P.S. Program Re-entry Prevention Model (RPM) Year Two
Executive Summary

What is the purpose of the Re-entry Prevention Model (RPM)?
During the first years of implementing the Post-Reunification Support (P.S.) Program, there will be more reunified families than available service slots, meaning that not all reunified families will be able to participate in the program. Therefore, it will be necessary to offer services only to those families whose children are at the highest risk of re-entering out-of-home care following reunification. To determine this, the evaluation team at the University of Illinois Children and Family Research Center (CFRC) used historical data from eWiSACWIS to develop a statistical predictive model to identify which reunified children are most likely to experience a re-entry into out-of-home care (OHC) within 12 months of reunification. This model, called the Re-entry Prevention Model, or RPM, will be used to determine a family's eligibility for P.S. Program participation.

How was the RPM developed?
The research team used data from April 2012-March 2014 to determine which combination of factors were most predictive of re-entry into OHC within 12 months of reunification. Children with a Juvenile Justice (JJ) case type and those children under the responsibility of BMCW were excluded from the RPM development, as the program currently does not serve JJ-only case types nor is it currently applicable to BMCW cases. While a complete list of the variables considered is provided in Appendix A, a summary of the variables reviewed include the following:

- Child demographics and characteristics
- Placement and episode characteristics, including end and begin dates, placement types, removal reasons, etc.
- Child and parent information from the most recent approved Child and Adolescent Needs and Strengths (CANS) assessments completed prior to the child's reunification
- Indicators of need for concurrent planning in Permanency Plans (limited data available)
- Historical CPS Report information
- Historical Initial Assessment information, including most recent IA Safety Assessment Threats and results

The CFRC evaluators used stepwise logistical regression to analyze factors that identified children most at risk of re-entry into OHC within 12 months of reunification. It was also necessary to determine a threshold, or a "cut-off score," that maximized the accurate predictions (the true positives and true negatives) and minimized the inaccurate predictions (the false positive and false negatives) at the estimated program enrollment capacity. Decreasing the threshold for eligibility allows more families to qualify for the program, but decreases the accuracy of the prediction.

What were the results?
The proposed model that best predicted re-entry for children contains five variables. The data indicates an increased risk of re-entry when:

- The child's most recent episode *did not* include placement in a treatment foster home (i.e. treatment foster homes reduced the risk of re-entry);
- The child was removed from a single caregiver home at the time of the most recent removal;
- The child had one or more prior out of home care (OHC) episodes;
- Parent incarceration was documented as a reason for the child's removal; and,
- The child has a higher number of items on their most recent CANS life functioning domain marked as a 2 or 3 (see Appendix B for a list of the items in this domain).

Each child will receive a single score which represents his or her probability of re-entry based on a weighted combination of scores on these five variables. Because one of the variables is derived from the CANS, a completed and approved CANS is required to provide obtain an RPM score.

If a child's probability score is greater than or equal to 0.18, the child would qualify as eligible for the P.S. Program. This version of the RPM has an accuracy rate of 68% and estimates that approximately 350 children will possess a score of 0.18 or higher during a given one year period.