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau, 2001).

It seems clear that accountability for the impact of foster care services is of high concern, with pressure from private and public agencies, various stakeholder groups, class action lawsuits, and managed care entities (e.g., American Humane Association, 1997; Pecora, Massinga, & Mauzerall, 1997). Legislative action has focused on introducing key measures or outcome indicators that are customized according to the population and type of service being provided (Center for Mental Health Services, 1999), emphasizing such important areas as length of care, safety, placement history, and permanency.

Social validations studies have identified what various stakeholder groups (i.e., children, parents, public agencies, elected officials, advocates, teachers, health professionals, judges and law enforcement) consider critical to helping children become successful when receiving care in an alternate home environment (e.g., Beck, Meadowcroft, Mason, & Kiely, 1998; Strieder & Ayers, 1996; Vandenberg, Beck, Howarth, & Pierce, 1992). Based on these studies and the careful assessment by many child welfare-focused groups, important outcomes to measure when evaluating foster care services include children's substance use, protection from harm, success in school, criminal activities, nurturing home environments, and employment or employment skills (American Humane Association, 1997; Courtney & Collins, 1994; Fisher, Pecora, Fluke, Hardin & Field, 1999; Pecora, Adams, Le Prohn, Paddock, & Wolf, 1998; Pecora, Le Prohn, Nollan, Downs, Wolf, Lamont, Horn, Paddock, Adams, & Kingery, 1998; Rosenblatt, 1998). Although the foster care outcomes of social concern are known and readily identifiable, the barriers to establishing national outcome standards for foster care, also referred to as "benchmarks" (McNair & Leibfried, 1992), are in identifying a core set of common outcome measures, aggressively measuring these outcomes and publishing the results.

The general purpose of the current study is to describe an effort to systematically measure a core set of common outcomes for foster care services across multiple child welfare organizations. The goal is to aggregate a significant number of commonly measured outcomes in foster care to establish foster care program benchmarks. This study details the completion of a pilot, post-discharge, outcome evaluation study involving 222 alumni of foster care across four large child welfare agencies, an early step towards the long-term goal to develop foster care benchmarks.

The Quality Outcomes Leadership Alliance

The Quality Outcomes Leadership Alliance (QOLA) was formed to examine existing standards of services and costs in foster care on a broad national sample of youths in an effort to develop a methodology for creating foster care benchmarks. Founding QOLA members (and their headquarter locations) include Casey Family Programs (Seattle, WA), Girls and Boys Town

(Omaha, NE), the Professional Association of Treatment Homes (St. Paul, MN), and the Pressley Ridge Schools (Pittsburgh, PA).

The mission of QOLA is to improve the quality, coherence, and usability of agency performance data. As part of this mission, QOLA has established a common methodology to: 1) gather and share common service, cost and outcome data for foster care; 2) build cost-effectiveness, cost-avoidance and other economic evaluation models of foster care services; and 3) publish the results of these efforts to justify foster care service approaches in order to improve national and state child welfare service polices.

General Method

Overview

This study used a "post-test only" evaluation and information gathering model to evaluate the impact of foster care services six months after youths had been discharged from care (Cook & Campbell, 1979). Each of the four founding agencies of QOLA delivered services as usual. The impacts of these services in terms of alumni functioning were measured using a structured post-discharge interview. Interview questions were selected based on their wide use in child welfare, on their documented social validity, and on the opportunity to compare their results to other existing databases or benchmarks. Two research questions guided this study: 1) How do responses to domains vary by agency, and 2) How do results on domains of alumni of foster care differ from national samples of youths?

Subjects and Recruitment

Each of the agencies provided a list of youth discharged approximately six months prior to the initiation of the study, compiled from youth case records. Alumni were recruited by mailing a letter of invitation about the study, with a stamped, self-addressed envelope. Alumni were asked to return the invitation in order to decline their potential participation in the study. Verbal consent to participate was acquired from alumni via telephone using a scripted consent process. Alumni that consented to participate were mailed detailed consent forms for appropriate signatures. Alumni were not compensated for their participation.

Four hundred and thirty-six alumni were identified as eligible for inclusion in the study. Three hundred and two alumni (69%) had valid and verified addresses (as confirmed by a professional search agency). Two hundred and twenty-six alumni were contacted by telephone and 222 alumni consented to be interviewed (46 from Agency A, 21 from Agency B, 73 from Agency C and 82 from Agency D). Almost 51% of possible alumni in the sample were

interviewed during the study; 75% of the alumni that could be located were interviewed.

Independent Variables

All four agencies are private non-profit entities providing a variety of child welfare services, including foster care, in many states. Casey Family Programs serves almost 900 youths in long-term family-based foster care. Girls and Boys Town serves about 400 youths in family-based treatment foster care. The Professional Association of Treatment Homes, Inc. serves about 650 youths in family-based treatment foster care. Pressley Ridge Schools serves about 500 youths in family-based treatment foster care. Together, these four founding agencies of QOLA provide foster care services to almost 2,500 youth in 27 states.

A number of naturally occurring independent variables were identified. First, the alumni received services from four agencies, referred to as A, B, C, and D, each of which provides their own model of foster care delivery. The most readily discernable difference in models is the average length of service, with Agency A providing an average of 48 months of service, Agency B averaged 11 months, Agency C averaged 15 months, and Agency D averaged 14 months of service. Second, the average age of alumni at the time of interview varied across agencies. Alumni from Agency A averaged 19 years of age at the time of interview, alumni from Agency B averaged 11 years, alumni from Agency C averaged 15 years, and alumni from Agency D averaged 14 years.

Dependent Variables

Fourteen key outcome variables and their relevant outcome domain were identified (see Table 1). Domains included the restrictiveness of living environment (Hawkins, Almeida, Fabry, & Reitz, 1992), placement stability, school attendance, homelessness, type of school placement (Epstein, Quinn, & Cumblad, 1994), employment, self-sufficiency, aggression, criminal behavior, substance use, relationships, community involvement, protection from harm, satisfaction, and impact of services (Beck et al., 1998; Strieder & Ayers, 1996; Vandenberg et al., 1992). The Restrictiveness of Living Environment Scale or ROLES (Hawkins et al., 1992) categorizes where a person is living in relative levels of more or less restrictiveness. For example, living in jail is rated as the most restrictive living environment, and living independently (in a non-care setting) is the least restrictive living environment. Foster care is placed at the middle level of restrictiveness.

One interview question asked about the number of formal placements the youth had experienced since being discharged. Interviewers were instructed to define “formal placement” as any type of placement into a different living

environment that required the involvement of an external agency, such as a child welfare agency.

Interview Protocol

All interviewers completed a scripted certification interview with a supervisor before they were given permission to contact alumni. Interviews were initiated approximately six months after each youth had been discharged from the service agency. The structured telephone interview required about 15 minutes to complete. Interviewers were required to read the interview, which included transition statements between questions and prompts to assist alumni if they had difficulties understanding any question. Supervisors monitored the quality of interviews and completed interviews were examined for completeness and accuracy.

Data Analysis

The key results of the post-discharge alumni interviews are summarized in Table 2. These results actually represent a simplification of the most important data elements from the interview. Results are presented according to outcome and by agency (A, B, C or D). The aggregate score (“Agg”) across all alumni interviewed is also provided. Where possible, results from nationally sampled studies on youths and young adults are also provided (see Table 3). Note that these national studies represent results gathered in a variety of methods from subjects who were not in foster care. Most interview questions lent themselves to dichotomous classification (e.g., answers could be categorized into “Yes” or “No” responses). A multivariate analysis of variance (MANOVA) was selected as appropriate initial strategy.

Results

Summary of Key Results

The majority of alumni interviewed (52%) reported they were living in a home setting, which refers to any non-care or non-treatment home environment (the least restrictive type of living environment) (see Table 1). This may include living with birth or adoptive parents, living with a relative or friend, or living independently.

According to the ROLES: a) 34% of alumni reported living in some sort of out-of-home or care environment (i.e., jail, psychiatric care, residential care, group home, foster care); b) 55% reported living in a less restrictive environment compared to foster care; c) 18% reported living in an environment more restrictive than foster care; and d) 14% reported living in an environment

equal to the restrictiveness of foster care. Most alumni reported being satisfied with their living environment (59%).

Almost 40% of alumni reported being formally placed from one living environment to another after discharge. This suggests that many alumni continue to experience a lack of permanency after being discharged, with some (14%) receiving foster care services six months after being discharged from their previous foster care placement.

Most alumni reported being in school (67%), while some reported they had graduated with a high school diploma or GED (14%). Drop out rates averaged 7% for alumni, which is somewhat lower than national estimates of 10% (U.S. Department of Education, 1998). A greater proportion of alumni from Agency A reported earning a diploma compared to the other agencies. Presumably this is due to the older average age of alumni from Agency A (19), compared to ages 11 to 15 for the other three agencies.

About 50% of alumni reported they were working either full or part-time. By comparison, national estimates of employment are about 94% for any adult over 18 years of age (U.S. Bureau of Labor, 2002) and 27% for youths ages 14 to 18 (U.S. Department of Labor, 2001).

Four percent of the alumni reported initiating any sort of physical fight. Half as many youth (2%) from a national sample reported being involved in a physical fight (U.S. Department of Justice, Bureau of Justice Statistics, 2001). Arrest rates for alumni (15%) were similar to national rates (U.S. Department of Justice, Bureau of Justice Statistics, 2001), although national rates were derived from actual arrests and not self report.

Ten percent of alumni reported using alcohol in the past month; this contrasts sharply with national trends indicating usage rates of around 50% for teenagers and young adults (e.g., U.S. Department of Health and Human Services, National Center for Chronic Disease Prevention and Health Promotion, 2001; Johnson, O'Malley, & Bachman, 2001). The rate of reported use of marijuana was also very low (2%) compared to national estimates (22%). The reported rate of usage of all other substances was zero, slightly lower than national rates (less than 1%). These data suggest that alumni may have been under reporting their use of alcohol and other substances.

Most alumni reported having positive relationships with peers, adult family members and other adults (about 74%), which is comparable to national estimates (Bezilla, 1993; Johnson, O'Malley, & Bachman, 1993). On average, 39% of alumni reported that they had a positive connection to their cultural community. Very few alumni reported being abused or maltreated (as verified by a child welfare investigative agency), consistent with national rates (U.S. Department of Health and Human Services, Administration for Children and Families, 2000) although these national rates reflect reports of abuse or maltreatment for youths under 18 years of age who were in care at the time of the reports.

A majority of alumni reported being happy with their lives in general (60%), although this rate was substantially lower compared to a national estimates of 86% (Bezilla, 1993). A minority of alumni reported being satisfied with their school experience (45%) and work experience (23%), both rates being much lower than national estimates of 84% (Johnson, O'Malley, & Bachman, 1993) and 71% (Moore, 1992) respectively. A majority of alumni (68%) reported that their recent experience with foster care was positive.

Statistical Analyses of Results

Responses varied by age and agency. Wilks' lambda F-values produced statistically significant effects at $p < 0.05$ for the agency variable ($F^{\text{agency}} = 13.46$), for the age variable ($F^{\text{age}} = 3.88$) and their interaction ($F^{\text{interaction}} = 6.29$) (see Table 4). The results of the between-subjects tests suggest that overall, the agency variable seems to have had a greater impact on dependent variables than the age variable. However, in many instances the interaction between these two variables explained the variance on many dependent variables, such as the type of living environment or the impact of services. In general, a single independent variable did not explain the effect on a single dependent variable. Most often, one or both of the independent variables and/or their interaction contributed to the variability in the dependent variables. The values of some dependent variables appeared to cluster, including the relationship questions ("very good or good relationship with...") and the satisfaction questions (e.g., "always or often happy with...").

Discussion

Methodological Lessons Learned

Five important lessons were learned. First, the more complete and accurate alumni contact information at discharge, the more likely the alumni would be located and thus interviewed six months later. When at least two sources of post-contact information and the youth's social security number were provided at the time of discharge, locating the alumni was more likely. The use of high quality location services also helped to successfully track down alumni with inaccurate or changed contact information.

Second, a number of interview questions may have been difficult to understand, and may have decreased the accuracy of responses by alumni. For example, it seems that many alumni were unsure how to answer the question, "Are you responsible for your monthly food and housing needs?" Many alumni either asked for additional clarification of this question or were unable to answer it. Similarly, alumni had difficulty understanding what a "positive connection to

their cultural community” was, both in terms of what defines the term “positive” and what defines their own cultural community.

The response accuracy to questions regarding the use of alcohol and marijuana are somewhat suspect, given that the aggregate alumni response for each of these substances was far below national trends. When interviewing people about sensitive questions such as substance use, more accurate responses may be obtained if the interview is anonymous or completed via paper-and-pencil.

Third, the question about whether alumni were maltreated or harmed as determined by a child welfare agency investigation was likely too narrow a question. Considering that many alumni were over the age of 18, and that many alumni report they have been harmed or abused in the absence of a formal investigation, it is possible that interviewees under reported the extent of harm. How a child welfare agency defines maltreatment or abuse from a legal or investigative perspective may also be different from the perspective of alumni. Also, this question did not ask about possible occurrences of domestic abuse or violence.

Fourth, a chief goal of this study was to develop an interview that contained most of the socially valid outcomes for which stakeholders want foster care providers to be accountable. Not surprisingly, most of these outcomes are also applicable for child welfare as a whole. Gaps in the interview were discovered, such as items regarding parenting responsibilities, insurance coverage, income levels, and amount of interpersonal contact with peers and adults. Future versions of the interview will refine and slightly broaden the key questions.

Fifth, this study did not attempt to measure the baseline functional level of individual participants, but will in future research phases. Including some sort of level of functioning measure will allow the linkage between clinical impact and outcomes to be clarified. In addition, with use of more tracking and location methods, a greater proportion of foster care alumni will be surveyed.

Limitations of Current Study

Given the non-random source of subjects for this study, youth served by the various agencies were selected based on their discharge date and their accessibility to the researchers. Thus it is possible that observed differences may be due to pre-existing sample differences rather than differences among agencies in terms of care provided or differences among ages of alumni interviewed. It is also notable that the sample size of Agency B (n=21) may have adversely impacted the multivariate analysis due to limited degrees of freedom.

It is also notable that the information gathered from the interviews with six months after youths had been discharged from care. Information gathered from these post-discharge interviews was not independently verified. The

opinions of interviewees required them to recall events from the past. This reliance on retrospective interviewee responses may have reduced the validity of some of the data.

Components of an Expanded Study

This study is an early step in the establishment of benchmarks for foster care services. The eventual goal is to expand the study to include 10,000 foster care recipients from various public and private agencies. In addition to increasing the policy impact, including an even more diverse group of agencies will allow comparisons among programs serving youth with similar age, racial, gender and other groups to be made. In the expanded study, outcome variables will be assessed at entry into foster care services, at discharge and at post-discharge, allowing much more complex models of service analysis and impacts to be conducted.

The expanded study will assess new program dimensions, such as cost/benefit analyses of foster care services. Cost/benefit analyses are most common in the private sector where the focus is on determining whether resource expenditures will result in increased income or profit. These analyses are also conducted in the public sector, but the focus is on providing the maximum or optimal effect within budgetary boundaries rather than ensuring a healthy profit. These kinds of analyses tend to be broad, and focus on the system level, rather than on the agency or individual case level. Furthermore, the documented linkage among cost, amount/type of service accessed and impact on foster care outcomes is rare. Providers of foster care are unable to compare the impact of their services from a cost/benefit and outcomes perspective to other similar programs. Measuring costs associated with foster care services will allow the examination of basic questions such as:

1. What are the average costs of providing various types of foster care services?
2. How do costs vary by type of problem or severity of functioning?
3. What is the impact of different levels of cost on various outcomes?
4. What are the effects of different funding and management systems on service use, costs, and outcomes?

The expanded study will also assess what types of services and amounts of services are being accessed by foster care youths. Identifying what services are being used will allow the establishment of a performance baseline against which to measure the success of the services, and it will provide fundamental management tools to maximize benefits while allocating costs and resources in a prudent fashion. In order to help understand how each agency's cost per day was derived, we mapped each agency's processes and helped to

build a taxonomy of service types.

Measuring service usage across clients' service period will also allow patterns of service use to be extracted. Thus it is possible to build predictive models of service use (a valuable tool in strategic planning for agencies) and to summarize overall costs based on type of client characteristics or pattern of service use. Measuring service use will make it possible to examine interesting questions such as:

1. What services are accessed during foster care, and how do service needs change as care progresses?
2. What is the impact of different levels and mixes of service provision on various outcomes?
3. What optimal application of resources provides the most favorable and acceptable level of outcomes?

Conclusion

This study demonstrates that inter-agency cooperation can yield valuable information about the impact of foster care services. Using a common outcome interview allows us to discern whether foster care services have been successful in general, and what models or aspects of foster care will result in particular areas of success.

This study demonstrated that at least six months after discharge from care, 52% of foster care alumni were living in a home environment, 81% were attending school or have graduated, 74% had positive relationships, and relatively few engaged in disruptive or antisocial behaviors such as substance use, aggression, or criminal acts. Agencies that participated in this effort received a direct benefit of comparing their own performance against peer agencies and against an aggregate. This study also demonstrates the importance of establishing an aggregate data set to help develop benchmark standards. Although the sample size of the current study was large in comparison to previous studies, it is difficult to develop national standards based on these numbers alone. In order to be representative of the foster care industry as a whole, greater agency participation is needed from additional geographic regions and from a variety of agencies that fully represent the different types of foster care.

In order to expand this study and address the need for benchmarks in foster care, the participation of dozens of additional foster care service providers and thousands of youths and alumni is needed. The Quality Outcomes Leadership Alliance is currently recruiting additional agencies to expand the collaboration, and is developing ways to use a distributed access database and web-based software to facilitate data collection.

References

- American Humane Association. (1997). *Fifth National Roundtable on Outcome Measures in Child Welfare Services: Summary of proceedings*. Englewood, CO: Author.
- Barth, R. P. (1990). On their own: The experience of youth after foster care. *Child and Adolescent Social Work, 7*(5), 419-440.
- Beck, S. A., Meadowcroft, P., Mason, M., & Kiely, E. S. (1998). Multiagency outcome evaluation of children's services: A case study. *Journal of Behavioral Health Services & Research, 25*(2), 163-176.
- Bezilla, R. (Ed.). 1993. *America's Youth in the 1990s*. Princeton, NJ: The George H. Gallup International Institute.
- Biehal, N., & Wade, J. (1996). Looking back, looking forward: Care leavers, families and change. *Children and Youth Services Review, 18*, 425-446.
- Center for Mental Health Services. (1999). *Consumer-oriented mental health report card: The final report of the Mental Health Statistics Improvement Program (MHSIP) Task Force on a consumer-oriented mental health report card*. Washington, D.C.: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center of Mental Health Services.
- Cook, T. D., & Campbell, D.T. (1979). *Quasi-experimentation: Design & analysis issues for field settings*. Chicago, IL: Rand McNally College Publishing Company.
- Coulling, N. (2000). Definitions of successful education for the 'looked after' child: A multi-agency perspective. *Support of Learning, 12*(1), 30-36.
- Courtney, M. E., & Collins, R. C. (1994). New challenges and opportunities in child welfare outcomes and information systems. *Child Welfare, 73*(5), 359-378.
- Epstein, M. H., Quinn, K.P., & Cumblad, C. (1994). A scale to assess the restrictiveness of educational settings. *Journal of Child and Family Studies, 3*(1), 107-119.
- Fisher, H., Pecora, P.J., Fluke, J., Hardin, M., & Field, T. (1999). *Improving the quality of children's services: A working paper on outcomes-based models of service delivery and managed care*. Seattle, WA: Casey Family Programs.
- Goerge, R., Wulczyn, F. & Fanshel, D. (1994). A foster care research agenda for the '90s. *Child Welfare: A Research Agenda for Child Welfare, LXXIII*(5) 525-549.
- Hawkins, R. P., Almeida, M. C., Fabry, B., & Reitz, A. L. (1992). A scale to measure restrictiveness of living environments for troubled children and youths. *Hospital and Community Psychiatry, 43*(1), 54-58.
- Holdaway, D. M., & Ray, J. (1992). Attitudes of street kids toward foster care. *Child and Adolescent Social Work Journal, 9*(4), 307-317.

- Jacobson, E., & Cockerum, J. (1976). As foster children see it: Former foster children talk about foster family care. *Children Today*, 42(Nov.-Dec.), 32-36.
- Johnson, L. D., O'Malley, P. M., & Bachman, J. G. (1993). *Monitoring the future: Questionnaire responses from the Nation's high school seniors*. Ann Arbor, MI: Survey Research Center, Institute for Social Research, The University of Michigan.
- Johnson, L. D., O'Malley, P. M., & Bachman, J. G. (2001). *Monitoring the future: National results on adolescent drug use: Overview of key findings in 2000*. U.S. Department of Health and Human Services, Public Health Services, Washington DC.
- Jones, M. A., and Moses, B. (1984). *West Virginia's former foster children: Their experiences in care and their lives as young adults*. Washington, D.C: Child Welfare League of America.
- McNair, C., & Leibfried, K. (1992). *Benchmarking: A tool for continuous improvement*. New York, NY: Harper Collins.
- Minty, B. (1999). Annotation: Outcomes in long-term foster family care. *Journal of Child Psychology & Psychiatry & Allied Disciplines*, 40(7), 991-1001.
- Moore, K. A. (1992). *National Commission on Children: 1990 survey of parents and children*. Washington, DC: Child Trends, Inc.
- National Law Center on Homelessness and Poverty (2000). *Out of sight - Out of mind? A report on anti-homeless laws, Litigation, and Alternatives in 50 United States cities, 1999*. Washington, DC: Author.
- Pecora, P. J., Adams, B., Le Prohn, N., Paddock, G., & Wolf, M. (1998). *Assessing Casey youth outcomes: A working paper and list of indicators*. Seattle, WA: Casey Family Programs.
- Pecora, P., Le Prohn, N., Nollan, K., Downs, A. C., Wolf, M., Lamont, E., Horn, M., Paddock, G., Adams, W., & Kingery, K. (1998). *How are the children doing? Assessing youth outcomes in family foster care*. Seattle, WA: Casey Family Programs.
- Pecora, P. J., Massinga, R., & Mauzerall, H. (1997). Measuring outcome in the changing environment of child welfare services. *Behavioral Healthcare Tomorrow*, 6(2), 2-6.
- Rawlings, S. W. (1993). Household and family characteristics: March 1992. *U.S. Bureau of the Census, Current population reports*, P20-467. Washington, DC: U.S. Government Printing Office.
- Rice, D. L., & McFadden, E. J. (1988). A forum for foster children. *Child Welfare*, 67(3), 231-243.
- Rosenblatt, A. (1998). Description of the outcome measures and principles used in the California system of care model. In Appendix A of M. Hernandez, P. Pecora, A. Doucette-Gates, R. Friedman, T. Osher, M. Mezera, & R. Manderscheid (Eds.), *Principles for selecting outcome domains and measures in child mental health and child welfare services*. Washington, D.C.: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center of Mental Health Services, Outcome Roundtable for Child and Family Services.
- Strieder, F., & Ayer, D. (1996). *Sum One for Kids—Maryland: An outcome evaluation project*. Baltimore, MD: The Maryland Association of Resources for Families and Youth.
- U.S. Bureau of Census (2001). *Household and family characteristics: Year 2000. Current population reports*. Washington DC: U.S. Government Printing Office.
- U.S. Bureau of Labor (2002). *Labor force statistics 2002*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Education, National Center for Education Statistics. (1998). *The condition of education*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2001). *The AFCARS report - Preliminary estimates as of April 2001*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services, Administration for Children and Families (2000). *Child maltreatment: Online reports from the states to the National Child Abuse and Neglect Data System (NCANDS) and the National Incidence Study*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Health and Human Services, National Center for Chronic Disease Prevention and Health Promotion (2001). *National youth risk behavior survey, 1999*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics (2001). *National crime statistics 2000*. Washington, DC: U.S. Government Printing Office.
- U.S. Department of Labor (2001). *Report on the youth labor force: June 2000*. Washington, DC: U.S. Government Printing Office.
- Vandenberg, J., Beck, S., Howarth, D., & Pierce, J. (1992). *What Pennsylvanians want from children's services*. Pittsburgh, PA: Center for Research & Public Policy, The Pressley Ridge Schools.
- Wulczyn, F. H. & Goerge, R. M. (1992). Foster care in New York and Illinois: The challenge of rapid change. *Social Service Review*, 66(2), 278-294.

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Table 1. Dependent variables: Key outcome domains and questions from the post-discharge interview.

Domain	Interview Question
Living environment	Where are you currently living? (adapted from Hawkins et al., 1992)
Placement stability	In how many formal placements have you lived since discharge?
Homelessness	Has there been a time since discharge that you had no place to stay?
School performance	Are you attending school? (adapted from Epstein et al., 1994): <input type="radio"/> If you are not attending, why not? <input type="radio"/> If you are attending, what type of school placement do you have?
Employment	Have you held a full or part-time job since discharge?
Self-sufficiency	Are you responsible for monthly food and housing needs?
Aggression	During the last month, have you initiated a physical fight against anyone?
Criminal behavior	Have you been arrested since discharge?
Substance Use	During the last month, have you used: <input type="radio"/> Alcohol? <input type="radio"/> Marijuana? <input type="radio"/> Any other substance?
Relationships	Since discharge how have you been getting along with: <input type="radio"/> People your own age? <input type="radio"/> Adult family members? <input type="radio"/> Adults outside the family?
Community	How has your connection been with your cultural community since discharge?
Harm	Has a child protection agency found you have been maltreated or abused since discharge?
Satisfaction	How happy have you been since discharge with your: <input type="radio"/> Life in general? <input type="radio"/> Living situation? <input type="radio"/> School experience? <input type="radio"/> Employment?
Impact	What impact has foster care services had on your life since discharge?

Table 2. Key results of six month post-discharge alumni interviews.

Outcome	A n = 46	B n = 21	C n = 73	D n = 82	Agg n = 222
Living in home setting (non-care)	70%	57%	52%	46%	52%
Living in family-based foster care setting	4%	33%	16%	12%	14%
At least one formal placement	24%	38%	52%	43%	39%
Homeless at least once	13%	0%	10%	9%	9%
Attending school	30%	90%	74%	93%	67%
Earned diploma (GED, Vo/Tech)	44%	0%	8%	5%	14%
Dropped out/truant/expelled	7%	0%	7%	10%	7%
Employed full or part time	83%	40%	46%	30%	50%
Responsible for monthly food and housing	59%	10%	16%	54%	22%
Initiated physical fight at least once	0%	3%	3%	7%	4%
Arrested at least once	15%	0%	15%	7%	11%
Used alcohol at least once	28%	5%	8%	2%	10%
Used marijuana at least once	4%	0%	3%	2%	3%
Used any other substance at least once	0%	0%	0%	0%	0%
Positive relationship ~ people own age	89%	86%	56%	56%	76%
Positive relationship ~ adult family members	89%	96%	62%	73%	75%
Positive relationship ~ adults outside family	91%	86%	69%	62%	73%
Positive connection ~ cultural community	50%	76%	37%	23%	39%
Maltreated or abused	7%	0%	1%	0%	3%
Happy with life in general	85%	86%	54%	45%	60%
Happy with living situation	76%	81%	54%	48%	59%
Happy with school experience	69%	58%	37%	36%	45%
Happy with work experience	61%	10%	12%	15%	23%
Positive impact of foster care	71%	81%	61%	67%	68%

Table 3. Aggregate (“Agg”) results of six month post-discharge alumni interviews compared to national studies (“USA”).

Outcome	Agg	USA	USA Study Source
Living in home setting (non-care)	52%	90%	Rawlings (1993)
Living in family-based foster care setting	14%	1.5%	U.S. Dept of Health & Human Services (2001)
At least one formal placement	39%	N/A	N/A
Homeless at least once	9%	2%	National Law Center (2000)
Attending school	67%	89%	U.S. Dept. of Education (1998)
Earned diploma (GED, Vo/Tech)	14%	80%	U.S. Bureau of Census (2001)
Dropped out/truant/expelled	7%	10%	U.S. Dept. of Education (1998)
Employed full or part time	50%	94%	U.S. Bureau of Labor (2002)
Responsible for monthly food & housing	22%	N/A	N/A
Initiated physical fight at least once	4%	2%	U.S. Dept. of Justice (2001)
Arrested at least once	11%	15%	U.S. Dept. of Justice (2001)
Used alcohol at least once	10%	50%	Johnson et al. (2001)
Used marijuana at least once	3%	22%	Johnson et al. (2001)
Used any other substance at least once	0%	< 1%	Johnson et al. (2001)
Positive relation ~ people own age	76%	80%	Johnson et al. (1993)
Positive relation ~ adult family members	75%	94%	Bezilla (1993)
Positive relation ~ adults outside family	73%	N/A	N/A
Positive connection ~ cultural community	39%	N/A	N/A
Maltreated or abused	3%	1%	U.S. Dept of Health & Human Services (2000)
Happy with life in general	60%	86%	Bezilla (1993)
Happy with living situation	59%	N/A	N/A
Happy with school experience	45%	84%	Johnson et al. (1993)
Happy with work experience	23%	71%	Moore (1992)
Positive impact of foster care	68%	N/A	N/A

Table 4. Tests of between-subjects effects.

Outcome	F _{agency}	F _{age}	F _{interaction}
Living in home setting (non-care)	8.11*	0.01	15.02***
Living in family-based foster care setting	0.21	7.62	10.40**
At least one formal placement	3.69	0.39	2.88
Homeless at least once	0.31	4.46*	0.99
Attending school	4.32*	54.02***	71.85***
Earned diploma (GED or Vo/Tech)	16.56***	23.14***	0.35
Dropped out/truant/expelled	3.67	7.63	4.78*
Employed full or part time	19.73***	2.34	40.36***
Responsible for monthly food & housing	0.18	1.04	0.59
Initiated physical fight at least once	13.26***	0.17	0.18
Arrested at least once	0.04	8.48*	1.83
Used alcohol at least once	1.19	3.67	0.14
Used marijuana at least once	0.08	3.54	1.19
Used any other substance at least once	0.00	0.00	0.00
Very good relationship ~ people own age	10.98**	0.04	31.15***
Very good relationship ~ adult family members	11.88**	2.69	59.68***
Very good relationship ~ adults outside family	16.77***	1.41	50.79***
Very good connection ~ cultural community	9.99**	0.57	31.56***
Maltreated or abused	0.81	0.53	1.90
Always or often happy ~ life in general	24.62***	3.92*	51.53***
Always or often happy ~ living situation	11.67**	1.81	35.93***
Always or often happy ~ school experience	15.23***	0.74	24.10***
Always or often happy ~ work experience	11.93**	38.89***	1.49
Positive impact of foster care services	0.89	1.85	33.08***

* = significant at $p < 0.05$
 ** = significant at $p < 0.01$
 *** = significant at $p < 0.001$