

Nursing Home Compare
**Five-Star Quality Rating System:
Technical Users' Guide**

State-Level Cut Point Tables

October 2009



Introduction

The Centers for Medicare & Medicaid Services (CMS) has 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 in launching 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 rating system features an overall five-star rating based on facility performance for three types of performance measures, each of which has its own associated five-star rating. These domains are: Health Inspections (measures based on outcomes from State health inspection surveys), Staffing (measures based on nursing home staffing levels reported at the time of State health inspection), and Quality Measures (measures based on the CMS Minimum Data Set (MDS)). The Five Star Quality Rating System: Technical Users’ Guide provides detailed information about the content and scoring of each domain, as well as the overall star rating.

This document - Five Star Quality Rating System Technical Users’ Guide: State Level Cut Point Tables - provides the data for the state-level cut points for the star ratings included in the health inspection and the quality measure domains. Cut points for the staffing ratings and for the non-ADL QM ratings have been fixed and do not vary monthly. Data tables giving the cut points for those ratings are included in the Five Star Quality Rating System: Technical Users’ Guide.

Health Inspection Domain

CMS’ Five-Star quality ratings for the health inspection domain are based on the relative performance of facilities within a State. This approach helps to control for variation between States. Facility ratings are determined using these criteria:

- The top 10 percent (lowest 10 percent in terms of health inspection deficiency score) in each State receive a five-star rating.
- The middle 70 percent of facilities receive a rating of two, three, or four stars, with an equal number (approximately 23.33 percent) in each rating category.
- The bottom 20 percent receive a one-star rating.

This distribution is based on CMS experience and input from the Project’s TEP. The cut points are recalibrated each month so that the distribution of star ratings within States remains fixed over time in an effort to reduce the likelihood that the rating process affects the health inspection process. In the rare case that a State or territory has fewer than 5 facilities upon which to generate the cut points, the national distribution is used. Cut points for the health inspection ratings by state for the month of October 2009 are shown in Cut Point Table 1 (CP Table 1).

Quality Measure Domain

A set of quality measures has been developed from Minimum Data Set (MDS)-based indicators to describe the quality of care provided in nursing homes. The facility rating for the QM domain is based on performance on a subset of 10 (out of 19) of the QMs currently posted on Nursing Home Compare.

Ratings for the QM domain are calculated using the three most recent quarters for which data are available. For each measure, points are assigned based on the facility percentile. The percentiles are based on the national distribution for all of the QMs except for the two Activities of Daily Living (ADL) measures. For these two measures, percentiles are set on a State -specific basis using the State distribution. The two ADL measures are based on within-State quintile distributions because these two measures appear to be more affected by case-mix variation, particularly influenced by differences in State Medicaid policies governing long term care.

Cut points for the two ADL QMs are reset with each quarterly update of the QM data based on the State -specific distribution of these measures. Cut points for the other QMs will remain fixed at the baseline national values for a period of two years, and cut points are included in the Five Star Quality Rating System: Technical Users' Guide.

Cut points for the two ADL QMs by state for the month of October 2009 are shown in Cut Point Table 2 (CP Table 2) for Late Loss ADL Worsening and in Cut Point Table 3 (CP Table 3) for Worsening Locomotion.

Cut Point Table 1
Star Cut Points for Health Inspection Scores - by State - (10-02-2009)

State	Number of facilities	Health Inspection Score							
		1 star	2 stars		3 stars		4 stars		5 stars
			Upper	Lower	Upper	Lower	Upper	Lower	
Alabama	231	>61.667	≤61.667	>33.333	≤33.333	>20.667	≤20.667	>9.333	≤9.333
Alaska	15	>95.000	≤95.000	>47.333	≤47.333	>36.667	≤36.667	>28.000	≤28.000
Arizona	134	>97.167	≤97.167	>62.000	≤62.000	>39.333	≤39.333	>22.667	≤22.667
Arkansas	227	>169.000	≤169.000	>99.667	≤99.667	>60.667	≤60.667	>36.667	≤36.667
California	1,243	>98.000	≤98.000	>60.000	≤60.000	>39.333	≤39.333	>20.000	≤20.000
Colorado	207	>126.833	≤126.833	>87.333	≤87.333	>52.667	≤52.667	>26.667	≤26.667
Connecticut	239	>79.333	≤79.333	>52.000	≤52.000	>33.333	≤33.333	>16.667	≤16.667
D. C.	18	>218.000	≤218.000	>111.667	≤111.667	>66.667	≤66.667	>30.000	≤30.000
Delaware	45	>132.333	≤132.333	>77.333	≤77.333	>58.000	≤58.000	>30.000	≤30.000
Florida	673	>76.667	≤76.667	>51.333	≤51.333	>36.333	≤36.333	>18.000	≤18.000
Georgia	356	>62.667	≤62.667	>36.667	≤36.667	>21.333	≤21.333	>8.667	≤8.667
Guam	1	>89.500	≤89.500	>48.667	≤48.667	>28.667	≤28.667	>11.333	≤11.333
Hawaii	47	>84.000	≤84.000	>41.000	≤41.000	>26.667	≤26.667	>14.667	≤14.667
Idaho	77	>110.000	≤110.000	>78.333	≤78.333	>52.667	≤52.667	>20.000	≤20.000
Illinois	784	>100.167	≤100.167	>49.333	≤49.333	>27.333	≤27.333	>10.000	≤10.000
Indiana	500	>122.750	≤122.750	>71.333	≤71.333	>41.333	≤41.333	>15.333	≤15.333
Iowa	440	>68.000	≤68.000	>39.333	≤39.333	>24.667	≤24.667	>9.000	≤9.000
Kansas	334	>135.333	≤135.333	>81.167	≤81.167	>46.000	≤46.000	>20.000	≤20.000
Kentucky	286	>112.333	≤112.333	>37.333	≤37.333	>21.333	≤21.333	>8.667	≤8.667
Louisiana	283	>116.333	≤116.333	>72.000	≤72.000	>45.333	≤45.333	>20.000	≤20.000
Maine	109	>73.000	≤73.000	>41.333	≤41.333	>25.333	≤25.333	>11.333	≤11.333
Maryland	230	>94.500	≤94.500	>58.000	≤58.000	>40.000	≤40.000	>16.667	≤16.667
Massachusetts	428	>58.000	≤58.000	>32.000	≤32.000	>18.000	≤18.000	>4.667	≤4.667
Michigan	422	>126.500	≤126.500	>77.000	≤77.000	>52.000	≤52.000	>28.000	≤28.000
Minnesota	385	>79.000	≤79.000	>50.000	≤50.000	>36.000	≤36.000	>20.667	≤20.667
Mississippi	200	>76.250	≤76.250	>42.000	≤42.000	>25.333	≤25.333	>8.667	≤8.667
Missouri	506	>125.667	≤125.667	>64.000	≤64.000	>35.333	≤35.333	>14.667	≤14.667
Montana	90	>83.333	≤83.333	>50.667	≤50.667	>28.000	≤28.000	>15.000	≤15.000
Nebraska	223	>72.000	≤72.000	>44.667	≤44.667	>29.333	≤29.333	>14.667	≤14.667
Nevada	48	>70.667	≤70.667	>54.667	≤54.667	>34.667	≤34.667	>20.667	≤20.667
New Hampshire	79	>57.333	≤57.333	>30.000	≤30.000	>14.667	≤14.667	>5.333	≤5.333

New Jersey	358	>68.000	≤68.000	>39.333	≤39.333	>24.000	≤24.000	>10.000	≤10.000
New Mexico	69	>108.667	≤108.667	>60.667	≤60.667	>36.000	≤36.000	>12.000	≤12.000
New York	639	>52.667	≤52.667	>28.000	≤28.000	>16.667	≤16.667	>7.333	≤7.333
North Carolina	420	>43.333	≤43.333	>25.600	≤25.600	>13.333	≤13.333	>5.333	≤5.333
North Dakota	83	>33.333	≤33.333	>22.667	≤22.667	>14.000	≤14.000	>8.000	≤8.000
Ohio	947	>63.667	≤63.667	>38.000	≤38.000	>21.333	≤21.333	>8.667	≤8.667
Oklahoma	314	>161.333	≤161.333	>94.167	≤94.167	>59.333	≤59.333	>29.333	≤29.333
Oregon	137	>79.500	≤79.500	>42.333	≤42.333	>22.667	≤22.667	>8.667	≤8.667
Pennsylvania	708	>54.667	≤54.667	>32.000	≤32.000	>17.333	≤17.333	>6.667	≤6.667
Puerto Rico	7	>349.667	≤349.667	>262.667	≤262.667	>259.167	≤259.167	>128.000	≤128.000
Rhode Island	85	>40.167	≤40.167	>20.333	≤20.333	>11.333	≤11.333	>3.333	≤3.333
South Carolina	177	>75.333	≤75.333	>40.000	≤40.000	>22.000	≤22.000	>9.333	≤9.333
South Dakota	109	>41.333	≤41.333	>26.667	≤26.667	>16.000	≤16.000	>7.333	≤7.333
Tennessee	314	>77.333	≤77.333	>38.000	≤38.000	>24.000	≤24.000	>12.667	≤12.667
Texas	1,119	>101.000	≤101.000	>51.333	≤51.333	>30.000	≤30.000	>11.333	≤11.333
Utah	91	>47.333	≤47.333	>32.000	≤32.000	>16.667	≤16.667	>4.000	≤4.000
Vermont	40	>96.000	≤96.000	>66.000	≤66.000	>37.667	≤37.667	>17.333	≤17.333
Virgin Islands	1	>89.500	≤89.500	>48.667	≤48.667	>28.667	≤28.667	>11.333	≤11.333
Virginia	279	>80.333	≤80.333	>47.333	≤47.333	>28.667	≤28.667	>12.000	≤12.000
Washington	234	>99.667	≤99.667	>59.667	≤59.667	>32.667	≤32.667	>14.000	≤14.000
West Virginia	128	>115.000	≤115.000	>69.333	≤69.333	>46.000	≤46.000	>20.000	≤20.000
Wisconsin	387	>96.167	≤96.167	>45.333	≤45.333	>25.333	≤25.333	>10.000	≤10.000
Wyoming	38	>116.167	≤116.167	>72.000	≤72.000	>58.667	≤58.667	>20.667	≤20.667

Notes: A higher score indicates worse performance on health inspections. The cut points are based on facility health inspection scores and are set separately for each state to achieve this distribution:

- 5 stars: ≤10th percentile
- 4 stars: >10th percentile and ≤ 33.33rd percentile
- 3 stars: >33.33rd percentile and ≤ 56.667th percentile
- 2 stars: >56.667th percentile and ≤ 80th percentile
- 1 star: >80th percentile

Due to the small number of facilities, the cut points for Guam and the Virgin Islands are based on the national distribution of health inspection scores.

Cut Point Table 2
Quintile Cut points for ADL QM Late Loss ADL Worsening (10-02-2009)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
Alabama	224	0.07606	0.09524	0.11790	0.15000
Alaska	12	0.09615	0.10204	0.12000	0.16667
Arizona	120	0.07970	0.10914	0.15647	0.20201
Arkansas	219	0.08297	0.11858	0.15138	0.19588
California	1,126	0.05000	0.08209	0.11250	0.15616
Colorado	195	0.09197	0.13047	0.16285	0.20431
Connecticut	235	0.11115	0.13797	0.17095	0.21899
D. C.	17	0.05538	0.07558	0.11136	0.15076
Delaware	41	0.11048	0.13389	0.15603	0.22143
Florida	657	0.08075	0.10648	0.13376	0.17167
Georgia	343	0.08108	0.10922	0.14110	0.18947
Guam	0	0.08889	0.12329	0.16080	0.21021
Hawaii	38	0.08108	0.10638	0.13043	0.17413
Idaho	70	0.09717	0.13374	0.15492	0.19649
Illinois	714	0.07519	0.11765	0.15753	0.20574
Indiana	473	0.15493	0.19380	0.23026	0.27863
Iowa	424	0.08594	0.11207	0.14286	0.18085
Kansas	323	0.08491	0.12295	0.14865	0.18987
Kentucky	266	0.10373	0.14286	0.17988	0.23552
Louisiana	264	0.15423	0.19433	0.22703	0.26295
Maine	107	0.10345	0.13333	0.16000	0.21277
Maryland	219	0.09152	0.11688	0.15285	0.18750
Massachusetts	416	0.09302	0.12227	0.14388	0.16974
Michigan	401	0.07924	0.10480	0.13514	0.17949
Minnesota	378	0.10853	0.13158	0.16379	0.19255
Mississippi	193	0.09735	0.13158	0.16404	0.21512
Missouri	485	0.06583	0.09539	0.12465	0.16535
Montana	84	0.09434	0.13653	0.16129	0.19298
Nebraska	217	0.09877	0.13502	0.16327	0.19767
Nevada	43	0.14088	0.19231	0.21053	0.23780
New Hampshire	76	0.12500	0.16304	0.17919	0.21239

Cut Point Table 2
Quintile Cut points for ADL QM Late Loss ADL Worsening (10-02-2009)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New Jersey	339	0.07561	0.09799	0.11515	0.14706
New Mexico	65	0.10531	0.16723	0.20967	0.25077
New York	632	0.10400	0.13514	0.16695	0.21846
North Carolina	392	0.15789	0.20070	0.23476	0.27338
North Dakota	79	0.11890	0.14961	0.17500	0.21429
Ohio	913	0.08451	0.11168	0.14000	0.18135
Oklahoma	303	0.06716	0.09804	0.12097	0.15079
Oregon	134	0.05797	0.07792	0.10526	0.13889
Pennsylvania	662	0.13636	0.17281	0.20690	0.25200
Puerto Rico	0	0.08889	0.12329	0.16080	0.21021
Rhode Island	84	0.09206	0.12092	0.13971	0.16970
South Carolina	164	0.07432	0.10638	0.14692	0.18557
South Dakota	109	0.12593	0.15385	0.18343	0.21849
Tennessee	296	0.07967	0.10672	0.13714	0.18627
Texas	1,065	0.11873	0.17250	0.21337	0.26273
Utah	79	0.07527	0.10435	0.16038	0.22024
Vermont	40	0.13468	0.17749	0.21385	0.26979
Virgin Islands	0	0.08889	0.12329	0.16080	0.21021
Virginia	262	0.12195	0.15751	0.18828	0.23000
Washington	225	0.08015	0.10702	0.12995	0.17184
West Virginia	117	0.12593	0.17419	0.19922	0.25197
Wisconsin	375	0.10675	0.13299	0.16733	0.20520
Wyoming	35	0.09618	0.14387	0.16871	0.21796

Due to the small number of facilities, the cut points for Guam, Puerto Rico, and the Virgin Islands are based on the national distribution of the ADL quality measure score.

Quintiles for these cut points are used to assign points towards the QM summary score as follows:

- 20 points: $\leq 20^{\text{th}}$ percentile
- 15 points: $> 20^{\text{th}}$ percentile and $\leq 40^{\text{th}}$ percentile
- 10 points: $> 40^{\text{th}}$ percentile and $\leq 60^{\text{th}}$ percentile
- 5 points: $> 60^{\text{th}}$ percentile and $\leq 80^{\text{th}}$ percentile
- 0 points: $> 80^{\text{th}}$ percentile.

Cut Point Table 3**Quintile Cut points for ADL QM Worsening Locomotion (10-02-2009)**

State	Number of Facilities	20th percentile	40th percentile	60th percentile	80th percentile
Alabama	222	0.05904	0.07699	0.09514	0.12582
Alaska	9	0.10390	0.12135	0.15069	0.19486
Arizona	112	0.05430	0.08213	0.11993	0.16823
Arkansas	219	0.05968	0.08655	0.11474	0.15588
California	1,075	0.04897	0.07668	0.10108	0.13727
Colorado	194	0.06608	0.08937	0.12381	0.17204
Connecticut	235	0.08383	0.11450	0.14436	0.18535
D. C.	16	0.04462	0.05747	0.06965	0.13420
Delaware	41	0.08659	0.10511	0.13747	0.21322
Florida	638	0.05842	0.07733	0.09955	0.13165
Georgia	340	0.06336	0.08423	0.11337	0.15047
Guam	0	0.06719	0.09437	0.12502	0.16682
Hawaii	32	0.08018	0.12499	0.14573	0.17695
Idaho	69	0.07754	0.09935	0.12978	0.16463
Illinois	710	0.06509	0.09812	0.12965	0.17122
Indiana	469	0.07302	0.10154	0.13608	0.18911
Iowa	423	0.06063	0.08154	0.10515	0.14194
Kansas	321	0.06544	0.09523	0.11894	0.15340
Kentucky	258	0.07017	0.08952	0.12379	0.17194
Louisiana	263	0.05551	0.08401	0.10742	0.14361
Maine	105	0.10787	0.14363	0.18130	0.22332
Maryland	215	0.07446	0.10103	0.12453	0.16357
Massachusetts	412	0.08576	0.10736	0.13128	0.16012
Michigan	396	0.06417	0.08431	0.11469	0.15117
Minnesota	378	0.07752	0.10164	0.12598	0.16301
Mississippi	192	0.06463	0.09090	0.12145	0.16501
Missouri	483	0.05258	0.07499	0.09665	0.12878
Montana	82	0.07766	0.09782	0.12133	0.15396
Nebraska	211	0.08291	0.11508	0.13830	0.16867
Nevada	42	0.11251	0.15043	0.19566	0.21154
New Hampshire	75	0.09868	0.12061	0.15292	0.20094
New Jersey	331	0.06482	0.08245	0.10318	0.13188
New Mexico	64	0.07466	0.11936	0.14706	0.18220

Cut Point Table 3
Quintile Cut points for ADL QM Worsening Locomotion (10-02-2009)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New York	625	0.09144	0.11871	0.14301	0.18754
North Carolina	389	0.07087	0.10635	0.15157	0.20176
North Dakota	79	0.09029	0.11354	0.13109	0.16691
Ohio	905	0.06686	0.09158	0.11884	0.16379
Oklahoma	303	0.04178	0.06358	0.08403	0.11341
Oregon	130	0.05006	0.07150	0.09639	0.12664
Pennsylvania	652	0.12866	0.15858	0.19285	0.23559
Puerto Rico	0	0.06719	0.09437	0.12502	0.16682
Rhode Island	82	0.07956	0.09676	0.12238	0.15255
South Carolina	156	0.06372	0.08344	0.10479	0.16289
South Dakota	109	0.07436	0.11679	0.14051	0.17017
Tennessee	292	0.06160	0.08054	0.10273	0.13524
Texas	1,057	0.07497	0.10627	0.13725	0.18149
Utah	79	0.04838	0.07236	0.10079	0.16363
Vermont	38	0.11211	0.15979	0.18450	0.21402
Virgin Islands	0	0.06719	0.09437	0.12502	0.16682
Virginia	256	0.08846	0.12272	0.15409	0.20297
Washington	221	0.06382	0.09044	0.12376	0.15079
West Virginia	115	0.09106	0.12010	0.14650	0.19162
Wisconsin	374	0.07865	0.10611	0.12865	0.16307
Wyoming	35	0.06884	0.09678	0.13862	0.15936

Due to the small number of facilities, the cut points for Guam, Puerto Rico, and the Virgin Islands are based on the national distribution of the Locomotion Worsening quality measure score.

Quintiles for these cut points are used to assign points towards the QM summary score as follows:

- 20 points: $\leq 20^{\text{th}}$ percentile
- 15 points: $> 20^{\text{th}}$ percentile and $\leq 40^{\text{th}}$ percentile
- 10 points: $> 40^{\text{th}}$ percentile and $\leq 60^{\text{th}}$ percentile
- 5 points: $> 60^{\text{th}}$ percentile and $\leq 80^{\text{th}}$ percentile
- 0 points: $> 80^{\text{th}}$ percentile.