

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

State-Level Cut Point Tables

March 2011



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 March 2011 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 March 2011 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 - (03-01-2011)

State	Number of facilities	Health Inspection Score							
		1 star	2 stars		3 stars		4 stars		5 stars
			Upper	Lower	Upper	Lower	Upper	Lower	
Alabama	227	>49.333	≤49.333	>29.333	≤29.333	>16.667	≤16.667	>6.667	≤6.667
Alaska	15	>145.083	≤145.083	>56.000	≤56.000	>36.667	≤36.667	>24.667	≤24.667
Arizona	136	>101.333	≤101.333	>58.667	≤58.667	>41.333	≤41.333	>19.333	≤19.333
Arkansas	223	>171.833	≤171.833	>96.333	≤96.333	>60.667	≤60.667	>33.333	≤33.333
California	1,232	>86.667	≤86.667	>57.333	≤57.333	>38.000	≤38.000	>21.333	≤21.333
Colorado	209	>136.833	≤136.833	>95.333	≤95.333	>70.000	≤70.000	>36.667	≤36.667
Connecticut	238	>66.000	≤66.000	>45.333	≤45.333	>28.000	≤28.000	>13.333	≤13.333
D. C.	19	>217.167	≤217.167	>100.333	≤100.333	>78.000	≤78.000	>38.000	≤38.000
Delaware	44	>138.667	≤138.667	>88.000	≤88.000	>62.667	≤62.667	>27.333	≤27.333
Florida	678	>65.333	≤65.333	>44.000	≤44.000	>29.333	≤29.333	>15.333	≤15.333
Georgia	359	>57.000	≤57.000	>30.000	≤30.000	>18.000	≤18.000	>6.667	≤6.667
Guam	1	>83.167	≤83.167	>46.667	≤46.667	>27.333	≤27.333	>10.667	≤10.667
Hawaii	48	>67.333	≤67.333	>52.000	≤52.000	>26.667	≤26.667	>18.000	≤18.000
Idaho	78	>114.000	≤114.000	>73.833	≤73.833	>51.333	≤51.333	>26.667	≤26.667
Illinois	778	>101.500	≤101.500	>53.833	≤53.833	>30.000	≤30.000	>10.667	≤10.667
Indiana	498	>103.333	≤103.333	>59.333	≤59.333	>36.167	≤36.167	>14.000	≤14.000
Iowa	439	>61.333	≤61.333	>38.000	≤38.000	>22.667	≤22.667	>10.667	≤10.667
Kansas	335	>133.667	≤133.667	>78.000	≤78.000	>50.667	≤50.667	>21.333	≤21.333
Kentucky	284	>87.833	≤87.833	>36.667	≤36.667	>24.000	≤24.000	>12.667	≤12.667
Louisiana	280	>110.167	≤110.167	>68.000	≤68.000	>44.667	≤44.667	>21.667	≤21.667
Maine	109	>66.667	≤66.667	>39.333	≤39.333	>23.333	≤23.333	>12.000	≤12.000
Maryland	229	>73.333	≤73.333	>50.000	≤50.000	>33.333	≤33.333	>14.000	≤14.000
Massachusetts	426	>46.667	≤46.667	>28.000	≤28.000	>16.000	≤16.000	>5.333	≤5.333
Michigan	422	>118.000	≤118.000	>75.000	≤75.000	>49.500	≤49.500	>24.667	≤24.667
Minnesota	385	>73.667	≤73.667	>47.333	≤47.333	>31.333	≤31.333	>17.333	≤17.333
Mississippi	201	>71.000	≤71.000	>43.667	≤43.667	>24.667	≤24.667	>11.333	≤11.333
Missouri	510	>95.417	≤95.417	>56.000	≤56.000	>34.400	≤34.400	>13.333	≤13.333
Montana	85	>56.333	≤56.333	>37.333	≤37.333	>20.000	≤20.000	>13.333	≤13.333
Nebraska	219	>65.333	≤65.333	>40.667	≤40.667	>27.333	≤27.333	>13.333	≤13.333
Nevada	48	>93.333	≤93.333	>60.000	≤60.000	>40.000	≤40.000	>28.667	≤28.667
New Hampshire	78	>68.667	≤68.667	>34.667	≤34.667	>16.667	≤16.667	>5.333	≤5.333

New Jersey	360	>65.333	≤65.333	>37.667	≤37.667	>21.333	≤21.333	>9.333	≤9.333
New Mexico	69	>89.000	≤89.000	>49.333	≤49.333	>22.667	≤22.667	>9.333	≤9.333
New York	633	>54.000	≤54.000	>28.000	≤28.000	>17.333	≤17.333	>7.333	≤7.333
North Carolina	419	>43.333	≤43.333	>22.667	≤22.667	>12.667	≤12.667	>4.000	≤4.000
North Dakota	81	>42.000	≤42.000	>26.667	≤26.667	>14.667	≤14.667	>8.000	≤8.000
Ohio	948	>61.333	≤61.333	>36.667	≤36.667	>21.333	≤21.333	>9.333	≤9.333
Oklahoma	309	>179.833	≤179.833	>94.833	≤94.833	>57.333	≤57.333	>21.333	≤21.333
Oregon	136	>68.667	≤68.667	>37.333	≤37.333	>22.000	≤22.000	>8.667	≤8.667
Pennsylvania	708	>50.000	≤50.000	>30.000	≤30.000	>18.667	≤18.667	>7.333	≤7.333
Puerto Rico	7	>267.000	≤267.000	>223.000	≤223.000	>178.000	≤178.000	>87.333	≤87.333
Rhode Island	85	>37.667	≤37.667	>21.333	≤21.333	>9.333	≤9.333	>2.667	≤2.667
South Carolina	184	>70.667	≤70.667	>40.667	≤40.667	>20.000	≤20.000	>6.000	≤6.000
South Dakota	109	>40.000	≤40.000	>24.000	≤24.000	>16.667	≤16.667	>7.333	≤7.333
Tennessee	317	>49.333	≤49.333	>30.000	≤30.000	>20.000	≤20.000	>10.000	≤10.000
Texas	1,146	>98.000	≤98.000	>52.667	≤52.667	>30.000	≤30.000	>12.000	≤12.000
Utah	95	>58.667	≤58.667	>36.667	≤36.667	>24.667	≤24.667	>5.333	≤5.333
Vermont	40	>82.250	≤82.250	>64.000	≤64.000	>34.667	≤34.667	>8.667	≤8.667
Virgin Islands	1	>83.167	≤83.167	>46.667	≤46.667	>27.333	≤27.333	>10.667	≤10.667
Virginia	277	>77.333	≤77.333	>44.000	≤44.000	>27.333	≤27.333	>9.333	≤9.333
Washington	229	>98.667	≤98.667	>66.000	≤66.000	>36.667	≤36.667	>20.667	≤20.667
West Virginia	127	>138.667	≤138.667	>81.333	≤81.333	>48.667	≤48.667	>22.000	≤22.000
Wisconsin	389	>86.667	≤86.667	>50.667	≤50.667	>28.667	≤28.667	>10.667	≤10.667
Wyoming	37	>111.000	≤111.000	>68.667	≤68.667	>52.667	≤52.667	>15.333	≤15.333

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 (03-01-2011)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
Alabama	222	0.06395	0.08333	0.10247	0.13636
Alaska	11	0.12849	0.13559	0.16867	0.22581
Arizona	117	0.07895	0.10937	0.14246	0.20000
Arkansas	215	0.08260	0.11111	0.13629	0.18182
California	1,126	0.05114	0.07917	0.10573	0.14894
Colorado	195	0.09265	0.11622	0.14796	0.19550
Connecticut	234	0.09836	0.12941	0.16357	0.20231
D. C.	18	0.08361	0.10400	0.11649	0.15625
Delaware	41	0.10227	0.13462	0.15789	0.20476
Florida	654	0.07692	0.10359	0.12670	0.16292
Georgia	346	0.08257	0.10753	0.13364	0.17476
Guam	0	0.08356	0.11628	0.15108	0.19742
Hawaii	38	0.06000	0.09605	0.12281	0.18889
Idaho	72	0.09091	0.12353	0.15714	0.18750
Illinois	715	0.08205	0.12172	0.15554	0.19120
Indiana	479	0.14458	0.18689	0.22115	0.25610
Iowa	428	0.08475	0.10811	0.13699	0.17470
Kansas	325	0.08485	0.11647	0.14816	0.18598
Kentucky	264	0.10345	0.13839	0.17717	0.23279
Louisiana	265	0.14784	0.18784	0.21260	0.25318
Maine	108	0.09231	0.12308	0.15888	0.20149
Maryland	218	0.07882	0.11197	0.14591	0.19403
Massachusetts	413	0.08163	0.10773	0.13216	0.16667
Michigan	406	0.07885	0.10294	0.12782	0.16049
Minnesota	379	0.09901	0.12414	0.15323	0.18571
Mississippi	192	0.09615	0.12500	0.15333	0.20290
Missouri	489	0.07042	0.09278	0.12081	0.15812
Montana	80	0.10172	0.13481	0.16415	0.21707
Nebraska	214	0.09402	0.12121	0.14516	0.18023
Nevada	44	0.12500	0.16162	0.19767	0.23148
New Hampshire	74	0.11382	0.15517	0.17125	0.20918

Cut Point Table 2
Quintile Cut points for ADL QM Late Loss ADL Worsening (03-01-2011)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New Jersey	339	0.07968	0.10759	0.13126	0.16774
New Mexico	64	0.08621	0.11848	0.14359	0.19289
New York	623	0.08629	0.11538	0.14135	0.18577
North Carolina	393	0.13613	0.17486	0.21525	0.25475
North Dakota	79	0.11842	0.15254	0.17073	0.21600
Ohio	918	0.07447	0.10417	0.13615	0.17500
Oklahoma	299	0.06796	0.09040	0.11650	0.15302
Oregon	131	0.05405	0.07937	0.09929	0.12500
Pennsylvania	662	0.12469	0.16247	0.19307	0.23387
Puerto Rico	0	0.08356	0.11628	0.15108	0.19742
Rhode Island	84	0.08511	0.11227	0.14286	0.16854
South Carolina	161	0.07229	0.09798	0.12766	0.17544
South Dakota	109	0.10577	0.14151	0.16143	0.18605
Tennessee	295	0.07666	0.09880	0.12770	0.17297
Texas	1,094	0.11243	0.15714	0.19597	0.24832
Utah	78	0.09130	0.11927	0.16000	0.20588
Vermont	40	0.09701	0.14525	0.18235	0.20985
Virgin Islands	0	0.08356	0.11628	0.15108	0.19742
Virginia	263	0.10606	0.13986	0.18085	0.22581
Washington	223	0.06358	0.09091	0.11905	0.15190
West Virginia	117	0.11330	0.15152	0.19005	0.23469
Wisconsin	376	0.09357	0.12346	0.15172	0.18033
Wyoming	34	0.09290	0.13374	0.14516	0.19022

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 (03-01-2011)**

State	Number of Facilities	20th percentile	40th percentile	60th percentile	80th percentile
Alabama	219	0.05224	0.07144	0.08729	0.10805
Alaska	9	0.05887	0.11669	0.17811	0.22896
Arizona	112	0.05030	0.08047	0.11044	0.15716
Arkansas	215	0.06083	0.08261	0.10219	0.14200
California	1,087	0.04794	0.07130	0.09909	0.13697
Colorado	195	0.06646	0.08791	0.11920	0.15650
Connecticut	234	0.07456	0.10459	0.12946	0.15755
D. C.	17	0.06754	0.08033	0.09056	0.13262
Delaware	41	0.07577	0.10855	0.13656	0.17059
Florida	638	0.05244	0.07248	0.09420	0.12524
Georgia	345	0.05704	0.07800	0.10034	0.13115
Guam	0	0.06172	0.08790	0.11512	0.15530
Hawaii	32	0.05188	0.08811	0.12364	0.15989
Idaho	72	0.06408	0.08116	0.10479	0.14360
Illinois	710	0.06313	0.09595	0.12460	0.16455
Indiana	478	0.06799	0.09487	0.12740	0.17851
Iowa	428	0.05768	0.07925	0.10267	0.14201
Kansas	322	0.06331	0.08937	0.11610	0.15552
Kentucky	257	0.06243	0.08806	0.11744	0.16715
Louisiana	265	0.05522	0.07652	0.10195	0.13500
Maine	104	0.10191	0.13182	0.16034	0.19335
Maryland	213	0.06710	0.09191	0.11639	0.15558
Massachusetts	410	0.07589	0.09854	0.12375	0.15375
Michigan	401	0.06018	0.08271	0.10191	0.12846
Minnesota	379	0.07093	0.09407	0.11346	0.15151
Mississippi	193	0.05945	0.08870	0.11107	0.15690
Missouri	488	0.04797	0.06949	0.08821	0.12139
Montana	79	0.07152	0.10495	0.12904	0.16986
Nebraska	210	0.07560	0.10005	0.12116	0.15777
Nevada	43	0.10583	0.14163	0.16062	0.19911
New Hampshire	74	0.09496	0.13055	0.16240	0.19348
New Jersey	332	0.06258	0.08397	0.10272	0.13885
New Mexico	63	0.05331	0.08393	0.12182	0.18532

Cut Point Table 3
Quintile Cut points for ADL QM Worsening Locomotion (03-01-2011)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New York	620	0.07513	0.10363	0.12877	0.16974
North Carolina	388	0.06463	0.09605	0.12489	0.17969
North Dakota	78	0.07883	0.11267	0.13570	0.17259
Ohio	908	0.05882	0.08110	0.10486	0.14512
Oklahoma	299	0.04070	0.06050	0.08075	0.10981
Oregon	129	0.04911	0.07372	0.09201	0.12060
Pennsylvania	648	0.11244	0.14277	0.17395	0.21216
Puerto Rico	0	0.06172	0.08790	0.11512	0.15530
Rhode Island	82	0.06318	0.08310	0.10875	0.13828
South Carolina	158	0.06191	0.08095	0.10620	0.13850
South Dakota	109	0.08609	0.10598	0.13135	0.16022
Tennessee	293	0.05331	0.07447	0.10092	0.12882
Texas	1,082	0.06754	0.09608	0.12582	0.17111
Utah	77	0.06431	0.10171	0.13655	0.17410
Vermont	38	0.08198	0.14147	0.16009	0.21276
Virgin Islands	0	0.06172	0.08790	0.11512	0.15530
Virginia	257	0.07529	0.10839	0.13828	0.17701
Washington	216	0.04688	0.08102	0.09992	0.12210
West Virginia	114	0.07859	0.11117	0.14416	0.17728
Wisconsin	373	0.06950	0.09426	0.11476	0.14243
Wyoming	34	0.06246	0.09191	0.11732	0.14987

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.