

UNDERSTANDING THE UPCOMING CMF CLEARINGHOUSE RATING TRANSITION

The CMF Clearinghouse will transition to the CMF rating criteria developed as part of the NCHRP 17-72 project for the Update of CMFs for the Highway Safety Manual. The purpose of this flyer is to provide details about what is going to change as a result of this rating transition, how this change might impact users and what users can do to prepare for the transition.

NEW RATING PROCEDURE DEVELOPED BY NCHRP 17-72

The NCHRP 17-72 project developed a CMF rating system to update CMFs for the Highway Safety Manual. This rating system is more rigorous than the existing CMF Clearinghouse rating criteria and provides scores for various factors (there are multiple levels within factors and points for each level). The total score

is calculated by adding the points for the different factors, with a maximum possible score of 150.

The following table provides a summary of the factors used for the various study types.

The [CMF Clearinghouse](#) includes the detailed rating criteria for each study type.

BEFORE/AFTER AND CROSS-SECTIONAL STUDIES		
FACTORS	SUBCATEGORIES	TOTAL POINTS
Data	Number of miles/sites and number of crashes for reference/comparison and treatment groups	55
Study Design and Statistical Methodology	Potential biases, accounting for trends, and appropriateness of statistical procedures	75
Statistical Significance	Statistical significance of CMF	20
META-ANALYSIS STUDIES		
FACTORS	SUBCATEGORIES	TOTAL POINTS
Methodology and Data	Consistent methodology and crash type and severity definitions across included studies	55
Individual CMF Quality	Quality of studies used and standard errors of the individual CMFs.	35
Appropriateness of Combining	Use of appropriate methods to estimate the combined CMF	40
Statistical Significance	Overall statistical significance of the combined CMF	20
META-REGRESSION STUDIES		
FACTORS	SUBCATEGORIES	TOTAL POINTS
Methodology and Data	Consistent methodology and crash type and severity definitions across included studies	55
Individual CMF Quality	Quality of studies used and standard errors of the individual CMFs.	35
Appropriateness of Statistical Analysis	Use of appropriate statistical methods to estimate crash modification function including use of appropriate model and functional forms	60

CONVERTING NCHRP 17-72 RATINGS TO CMF CLEARINGHOUSE STAR RATINGS

The CMF Clearinghouse will continue to present CMF rating on a 5-Star scale, along with the total score calculated using the NCHRP 17-72 rating criteria. The conversion criteria from the 150-point NCHRP 17-72 rating scale to the traditional CMF Clearinghouse Star rating scale is shown in the table to the right.

Under the new rating criteria, a CMF must score a minimum of 75 points (i.e., 50% of the total points) to receive a 3-Star rating.

There will be movement between the star ratings with some CMFs being rated differently from their current ratings in the CMF Clearinghouse. The table to the right summarizes how current star rated CMFs will fare under the new rating system.

About 52% of the CMFs would maintain their current star ratings; whereas, about 16% of CMFs currently rated 3 Stars or better would be rated 2 Stars or lower. This includes 114 CMFs that are currently rated 4 Stars or better would be rated 2 Stars or lower, and 15 CMFs that that are currently rated 2 Stars or lower would be rated 4 Stars with the new NCHRP 17-72 rating criteria. The movements in star ratings can be attributed to various factors with the most prevalent ones being non reporting of the number of crashes and number of miles/sites used for CMF development.

WHAT CAN YOU DO TO PREPARE FOR THE TRANSITION?

The CMF Clearinghouse will transition to the new rating system on or about February 15, 2021. To minimize the impact of rating changes to the current CMFs, the CMF Clearinghouse will provide users with a spreadsheet consisting of both the old and new star ratings for the CMFs currently in the CMF Clearinghouse. However, CMFs added to the CMF Clearinghouse after the rating transition would only show the ratings based on the new criteria.

NCHRP 17-72 Rating Score	Star Rating in CMF Clearinghouse
135-150	5 Star
110-134	4 Star
75-109	3 Star
35-74	2 Star
0-34	1 Star

NCHRP 17-72 Star Rating	Current CMF Clearinghouse Star Ratings				
	5★	4★	3★	2★	1★
1 Star (0-34)	3	21	116	341	215
2 Star (34-74)	1	89	639	666	59
3 Star (75-109)	67	485	1903	264	25
4 Star (110-134)	91	954	988	11	4
5 Star (135-150)	137	210	56	0	0

Users can do the following to prepare for this transition:

- Familiarize yourself with the [new rating criteria](#).
- Continue to record CMF IDs for the CMFs that you are currently using (this would allow you to easily check the spreadsheet with the new and old star ratings to confirm whether the rating for a CMF has changed).
- State DOTs with State CMF lists should prepare to update their lists following the rating transition to reflect the new rating criteria.

Visit the [CMF Clearinghouse](#) for the most up-to-date information about the transition or contact Karen Scurry (karen.scurry@dot.gov) if you have specific questions regarding this rating system transition.

