



TEXAS
Department of Family
and Protective Services

Residential Foster Care Risk Tool Methodology

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Table of Contents

- Table of Contents i
- Background and Objectives 2
- Operations Considered..... 2
- I. GRO Model 3
 - A. Variables 3
 - B. Scoring Methodology 6
- II. CPA Model..... 7
 - A. Variables 7
 - B. Scoring Methodology 10

Background and Objectives

The objective of this tool is to generate a risk score for the various operations based on multiple domains, but primarily related to child safety. The results of the model can be used to aggregate operations into 4 groups: low risk, moderate risk, moderate-high risk and high risk.

Operations with a higher score are deemed to have “higher levels of risk”, while operations with a lower score are deemed to have “lower levels of risk.” The model is run on a monthly basis and most of the included variables look at information for the past year.

Operations Considered

All operations that are both licensed by Residential Child Care Licensing (RCCL) and have a standard contract with the Department of Family and Protective Services (DFPS) or a Community Based Care (CBC) provider for the placement of children in Texas state custody were included in the risk stratification model.

Note that the following were not included in the risk stratification model:

- Out of state contractors
- Child Protective Services (CPS) as a Child Placing Agency (CPA)
- Any licensed provider with whom DFPS or a CBC provider did not contract or only placed children through a time limited child specific contract
- Any licensed provider with active contract status that had no placements during the reporting period

Separate models were run for General Residential Operations (GROs) and CPAs. Although the methodology is similar, there are enough nuances in the variables included and the approach between the two models to warrant separate descriptions within this document.

For each model, with the help of Contracts and Programs, a list of variables that incorporate data from across multiple domains related primarily to child safety and incorporate both recent trends and historic patterns of concern along with critical contextual information were selected. For each operation, a score was determined for each measure by comparing it to the other operations included in the model.

A final risk score was calculated by adding the score for all variables. Details for each model are provided below:

I. GRO Model

A. Variables

Table 1 below lists the various variables that were included in the overall score for each operation included in the GRO model along with the counting methodology, look back period, data source, and whether the measure receives a binary or standard deviation score (to be explained in the “Scoring Methodology” section below).

The risk stratification tool is run monthly (starting August 2021) and the latest set of results reflect the model results from the month June 2021. The look back period represents the time for which a specific measure is calculated. Thus, a look back period of 1 year (or equivalently 12 months) implies that information July 2020 to June 2021 would be considered as relevant for that measure.

Some of the variables below are specified as a rate. For these variables, the count of the relevant measure was prorated by the operation’s ADP or Average Daily Population.

Table 1 - GRO Model Variables

Variable	Counting Methodology	Look back period	Binary or Standard Deviation score
Emergency Behavior Intervention (EBI) related citation	1 if the operation received any minimum standards deficiency coded 748.2401 - 748.2999 during the period; 0 if no	1 year	Binary
Failure to Report (FTR) citation	1 if the operation received the minimum standard deficiency for failure to report serious incidents coded 748.303 during the period; 0 if no	1 year	Binary
Physical discipline citation	1 if the operation received the minimum standard deficiency for physical discipline citation coded 748.2301 – 748.2399 or 748.231 and 748.1101(b)(4) during the period; 0 if no	1 year	Binary

Prior corrective action or FITS +	1 if the contractor was on RCCL corrective action or if the contractor has been subject to the FITS process; 0 if no	2 years starting from 1 year before the quarter for which the model is run. For example, if the model is being run at the end of FY20Q2, this variable will encompass the time period from the start of FY17Q3 – end of FY19Q2.	Binary
Youth for Tomorrow (YFT) Indicators missed*	Total number of missed indicators received at an operation during the period. If there was a repeat visit and an operation missed the same or additional indicators, those counts are added to the total	1 year	Standard Deviation (both positive or negative score possible)
Treatment Facility Indicator	1 if operation is licensed as an RTC or licensed with an emotional disorder services indicator, 0 if operation is considered a non-treatment facility and is not licensed	Snapshot	Binary
Current Reason to Believe (RTB) Victims (NEW)	Total number of unique victims per RTB disposition during the period	1 year	Standard Deviation (both positive or negative score possible)
Prior Reason to Believe (RTB) Victims (NEW)	Total number of unique victims per RTB disposition during the period	2 years prior to the time period covered by the Current RTB dispositions measure	Standard Deviation (both positive or negative score possible)
Abuse/Neglect Investigations Victims rate (NEW)	Total number of unique victims per each abuse/neglect investigation opened during the period divided by the operation's ADP	1 year	Standard Deviation (both positive or negative score possible)
Deficiencies	Total deficiencies received from either assessments,	1 year	Standard Deviation (both

	investigations, or inspections during the period		positive or negative score possible)
High deficiencies	Total deficiencies received from either assessments, investigations, or inspections during the period that had a "High" weighted risk associated with the standard violation	1 year	Standard Deviation (both positive or negative score possible)
Personal restraints rate	Total number of personal restraints reported by the contractor for the period divided by the operation's licensed capacity	1 year with a delay of 1 quarter. For example, if the model is being run at the end of FY20Q2, this variable will encompass the time period from the start of FY19Q2 – end of FY20Q1.	Standard Deviation (both positive or negative score possible)
Early exit rate**	Total placements that exited the operation within 45 days during the period divided by the total placements that exited the operation during the period. Does not include any early exits involving kinship/reunification or independent living. Any placements that have a "shelter" living arrangement are also excluded regardless of contract type.	1 year	Standard Deviation (both positive or negative score possible)

+ [LPPH 7400](#) defines a corrective action as Evaluation or Probation, although as of 9/1/2019 the only corrective action type imposed is probation. All of the enforcement actions that may be imposed on an operation are outlined in [LPPH 7100](#).

* Does not apply to CBC-only providers and any emergency shelter only providers

** Does not apply to emergency shelter only providers

B. Scoring Methodology

This section describes the method utilized to score each of the variables listed in the previous section to calculate the final risk score for each operation.

1. For each of the binary score variables, the operation receives a score of 2 for that particular variable if it had occurred during the look back period (i.e., received a 1 for that variable as per the counting methodology). Otherwise, the operation would receive a score of 0 for that particular variable.
2. For each of the standard deviation score variables (with the exception of ALOC), a score equal to number of standard deviations from the mean for the particular variable would be applied. Thus, it is possible for an operation to receive a positive or negative score for these variables. The exact formula to calculate the score s for operation i for variable j is as follows:

$$S_{ij} = \frac{x_{ij} - \mu_j}{\sigma_j}$$

where x_{ij} is the value for operation i for variable j , μ_j is the mean value for variable j for all operations and σ_j is the standard deviation for variable j for all operations

3. Some exceptions to step 2 include:
 - a. Early exit rates do not apply to emergency shelter only providers. Thus, they are removed from the calculation of the mean and standard deviation for the early exit rate variable. A default score of 0 is assigned to emergency shelter only providers for this variable. All other operations are scored as usual.
 - b. YFT indicators missed does not apply to CBC-only providers or any emergency shelter-only providers. Thus, they are removed from the calculation of the mean and standard deviation for the YFT indicators missed variable. A default score of 0 is assigned to CBC providers and emergency shelter only providers for this variable. All other operations are scored as usual.
4. Once all the standard deviation score variables are calculated, a cap is set so that a single variable does not drive the overall score for an operation. The cap is determined by computing the average of the max values across all standard deviation score variables. Once the cap is calculated, if an operation has a score for a variable that is above the cap, the score is set to be equal to the cap. Otherwise, no change is made.
5. After computing a score for each binary and standard deviation score variable, the final risk score is calculated by adding the scores of all the variables.

II. CPA Model

A. Variables

Table 2 below lists the various variables that were included in the overall score for each operation included in the CPA model along with the counting methodology, look back period, data source, and whether the measure receives a binary or standard deviation score (to be explained in the “Scoring Methodology” section below).

The risk stratification tool is run monthly (as of August 2021) and the latest set of results reflect the model results from June 2021. The look back period represents the time for which a specific measure is calculated. Thus, a look back period of 1 year (or equivalently 12 months) implies that information from July 2020 to June 2021 would be considered as relevant for that measure.

Some of the variables below are specified as a rate. For these variables, the count of the relevant measure was prorated by the number of homes licensed under each CPA. The total number of homes is sourced from the Open Foster Care Placements DRIT. The number of homes is calculated by looking at all placements at CPA within a look back period of 1 year. Next, the total number of unique homes that are associated with the particular agency are tallied to get a count of the number of homes.

Table 2 - CPA Model Variables

Variable	Counting Methodology	Look back period	Binary or Standard Deviation score
Emergency Behavior Intervention (EBI) related citation	1 if the operation received any minimum standards deficiency coded 749.2001 - 749.2399; 0 if no	1 year	Binary
Failure to Report (FTR) citation	1 if the operation received the minimum standard deficiency for failure to report serious incidents coded 749.503; 0 if no	1 year	Binary
Physical discipline citation	1 if the operation received the minimum standard deficiency for physical discipline	1 year	Binary

	citation coded 749.1951 – 749.1999 or 749.1003(b)(4) and 749.1003(b)(5); 0 if no		
Prior corrective action or FITS+	1 if the contractor was on RCCL corrective action or if the contractor has been subject to the FITS process; 0 if no	<p>Prior 2 years starting from 1 year before the quarter for which the model is run.</p> <p>For example, if the model is being run at the end of FY20Q2, this variable will encompass the time period from the start of FY17Q3 – end of FY19Q2.</p>	Binary
Youth for Tomorrow (YFT) Indicators missed*	Total number of missed indicators received at an operation during the period If there was a repeat visit and an operation missed the same or additional indicators, those counts are added to the total	1 year	Standard Deviation (both positive or negative score possible)
Treatment Facility Indicator	1 if operation is licensed with an emotional disorder services indicator, 0 if operation is considered a non-treatment facility and is not licensed	Snapshot	Binary
Current Reason to Believe (RTB) Victims (NEW)	Total number of unique victims per RTB disposition during the period divided by total number of homes	1 year	Standard Deviation (both positive or negative score possible)

Prior Reason to Believe (RTB) Victims rate (NEW)	Total number of unique victims per RTB disposition during the period divided by total number of homes	2 years prior to the time period covered by the Current RTB dispositions measure	Standard Deviation (both positive or negative score possible)
Abuse/Neglect investigations Victims rate (NEW)	Total number of unique victims per each abuse/neglect investigation opened during the period divided by the total number of homes	1 year	Standard Deviation (both positive or negative score possible)
Deficiency rate	Total deficiencies received from either assessments, investigations, or inspections during the period divided by total number of homes	1 year	Standard Deviation (both positive or negative score possible)
High deficiency rate	Total deficiencies received from either assessments, investigations, or inspections during the period that had a "High" weighted risk associated with the standard violation divided by total number of homes	1 year	Standard Deviation (both positive or negative score possible)
Personal restraints rate	Total number of personal restraints reported by the contractor for the period divided by total number of homes	1 year with a delay of 1 quarter. For example, if the model is being run at the end of FY20Q2, this variable will encompass the time period from the	Standard Deviation (both positive or negative score possible)

		start of FY19Q2 – end of FY20Q1.	
Early exit rate	Total placements that exited the operation during the period divided by total placements that exited the operation within 45 days during the period. Does not include any early exits involving kinship/reunification or independent living.	1 year	Standard Deviation (both positive or negative score possible)

+ [LPPH 7400](#) defines a corrective action as Evaluation or Probation, although as of 9/1/2019 the only corrective action type imposed is probation. All of the enforcement actions that may be imposed on an operation are outlined in [LPPH 7100](#).

* Does not apply to CBC-only providers

B. Scoring Methodology

This section describes the method utilized to score each of the variables listed in the previous section to calculate the final risk score for each operation.

1. For each of the binary score variables, the operation receives a score of 2 for that particular variable if it had occurred during the look back period (i.e., received a 1 for that variable as per the counting methodology). Otherwise, the operation would receive a score of 0 for that particular variable.
2. For each of the standard deviation score variables, a score equal to number of standard deviations from the mean for the particular variable would be applied. Thus, it is possible for an operation to receive a positive or negative score for these variables. The exact formula to calculate the score s for operation i for variable j is as follows:

$$S_{ij} = \frac{x_{ij} - \mu_j}{\sigma_j}$$

where x_{ij} is the value for operation i for variable j , μ_j is the mean value for variable j for all operations and σ_j is the standard deviation for variable j for all operations

3. YFT indicators missed does not apply to CBC-only providers. Thus, they are removed from the calculation of the mean and standard deviation for the YFT indicators missed variable. A default score of 0 is assigned to CBC providers for this variable. All other operations are scored as usual.
4. Once all the standard deviation score variables are calculated, a cap is set so that a single variable does not drive the overall score for an operation. The cap is determined by computing the average of the max values across all standard deviation score variables. Once the cap is calculated, if an operation has a score for a variable that is above the cap, the score is set to be equal to the cap. Otherwise, no changes are made.
5. After computing a score for each binary and standard deviation score variable, the final risk score is calculated by adding the scores of all the variables.