secondary traumatic stress than did the control group. Our hypothesis at the onset of the project was that secondary traumatic stress levels would decrease in the intervention group and remain stable in the control group over the course of the project. In addition, we expected that at the conclusion of the project, the intervention group would have lower levels of secondary traumatic stress than the control group.

It is commonly believed that effective supervision is a critical element in preventing secondary traumatic stress, hence our initial expectations. Therefore, on the surface these findings suggest that the project was not successful in this regard. However, it must also be noted that the first step in preventing and ameliorating secondary traumatic stress is to recognize it and the role of the supervisor is to provide a safe climate in which to identify secondary trauma symptoms. As such, it is reasonable to expect that secondary trauma symptoms would appear to increase in the intervention group because case managers become better able to identify the symptoms in themselves, rather than because there is a true increase in levels.

Another factor that may have contributed to the increase in traumatic stress as the project proceeded among the intervention group is the suicide death of one of the supervisors in the intervention group. While this factor may be inconclusive, it is certain from the analysis that a sharp increase in the STSS scores took place during Year 2, the year in which the death occurred.

Conclusion
This report provides a snapshot in time of the results for this project, and while it is important to acknowledge that these results are only generalizable to the state under study, we believe that the outcomes reflect a fairly accurate picture of the state of DCS’s CPS supervision issues. It is important to note that because of the constant changes in administration and policies as indicated by the participants, an accurate account of what worked and what may have not worked in this project is difficult to determine. However, it is recommended that DCS move quickly to implement the training modules developed by this project in an effort to increase supervisory skills.

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The Tennessee Supervisors Development project is a statewide collaborative effort between the Tennessee Department of Children’s Services (DCS) Child Protective Services Unit, Tennessee Citizens Review Panel (CRP), and the University of Tennessee College of Social Work (UTCSW). This project was designed to develop and implement a training intervention for frontline supervisors in the Child Protective Services Unit. The intervention was developed to examine the impact of supervisory practices on worker intent to remain employed, worker practice and assessment skill, and improved outcomes to children and families.
**Introduction**

The University of Kentucky — Southern Regional Quality Improvement Center (SR-QIC), supported by the Children’s Bureau, provided funding for the project. The SR-QIC utilizes working partnerships between public child welfare agencies, university social work programs, and the community to create regional Learning Laboratories that promote and provide state-of-the-art service, as well as to research and implement practice models that work, while involving students, faculty, and staff as learners. These culturally sensitive learning models are tailored to specific community needs and are generalizable for broader national impact.

The impetus for this project developed out of a needs assessment conducted by the QIC to examine supervisory practices in 10 southeastern rural states: Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Missouri, South Carolina, Tennessee, and West Virginia, to determine the extent to which supervisory practices impacted worker practice, intent to remain employed, and client outcomes. As a result, a call for innovative projects designed to improve the child protective services system within a Learning Lab Model was issued.

In keeping with the initial Request For Application (RFA), Tennessee’s CPS Unit, in collaboration with the UT College of Social Work and the CRP, developed an innovative training curriculum that is undergirded by the theoretical ideas of Lawrence Shulman (1993) and Carl Munson (1995, 2002) and interactional approaches to supervision, which is best described as a process that includes communication and relationship building. The model included a two-pronged approach to learning that utilized: 1) direct didactic and experiential teaching, 2) one-on-one mentoring. The original design for the training model included six modules: Educative Supervision, Ethical Decision-Making, Cultural Competency, Clinical Supervision, Organizational Culture, and Data Management and Reporting. The curriculum was delivered on a quarterly basis, over a 2–3 day period in Jackson, Tennessee, and Nashville, Tennessee, to accommodate the participants. A supplemental training for middle managers also occurred over a one-year period, simultaneously with the supervisor’s intervention. This report presents the outcomes of the 3½ year long intervention described above.

**Methodology**

A multi-method approach was used to collect data including looking at the following: a computerized survey to access CPS supervisors’ and case managers’ perceptions of their capability to organize and carry out relevant tasks in three domains: self-efficacy, intent to remain employed, and organizational culture; existing administrative data to determine service outcome in the two areas of response time and percentage of substantiated reporting within the previous six months; and existing reports of the Department (including PIP and Team Excellence documents) to determine the impact the curriculum had on supervisory practices. Literature reviews, focus groups, key informant interviews, and mentoring contacts sheets were also analyzed to gain a better understanding of supervisory practices in Tennessee. Table 1 on page 4 details the demographic makeup of the sample participants.

The primary limitations of this study included the rate of attrition of research participants and numerous changes in senior administration within DCS. During the course of the project various uncontrollable factors
contributed to the increased rate of attrition: participants self-selecting out of the project due to increased demands in daily responsibilities, job re-assignment, resignations, and retirement. Also, during the tenure of this project DCS experienced the appointment of two new Commissioners and a major restructuring process, which resulted in the appointment of four new CPS Directors. It is believed that the methodology and findings from this report are consistent with that of other research that had focused on issues of organizational change within DCS’s system.

Project Outcomes
Below is a summary of selected findings of supervisory practices identified in this study. This list is not intended to be exhaustive, but will highlight some of the issues related to supervisory practices among CPS supervisors in Tennessee.

Outcome # 1. Increased supervisor competency in providing clinical casework supervision. This outcome was measured by completion of Individualized Learning Plans (ILPs) and Mentoring Contact Sheets. The primary method used for this outcome was content analysis and descriptive analysis, which allowed for themes to be determined based on the content.

Baseline: Data reflect supervisor’s lack of understanding and buy-in for the project. Scheduling was identified as a major issue for both the supervisors and the mentors. No stated goals were listed.

Year 1: During this period, two modules (Educative Supervision and Ethical Decision-Making) were delivered. Data indicates that progress toward goal achievement ranged from 1.5–3.5 on a Likert-type scale of 1–5, indicating that Supervisors made moderate to average progress toward goal achievement during Year 1.

Year 2: During this period, the Cultural Competency module and part one of the Clinical Supervision modules was delivered. Data reflect that progress toward goal achievement ranged from 2.5–3.5 on a Likert-type scale, indicating that progress was made. The increase in goal attainment may be attributed to the specificity of the module, which was detailed to address identified issues related to case decision-making and case consultation. Comparisons were made between Baseline, Year 1, Year 2, and Year 3 to determine if any significant change occurred. It appears as the project progressed from Year 1 to Year 2 that goal achievement decreased. This is, in part, due to a series of confounding variables (organizational restructuring within the Department), which had a major impact on supervisors’ ability to fully participate in the project. However, Year 3 results indicate that a significant amount of progress was made toward goal achievement.

Mentor Contact Sheets
The mentor contact sheets were analyzed to correspond with the data collection points of the stated outcomes below. The themes are as follows:

Baseline: Paranoia effect—Why was I chosen to participate in this project? Participants lacked information on project.

Year 1: Scheduling issues impacted both mentors and supervisors. Other factors included change in mentor assignments and change in administrative policy. Discussion was related to educative supervision, encouragement, and support.
Year 2: This period saw departmental changes and restructuring as well as many policy changes. CPS was dealing with a backlog of old cases, and challenges such as regional staff shortage (administrative and case managers). Observations of supervisors revealed a sense of fear in relation to making “bad” decision and the adverse consequences that could proceed from those decisions. Implementation of the Cultural Competency module took place during this period.

Year 3: Departmental policy changes continued to occur. The use of the Clinical Supervision module began with regular scheduling of supervision and case consultation.

The themes mentioned here are consistent with the results reflected in the three outcomes stated below.

Outcome # 2. Improved organizational culture and worker satisfaction with supervision.
The Professional Organizational Culture Questionnaire (Ellett & Millar, 2001) was administered at Baseline (May 2003), at completion of Year 1 (May 2004), and at completion of Year 2 (May 2005) in a Web-based format. The only statistically significant results found were a statistically significant interaction effect on the Quality of Supervision/Leadership subscale and the total POC score. Comparisons were also made using repeated measures to allow for longitudinal analysis of data provided by the same respondents over the course of the project. Results were not statistically significant. The results suggest that over the course of the project, the comparison group improved on ratings of organizational culture, while the intervention group rated the organizational culture lower at the end of the project. The repeated measures analysis showed that both the intervention and comparison groups rated organizational culture lower at the end of the project than at the beginning of the project, and that the intervention group rated organizational culture lower than the comparison group at all time points. However, these apparent differences were not found to be statistically

<table>
<thead>
<tr>
<th>Table 1. Sample Demographics</th>
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<table>
<thead>
<tr>
<th></th>
<th>Case Managers</th>
<th>Supervisors</th>
<th>All Respondents</th>
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</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>263(85.1%)</td>
<td>47(73.4%)</td>
<td>310(83.1%)</td>
</tr>
<tr>
<td>Male</td>
<td>46(14.9%)</td>
<td>17(26.6%)</td>
<td>63(16.9%)</td>
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<tr>
<td><strong>Ethnicity</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A/A</td>
<td>68(22%)</td>
<td>21(32.8%)</td>
<td>89(23.9%)</td>
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<tr>
<td>Caucasian</td>
<td>233(75.4%)</td>
<td>42(65.6%)</td>
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<tr>
<td>Hispanic</td>
<td>2(0.6%)</td>
<td>2(0.6%)</td>
<td>2(0.6%)</td>
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<tr>
<td>Native Amer.</td>
<td>1(0.3%)</td>
<td>1(1.6%)</td>
<td>2(0.5%)</td>
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<tr>
<td>Multi-Ethnic</td>
<td>5(1.5%)</td>
<td>5(1.3%)</td>
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<tr>
<td><strong>Highest Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS Dip/GED</td>
<td>2(0.6%)</td>
<td>3(4.7%)</td>
<td>5(1.3%)</td>
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<tr>
<td>Bachelors</td>
<td>266(86.1%)</td>
<td>50(78.1%)</td>
<td>316(84.7%)</td>
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<tr>
<td>Masters</td>
<td>39(12.6%)</td>
<td>10(15.6%)</td>
<td>49(13.1%)</td>
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<tr>
<td>Doctoral</td>
<td>2(0.6%)</td>
<td>1(1.6%)</td>
<td>3(0.8%)</td>
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<tr>
<td><strong>Age</strong></td>
<td>35.22</td>
<td>43.65</td>
<td>36.6</td>
</tr>
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<td><strong>Yrs. In CPS</strong></td>
<td>4.03</td>
<td>11.48</td>
<td>5.31</td>
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<tr>
<td><strong>Yrs. In Current Pos.</strong></td>
<td>1.82</td>
<td>3.05</td>
<td>2.03</td>
</tr>
<tr>
<td><strong>Amt. of Supervision (Hrs. per month)</strong></td>
<td>13.61</td>
<td>6.42</td>
<td>12.38</td>
</tr>
</tbody>
</table>
significant. It should be noted that during the course of the project, there were numerous changes in the leadership of the Department of Children's Services that resulted in a great deal of chaos among frontline staff. It is quite possible that these apparently negative results are a result of the leadership changes and that the project helped to prevent further reductions in ratings of organizational culture.

Outcome # 3. Reduce preventable worker turnover.
Case managers were administered the Intent to Remain Employed Scale via Web-based survey at Baseline, Year 1, and Year 2. A statistically significant interaction effect was found on the total Intent to Remain Employed Scale score. Comparisons were also made using repeated measures to allow for longitudinal analysis of data provided by the same respondents over the course of the project. A statistically significant difference was found between the intervention group and the comparison group on the final IRE rating. The intervention group rated their intent to remain employed lower than the comparison group. The results suggest that over the course of the project, the intervention group's commitment to remain employed in child welfare decreased, while it increased in the comparison group. As with the professional organizational culture above, it should be noted that during the course of the project, there were numerous changes in the leadership of the Department of Children's Services that resulted in a great deal of anxiety among frontline staff. It is quite possible that these apparently negative results are a result of the leadership changes and that the project helped to prevent further reductions in ratings of intent to remain employed.

Outcome # 4: Positively affect child protection worker practice in assessment and intervention with families.
The Self-Efficacy Assessment –Social Work (Ellet & Ellet) was administered at Baseline, Year 1, and Year 2 via Web-based survey. A statistically significant main effect was found for group membership on the client assessment/analysis and effort/persistence subscales and total SEA-SW score, though no main or interaction effects were found on any of the four Self-Efficacy Outcomes ratings. Comparisons were also made using repeated measures to allow for longitudinal analysis of data provided by the same respondents over the course of the project. Results were not statistically significant. The Self-Efficacy Assessment results indicate that the intervention group had lower self-efficacy ratings than the comparison group.

Although the lack of significant effects found for the Self-Efficacy Outcomes may suggest that case managers in the intervention group did not increase their sense of self-efficacy, it is perhaps more likely that these results are due to the effect of social desirability. Specifically, it is unlikely that case managers would indicate during the Baseline data collection that they did not judge themselves to be competent or effective.

Service Outcomes: Enhanced safety, permanency and well-being of children and their families, based on the following indicators.

- % of initial contact with families within 24 hours (Domain: safety)

This data was provided by the Tennessee Department of Children's Services in reference to the percentage of cases in which initial contact was made within 24 hours of the receipt of referral. Quarters 1–8 can be considered to be baseline data, as implementation of the
training did not begin until May 2003, and Quarters 9–16 can be considered to reflect changes during the intervention period. Timeliness of initial contact remained stable during the first six quarters, fluctuating slightly between .45 (45%) and .50 (50%). During Quarters 7–11, the rate of timeliness of initial contact increased and ranged between .62 (62%) and .71 (71%). During Quarters 12 and 13, the rate declined to original levels before beginning a trend upward. During the entire period of the study, rates of timeliness of initial contact varied little between the intervention and control groups.

**Comparison between Baseline and Year 1 Data**

Baseline data is not available, as DCS provided data aggregated for the period from April 1, 2003 through July 31, 2005. Instead we performed a t-test to determine if there were differences between the intervention group and the comparison group on the three outcomes. Two statistically significant differences were found. The intervention group had a higher rate of compliance with Priority 1 and Priority 3.

- % of cases with subsequent substantiated maltreatment reports within 6 months of first substantiated report (Domain: safety)

The data shows the rate of repeated reports of maltreatment within six months of the first report. During the first 12 quarters, the rate of repeated reports remained relatively stable, fluctuating between .03 (3%) and .05 (5%) with little difference between the intervention and control groups. Beginning in Quarter 13, an upward trend in repeated reports began for both the intervention and control groups, though the control group had a much higher trend. During the last quarter under examination, the intervention group had a repeated reports rate of .07 (7%) and the control group had a rate of .12 (12%).

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**Investigations Completed within 60 Days**

- % of intact families with open ongoing protection cases over 12 months (Domain: well-being)

During the first 12 quarters, the rate of repeated reports remained relatively stable, fluctuating between .29 (3%) and .43 (5%) for the intervention group and between .34 (34%) and .49 (49%) for the control group. Through the first 12 quarters, the control group had a slightly higher rate of completed investigations than the intervention group. However, during Quarters 14–16, the intervention group had a higher rate of completed investigations than the control group, with an upward trend evident for both groups.

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**Additional Project-Specific Objectives: Secondary Traumatic Stress Scale.**

The STSS is composed of three subscales (Intrusion, Avoidance, and Arousal) representing the primary symptom domains of traumatic stress responses. Scores can be calculated for each subscale, as well as a total score. Results revealed a statistically significant interaction effect on all subscales and on the total STSS scores. Comparisons were also made using repeated measures of data provided by the same respondents over the course of the project. Results were not statistically significant.

It appears that the intervention group had increased symptoms of secondary traumatic stress as the project proceeded, while the control group had stable or slightly lowered secondary traumatic stress symptoms during the project period. Further, at the last data point, the intervention group had higher levels...
of secondary traumatic stress than did the control group.

Our hypothesis at the onset of the project was that secondary traumatic stress levels would decrease in the intervention group and remain stable in the control group over the course of the project. In addition, we expected that at the conclusion of the project, the intervention group would have lower levels of secondary traumatic stress than the control group.

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