

*“A **Knowledgeable** and **Compassionate** partner”*



# 5-Star Updates: July 2022

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# APPROVAL STATEMENT DISCLOSURE

- This nursing continuing professional development activity was approved by Broad River Rehab, an accredited approver by the American Nurses Credentialing Center's Commission on Accreditation.
- This course has been approved for 1.5 contact hours.

# CONFLICT OF INTEREST DISCLOSURE

- Broad River Rehab is not charging for this educational offering and has no financial or other conflicts of interest regarding this program.

# SUCCESSFUL COMPLETION REQUIREMENTS

- **Live, in-person**
  - In order to obtain nursing contact hours, you must attend the entire activity, participate in case study analysis, and complete the evaluation.
- **Live, virtual**
  - In order to obtain nursing contact hours, you must participate in the entire program, participate in audience polling and/or Q&A and complete the evaluation.
- **Web-Based/On-Demand**
  - In order to obtain nursing contact hours, you must view the entire program, and complete the evaluation.

# DISCLOSURE OF THE EXPIRATION DATE FOR AWARDING CONTACT HOURS FOR ENDURING PROGRAMS

- Contact hours for this program will not be awarded after August 13, 2022





# Learning Objectives

## 5-Star Updates July 2022

After this course participants will be able to:

- Recognize how the 5-star rating is constructed
- Understand the new staffing measures
- Identify the components of the staffing star calculation
- Have a working knowledge of the recent changes to the staffing stars
- Be familiar with how the staffing star revisions will affect the overall star rating

# Agenda

## 5-Star Updates July 2022

- Brief 5-Star Overview
- Review of the two new staffing measures
- What's new with the staffing stars
- Understanding staffing stars calculation
- How the overall 5-star rating will be impacted
- Q&A

# 5-Star Overview

- **History**

- In December 2008, the Centers for Medicare & Medicaid Services (CMS) enhanced its Nursing Home Compare public reporting site to include a set of quality ratings for each nursing home that participates in Medicare or Medicaid.
- The ratings take the form of several “star” ratings for each nursing home.
- The primary goal of this rating system is to provide residents and their families with an easy way to understand assessment of nursing home quality, making meaningful distinctions between high and low performing nursing homes.
- The star ratings are compiled from Health Inspection data, Quality Measure Data and Staffing data

# 5-Star Overview

- **Health Inspection**

- Ratings for the health inspections domain are based on the number, scope, and severity of deficiencies identified during the three most recent annual inspection surveys, as well as substantiated findings from the most recent 36 months of complaint investigations and focused infection control surveys.
- All deficiency findings are weighted by scope and severity. The health inspections rating also takes into account the number of revisits required to ensure that deficiencies identified during health inspection surveys have been corrected.
- Each cycle of survey data and revisit data are weighted with more recent survey data weighted more heavily in the final score.
- Facilities are compared against their peers in their state. State health inspection cut points determine a facility's Health Inspection star rating.



# 5-Star Overview

- **Quality Measures**

- Measures are based on MDS and claims-based quality measures (QMs)
- Ratings for the quality measures are based on performance on 15 of the QMs that are currently posted on the Care Compare website.
- These include nine long-stay measures and six short-stay measures.
- Note that not all the quality measures that are reported on Care Compare are included in the rating calculations.
- In addition to an overall quality measure rating, separate QM ratings for short-stay measures and long-stay measures are also reported.

# 5-Star Overview

- **Staffing**

- Measures based on nursing home staffing levels and staff turnover
- Ratings for the staffing domain are based on six measures. This includes:
  - three nurse staffing level measures (hours per resident per day and on weekends) **and**
  - three measures of staff turnover.
- The staffing measures are derived from data submitted each quarter through the Payroll-Based Journal(PBJ) System, along with daily resident census derived from Minimum Data Set, Version 3.0 (MDS 3.0) assessments.
- The nurse staffing level measures are case-mix adjusted based on the distribution of MDS 3.0 assessments by Resource Utilization Groups, version IV (RUG-IV groups) and cover a single quarter.
- The turnover measures use six consecutive quarters of PBJ data to define annual turnover for nursing staff and administrators.

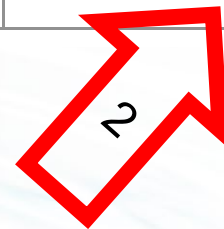
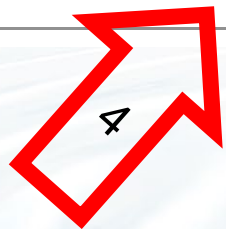
## Overall Nursing Home Rating (Composite Measure)

# 5-Star Overview

- Based on the star ratings for the health inspection domain, the staffing domain and the quality measure domain, CMS assigns the overall Five-Star rating in three steps:
- **Step 1:** Start with the health inspection rating.
- **Step 2:** Add one star to the Step 1 result if the staffing rating is **five stars**; subtract one star if the staffing rating is one star. The overall rating cannot be more than five stars or less than one star.
- **Step 3:** Add one star to the Step 2 result if the quality measure rating is five stars; subtract one star if the quality measure rating is one star. The overall rating cannot be more than five stars or less than one star.
- **Note:** If the health inspection rating is one star, then the overall rating cannot be upgraded by more than one star based on the staffing and quality measure ratings.

# 5-Star Overview

Ratings for Anwhere Nursing and Rehab				
Overall Quality	Health Inspection	Quality Measures	Staffing	RN Staffing
★★★	★★★★	★	★★	★★





# Staffing Stars (July 2022)

- The rating for staffing is based on six measures.
  - 1. Case-mix adjusted total nursing hours per resident day (registered nurse (RN) + licensed practical nurse (LPN) + nurse aide hours) for a quarter averaged across all days (weekdays and weekends)
  - 2. Case-mix adjusted RN hours per resident day for a quarter, averaged across all days (weekdays and weekends)
  - 3. Case-mix adjusted total nursing hours per resident day (RN + LPN + nurse aide hours) for a quarter averaged across all weekend days (Saturdays and Sundays)
  - 4. The percentage of nursing staff that left the nursing home over a twelve-month period.
  - 5. The percentage of RNs that left the nursing home over a twelve-month period.
  - 6. The number of administrators that left the nursing home over a twelve-month period.

# Staffing Stars (July 2022)

- The source for reported staffing hours is the Payroll-Based Journal (PBJ) system. These data are submitted quarterly and are due 45 days after the end of each reporting period.
- Only data submitted and accepted by the deadline are used by CMS for staffing calculations and in the Five-Star Rating System. .
- Ensure Staffing data and employee data is accurate via CASPER Validation reports and other PBJ related reports.

# Staffing Stars (July 2022)

- The specific PBJ job codes that are used in the RN, LPN, and nurse aide hour calculations are:
  - **RN hours:** Includes RN director of nursing (job code 5), registered nurses with administrative duties (job code 6), and registered nurses (job code 7).
  - **LPN hours:** Includes licensed practical/licensed vocational nurses with administrative duties(job code 8) and licensed practical/vocational nurses (job code 9)
  - **Nurse aide hours:** Includes certified nurse aides(job code 10), aides in training (job code 11),and medication aides/technicians (job code 12)
  - PBJ staffing data include both facility employees (full-time and part-time) and individuals under an organization (agency) contract or an individual contract. **The PBJ staffing data do not include** “private duty” nursing staff reimbursed by a resident or his/her family. Also not included are hospice staff and feeding assistants.

# Staffing Stars (July 2022)

- The daily resident census, used in the denominator of the reported nurse staffing ratios, is derived from MDS resident assessments
- MDS assessments for a given resident are linked using the Resident Internal ID. The Resident Internal ID is a unique number, assigned by the Quality Improvement Evaluation System (QIES) Assessment Submission and Processing (ASAP) system, which identifies a resident.
- In order to achieve an accurate census, it is imperative that, in addition to having complete assessment data for each resident including Discharge assessment data, residents are assigned correct Resident Internal IDs.
- To facilitate this, providers must ensure that MDS items, in particular the items indicated above, are entered correctly on each assessment. Providers must also carefully monitor the Final Validation Report, generated upon MDS submission, for any errors.



# Staffing Stars (July 2022)

- The nurse staffing hours reported through PBJ (numerator) and the daily MDS census (Denominator) are both aggregated (summed) across the quarterly reporting period.
- The quarterly reported nurse staffing hours per resident day are then calculated by dividing the aggregate reported hours by the aggregate resident census.
- Only days that have at least one resident are included in the calculations.
- Total nurse staffing **on the weekends** is similarly calculated with both the numerator (reported nurse staffing hours) and the denominator (resident census) aggregated (summed) across all weekend days (Saturdays and Sundays) in the quarterly reporting period.

# Staffing Stars (July 2022)

- CMS uses a set of exclusion criteria to identify facilities with highly improbable PBJ staffing data and nurse staffing levels are not reported for these facilities (“Not Available” is displayed on the Care Compare website).
  - Total nurse staffing (job codes 5-12), aggregated over all days in the quarter with at least one resident, is zero (0 hours per resident per day).
  - Total nurse staffing (job codes 5-12), aggregated over all weekend days in the quarter with at least one resident, is zero (0 hours per resident per day).
  - Total nurse staffing (job codes 5-12), aggregated over all days in the quarter with at least one resident, is excessively high (>12 hours per resident day).
  - Total nurse staffing (job codes 5-12), aggregated over all weekend days in the quarter with at least one resident, is excessively high (>12 hours per resident day).
  - Nurse aide staffing (job codes 10-12), aggregated over all days in the quarter with at least one resident, is excessively high (>5.25 hours per resident day).
  - Nurse aide staffing (job codes 10-12), aggregated over all weekend days in the quarter with at least one resident, is excessively high (>5.25 hours per resident day).

# Staffing Stars (July 2022)

- CMS then adjusts the reported staffing ratios for case-mix, using the Resource Utilization Group (RUG-IV) case-mix system. The CMS Staff Time Resource Intensity Verification (STRIVE) Study measured the average number of RN, LPN, and nurse aide minutes associated with each RUG-IV group (using the 66 group version of RUG-IV). These are referred to as “case-mix hours”.
- The case-mix values for each nursing home are based on the daily distribution of residents by RUG-IV group in the quarter covered by the PBJ reported staffing and estimates of daily RN, LPN, and nurse aide hours from the CMS STRIVE Study.
  - Due to an extremely high correlation ( $>0.99$ ) between facility case-mix values on the weekends and that calculated for all days in the quarter, the case-mix value for all days in the quarter is used for calculating the case-mix adjusted total nurse staffing on the weekends.
- CMS calculates case-mix adjusted hours per resident day for each facility for each staff type using this formula

$$\text{Hours Adjusted} = (\text{Hours Reported} / \text{Hours Case-Mix}) * \text{Hours National Average}$$



# Staffing Stars (July 2022)

## 5-Star Preview Report Ex. (April 2022)

Staffing Levels for January 1 to March 31, 2022 for Provider Number 000000				
	Reported Hours per Resident per Day (HRD)	Reported Hours per Resident per Day (HRD) (Decimal)	Case-Mix HRD	Case-Mix Adjusted HRD
<b>All days</b>				
Total nurse (RN, LPN, LVN, and Nurse Aide) hours	3 hours and 5 minutes	3.078	3.528	2.762 <sup>1</sup>
RN hours	29 minutes	0.484	0.497	0.383 <sup>1</sup>
LPN/LVN hours	1 hour and 6 minutes	1.100	0.848	0.954
Nurse aide hours	1 hour and 30 minutes	1.494	2.183	1.394
Physical therapist <sup>2</sup> hours	3 minutes			
<b>Weekend<sup>2</sup> (Saturday and Sunday)</b>				
Total nurse (RN, LPN, LVN, and Nurse Aide) hours	2 hours and 38 minutes	2.633		
RN hours	16 minutes	0.262		



# Staffing Stars (July 2022)

- **Staff Turnover**

- Staff turnover measures are constructed using the daily staffing information submitted through the PBJ system. Turnover is identified based on gaps in days worked and does not depend on termination dates reported by nursing homes.
- **Denominator:** The turnover measures include only individuals who work at least 120 hours in a 90-day period across the baseline quarter (the quarter prior to the first quarter used in the turnover calculation) and the first two quarters used in the turnover calculation.
- This specification excludes individuals who work infrequently (e.g., occasionally covering shifts at a nursing home). Note that both regular employees and agency staff are included in the turnover measure if they work sufficient hours to be eligible for the denominator.

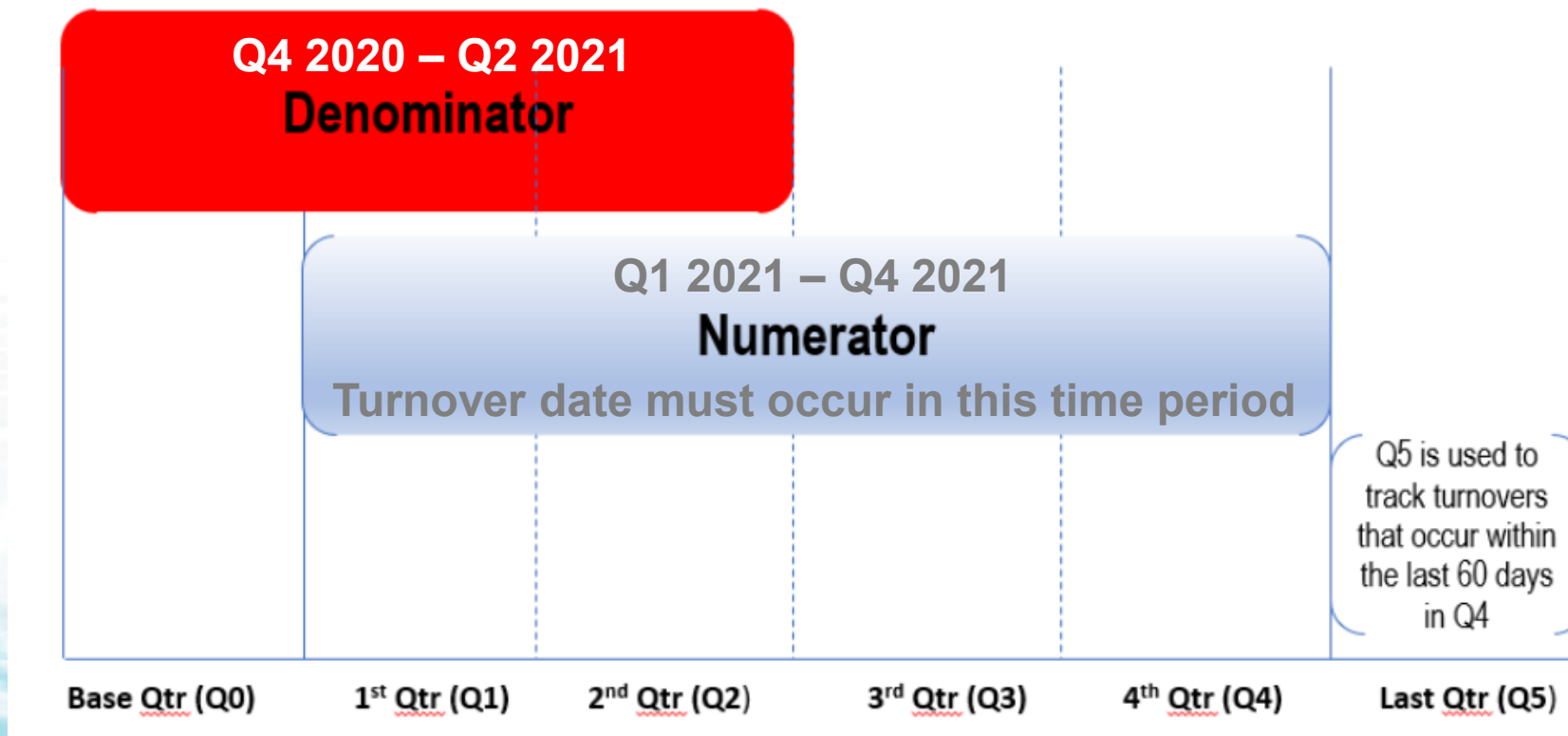
# Staffing Stars (July 2022)

- **Staff Turnover**

- **Numerator:** Individuals who no longer work at the nursing home are defined as eligible individuals who have a period of at least 60 consecutive days in which they do not work at all. The 60-day gap must start during the period covered by the turnover measure.
- The turnover date is defined as the last workday prior to the start of the 60-day gap.
- Note that data from the quarter after the period covered by the turnover measure are required to identify gaps that start within 60 days of the end of the period covered by the turnover measure.
- **Note:** Individuals who return to the nursing home after a gap of more than 60 days can have multiple 'employment spells' used in the turnover calculation if they meet the eligibility requirement for subsequent employment spell(s). Essentially, they are treated as new employees.

# Staffing Stars (July 2022)

- Staff Turnover



# Staffing Stars (July 2022)

- **Staff Turnover Exclusions:**

- Nursing homes that failed to submit staffing data or submitted data that are considered invalid for one or more of the quarters used to calculate the turnover measures are excluded.
- Turnover measures will not be reported or used in the staffing rating until the quarter(s) with missing or invalid data are no longer included in the turnover measure calculation period (six quarters).
- Additionally, if a nursing home has no resident census information (derived from MDS assessments and needed for the calculation of staffing levels), the nursing home is excluded.
- Nursing homes are excluded from the total nurse staffing and RN turnover measures if they have fewer than five eligible nurses (RNs, LPNs, and nurse aides) in the denominator.
- For the nursing home administrator turnover measure, the minimum requirement is one eligible administrator.
- For the total nurse staffing and RN turnover measures, nursing homes with 100 percent daily total nurse staffing turnover for any day in the six quarter period on which there were at least five eligible nurse staff are excluded.



# Staffing Stars (July 2022)

- **Staff Turnover Exclusions (cont.):**

- For the administrator turnover measure, nursing homes that submitted no administrator data for one or more of the six required quarters are excluded.
- For the administrator turnover measure, nursing homes that submitted PBJ data suggesting an erroneously high number of administrators are excluded. Specifically, if a nursing home reports administrator hours (job code 1) for five or more individuals (based on employee IDs) on 12 or more days during the three-quarter denominator eligibility period, the administrator turnover measure will be excluded.

# Staffing Stars (July 2022)

- **Staff Turnover Calculation:**

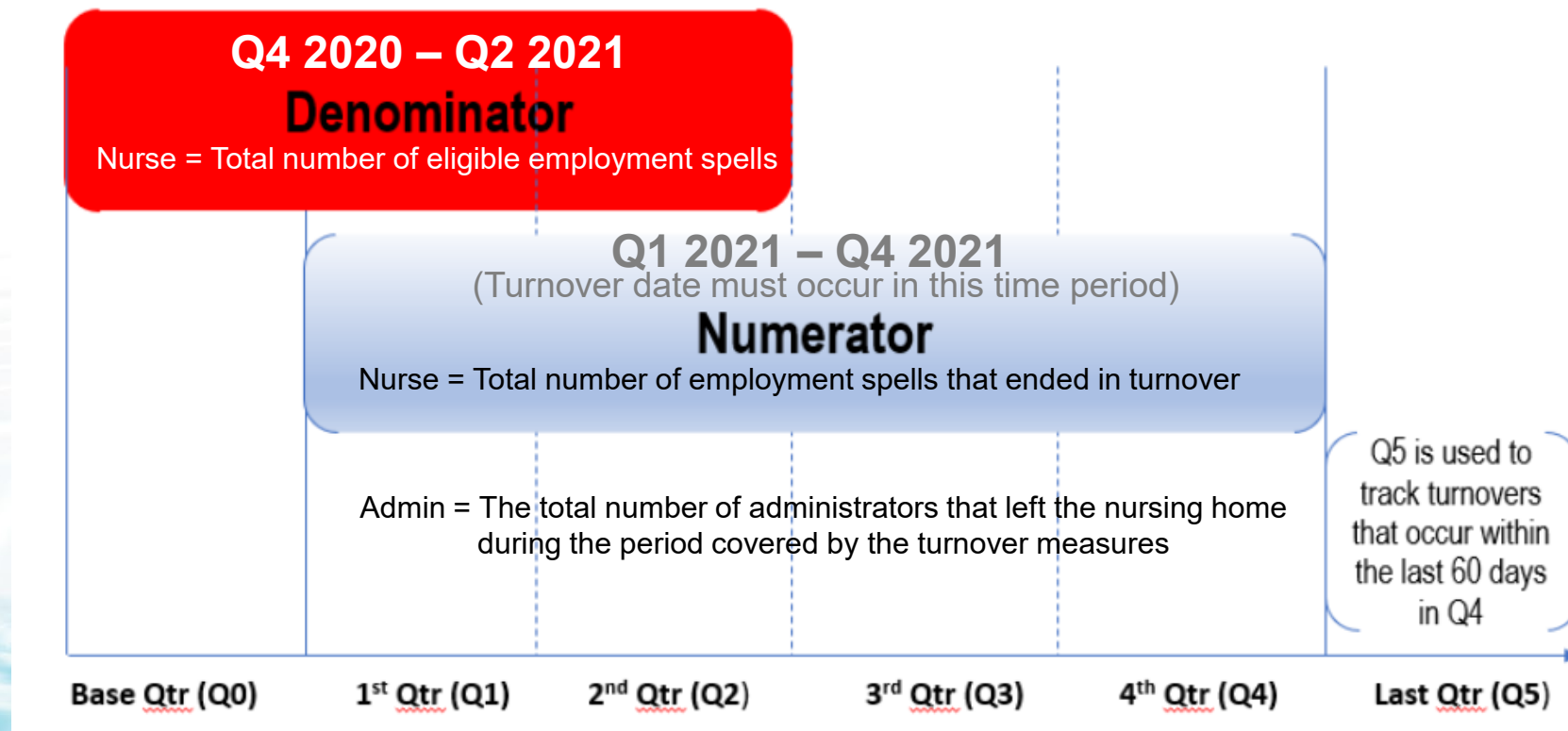
- Annual turnover measures are constructed.
- For the **total nurse and RN turnover** measures, the annual turnover percentage is calculated using this formula:  
*(Total number of employment spells that ended in turnover)/(Total number of eligible employment spells)*
- Using this specification, the maximum turnover rate is 100 percent.

- **Nursing home administrator turnover** is measured as:

*The total number of administrators that left the nursing home during the period covered by the turnover measures.*

# Staffing Stars (July 2022)

- **Staff Turnover**



# Staffing Stars (July 2022)

- **Scoring Rules for the Staffing Measures:**

- Points are assigned to each of the six staffing measures.
- For five of the measures (all except administrator turnover), the points are determined based on deciles.
- For the staffing level measures, more points are assigned for higher case-mix adjusted staffing levels.
- For the turnover measures, more points are assigned for lower turnover.



# Staffing Stars (July 2022)

- **Scoring Rules for the Staffing Measures Weights for the measures (maximum possible points):**
  - For case-mix adjusted total nurse staffing and case-mix adjusted RN staffing, a maximum of 100 points is assigned.
  - Nursing homes are grouped into deciles based on the national distribution of each measure. Nursing homes in the lowest decile receive 10 points.
  - Points are increased in 10-point increments so that nursing homes in the highest decile receive 100 points.

# Staffing Stars (July 2022)

Staffing Measure	Points	Min	Max
Adjusted RN Staffing (Hours per Resident per Day)	100	1.298	Or higher
	90	0.992	1.297
	80	0.819	0.991
	70	0.692	0.818
	60	0.591	0.691
	50	0.505	0.590
	40	0.426	0.504
	30	0.352	0.425
	20	0.261	0.351
	10	0.000	0.260

# Staffing Stars (July 2022)

Adjusted Total Nurse Staffing (Hours per Resident per Day)	100	4.954	Or higher
	90	4.429	4.953
	80	4.105	4.428
	70	3.869	4.104
	60	3.653	3.868
	50	3.445	3.652
	40	3.248	3.444
	30	3.030	3.247
	20	2.747	3.029
	10	0.000	2.746

# Staffing Stars (July 2022)

- **Scoring Rules for the Staffing Measures Weights for the measures (maximum possible points):**
  - For case-mix adjusted total nurse staffing on the weekends, a maximum of 50 points is assigned.
  - Nursing homes are grouped into deciles based on the national distribution of each measure. Nursing homes in the lowest decile receive 5 points.
  - Points are increased in 5-point increments so that nursing homes in the highest decile receive 50 points.



# Staffing Stars (July 2022)

Adjusted Total Nurse Staffing on weekends (Hours per Resident per Day)	50	4.328	Or higher
	45	3.896	4.327
	40	3.623	3.895
	35	3.382	3.622
	30	3.174	3.381
	25	2.985	3.173
	20	2.810	2.984
	15	2.613	2.809
	10	2.350	2.612
	5	0.000	2.349

# Staffing Stars (July 2022)

- **Scoring Rules for the Staffing Measures Weights for the measures (maximum possible points):**
  - For total nurse turnover and RN turnover, a maximum of 50 points is assigned.
  - Nursing homes are grouped into deciles based on the national distribution of each measure. Nursing homes in the decile with the highest turnover receive 5 points.
  - Points are increased in 5-point increments so that nursing homes in the decile with the lowest turnover receive 50 points.

# Staffing Stars (July 2022)

Total Nurse Turnover (%)	50	0.000	34.416
	45	34.417	40.594
	40	40.595	44.848
	35	44.849	48.696
	30	48.697	52.353
	25	52.354	56.391
	20	56.392	60.699
	15	60.700	65.741
	10	65.742	72.678
	5	72.679	100.000
Number of Administrator Departures	30	0	0

# Staffing Stars (July 2022)

Staffing Measure	Points	Min	Max
RN Turnover (%)	50	0.000	24.528
	45	24.529	33.108
	40	33.109	39.623
	35	39.624	45.161
	30	45.162	49.123
	25	49.124	56.977
	20	56.978	62.963
	15	62.964	71.053
	10	71.054	81.081
	5	81.082	100.000



# Staffing Stars (July 2022)

- **Scoring Rules for the Staffing Measures Weights for the measures (maximum possible points):**
  - For administrator turnover, a maximum of 30 points is assigned.
  - Nursing homes with no administrator departures during the measurement period receive 30 points;
  - nursing homes with one administrator departure receive 25 points; and
  - nursing homes with two or more administrator departures during the annual measurement period receive 10 points.

Number of Administrator Departures	30	0	0
	25	1	1
	10	2	Or more

# Staffing Stars (July 2022)

- **Rating Methodology:**

- Once points are assigned for each of the six staffing measures, these points are summed to provide a total staffing score for each nursing home.
- There is a maximum of 380 possible points.
- No staffing rating is assigned to nursing homes with reported nurse staffing levels for the quarter that are considered invalid according to the staffing level exclusion rules described previously.
- However, if a nursing home has valid data for the nurse staffing level measures but is missing one or more of the turnover measures, a rating will be assigned based on the staffing level measures and any available turnover measures. These nursing homes will have a maximum possible score of less than 380 points; thus, their staffing score is rescaled according to the following formula:

*Total staffing points for available measures X (380/maximum possible points based on available measures)*

# Staffing Stars (July 2022)

- **Rating Methodology (cont.):**

- Note that this formula rescales a nursing home's score so that the rescaled score has a maximum of 380 points and is equivalent to assigning the nursing home's average points on the available measures to the measures that are missing.
- After any necessary rescaling, the staffing rating is assigned based on the point thresholds shown in Table 3.

**Table 3**

**Point Ranges for the Staffing Rating (maximum possible score = 380 points)**

1 star	2 stars	3 stars	4 stars	5 stars
< 155	155 - 204	205 - 254	255 - 319	320 - 380

**Note:** These cut points are applied after any necessary rescaling of the staffing score to have a maximum possible value of 380 points. The rescaled score is rounded to the nearest integer. Cut points for each of the six measures that contribute to the total staffing Score are shown in Appendix Table A2.

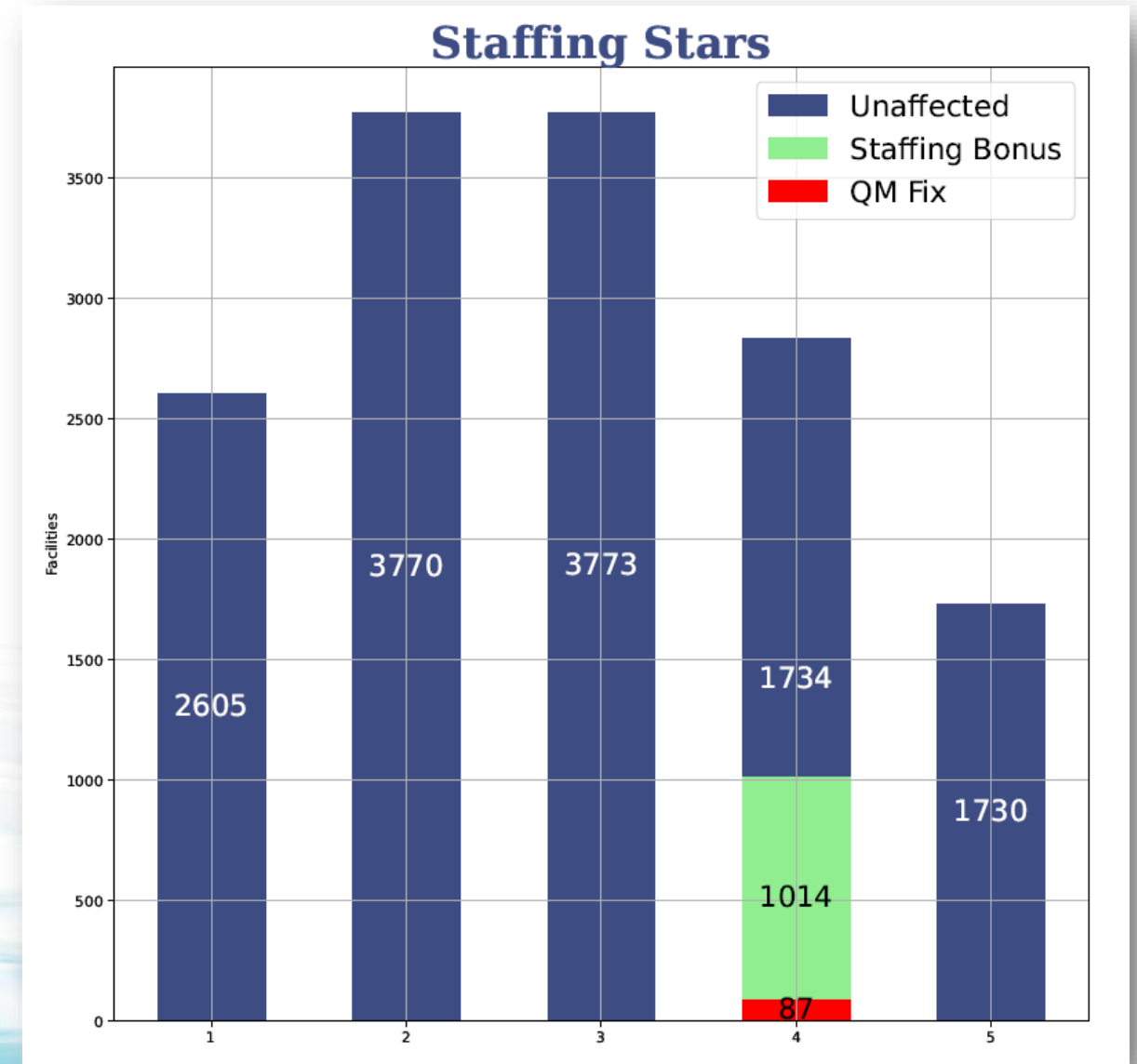
# Staffing Stars (July 2022)

- **Scoring Exceptions:**

- Providers that fail to submit any staffing data by the required deadline will receive a one-stars staffing rating for the quarter.
- Providers that submit staffing data indicating that there were four or more days in the quarter with no RN staffing hours (job codes 5-7) on days when there were one or more residents in the nursing home will receive a one-star staffing rating for the quarter.
- CMS conducts audits of nursing homes to verify the data submitted and to ensure accuracy. Facilities that fail to respond to these audits and those for which the audit identifies significant discrepancies between the hours reported and the hours verified will receive a one-star staffing rating for three months from the time at which the deadline to respond to audit requests passes or discrepancies are identified. If repeat audits identify the same discrepancy, the timeframe for the staffing rating downgrade may be extended.

- **Impact:**

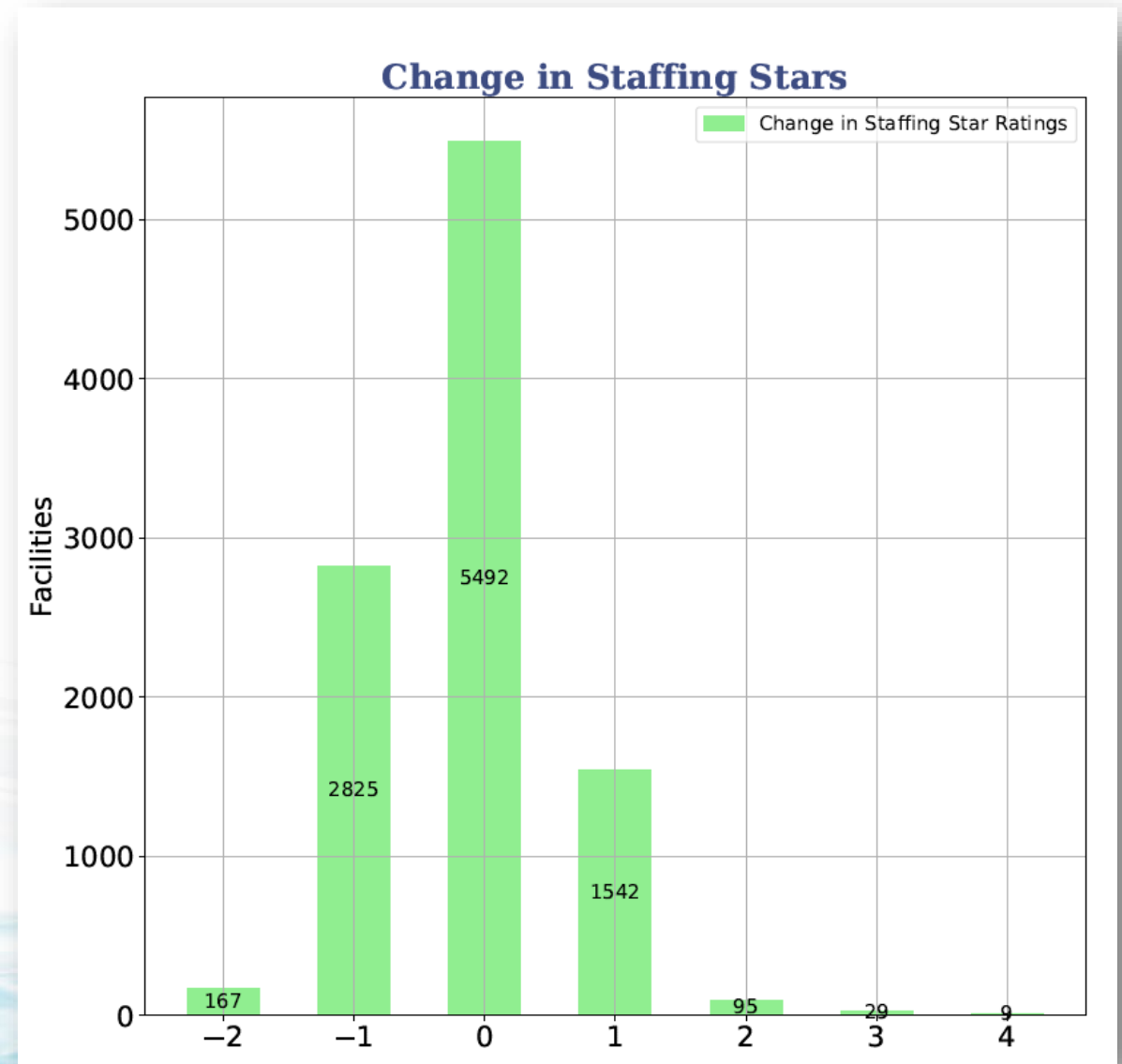
- 5/4 Staffing Rule Change - Add one star to the Step 1 result if the staffing rating is **five** stars
- There are 1014 facilities with a staffing rating of 4 AND health inspection rating less than overall rating AND QM not = 5. These facilities gained a star previously and will lose a star simply because of this rule change.
- There are 87 facilities with staffing rating = 4, health inspection rating = overall rating and QM rating = 1. Previously in these facilities staffing saved a star overall. These facilities will lose a star under this rule change.





- **Impact:**

- Using June 2022 reported data with out a CMI adjustment for weekend staffing. Note the shift in star ratings.



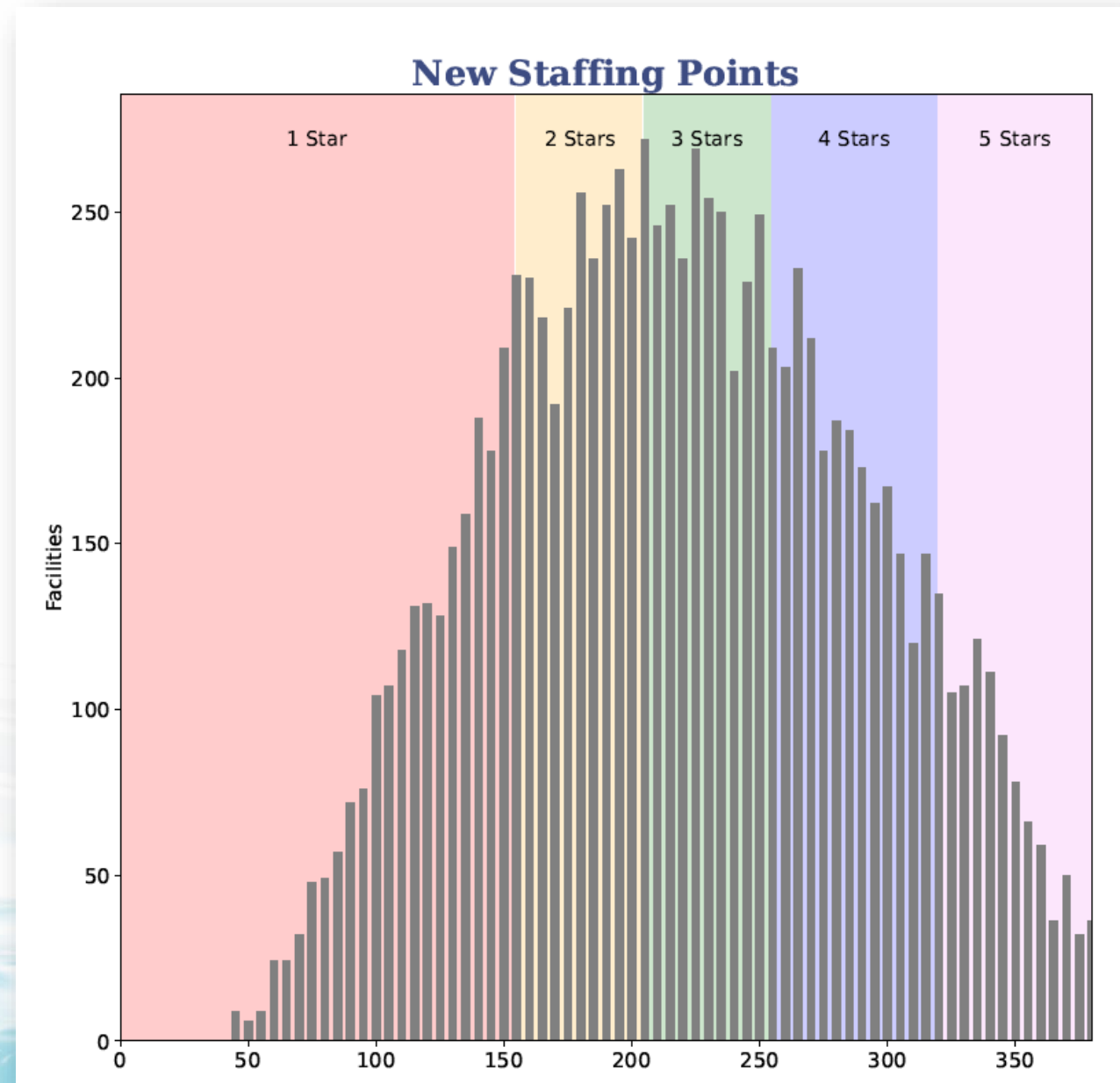
# Staffing Stars (July 2022)

- **Impact:**

- Current data reporting (June 2022):
  - 41% of facilities without missing data (4,410 / 10,730) will lose staffing stars.
  - 6 facilities will lose 3 staffing stars, and
  - 486 facilities will lose 2 staffing stars, and
  - 3918 facilities will lose 1 staffing star.

- **Impact:**

- Using June 2022 reported data with out a CMI adjustment for weekend staffing. Note the possible staffing star distribution.



# Staffing Stars (July 2022)

- **What's Next?**

- 5-Star Preview Reports are due out any day. Check you CASPER folders regularly
- Care Compare will refresh with these changes sometime in the last week of July.
- Staffing is in the spotlight.
  - 5-Star Changes
  - SNF VBP Proposals
  - RFI for Staffing Mandates
  - Recently released survey guidance, i.e., scope and severity

# QUESTIONS?