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Agency Workforce Estimation: Simple Steps for Improving Child Safety and Permanency

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Evidence is mounting that high staff turnover and decreased worker-client contact increase maltreatment recurrence and delay permanency. This information underscores the need for child welfare agencies to accurately estimate how much worker time and how many staff positions are required to meet the best practice standards they adopt for their clients. Case-based, prescriptive staffing estimation procedures can improve internal agency management. External funding sources, state legislatures, and county boards also need clear, credible estimates of the staffing level necessary to deliver services to children and families at a practice standard that can reduce maltreatment, expedite permanency, and improve child well-being. Once that estimate is available to all parties, responsibility for adequately staffing the agency can be broadly shared among policy makers. Child welfare agencies are often asked to serve more clients or expand service delivery without additional capacity, and the impact of chronic understaffing may not be apparent until a tragedy occurs. Understaffed agencies face difficult decisions, but the ability to produce a defensible workforce estimate places them in a position to share these decisions, and the risks they entail, with their funding authorities.

Background

A 2001 survey of 43 state and 48 county child welfare agencies found an average annual worker turnover rate of 22% and a vacancy rate of 7% (American Public Human Services Association, 2001). These data underscore the fact that many child welfare agencies are experiencing workforce shortages. A literature review conducted by Kadushin and Harkness (2002) identified three reasons for worker turnover: (a) repeated failure to meet agency service delivery standards; (b) high caseloads or reporting (paperwork or data entry) burdens that decrease client contact; and (c) inadequate supervision, training, and support. Both staff surveys and exit interviews confirm that high caseloads are a common reason for leaving the child welfare profession (Institute for the Advancement of Social Work Research [IASWR], 2005; Robison, 2006).

While staff turnover has been recognized as a widespread problem for years, its impact on agency clients has not been carefully examined until recently. A review of recent research provides clear indications that client outcomes are adversely impacted. Other researchers (IASWR, 2005) have proposed tactics such as improved training and supervision, higher pay, and reduced caseloads that may reduce staff turnover. This article addresses a more fundamental management question: if we grant that staff time is the primary resource for strengthening families and promoting child safety and permanency, how can agencies manage it more effectively? Since many agency managers may not have reliable mechanisms for managing their workforce, this article attempts to outline some simple steps they can take to develop them.

This article briefly reviews research findings that link adequate staffing to improved child safety and well-being, and presents approaches for evaluating agency workforce needs and managing workforce capacity. It illustrates how agency managers can accomplish the following: (a) identify common symptoms of agency understaffing;

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(b) estimate existing workforce capacity; and (c) estimate agency workload demand and understaffing.

The Link Between Child Welfare Workforce Capacity and Case Outcomes

The federal Child and Family Services Reviews (CFSR) set clear, measurable case outcome standards for placement stability, maltreatment recurrence, reunification, and foster care permanency (see, for example, U.S. Government Printing Office [GPO], 2006). They also evaluate several service delivery process measures such as timely investigation response or completion, construction of case plans, occurrence of child medical exams, and provision of services. These CFSR standards have served as a framework for examining the relationship between workforce capacity and service delivery performance in several recent research studies.

In the earliest study of this type, the U.S. Government Accountability Office (GAO) examined the relationship between CFSR review findings from 27 states and their agencies' staff turnover rates (GAO, 2003). High agency turnover was associated with failure to meet established standards for investigation response, timely investigation completion, case plan completion, worker contact with children and families, maltreatment recurrence, and timely permanency. A later study, funded by the Annie E. Casey Foundation, also found a link between agency performance and workforce capacity (National Council on Crime and Delinquency [NCCD], 2005). The average annual staff turnover rate of 12 California county child welfare agencies was used to rank them into low (8%), moderate (13%), and high (23%) turnover groups. Families served by counties with low turnover had significantly lower maltreatment recurrence rates and were more likely to have approved, current case plans and up-to-date child medical exams. In addition, a study of private foster care agencies in Milwaukee found that high case manager turnover for a family (e.g., multiple workers serving the family's case within the last two years) increased

the time required to achieve permanency for children (Flower, McDonald, & Sumski, 2005).

A recent analysis of CFSR case review findings from 50 states examined the relationship between worker case contacts and several foster care performance measures. The frequency of worker case contacts with parents and children had a significant positive correlation with placement stability, receipt of child mental health or educational services, and the timely achievement of permanency (Administration for Children and Families, 2006). Evidence is mounting that high staff turnover and decreased worker-client contact have a negative impact on critical client outcomes (National Conference of State Legislatures, 2006). Recent class action suits brought against state child welfare agencies provide indirect evidence of this relationship by identifying inadequate staffing as a major cause of harm to plaintiff children (see Farber & Munson, 2007; *Dwayne B. v. Granholm*, 2006; or *Olivia Y. v. Barbour*, 2007).

These findings will not surprise most child welfare professionals. They recognize that effective case management requires frequent client contact and a significant amount of worker time. Moreover, staff turnover is a widely accepted proxy for understaffing. When a large percentage of positions are vacant or filled with new staff, workforce capacity is diminished, and commitments to clients, the most basic of which is routine worker contact, cannot be met. It is difficult to evaluate child safety without seeing the child. Other factors, such as worker training or family engagement skills, may also impact case outcomes. Workforce issues are still central to performance, however, because practice skills have little impact unless workers have sufficient time to interact with client families. The question is, how can agencies best manage existing staff resources to improve client outcomes?

An underlying assumption of this article is that agencies cannot manage what they cannot measure. Consequently, a simple approach for measuring workforce capacity follows. Examples presented here are drawn from lessons learned by the Children's Research Center (CRC) in conducting workload estimation studies in several states.

Is My Agency Understaffed?

For the purposes of this discussion, an understaffed condition means the current workforce capacity is not sufficient to meet established agency service delivery standards. Many administrators want to know if their agency is understaffed but lack methods for evaluating workforce capacity. Most agencies, however, have access to SACWIS or case file review data that describe case processing activity which may show common signs of understaffing.

As an example, every agency has standards for closing child protective services (CPS) investigations—typically, 30 to 45 days after assignment. When investigations are not closed in a timely fashion, a "backlog" of open past-due investigations accumulates. A single-digit backlog (expressed simply as a percentage of the number of past-due investigations at the end of the month divided by the total number assigned) may not reflect a serious problem. On the other hand, a backlog that increases each month and reaches double digits may indicate chronic understaffing, since workers are not meeting a basic agency case management standard.

A variety of similar case processing activities can also be monitored, such as standards for timely completion of case plans, court hearings, and dental or medical exams. Worker-client contact with in-home or foster care cases is one of the more critical expectations. Standards vary, but a monthly worker face-to-face contact with children, parents, or foster parents is a common, minimum expectation for ensuring child safety. Routine failure to meet these kinds of agency standards may reflect both understaffing and service delivery failure.

Many agencies have adopted quality assurance mechanisms that routinely monitor exceptions to their service delivery standards. SafeMeasures®, which is employed by many jurisdictions also using the Structured Decision Making® (SDM) case management system, is one example (Jacobsen, 2007).[1] Agencies use SafeMeasures to systematically identify case contact failures, past-due case plans, medical exams, court

[1] For more information on the SDM® system, see www.nccd-crc.org.

hearings, and a variety of other case process standards. It also monitors CFSR client outcome performance measures, which are equally important. Research studies reviewed above suggest that substandard CFSR performance on the six-month maltreatment recurrence rate, placement stability, and permanency are related to understaffing (GPO, 2006).

Staff turnover is another easily observed indicator, typically computed by dividing the number of direct service staff leaving each year by the total authorized caseload-carrying positions. It is a good measure of how many staff an agency has to recruit, hire, and train to maintain its workforce capacity. Since public service hiring can take several months, agencies with high turnover usually have a high staff vacancy rate and a significant number of new staff in the workforce. Practices vary, but the first-year training requirement for new workers almost always reduces their caseload capacity, sometimes by 50% or more. Consequently, an agency with a 10% vacancy rate and 20% of its positions occupied by new workers may be experiencing a 20% reduction in its effective workforce capacity. In most circumstances, this is a clear symptom of understaffing. It also illustrates a point often overlooked: both the workload capacity of new staff and the vacancy rate must be weighed to secure an accurate estimate of workload capacity. Administrators should attempt to secure this estimate at least annually and monitor it carefully over time.

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Indicators like those reviewed above can serve as a simple diagnostic checklist for understaffing. Most agencies will have access to at least some of them. The available list should be monitored over time. Consistent observation of performance problems across several indicators increases the likelihood of an understaffed condition.

While a checklist can help an agency identify an understaffed condition, it does not estimate the magnitude of understaffing nor indicate how staff could be redeployed to address the problem. This requires a more comprehensive workload estimation approach, described below.

How Many Staff Does My Agency Need?

Caseload-to-staff ratios provide a helpful guideline, rather than a precise estimate, of the number of staff required to deliver child welfare services (Child Welfare League of America, 2006). Since agencies differ in their operating characteristics, service delivery expectations, and personnel practices, it is difficult for a fixed caseload ratio to accurately estimate an agency's staffing requirement. The best estimate requires customized estimation of two agency characteristics: (a) the time direct service workers have available to serve clients, and (b) the worker time required to meet service delivery standards for clients. The first parameter, worker time available, represents the effective workload capacity of an average direct service worker, i.e., how much time does a worker have to serve agency clients in an average month or a year?

The worker time required to meet service delivery standards for clients is more difficult to estimate. Agency standards vary, but they are very important constructs. They establish the minimum performance criteria workers are asked to meet for their clients, and are represented as such to oversight agencies and the public. Consequently, a responsible child welfare staffing estimate should identify the workforce capacity necessary to meet agency service delivery standards routinely.

Since the standards agencies adopt vary across case types in terms of worker-client contact expectations and a variety of other factors, the best way to establish the worker time necessary to meet these standards is to conduct a field study. Given the cost and effort involved, not all agencies are able to or will conduct one. Agencies can, however, improve their workforce management by adopting the workload findings and estimation procedures from jurisdictions that have conducted field studies. A basic approach is outlined in the next section.

Estimating Staff Time Available

Table 1 describes a method for estimating how much time workers have available to meet agency service delivery standards for their clients. The table displays a median estimate drawn from several CRC workload studies for experienced workers (training time would be much higher for new workers). The estimate assumes an average work month of 173.3 paid hours and subtracts unavailable time from it. Annual leave or training records were converted to monthly figures for this purpose. Additionally, staff cannot serve cases during training, leave (vacation, sick, holiday, and personal time), or break hours. The subtraction of training, leave, and break time reduces time available to 136.0 hours per month.

Table 1	
Estimated Monthly Time Available Based on Median CRC Findings	
Experienced Social Worker	Median Time in Hours
Total work hours per month	173.3
Median training time	-4.2
Median leave time (vacation, sick, holiday, personal)	-23.9
Daily break time (usually .5 hours per day)	-9.2
Total work hours minus training, leave, and break time	136.0
Median case support time	-6.5
Median administrative time	-7.3
Monthly hours available to experienced social worker	122.3

Note: Table 1 reports median values for every category, and results therefore differ slightly from a summation.

Two additional subtractions are made for case support and administrative tasks performed by workers observed in past CRC workload studies. The 6.5 hours of case support is the time workers spend serving cases not assigned to them, e.g., emergency on-call activity, case consultation, substitute coverage for other workers, and backup coverage. The 7.3 hours of administrative time represents non-case-related activity such as unit meetings; supervisory sessions; and participation in agency task forces, committees, or special assignments. These two subtractions result in a net 122.3 hours available each month for the average experienced social worker. This is the effective workforce capacity available to serve his or her clients. New workers, who spend more time in training, typically have a much lower workload capacity.

Estimating Worker Time Required to Serve Clients

Estimating workers' case time is more challenging, since workers' service activities must be observed and recorded in the field for a variety of cases. A brief discussion of workload field study methods describes how these time estimates were derived and what they represent.

Each CRC workload study has employed similar research methods. Workers are trained to record daily, under actual field conditions, the time they require to (a) serve a randomly sampled foster care or in-home family case for one month; and (b) complete a random sample of intakes, CPS investigations, and other case studies from assignment to completion. Workers are asked to meet or exceed agency service delivery standards for each sample case they record, and supervisory reviews verify that standards were met.

For example, standards for a child in foster care with a return home goal may require the caseworker to contact the child, the child's parent, and the foster caregiver each month; coordinate with service providers; conduct safety assessments; and update case service plans. Additional monthly expectations might include preparing a permanency planning review, appearing in court, or conducting a family conference. Comparable estimation procedures apply to CPS investigations, which have similar standards for contacting alleged victims and caregivers, completing safety and risk assessments, etc. Workers also record the time necessary to document all case-related activities, including travel and documentation.

Sample case times are averaged to estimate the time required to meet standards for each case type. Random sampling ensures that both difficult, time-consuming case events and routine practice conditions are

Table 2	
Median Monthly Worker Time Estimates for Cases That Met Standards	
Agency Service Area	Median Worker Time in Hours
CPS intake	
Maltreatment report	1.1
Informational call	0.3
CPS investigation/assessment	
Non-placement investigation	8.1
Placement investigation	18.6
Child and family services	
In-home family case	6.6
Child placement case	
New child case	9.5
Ongoing, return home goal	7.5
Ongoing, other goal	5.6

represented. Table 2 shows the median time estimate observed across five child welfare agency workload studies. It reflects the time required to meet agency standards for several hundred randomly assigned cases. Agency standards varied, but all required a minimum of one monthly contact with the child and parent or substitute caregiver for in-home and foster care cases. The CPS investigation standards also vary by agency, but the times shown are broadly representative.

These estimates are prescriptive in that they reflect the time required to serve clients at the best practice standard employed by each agency. Workers could serve a foster care case without making monthly face-to-face contacts with the child, parent, or caregiver, and a less rigorous practice standard would take much less time than the estimates shown, but the objective of each CRC study is to represent good, not substandard, practice. The estimates are designed to identify the workforce capacity that can meet agency service delivery standards.

For agencies that have not conducted their own workload study, these findings can serve as a reference point for estimating the time direct service workers may need to perform similar tasks. For example, intake processing for a CPS maltreatment report from call-in

to investigation/assignment required 1.1 hours. Informational calls that did not allege maltreatment took, on average, only 0.3 hours.

The CPS investigation/assessment section of Table 2 displays time required to complete a CPS investigation. Non-placement investigations required 8.1 hours, while those that involved a child placement required 18.6 hours. Clearly, placement investigations entail a great deal more worker time, which should be acknowledged in workload estimation.

The child and family services section presents monthly worker time for serving in-home family cases (6.6 hours) and child placement cases. Three subcategories are shown for placement: new cases, ongoing cases with a return home goal, and ongoing cases with another goal (other goals include maintaining a child's own home, placement, guardian placement, termination of parental rights, adoption, and/or independent living). Significantly different worker times for these case types have been found in field studies. New cases require more worker assessment and case planning. Return home goal cases require permanency hearings and service delivery to and contact with parents, children, and foster caregivers.

Constructing an Agency Workload Estimate

The worker case time estimates in Table 2 and the monthly worker hours available in Table 1 can be used to compute a simple but useful estimate of workforce capacity and service delivery demand.

Table 3 provides an example estimate for a typical operating month. The agency's monthly intake and investigation activity and average in-home or foster care caseloads could be observed by computing averages across a prior 6- or 12-month period. Once these case counts are secured, the workload demand computation is straightforward. The worker time associated with each case type is multiplied by the number of intakes,

Table 3			
Example Agency Estimate of Monthly Workload Demand			
Agency Service Area	Work Hours/Case	Average Monthly Cases	Total Worker Hours
CPS intake			
Maltreatment report	1.1	2,291	2,520.1
Screened out	0.3	4,694	1,408.2
Intake subtotal			**3,928.3**
CPS investigation/assessment			
Completed, no placement	8.1	812	6,577.2
Completed with placement	18.6	63	1,171.8
Investigation/assessment subtotal			**7,749.0**
In-home service cases			
In-home family case	6.6	1,356	8,949.6
In-home case subtotal			**8,949.6**
Child placement cases			
New child case	9.5	123	1,168.5
Ongoing child case, return home goal	7.5	921	6,907.5
Ongoing child case, other goal	5.6	614	3,438.4
Placement case subtotal			**11,514.4**
Total agency workload demand in worker hours			**32,141.3**
Staff required to meet estimated workload demand (total demand divided by worker time available [122.3 hrs. per month])			**262.8**
Agency workforce capacity (available staff)			216
Additional staff needed to meet estimated workload			46.8

investigations, or service cases. Table 3 operational data show 2,291 maltreatment reports screened during an average operating month. Since each one requires 1.1 worker hours, 2,520 hours are required to meet this demand. A similar approach is used to estimate CPS investigation demand. The 812 completed non-placement investigations require an estimated 6,577.2 staff hours. The 63 investigations involving a child placement require 1,171.8 staff hours. In-home service and placement case demand are estimated in the same way.

Staff hours shown for each service delivery area are summed to represent a total workload demand of 32,141.3 staff hours. Total staff hours are converted to staff positions by dividing the total demand by the 122.3 available hours per worker (see Table 1).

The example indicates that 262.8 staff positions are required to meet agency standards given the current demand for child welfare services. This estimate may be compared to authorized agency positions or available positions (authorized positions minus vacancies). In this example, the agency's available workforce capacity is 216 positions. Since 262.8 positions are required to meet workload demand, it is understaffed by 46.8 positions (262.8 minus 216). If, for example, 230 positions were authorized, an additional authorization of 16.8 positions would be required.

Applying the Workload Estimate

Agencies can approximate their own workforce needs by securing comparable service delivery data and applying the case time estimates shown here. Monthly

worker time available (122.3 hours) could be adjusted by computing local training, leave, and break time (see Table 1).

Workforce demand for service delivery areas (intake, investigation, in-home, or foster care case services) can be calculated separately. For example, CPS investigations required 7,749 hours per month, which implies a 63.4-position workforce estimate (7,749 divided by 122.3). This could be compared to current assigned positions to secure a reasonable approximation of how adequately that unit is staffed.

Caveats

Since some intake units must be staffed 24 hours a day regardless of call volume, intake counts may not fully account for assigned positions. Many SDM sites employ risk-based contact standards which are not fully incorporated into these estimates. Rural workers may require additional compensation for travel to meet the same service delivery standards. Finally, all the case time and position estimates shown here apply to case-carrying workers and do not include supervisors or clerical staff. They also exclude foster and adoption home licensing workers, resource development staff, forensic interviewers, and other specialized staff.[2]

Summary and Conclusion

Staff time is a critical resource child welfare agencies deploy in their efforts to strengthen families and promote child safety and permanency. This article presents a case for improving workforce management by reviewing research findings that link understaffing to poor performance on CFSR case outcome measures. It describes simple approaches agencies can adopt to conduct a quick assessment of their workforce needs and improve their workforce management.

A more detailed version of this article was published in *Protecting Children* (Volume 23, Number 3), a journal of the American Humane Association, and may also be accessed on CRC's website, www.nccd-crc.org.

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[2] For additional caveats, see the full version of this report, available at www.nccd-crc.org.

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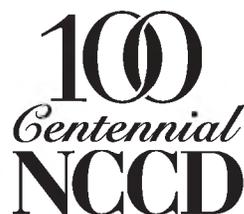*Olivia Y. v. Barbour*, No. 04-CV-251 (S.D. Miss. 2004). Retrieved February 21, 2008, from http://www.childrensrights.org/pdfs/MissMotion.pdf

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