Investing in Our Most Vulnerable:

A Cost Analysis of the ZERO TO THREE Safe Babies Court Teams Initiative

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For the last thirty years and spanning multiple child serving sectors, a major focus of efforts to improve the care children receive has involved system integration. In children's mental health services, for example, several prominent efforts at reform involved the "systems of care" philosophy. That philosophy recognizes that children in one public child-serving system often have been and will be involved in other systems. The child welfare system, for example, is a frequent referral source for the juvenile justice system. This link is just one of many binding child-serving systems together at multiple levels. In many communities, these systems are poorly integrated with each other and with the mental health system.

System-level reform involves improving the linkage between one system (e.g., mental health) and others (such as juvenile justice). Such integration can occur at multiple levels. At an administrative level, system integration might mean improved coordination between administrators and managers in multiple systems. At the level of front-line service delivery, integration might influence the placement and duties of personnel. A mental health professional, for example, might screen all children entering the juvenile justice system and refer them for additional services. Efforts at improving care have often involved teams of professionals from diverse backgrounds who work together to meet the diverse needs of troubled children and youth. One approach is "Wraparound care". It involves a team of professionals and informal community supports chosen by the family to develop a plan tailored to meet the needs of the family.(Cook, JR & RP Kilmer, 2004) Child welfare systems have turned to system integration and treatment teams to improve children's experiences as well. Child welfare poses even greater challenges because of its family focus. In many instances, child welfare case workers identify a need for not only the child but also his or her care givers to receive services.

It seems clear that such reforms can be costly, and naturally, researchers, advocates and policy makers are interested in the costs of and the potential economic returns to these programs. In some instances, advocates and policymakers have believed or hoped that system

integration would be self-financing. The premise is that serving children in the wrong system or placement within a system is needlessly costly. In mental health, for example, many adolescents were placed in residential settings either in mental health (e.g., inpatient facilities) or under the auspices of the juvenile justice system (e.g., detention). Many believed that these children could be moved to less costly and restrictive community-based settings, such as group homes, that would improve the children's outcomes and save funds.

To the degree this notion has been tested, however, the evidence has been found wanting. The largest evaluation ever conducted in children's mental health services involved the Fort Bragg Demonstration Project. Faced with rising costs on mental health services for military dependents, the US Army implemented a system of care at one military post. The evaluation of that program involved a quasi-experimental design that compared a sample of children at Fort Bragg with samples of children at two other posts. The demonstration was successful in the sense that it reduced the use of inpatient care dramatically. However, children at the Demonstration did not show greater improvement in their mental health symptoms and functioning, and the costs of care were 70% higher per child under the system of care. (Foster, EM, WT Summerfelt, & R Saunders, 1996) This estimate was conservative—it focused on the direct costs of services borne by the mental health system. Other costs related to system integration accruing to other public systems were not included.[1]

Services innovation may not reduce the direct costs of care itself in the short run, even if care as usual is inappropriate. Nonetheless, the potential downstream benefits of services reform can be quite large. In child welfare, for example, time in placement is associated with a range of negative consequences for children, their caregivers and others (such as taxpayers). Placement out-of-home is associated with increased behavior problems and poorer educational

[1] The study did consider whether reductions in services costs in juvenile justice were reduced, and some small cost savings did occur. These did not, however, offset the added costs of mental health services.(Foster, EM & L Bickman, 2000)

outcomes.(Berger, LM, SK Bruch, EI Johnson, S James, & D Rubin, 2009)[2](Blome, WW, 1997; Clausen, JM, J Landsverk, W Ganger, D Chadwick, & A Litrownik, 1998; Shin, SH, 2004) The costs of school failure and delinquency are enormous. Cohen estimates that saving a 14-year-old high risk juvenile from a life of crime reduces social costs by as much as $5.3 million *per child*.(Cohen, MA & AR Piquero, 2009) Dropping out of high school creates costs in the neighborhood of $1,000,000. Even a modest reduction in the probability of these outcomes could generate substantial benefits for the youth, their families and society more generally. The implied return on the program's costs could be quite large.

The starting point for such a calculation, however, is an accurate estimate of the program's true costs. Economists emphasize that costs have to be gauged from a social perspective—that of society as a whole regardless of who experiences the costs.(Gold, MR, LB Russell, JE Siegel, & MC Weinstein, 1996) A narrower perspective confuses cost savings with cost-shifting. For example, the juvenile justice system could potentially screen all individuals entering the system for mental disorder and simply release the disordered. No doubt such a policy would reduce that system's costs. Such a "policy", however, would likely shift costs on many other members of society. Because of the complex involvement of children in public systems in several sectors—and the nature of system integration itself—an estimate of the costs of any effort to improve a child-serving system must incorporate costs throughout the system. Only with such an estimate can one proceed to a full economic analysis that incorporates estimates of a program's benefits, such as a cost-effectiveness analysis.

The focus of on this article is on estimating the full costs of innovative effort to improve the experiences of young children in the child welfare system, the ZERO TO THREE Safe Ba-

[2] As these authors demonstrate(Berger, LM, et al., 2009), whether this relationship is causal very much remains an open question. Their article shows that the association likely reflects the risk factors that precipitated the out-of-home placement in the first place. Their analysis, however, involved older children and adjusted for a child's history of involvement in the child welfare system. As a result, their analyses captures the effect of added instability given a history of instability. Whether disrupting this path of instability would improve outcomes remains an open question.

bies Court Teams initiative. In the ZTT Court Teams model, a family or juvenile court judge works with a community coordinator to convene a team of local child welfare and service system representatives. This court team is charged with identifying the needs of young children in the local child welfare system and developing a plan for addressing these needs. The plan specifically details how the local system will address the needs of children up to the age of three years old at entry into the child welfare system. At the heart of the plan it the community's approach to holding monthly case reviews, often taking the form of monthly hearings. It also defines plans for how the community will address the other core components of the court teams model including referral to child-focused services, mental health intervention (i.e., child-parent psychotherapy), evidence-based parenting education, and ZTT national office activities (i.e., training and technical assistance, resource materials, and program monitoring and assessment).(Hafford, C & D DeSantis, 2009; McCombs, K, 2007)

The Evaluation of the Court Teams Program

A rigorous evaluation of an initiative is a necessary pre-requisite for conducting an economic analysis. Only when an intervention shows a significant positive effect is the next step of a cost analysis warranted. A recent quasi-experimental study of the ZTT Court Teams initiative used propensity score weighting with a comparison group from the National Survey of Child and Adolescent Well-Being (NSCAW). NSCAW is a nationally representative, longitudinal study of children involved in the child welfare system.(US Department of Health and Human Services, 2009). The study found that the children in the ZTT Safe Babies Court Teams initiative exited foster care nearly three times faster than children in the comparison group. Moreover, a competing risks analysis found that ZTT cases left foster care faster regardless of how the children exited the system. [CYSR CITATION] In addition to reducing time to permanency, the Court Teams model intends to foster a nurturing relationship between the parent or caregiver and the young child in order to enhance the attachment relationship and foster the child's development.

In the long run, the initiative's objective is to improve the child's wellbeing and reduce recurrence of maltreatment in addition to decreasing time to permanency. While these other outcome objectives have yet to be studied, the evidence for time to permanency alone warrants the next natural question – is the ZTT Safe Babies Court Teams initiative a cost effective intervention?

The purpose of this article is to estimate the full costs of the Court Teams initiative and subsequent taxpayer reduced costs (savings) in the first year of the initiative. These start with programmatic costs captured by program budgets, such as salaries and wages of court team coordinators. Our effort, however, extends beyond those costs to include three other sets of costs. First, we consider the additional costs involved with the team meetings and court hearings that drive the court team process. These activities involve substantial amounts of the valuable time of multiple personnel. Second, we also capture the costs of services to which the team links children and families. A key goal of the court teams is to identify unmet needs among participating families and to link them to appropriate services. Those services are consequences of the teams and their costs, part of the full costs of the initiative. Finally, we also consider reductions in child welfare costs related to accelerated placement in permanent settings. One might frame these potentially as benefits of the program, but they are best labeled as reductions in program costs.[3]

Methodology

The analyses rest on a methodology that has three key features: estimating program costs; estimating the impact of the CT on placement and costs; and the handling of the four sites.

1. Estimating Program Costs

Direct program expenditures. In estimating the direct costs of the program, we obtained

[3] The best argument for not labeling these reductions "benefits" is philosophical. If these savings are truly benefits, then the most "beneficial" program would be one that provided children and their families with no services.

expenditure information from ZTT for the project period. ZTT provided most of the funding at the four sites, and sites reported their expenditures in fiscal reports. These expenditures primarily involved the salaries and fringes of program staff. Note that our calculations involve actual expenditures rather than budgeted amounts and include program funding regardless of source. ZTT provided most funding through federal grants the project obtained, but the sites also supplemented those funds with other monies, such as grants from state government.

We estimated the costs of the program as the average costs of delivering the intervention during the period in which the study subjects were enrolled. This meant that we obtained expenditure information from the project start October 1, 2005 and running through September 30, 2010. This period corresponding to that during which individuals contributing data to the analysis of out-of-home placements were enrolled. The length of the period for which sites were actually serving children varies. Sites starting later had both lower total expenditures and lower numbers of children served.

We estimated the costs of the program using standard economic principles. This task proved much less complicated than in some prior work by the authors. For example, in estimating the costs of an intervention, it is important to remove the costs related to program evaluation. This task can be complex in instances where program staff are involved in both intervention delivery and program evaluation or other research. In addition, the standard economic analysis focuses on the social perspective.(Gold, MR, et al., 1996) That perspective would be distinguished from the a more limited, payor perspective by the value of off-budget resources like the time of volunteers or parents or donated resources. Neither are relevant here, and because we look beyond ZTT to include in-kind resources, our approach here is fairly similar to the standard, social-cost perspective.

In-Kind Costs. Individual Court Teams projects vary in their need and ability to leverage in-kind support. A survey was developed for the community coordinators to document the types

of in-kind resources utilized in their sites. All four completed a survey. The survey instrument in available in Appendix A. The survey covered three main areas of in-kind support including Court Team meetings, court hearings, and other in-kind costs.

To estimate the value of the time involved, we relied on other data sources. For the Court Team meetings, coordinators provided information on number of meetings, number of participants, length of meetings, and participating organizations. We calculated the costs for each individual involved using their wage and salary information. We also included any travel costs resulting from participation. Cost per Court Team meeting was calculated in 2006 dollars, the first full year of the Court Teams initiative. Wages estimates were determined from the Bureau of Labor Statistics May 2006 Occupational Employment and Wage Estimates for the metropolitan area of each participating site. A salary figure was inserted for each person attending, depending on the type of organization and position held. The benefits multiplier of 1.41 was derived from the BLS Employer Costs for Employee Compensation for 2006 for state and local government managers and professionals. Time for meeting preparation was estimated as one hour for the judge and a half hour for other participants. The location of the meeting and a sample of addresses for participating agencies was plugged into Mapquest to reach an estimate of one hour round trip travel time for participants. Those with offices co-located at the meeting address were given a travel time of 0 hours. Lastly, travel costs were estimated at an average of 10 miles round trip at $.50 per mile for those who needed to travel. Note that cost figures for the community coordinators were not included as their time is paid for by the grant and not considered in-kind. The calculations were completed for three different meeting times: the average or typical meeting time reported by the community coordinator as well as the low end of the time range and the upper end of the time range. Calculations for each individual were totaled to achieve an estimate of the total in-kind cost per Court Team meeting.

We followed a similar strategy to estimate the costs of a court hearing. This required

some additional information, such as an Iowa study of case workers that provided information on time spent waiting for court hearings. Preparation time was estimated to vary by person, with the highest time of 6 hours for the CPS case worker to both write a report and prepare for court, based on feedback from the community coordinators. Travel time and costs were calculated as described for the Court Team meetings. Likewise, costs per person were calculated for the typical length of a court hearing, minimum length, and maximum length as reported by the community coordinators and summed for all participants.

Use of Other Services. Both the CT evaluation data and the NSCAW data provided caseworker-reported information on the use of services. As discussed, we faced several challenges in assessing the effect of the CT on service use, but we do believe the information is informative. The first issue involved the definition of the services themselves. NSCAW and ZTT data include the same services broadly defined, and our analyses included three services: developmental screening, primary health care (including immunizations), and dental care. For the first two, the instrument included more specific services that we collapsed into a single category. For example, we created the second category (primary health care) from four services in the CT management information system (health care, primary health care visit, specialist health care visit, immunizations), coding individuals as having received that service if *any* of these entries applied to them in the database. In the NSCAW database, caseworkers reported whether the "staff recommend that [fill CHILD] receive routine check-ups or immunizations?" and then indicated whether the child had received that service. These discrepancies may be non-trivial, but it is not apparent how they would bias comparisons across the programs.

Note that we also considered a fourth service, parent-child therapy. This service was an area of emphasis for the program, and we assumed this service was not available at the typical child welfare site (represented by the NSCAW data).

Comparisons across groups suffers from a second limitation involving the time period

covered. Data on service use in NSCAW was taken from the third wave of the interview and involves the year since the baseline interview. We also limited the CT data to the year following entry into the CT program. Both studies fail to represent the full experiences of every child in the study for this one-year period. In the case of NSCAW, some individuals were lost to followup by the third interview. We applied the sampling weights, however, that are designed to make the data representative of all children who entered the study. In the case of CT data, incomplete services data resulted from a more substantive mechanism—children who entered permanent placements were no longer enrolled in the program and their services data were no longer available. This "missing" data is consistent with the nature of the program—when adopted, for example, the program was no longer responsible for the child's health care. The percentage of such children is non-trivial—just under half of the CT (44%) children were still in the program at 6 months. How the child fared in general and whether they used services (and related costs) in particular was still a consequence of program participation.

Unfortunately, the main limitation of these data is that the NSCAW data do not report the amounts of services received, just whether a child received a service in a given category. For that reason, we treated each individual who received a service as receiving one unit of that service (i.e., one pediatric visit). To value these services, we used Medicaid reimbursement rates for the four states involved, averaging them and applying them to both the treatment and comparison groups.

To this point, the services involved were provided directly to the child. As discussed above, a key element of the program involved therapy provided to both the child and his or parent(s). Program sites report having worked hard to provide such services. The MIS data confirm that many families did receive these services: 35% of children lived in families where these services were received. We assumed that no comparison group children received these services and valued them using (average) Medicaid rates.

Out-of-home placement costs. We estimated the costs of out-of-home placements using information on time spent in such placements and whether the child's placement involved a formal foster care provider or placement with a relative. Because of problems and inconsistencies in the NSCAW data, determining a complete placement history is difficult. For that reason, we classified all children according to the type of initial placement. We then measured the costs of these placements using the state rates for foster care payments. Most children were placed in a foster home or with a relative. In one of the study sites, the state involved (IA) used a lower reimbursement rate for children placed with relatives. In two sites, the states involved required or strongly encouraged family foster care providers to become licensed providers and then reimbursed them at the same rate. Finally, one site did not have monthly payments for family foster care providers. (They did provide a one-time payment of $1,000, and we have included that here.)

2. Estimating Program Impact

Propensity score methodology. The propensity score weights were a means of making the ZTT and the comparison (NSCAW) participants more comparable. These weights capture systematic differences between the two groups in observed covariates, such as race. Descriptive statistics (like those in table1) reveal, for example, that children of color were overrepresented among ZTT participants relative to NSCAW participants. The propensity score summarizes between-group differences across all covariates considered; the score is a predicted probability of being a court team case. Of course, we know whether a case is a CT case or not, but the propensity score tells us how strongly we might have predicted the treatment group based on the covariate-that is, how strongly the covariates differ between the two groups. One then case use these predicted values to create "sampling weights"-these weights inflate or deflate the importance of a case in statistical calculations. For example, if an actual ZTT case had

a low propensity score, then there are relatively under-represented among those observations. To bring the distribution of covariates into "balance" (i.e., to make it similar between the two groups), we need to inflate the importance of these low-propensity score cases in calculations involving the CT cases. Similar, NSCAW cases that have a high propensity scrore are un-derrepresented among comparison cases in terms of their predicted probability of being in that group (one minus the propensity score). For descriptions of the NSCAW data, we need to inflate the importance of these cases to make the group comparable-in terms of the measured covari-ates-to the CT children.

Propensity score methodology assumes that when analyses are adjusted using the pro-pensity scores, treatment assignment is as if randomly assigned. That is, propensity score-adjusted comparisons of ZTT and NSCAW children reveals the effectof the program rather than the effect of these other, between-group differences. This assumption requires that no addition-al, unobserved confounding variables exist.

Choice of covariates. The covariates were selected based on previous literature findings of predictors of time to permanency. Review of descriptive data from both the ZTT Court Teams project and NSCAW generally suggests differences between the two samples on these varia-bles as well. The control variables fall into four groups: child characteristics, parent characteris-tics, community characteristics, and reasons for removal. Citations below refer to studies that document that each variable to be related to time to permanency or to factors predicting it.

Child characteristics represent a series of characteristics including the following: under age one at the time the child was first removed from the parental home (Barth, R, 1997; Kemp, S & J Bodonyi, 2000; Wulczyn, F, 1994; Wulczyn, F, et al., 2002), child gender as male, and child race (Barth, R, 1997; Becker, M, N Jordan, & R Larsen, 2007; Connell, C, K Katz, L Saunders, & J Tebes, 2006; Courtney, M, 1994; Courtney, M & Y Wong, 1996; Snowden, J, S Leon, & J Sieracki, 2008; Wulczyn, F, 2003) and ethnicity (Snowden, J, et al., 2008) captured in

three indicator variables including African American, Caucasian, and Latino. All child characteristic measures come from CPS records for ZTT Court Teams cases and from interviews with CPS workers for NSCAW cases.

Parent characteristics include the following: having substance abuse issues (Beeman, S, H Kim, & S Bullerdick, 2000; Walsh, C, HL MacMillan, & E Jamieson, 2003) is measured as alcohol or drugs being a contributing factor in the child's removal for ZTT Court Teams cases based on community coordinator's review of the CPS records. It is measured as the parent needing substance abuse services within the year prior to the child's removal for NSCAW cases. Severe mental health needs (Ackerson, B, 2003; Mullick, M, L Miller, & T Jacobsen, 2001) are measured in a similar fashion for ZTT and NSCAW. Poverty (Becker, M, et al., 2007; Courtney, M, 1994; Courtney, M & Y Wong, 1996) is a very broad measure, coded as yes for anyone who qualified for legal aid, needed income assistance, needed help finding a place to live, or was unemployed at or near the time of the child's removal (ZTT) or in the year before the child's removal (NSCAW). Needing employment assistance is a more singular measure of poverty and refers to the case workers' assessment at or near the time of removal for ZTT and within the year prior to removal for NSCAW. The USDA Economic Research Service Rural-Urban continuum is a seven point scale of urbanicity (Becker, M, et al., 2007; Wulczyn, F, 2003) measured at the county level.

Lastly, reasons for removal (Akin, BA, 2011; Courtney, M, 1994; Snowden, J, et al., 2008) reflect categories states are required to report annually to the US Department of Health and Human Services in the Adoption and Foster Care Analysis and Reporting System (AFCARS). These data are based on CPS reports for both ZTT and NSCAW. Children may have more than one reason for removal.

Table 1 provides descriptive information on the children participating in the study. There are some notable differences between the ZTT Court Teams families and the NSCAW

comparison group. The propensity score weights balance the differences between the groups on these variables, essentially negating any effect they might have on the outcome. The result is that the difference between the group in time to permanency is much more likely to be explained by participation in the ZTT Court Teams initiative rather than demographic or other differences.

3. Site-Level Data

Site-level descriptions. As noted the analyses of the CT program included four sites. Because so many policies and regulations affecting child welfare are determined at the local level, we do descriptive and costs data at the site level. Key features of the sites are described in table 2.

Interpreting site-level data. Site-level figures in this study are informative but do have limitations. Regarding the latter, one should note that the study was not powered for site-specific analyses. Furthermore, our calculation of the propensity score equations was not site-specific, and we checked covariate balance only for the four sites as a whole. In that case, the best estimate of program impact is for the four sites combined. That estimate represents the expected impact of the program were a policy maker to implement the program at a new site.

Nonetheless, the site-level figures do capture the type of variability that might occur in new site or a series of sites. One can see that the costs of out of home placements, for example, vary enormously across the four sites. We recommend that readers use this information to assess that variability but not to attribute implied differences in program impact to characteristics of the sites.

Results

Cost Calculations

Table 3 provides the means for the key cost variables calculated. These include the program costs; indirect costs (hearing and team meetings); placement costs; and that of other services. The costs of child-parent psychotherapy are included as well. All are included in the estimate of overall program costs. The table has two panels. The first (panel A) offers simple unweighted means and their standard deviations. The second (panel B) provides propensity-score weighted estimates. These allow for the between-group differences in the covariates described above. The table provides the standard errors for these figures as well as the p-values for the between group differences.

Panel A documents the direct program costs of the court teams: these total $10,365 per child. There are no corresponding costs for the comparison group. The indirect costs increase the CT costs still further to an estimated $23,170 per child. Hearing costs for the NSCAW children equal an estimated average of $6,337 per child. The between-group difference is $16,833. These represent the net cost of the program before considering costs of key services.

The panel also provides the placement costs for the two groups; these total $7,377 and $$14,750 for the CT and comparison groups, respectively. The between-group difference ($7,374) partially offsets the direct and indirect costs of the program. Also presented are the costs of health services for both groups. These costs are low and have little influence on between-group cost comparisons.

The final row of panel A shows the total costs for the CT and NSCAW groups: $30,752and $21,165, respectively. The between-group difference is $9,586.

Panel B of table 2 presents the adjusted between-group differences. These figures are very similar to those in Panel A. The last column of the panel shows the statistical significance of the between-group differences. All are statistically significant at $p<.05$.

Site-Level Differences

Table 4 presents costs calculations for the four CT sites. These costs vary significantly across the sites. These differences reflect differences in the direct and indirect costs of the program as well as differences in the placement costs. One can see that this variation implies substantial variation in the potential net costs of the CT program.

Discussion

Are Court Teams a good investment?

The direct costs of the program are roughly $10,000 per child. These costs are at the low end of the range of costs for early childhood programs and interventions. The direct costs of Early Head Start are more than double ($20,972) the costs of the CT.(Aos, S, R Lieb, J Mayfield, M Miller, & A Pennucci, 2004) The costs of Nurse Family Partnership is comparable ($9,118); that of the Comprehensive Child-Development Program and of the Infant Health and Development Program are far greater, exceeding $35,000.(Aos, S, et al., 2004)

Whether the costs documented here are high depends on one's standard. As discussed above, relative to the long-term costs of school failure or a life of crime, the costs documented here are very modest. In other words, failure to successfully support young, vulnerable children can be expensive in the long run. It is important to note that more than 70% of the program's direct costs are recouped in the first year alone. If the children's placements truly are permanent—and they remain outside of the child welfare system—these savings will accumulate and pay for the program.

Of course, whether these savings placement costs are realized, they are only a proxy for the real benefits of the program—improved life outcomes. In the end, the goal of the program is not to reduce child welfare costs alone. If that were the case, one could reduce system costs simply by leaving children in dangerous or neglectful situations.

If the program improves these longer term outcomes, then the return on the program could be quite large. For example, if CT increase the chance of high-school graduation by roughly 3 percentage points, the resulting savings more than cover the costs of this program. The large reduction in time to permanency and the association between placement characteristics and future problems is encouraging but whether the current program generates these returns is an area for future research.

Whether the placement cost savings or longer-term benefits are realized depends on a range of other factors. An effective program for young children may put children on the right path to a successful future. However, that path is not deterministic—if children attend poor schools or experience any of a range of disadvantages, the head start toward a successful future will be lost.

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Adding In-Kind and Related Costs

The premise of this article is that a complete assessment of the economic returns to an investment in a social program begins with an accurate estimate of the program's costs. That assessment involves all costs, including those that appear on budgets of related programs or departments. Neither of these claims are controversial. As economists have long argued, only a broad assessment of program costs and benefits can reveal the true costs and benefits of a program and whether it represents a good use of society's resources.(Gold, MR, et al., 1996) Economists so focus on the social perspective that at times they neglect the insights offered by other perspectives. But all agree that the social perspective represents the perspective needed to judge a program's bottom line

It is important to note that this analysis includes the implicit costs of the program. These costs are essential to understanding the program and should be a part of any effort to under-

stand and compare social services. First, programs involved in child welfare are often involved in other child-serving systems and programs. This involvement creates the potential for cost shifting. A program, for example, may reduce the costs borne by one child-serving system and shift them onto another. Such a program would appear less expensive from the perspective of a single agency but may be a poor use of public resources. Similarly, the system as a whole may experience efficiencies due to a systems change intervention that result in systems level cost savings. That the full range of costs be assessed is a fundamental principal of economic analysis of social programs.{Schmitz, 2008 #4126;Zerbe, 2006 #4125;Zerbe, 1994 #9}

Second, the indirect costs of the program may be essential to understanding and ensuring sustainability. Program partners need to understand the type and quantity of resources required to establish and maintain a program like court teams. Eventual reimbursement by the program for these costs may be a key to sustainability. Program partners may be willing to contribute these resources to a model program during an experimental phase. But the willingness or ability to contribute those resources may eventually expire.

It would be misleading to compare the total costs of the CT program to the partial costs of other programs. The strength of this study is that it illustrates the methodology necessary to produce a fuller estimate of program costs that could serve as the foundation for more appropriate program comparisons.

Table 1: Characteristics of ZTT Court Teams Families and NSCAW Comparison Families

Variable	ZTT (n=298)	NSCAW[a] *No imputation* (n=511)	NSCAW[a] *20 Imputations* (n=511)
Child Characteristics			
Age of child at first out of home placement			
Mean (months)	9.3 (1.0)	11.0 (1.0)	11.0 (.99)[b]
Infant	67% (.04)	57% (.04)	57% (.04)
Missing	0%	0%	0%
Child gender			
Male	50% (.02)	46% (.04)	46% (.04)
Missing	0%	0%	0%
Race/Ethnicity			
African American	37% (.10)	24% (.04)	24% (.04)
Caucasian	29% (.10)	41% (.05)	41% (.05)
Latino/a	14% (.10)	18% (.05)	18% (.05)
Missing	0%	0%	0%
Parent Characteristics			
Substance Abuse			
Treatment needed at time of child's removal	72% (.06)	52% (.05)	59% (.05)
Missing	0%	15%	0%
Severe Mental Health Needs			
Treatment needed at time of child's removal	17% (.03)	13% (.04)	21% (.04)
Missing	0%	33%	0%
Poverty			
Met at least one poverty indicator at time of removal[c]	95% (.02)	76% (.04)	81% (.03)
Missing	0%	15%	0%
Lack of Employment			
Needed help finding a job at time of child's removal	35% (.15)	44% (.06)	47% (.05)
Missing	5%	12%	0%
Reasons for Removal			
Abandonment	4% (.01)	6% (.01)	13% (.03)
Neglect	69% (.11)	54% (.05)	72% (.04)

Physical abuse	32% (.18)	17% (.03)	30% (.04)
Psychological maltreatment	2% (.02)	5% (.01)	21% (.05)
Sexual abuse	1% (<.01)	2% (.01)	19% (.05)
Missing	0%	34%	0%
Community Characteristics			
USDA Economic Research Service Rural-Urban continuum			
1 (*most urban*)			
2	50% (.32)	52% (.08)	52% (.08)
3	24% (.25)	29% (.09)	29% (.09)
4	26% (.26)	6% (.03)	6% (.03)
5	0%	2% (.01)	2% (.01)
6	0%	1% (.01)	1% (.01)
7 (*most rural*)	0%	7% (.04)	7% (.04)
	0%	2% (.02)	2% (.02)

[a]NSCAW computed with sampling weights but not with propensity score weights

[b]Standard errors in parentheses; Standard errors for the NSCAW 20 imputations reflect those for the first imputation only.

[c]Includes needing income assistance, help finding a place to live, qualifying for legal aid, or being unemployed.

Table 2: Implementation of Court Teams Core Components in Study Sites

Court Teams Core Component	Polk County, IA	Jefferson Parrish, LA	Forrest County, MS	Fort Bend County, TX
Judge	One judge who takes Courts Teams cases, two others participate on the Court Team Cases assigned randomly	One judge	One judge Sees all cases age 0-3	One Court Team judge Cases assigned randomly
Community coordinator	Full time Works from home office Previous: social service	Full time Office in Juvenile Court Previous: DSS	Part time Office in Juvenile Court Previous: retired DSS	Full time Office at CASA Previous: psychologist
Court Team*	Very active; meets monthly 15 to 40 in attendance	Met every other month for first three years then more often 9 in attendance	Very active; meets monthly 17-30 in attendance	Met monthly 15 to 20 in attendance
Monthly case reviews**	Monthly family team meetings; court hearings approximately every 6 weeks	Monthly hearings	Monthly hearings; family team meetings as needed	Monthly hearings
Referral to child focused services	*Received* Health visit: 97% Dev. Screen: 88% Parent-child eval: 62%	*Received* Health visit: 89% Dev. Screen: 89% Parent-child eval: 64%	*Received* Health visit: 100% Dev. Screen: 99% Parent-child eval: 28%	*Received* Health visit: 99% Dev. Screen: 92% Parent-child eval: 5%

	Dental visit: 43%	Dental visit: 8%	Dental visit: 8%	Dental visit: 58%
Child-Parent Psychotherapy	Active community partner; took several years to implement on smaller scale	Full engagement from beginning with LSU who has been a national leader in CPP	Now have partners; taken several years to implement	Struggled to implement; took longest to begin

*Variation across the sites in number attending is reflected in in-kind costs.

**Frequency of hearings also reflected in in-kind costs

Table 3: Weighted and Unweighted Description of Costs and Tests of Significance

A. Unweighted

	Court Teams		Comparison	
	Mean	SD[1]	Mean	SD
Program Cost	$10,365	$2,869		NA[2]
Other costs				
Hearing Costs	$11,849	$4,461	$6,337	$3,306
Meeting Costs	$956	$351		NA
Placement costs	$7,377	$4,461	$14,750	$6,500
Other services	$168	$34	$77	$62
Parent-child therapy	$37	$45		NA
Total	$30,752	$7,941	$21,165	$7,201

B. Weighted

	Mean	SE[1]	Mean	SE	p-value
Program Cost	$9,778	$254		NA	
Other costs					
Hearing Costs	$11,294	$370	$5,900	$316	<.01
Meeting Costs	$967	$21		NA	
Placement costs	$7,266	$281	$13,246	$819	0.04
Other services	$163	$5	$72	$7	<.01
Parent-child therapy	$31	$4		NA	
Total	$29,499	$634	$19,218	$972	<..01
Obs		228		454	

Notes

1. The unweighted figures describe the data as a whole, and for that reason, we provide the standard deviation. The weighted figures, however, provide information about the parameter estimates, and for that reason, we provide the standard error of the estimate.

2. These costs were not incurred in the comparison condition.

Table 4: Site-Specific Description of Costs

	Site 1		Site 2		Site 3		Site 4	
Cost	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Program Cost	$ 8,929	SD[#]	$ 10,818	NA	$ 7,380	NA	$ 14,355	NA
Hearing Costs	$ 9,064	$ 22,793	$ 15,682	$ 42,505	$ 9,177	$ 15,180	$ 15,475	$ 24,713
Meeting Costs	$ 1,459	$ -	$ 576	$ -	$ 986	$ 0	$ 616	$ -
Foster Care	$ 4,945	$ 16,673	$ 7,249	$ 28,314	$ 8,475	$ 28,382	$ 7,332	$ 17,575
Other services	$ 159	$ 348	$ 172	$ 114	$ 153	$ 248	$ 181	$ 238
Parent-child therapy	$ 61	$ 336	$ 79	$ 245	$ 21	$ 229	$ 3	$ 132
Total	$ 24,617	$ 33,328	$ 34,576	$ 65,915	$ 26,192	$ 32,777	$ 37,961	$ 38,339
Obs	69		28		54		77	

[#]Program costs were site-specific and did not vary at the individual level.

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Appendix A

ZTT Court Teams Economic Analysis:

Community Coordinator Survey

While federal funding covers much of the Court Teams initiative, other agencies and individuals provide time and resources for the project that have not been covered by your grant. The economic evaluation will include these in-kind costs. The evaluation will also consider costs of services used by children and families in the Court Teams initiative. We need your input in helping us identify those costs. Please type in your answers in the tables or under each question. Thanks!

Court Team Meetings

1. How often has your local court team met over the years? In particular:

Year of Grant	*Meet every month?* *(please type Yes or No)*	*If No, how many times did you meet in the year?*
1st year		
2nd year		
3rd year		
4th year		

2. Where do your usually hold your court team meetings? What is the address for this location?

3. How long do your court team meetings usually last?

4. How many people usually attend the meetings?

5. Which agencies have been consistently represented on your court team over the years?

6. Do you have court team meeting minutes we could review? If yes, are they available for all court team meetings over the years?

7. Do you have court team meeting sign in sheets we could review? If yes, are they available for all court team meetings over the years?

8. **Do you have some other documents (such as reports or notes) that could tell us about the frequency of your meetings over the years, number who attend, types of positions they hold, and/or length of meetings?**

Court Hearings

1. **A variety of people participate in the court hearings. Which of the following routinely participate in hearings for Court Teams families in your site:**

Possible Participant	**Do they routinely participate in hearings in your site?** *(please type Yes, No, or Sometimes)*	**If Sometimes, how often do they participate in hearings?**
Judge		
Community Coordinator		
County Attorney		
Parents' Attorney		
Child's Attorney		
Guardian ad litem		
CASA		
CASA Supervisor		
Bailiff		
Court/Judge Administrative Assistant		
Court Reporter		
CPS Worker		
CPS Supervisor		
Foster Parent(s)		
Parent(s)		
Other Family Members		

2. **Do service providers ever participate in hearings for Court Teams families?**

   If yes:

   a. **How often does at least one service provider come to court?**

   b. **How many service providers typically attend the same hearing?**

3. **How often do service providers submit reports to the court?**

Other in-kind Costs

1. **Where is your office?**

2. **Does ZTT pay rent or other costs for your office?**

3. **Where are the Court Teams meetings held?**

4. **Does ZTT pay rent or a fee to use the meeting room?**
5. **Are there additional costs that other agencies or individuals cover to support the work of the Court Teams project in your site? If yes, what are those costs?**

Payment for Common Services

1. **The Court Teams initiative works to refer children to needed services. These services each carry a cost. The table below lists the most common services Court Teams children receive. Please tell us how each are typically paid for. These might include a federal or state program or grant (such as Medicaid), private insurance, parent payment out of pocket, and so on. If there is no common form of payment, please let us know that as well. Please also tell us what the cost for the unit of service might be (or what a program such as Medicaid might pay for it in your state) if you happen to know. If you don't know, who could we ask for this information?**

Service	**Most common form of payment**	**Cost for one unit of service** *(or who to ask for it)*
Developmental screening/assessment		
Early intervention services		
Child-parent relationship evaluation		
Child-parent psychotherapy		
Health care		
Dental care		
Early child care/education (not EHS)		

2. **How much does the state pay a foster family to care for one young child (age birth to three) in your site each month?**

3. **Has the foster care payment amount changed since the Court Teams project began? How?**

4. **Do relatives who provide foster care receive a payment?**

   If yes:

   a. **How much do relative or kin foster care providers receive for one young child each month?**

   b. **Has the foster care payment amount changed since the Court Teams project began? How?**

THANK YOU!