Introduction

This document provides a summary of revisions made to the statistical syntax used to calculate performance on the Child and Family Services Review (CFSR) Round 3 statewide data indicator(s) and data quality checks following the May 2015 Federal Register Notice. These changes were made to correct technical errors in the syntax and strengthen operationalization of the measures and calculations. The first section of this document, “Indicator Syntax Changes” describes changes made to the code used to calculate performance on the seven CFSR statewide data indicators. The second section, “Source Data Creation and Data Quality Syntax Changes,” describes changes made to the initial processing of National Child Abuse and Neglect Data System (NCANDS) and Adoption and Foster Care Analysis and Reporting System (AFCARS) data files, and to the Data Quality (DQ) checks. These changes are incorporated into the revised syntax that is pending final verification.

Indicator Syntax Changes

Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20)

A significant revision to the syntax pertains to the use of the AFCARS data “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20). The use of this data element provides an ability to accurately calculate the number of days a child was in a prior foster care episode during the 12-month reporting period (two consecutive six-month AFCARS submissions). Due to the structure of the AFCARS file, when a child experiences two foster care episodes during a 12-month reporting period, given certain conditions, the discharge date from the first episode can only be reported using the “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) in a subsequent AFCARS submission. This occurs in a couple of scenarios when the child was already in foster care on the first day of the...
reporting period, or entered foster care during the first six-months of the 12-month reporting period, and then the child:

- Discharged from that foster care episode during the first six-month period, and re-entered foster care during the second six-months of the 12-month reporting period and a “Date of Discharge from Foster Care” (AFCARS Data Element #56) was not included in the first six-month AFCARS submission, or
- Discharged and re-entered foster care during the second six-months of the 12-month reporting period.

For these scenarios, when the information reflected below is in the child’s AFCARS records for the 12-month reporting period, then, the child’s length of stay for the prior foster care episode can be calculated:

- First six-month AFCARS submission:
  - There is a “Date of Latest Removal from Home” (AFCARS Data Element #21), and
  - There is no “Date of Discharge from Foster Care” (AFCARS Data Element #56).
- Second six-month AFCARS submission:
  - “Total Number of Removals from Home to Date” (AFCARS Data Element #19) increased by one removal, and
  - There is a “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20), and
  - “Date of Latest Removal from Home” (AFCARS Data Element #21) changed to represent the start of a new foster care episode.

The number of days in foster care is calculated using the “Date of Latest Removal From Home” (AFCARS Data Element #21) reported in the first six-month AFCARS submission or first day of the 12-month report period (if the child was already in foster care on the first day of the 12-month reporting period), and the “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) from the second six-month AFCARS submission. While the number of days in foster care can be calculated for the scenarios above, the AFCARS reporting structure does not provide a field to report the discharge reason for the initial foster care
episode when the discharge date is reported in the subsequent AFCARS submission. Without a discharge reason for the initial foster care episode, a determination cannot be made if the discharge from foster care qualifies as a discharge to permanency. Therefore, children that fall into that category are excluded from the Permanency in 12 months indicator calculations.

Another exclusion occurs when the “Total Number of Removals From Home to Date” (AFCARS Data Element #19) reported in the second six-month AFCARS submission increases by more than one removal as the number of days in foster care for the initial foster care episode cannot be calculated.

Throughout the rest of this document the aforementioned revision is referred to as: Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20). This change impacts multiple indicators. Indicator-specific descriptions provide additional information, as applicable, regarding how this syntax revision impacts individual indicators and how calculations operated previously.

**Maltreatment in Foster Care**

*Use of additional year of NCANDS data*

Syntax to calculate performance for this indicator was revised to use two consecutive years of NCANDS data to better identify all child victims of substantiated or indicated reports of maltreatment with a report date during the 12-month reporting period. Previously, child victims of abuse and neglect were excluded from the calculation when the report date occurred during the 12-month reporting period and the disposition for that report was documented in the following federal fiscal year NCANDS submission.

*Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20)*

See description of this syntax revision described on pages 1-3 of this document.

Previously, when a child experienced two foster care episodes during a 12-month reporting period, the syntax calculated the total number of days the child was in foster care by adding together the following values for each foster care episode:
1. **Initial foster care episode:** Difference in days between “Date of Latest Removal From Home” (AFCARS Data Element #21) in the first six-month AFCARS submission, or the first day of the 12-month reporting period (if the child was already in foster care on the first day of the 12-month reporting period), and the last day of the 12-month reporting period.

2. **Subsequent foster care episode:** Difference in days between “Date of Latest Removal From Home” (AFCARS Data Element #21) reported in the second six-month AFCARS submission, and the “Date of Discharge from Foster Care” (AFCARS Data Element #56), or the last day of the 12-month reporting period if a discharge date was not reported.

This methodology resulted in some days in foster care being counted in both foster care episodes which produced an inaccurate number of days in foster care that in some cases exceeded 12-months, and child victims of substantiated or indicated reports of maltreatment being counted when the victimization did not occur while the child was in foster care.

**Correction to date of discharge for children who turn 18 years old in foster care**

Syntax was revised to use the date of the child’s 18th birthday if the “Date of Discharge from Foster Care” (AFCARS Data Element #56) was not before that date. Previously, the syntax used the “Date of Discharge from Foster Care” (AFCARS Data Element #56), even when that date occurred after the child’s 18th birthday which produced an inaccurate count of the number of days in foster care.

**Exclusion of AFCARS records with conflicting information**

Syntax was revised to retain the child’s record from the most recent AFCARS submission for the 12-month reporting period (i.e. second six-month AFCARS submission for the 12-month reporting period) and exclude the child’s record from the first six-month AFCARS submission when foster care entry dates overlap or foster care episode discharge dates contradict. Previously, the child’s records from the first and second six-month AFCARS submissions were retained regardless of having conflicting information. This sometimes resulted in inaccurate calculations for the total number of days in foster care, and inclusion of some child victims of abuse and neglect being counted when the victimization did not occur while the child was in foster care.
foster care. The following examples are the most common instances of conflicting information identified for the same child in consecutive AFCARS submissions comprising the 12-month reporting period:

- The two six-month AFCARS submissions have different values for the “Date of Latest Removal from Home” (AFCARS Data Element #21), and the first six-month AFCARS submission does not have a “Date of Discharge from Foster Care” (AFCARS Data Element #56), and the second six-month AFCARS submission does not have a “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) for the first foster care episode.
- Information contained in the two six-month AFCARS submissions indicates there were two separate foster care episodes during the 12-month reporting period. However, the “Date of Latest Removal from Home” (AFCARS Data Element #21) for the second foster care episode occurred before the “Date of Discharge from Foster Care” (AFCARS Data Element #56) identified for the first foster care episode.

Correctly account for leap years

Revised syntax no longer applies code to overwrite the number of days in foster care greater than the 12-month reporting period to equal 365 days. Syntax revisions described under “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) and “Exclusion of AFCARS records with conflicting information,” resolved calculation errors that resulted in length of stays longer than the 12-month reporting period, and therefore, the need for code to overwrite the number of days in foster care to equal 365 days. Previously, children in foster care for the entire 12-month period during a leap year (366 days) were impacted by the prior code and identified as having 365 days in foster care.

Recurrence of Maltreatment

Correction to not exclude applicable substantiated or indicated child maltreatment reports

Syntax for this indicator excludes substantiated or indicated maltreatment reports for the same child that occurs within 14 days of the initial substantiated or indicated maltreatment report.
Revised syntax checks child abuse victim incident dates when comparing the initial substantiated or indicated maltreatment report with a subsequent substantiated or indicated maltreatment report for the same child to determine whether the subsequent report meets the 14-day exclusion criteria. If the two substantiated or indicated maltreatment reports have the same child abuse victim incident dates, the syntax excludes the subsequent maltreatment report. The syntax then checks to see if there was another subsequent substantiated or indicated maltreatment report for the child within 12 months of the initial victimization, and if those reports have the same child abuse victim incident dates. Previously, the syntax retained only the first substantiated or indicated maltreatment report greater than 14 days after the initial victimization, and excluded all other substantiated or indicated maltreatment reports for the child received within 12 months of the initial report. If the syntax determined the two retained maltreatment reports had the same child abuse victim incident date (see description of next syntax revision), then the child was identified as not experiencing recurrence of maltreatment despite subsequent substantiated or maltreatment reports being received within 12 months of the initial victimization.

*Correct use of child maltreatment incident dates*

Syntax was revised to require child abuse victimization incident dates be reported for each substantiated or indicated maltreatment report used to determine whether the reports refer to the same incident. The use of maltreatment incident dates is a secondary check performed by the syntax when victimization incident dates are included in the NCANDS file. Child maltreatment reports over 14 days apart with the same maltreatment incident date are not identified as recurrence of maltreatment. When a victimization incident date is not reported in the NCANDS file for both substantiated or indicated maltreatment reports, the syntax relies on the maltreatment report date to determine if the second maltreatment report qualifies as recurrence of child maltreatment. Previously, when a child had two substantiated or indicated reports of child maltreatment more than 14 days apart, and one report had a child abuse incident date and the other report did not, the syntax overwrote the blank incident date with the
incident date from the other maltreatment report. As a result, the second victimization was not counted as recurrence of maltreatment.

**Exclusion of unborn children**

Syntax was revised to exclude unborn children in calculations for this indicator. This change was made based on a number of reasons, including: variation in number of states reporting unborn children in NCANDS submissions, differences in state policy for identifying unborn children as victims, inability to verify child IDs remained the same after the child was born, and overall concerns regarding the validity of being able to adequately assess recurrence of child maltreatment involving unborn children.

**Permanency in 12 Months for Children Entering Foster Care, and Re-entry to Foster Care in 12 Months**

*Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20)*

See description of this syntax revision described on pages 1-3 of this document. When a child experiences two foster care episodes during a 12-month reporting period and the end date of the first foster care episode is reported in the second six-month AFCARS submission using “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) the child’s record is excluded from Permanency in 12 months indicator calculations. The AFCARS reporting structure does not provide a field to report the discharge reason for the initial foster care episode when the discharge date is reported in a subsequent AFCARS submission. Without a discharge reason for the initial foster care episode, a determination cannot be made if the discharge from foster care qualifies as a discharge to permanency. Previously, the syntax did not use the “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) to identify the initial foster care episode ended. As a result, the child was included in the denominator, and counted as not having achieved permanency.
Exclusion of AFCARS records with conflicting information

Syntax was revised to retain the child’s record from the most recent AFCARS submission for the 12-month reporting period (i.e. second six-month AFCARS submission for the 12-month reporting period) and exclude the child’s record from the first six-month AFCARS submission when foster care entry dates overlap or foster care episode discharge dates contradict. Previously, the child’s records from the first and second six-month AFCARS submissions were retained regardless of having conflicting information. This sometimes resulted in inaccurate calculations for the total number of days in foster care. The following examples are the most common instances of conflicting information identified for the same child in consecutive AFCARS submissions comprising the 12-month reporting period:

- The two six-month AFCARS submissions have different values for the “Date of Latest Removal from Home” (AFCARS Data Element #21), and the first six-month AFCARS submission does not have a “Date of Discharge from Foster Care” (AFCARS Data Element #56), and the second six-month AFCARS submission does not have a “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) for the first foster care episode.
- Information contained in the two six-month AFCARS submissions indicates there were two separate foster care episodes during the 12-month reporting period. However, the “Date of Latest Removal from Home” (AFCARS Data Element #21) for the second foster care episode occurred before the “Date of Discharge from Foster Care” (AFCARS Data Element #56) identified for the first foster care episode.

Permanency in 12 Months for Children in Care 12-23 Months, and Permanency in 12 Months for Children in Care 24 Months or More

Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20)

See description of this syntax revision described on pages 1-3 of this document. When a child experiences two foster care episodes during a 12-month reporting period and the end date of the first foster care episode is reported in the second six-month AFCARS submission using
“Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) the child’s record is excluded from Permanency in 12 months indicator calculations. The AFCARS reporting structure does not provide a field to report the discharge reason for the initial foster care episode when the discharge date is reported in a subsequent AFCARS submission. Without a discharge reason for the initial foster care episode, a determination cannot be made if the discharge from foster care qualifies as a discharge to permanency. Previously, the syntax did not use the “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) to identify the initial foster care episode ended. As a result, the child was included in the denominator, and counted as not having achieved permanency.

**Include children who discharged from foster care in first seven days of 12-month reporting period**

Syntax was revised to include children who discharged from foster care in the first seven days of the 12-month reporting period in the indicator calculations. Previously, the syntax incorrectly applied a general rule to exclude all children in foster care less than eight days which did not account for children who were in foster care a minimum of 12-months as of the first day of the 12-month reporting period.

**Placement Stability**

*Use of “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20)*

See description of this syntax revision described on pages 1-3 of this document. There is one difference for this indicator from what is described on pages 1-3 when a child experiences two foster care episodes during a 12-month reporting period and the end date of the initial foster care episode occurred during the second six-month AFCARS submission. The revised syntax calculates the number of days in foster care and corresponding count of placement moves for the initial foster care episode using the last day of the first six-month AFCARS submission. The AFCARS reporting structure does not provide a field to report the number of placement settings for the initial foster care episode when the discharge date occurs in a subsequent AFCARS submission that includes another foster care episode. Therefore only the number of days in
foster care associated with the known number of placement settings is used in indicator calculations. Previously, for this scenario the number of days in foster care for the first foster care episode was calculated as the difference between “Date of Latest Removal from Home” (AFCARS Data Element #21) reported in the first six-month AFCARS submission and the last day of the 12-month reporting period. This prior methodology resulted in some days in foster care being counted in both foster care episodes which produced inaccurate length of stays that in some cases exceeded 12-months, and foster care days being counted when the associated number of placement moves was unknown.

Correction to date of discharge for children who turn 18 years old in foster care

Syntax was revised to use the date of the child’s 18th birthday if the “Date of Discharge from Foster Care” (AFCARS Data Element #56) was not before that date. Previously, the syntax used the “Date of Discharge from Foster Care” (AFCARS Data Element #56), even when that date occurred after the child’s 18th birthday which produced an inaccurate count of the number of days in foster care, and potentially an over count of placement moves by including moves that occurred after the child’s 18th birthday.

Correction to adjusted number of placement moves

“Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) by definition includes a child’s current placement setting. If a child’s foster care episode included a value of “1” for AFCARS Data Element #24, it indicates the child did not experience any placement changes. Calculations for this indicator use the number of placement moves that occurred while the child was in foster care during the 12-month reporting period and under the age of 18 years which requires an adjustment to the number of placement settings reported for AFCARS Data Element #24. The revised syntax corrects the number of adjustments made to the count of placement moves during the 12-month reporting period. The revised syntax performs the following adjustments:

- Subtracts one placement move for all foster care episodes to not count the initial removal from home (and into foster care) as a placement move.
Subtracts one placement move when the child’s “Date of Placement in Current Foster Care Setting” (AFCARS Data Element #23) is greater than the adjusted date of discharge for children who turned 18 years during the 12-month reporting period and the “Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) is greater than or equal to one.

Previously, the syntax adjusted the total number of placement moves by subtracting one placement move for each of the four scenarios described below, and did not treat these scenarios as mutually exclusive.

1. Child’s “Date of Placement in Current Foster Care Setting” (AFCARS Data Element #23) is greater than the adjusted date of discharge and the “Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) is greater than or equal to two.

2. Child's “Date of Placement in Current Foster Care Setting” (AFCARS Data Element #23) is less than or equal to the adjusted date of discharge and the “Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) is greater than or equal to one.

3. Child’s AFCARS record is missing “Date of Placement in Current Foster Care Setting” (AFCARS Data Element #23) and the “Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) is greater than or equal to one.

4. Child’s AFCARS record identifies the child was still in foster care at end of the 12-month reporting period and the “Number of Previous Placement Settings During This Removal Episode” (AFCARS Data Element #24) is greater than or equal to one.

While scenarios 1-3 above are mutually exclusive (the child’s AFCARS record cannot meet more than one of those scenarios), a child’s record could meet scenarios 1 or 3, and also 4. Previously, when a child’s AFCARS record for the 12-month reporting period met more than one of these scenarios, it resulted in more placement moves being subtracted from the “Number of Previous Placement Settings During This Removal Episode” (AFCARS data element #24) than
intended. A different error that did not use the child’s 18th birthday as the foster care episode discharge date compounded the calculation error described in this syntax change as it increased the number of children who met scenarios 3 and 4.

Correctly account for leap years

Revised syntax no longer applies code to overwrite the number of days in foster care greater than the 12-month reporting period to equal 365 days. Syntax revisions described under “Date Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) and “Exclusion of AFCARS records with conflicting information,” resolved calculation errors that resulted in length of stays longer than the 12-month reporting period, and therefore, the need for code to overwrite the number of days in foster care to equal 365 days. Previously, children in foster care for the entire 12-month period during a leap year (366 days) were impacted by the prior code and identified as having 365 days in foster care.

Exclusion of AFCARS records with conflicting information

Syntax was revised to retain the child’s record from the most recent AFCARS submission for the 12-month reporting period (i.e. second six-month AFCARS submission for the 12-month reporting period) and exclude the child’s record from the first six-month AFCARS submission when foster care entry dates overlap or foster care episode discharge dates contradict. Previously, the child’s records from the first and second six-month AFCARS submissions were retained regardless of having conflicting information. This sometimes resulted in inaccurate calculations for the total number of days in foster care, and double counting the number of placement moves. The following examples are the most common instances of conflicting information identified for the same child in consecutive AFCARS submissions comprising the 12-month reporting period:

- The two six-month AFCARS submissions have different values for the “Date of Latest Removal from Home” (AFCARS Data Element #21), and the first six-month AFCARS submission does not have a “Date of Discharge from Foster Care” (AFCARS Data Element #56), and the second six-month AFCARS submission does not have a “Date
Child Was Discharged from Last Foster Care Episode” (AFCARS Data Element #20) for the first foster care episode.

- Information contained in the two six-month AFCARS submissions indicates there were two separate foster care episodes during the 12-month reporting period. However, the “Date of Latest Removal from Home” (AFCARS Data Element #21) for the second foster care episode occurred before the “Date of Discharge from Foster Care” (AFCARS Data Element #56) identified for the first foster care episode.

Source Data Creation and Data Quality Syntax Changes

National Child Abuse and Neglect Data System (NCANDS) Source Data Syntax

In the prior version of the CFSR 3 statewide data indicator syntax, the NCANDS data file preparation and NCANDS DQ checks were embedded within the code for generating performance data on the two safety statewide data indicators. To align the NCANDS preparation and DQ sections of the code with the AFCARS preparation and DQ section of the code, and to improve readability, these sections of the code were removed from the indicator calculation syntax and used to create two new syntax files. The first set of code performs steps required to prepare the data for syntax calculations. The second set of code runs the NCANDS DQ checks and creates the data set needed to calculate performance on the data indicators.

NCANDS and Adoption and Foster Care Analysis and Reporting System (AFCARS) Data Quality (DQ) Checks

Changes to exclude some records with data quality issues from DQ checks

With the exception of DQ checks specifically designed to identify missing data elements (e.g. Missing age for victims), if a record does not have a valid value for one or more of the variables used in the DQ check, the record is excluded from the check. Previously, the record passed the DQ check despite not having values required to perform the check.
NCANDS Data Quality (DQ) Checks

Records that fail a DQ check are excluded from data indicator calculations

Syntax was changed to exclude records from applicable indicator calculations that fail individual records-level NCANDS DQ checks. Previously, when a record failed a NCANDS DQ check, the record was not removed from the initial population of records used to calculate performance on the safety indicators. This change aligns NCANDS DQ check functionality with the syntax for AFCARS DQ checks which removes records that failed a record-level DQ check from applicable indicator calculations, even if the state did not exceed a DQ limit. This revision only changes the results of the DQ check listed below:

- Child IDs for victims match across years, but dates of birth / age and sex do not match

Adjustment to NCANDS DQ Check: Child IDs for victims match across years, but dates of birth and sex do not match

The syntax for this DQ check was modified to separately perform and apply the results of the steps below. Previously, the code for this DQ check performed steps one and two sequentially, and the results of step two inadvertently overrode the results of step one.

1. Determine whether DOB and sex match between the most recent years.
2. Determine whether sex matches between the two most recent records, and whether the age difference between the two most recent records is within an expected range. Note: An age difference that is outside of the expected range occurs when the child’s age difference between the two years is less than zero or greater than three years.

AFCARS Data Quality (DQ) Checks

DQ checks limited to children under 18 years of age, with the exception of three DQ checks

DQ checks are now limited to records of children younger than 18 years, with the exception of the following AFCARS DQ checks specifically designed for the 18 and older population:

- Age at discharge greater than 21
• Age at entry greater than 21
• In foster care more than 21 years

Previously, states could fail DQ checks based on data quality issues for the 18 and older population, and if they exceeded the DQ limit were excluded from indicator calculations. Syntax revisions now result in the exclusion of states from data indicator calculations only when the data quality limit is exceeded due to data problems applicable to the population of children used in indicator calculations, with the exception of the three DQ checks identified above.

*Population of children included in denominator changed for five DQ checks to records with children who discharged from foster care*

The denominator for the following DQ checks has been changed to apply only to records of children who discharged from foster care. Previously, these DQ checks were applied to all records included in the six-month AFCARS submission. This change affects the following five DQ checks:

1. Missing discharge reason
2. Age at discharge greater than 21
3. Date of birth after date of exit
4. Enters and exits care the same day
5. Exit date is prior to removal date

*DQ Limit increased for DQ Check: Missing discharge reason*

The DQ limit for “Missing Discharge Reason” was increased from 5 percent to 10 percent. The reduction was made as the syntax revision to limit some DQ checks to records of children who discharged from foster care instead of all records in the six-month AFCARS submission (see description for syntax revision listed before this one) substantially reduced the population of records used in this DQ check.