

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

State-Level Cut Point Tables

February 2010



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 February 2010 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 February 2010 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 - (02-01-2010)

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	>61.333	≤61.333	>32.000	≤32.000	>20.000	≤20.000	>8.667	≤8.667
Alaska	15	>83.083	≤83.083	>47.333	≤47.333	>34.000	≤34.000	>18.000	≤18.000
Arizona	135	>112.500	≤112.500	>64.667	≤64.667	>42.667	≤42.667	>23.333	≤23.333
Arkansas	230	>173.867	≤173.867	>104.667	≤104.667	>62.667	≤62.667	>34.500	≤34.500
California	1,238	>94.667	≤94.667	>58.667	≤58.667	>38.667	≤38.667	>20.000	≤20.000
Colorado	209	>130.667	≤130.667	>93.333	≤93.333	>57.333	≤57.333	>29.333	≤29.333
Connecticut	237	>75.333	≤75.333	>50.000	≤50.000	>33.333	≤33.333	>14.667	≤14.667
D. C.	18	>198.000	≤198.000	>116.333	≤116.333	>68.667	≤68.667	>30.000	≤30.000
Delaware	44	>130.000	≤130.000	>80.000	≤80.000	>65.333	≤65.333	>28.000	≤28.000
Florida	674	>75.000	≤75.000	>50.000	≤50.000	>34.000	≤34.000	>18.000	≤18.000
Georgia	358	>59.667	≤59.667	>35.333	≤35.333	>20.667	≤20.667	>8.667	≤8.667
Guam	1	>88.667	≤88.667	>48.667	≤48.667	>28.667	≤28.667	>11.333	≤11.333
Hawaii	47	>80.667	≤80.667	>40.667	≤40.667	>28.667	≤28.667	>14.667	≤14.667
Idaho	77	>114.500	≤114.500	>79.333	≤79.333	>53.333	≤53.333	>23.333	≤23.333
Illinois	787	>98.667	≤98.667	>50.667	≤50.667	>28.500	≤28.500	>10.667	≤10.667
Indiana	500	>118.500	≤118.500	>71.333	≤71.333	>40.667	≤40.667	>14.667	≤14.667
Iowa	440	>69.333	≤69.333	>40.000	≤40.000	>26.667	≤26.667	>8.333	≤8.333
Kansas	336	>132.833	≤132.833	>82.000	≤82.000	>46.000	≤46.000	>21.333	≤21.333
Kentucky	284	>113.667	≤113.667	>38.000	≤38.000	>22.000	≤22.000	>9.333	≤9.333
Louisiana	280	>115.417	≤115.417	>70.667	≤70.667	>48.000	≤48.000	>20.000	≤20.000
Maine	109	>79.333	≤79.333	>43.333	≤43.333	>28.000	≤28.000	>10.667	≤10.667
Maryland	229	>92.667	≤92.667	>60.667	≤60.667	>41.333	≤41.333	>16.000	≤16.000
Massachusetts	427	>52.667	≤52.667	>31.333	≤31.333	>17.333	≤17.333	>5.333	≤5.333
Michigan	423	>120.667	≤120.667	>78.000	≤78.000	>51.333	≤51.333	>26.000	≤26.000
Minnesota	385	>72.167	≤72.167	>50.000	≤50.000	>35.333	≤35.333	>20.667	≤20.667
Mississippi	201	>74.667	≤74.667	>42.667	≤42.667	>26.667	≤26.667	>10.000	≤10.000
Missouri	508	>121.000	≤121.000	>64.000	≤64.000	>36.000	≤36.000	>14.667	≤14.667
Montana	90	>82.500	≤82.500	>44.667	≤44.667	>28.000	≤28.000	>14.000	≤14.000
Nebraska	220	>66.250	≤66.250	>44.000	≤44.000	>28.667	≤28.667	>14.333	≤14.333
Nevada	48	>74.667	≤74.667	>51.333	≤51.333	>36.000	≤36.000	>20.000	≤20.000
New Hampshire	80	>44.000	≤44.000	>26.667	≤26.667	>12.667	≤12.667	>4.000	≤4.000

New Jersey	358	>67.333	≤67.333	>38.000	≤38.000	>24.667	≤24.667	>10.667	≤10.667
New Mexico	68	>103.167	≤103.167	>56.667	≤56.667	>35.333	≤35.333	>8.667	≤8.667
New York	637	>52.333	≤52.333	>28.000	≤28.000	>18.667	≤18.667	>7.333	≤7.333
North Carolina	420	>42.000	≤42.000	>25.333	≤25.333	>13.333	≤13.333	>4.667	≤4.667
North Dakota	82	>34.000	≤34.000	>23.333	≤23.333	>15.333	≤15.333	>9.333	≤9.333
Ohio	948	>62.667	≤62.667	>38.667	≤38.667	>22.667	≤22.667	>9.333	≤9.333
Oklahoma	312	>172.000	≤172.000	>97.000	≤97.000	>58.000	≤58.000	>30.000	≤30.000
Oregon	137	>77.333	≤77.333	>38.000	≤38.000	>23.333	≤23.333	>8.000	≤8.000
Pennsylvania	709	>55.333	≤55.333	>31.333	≤31.333	>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	86	>48.000	≤48.000	>24.000	≤24.000	>10.667	≤10.667	>2.667	≤2.667
South Carolina	177	>72.667	≤72.667	>40.000	≤40.000	>20.667	≤20.667	>8.000	≤8.000
South Dakota	109	>42.667	≤42.667	>26.667	≤26.667	>16.000	≤16.000	>7.333	≤7.333
Tennessee	313	>72.167	≤72.167	>36.667	≤36.667	>22.667	≤22.667	>11.333	≤11.333
Texas	1,125	>100.000	≤100.000	>52.667	≤52.667	>30.000	≤30.000	>10.667	≤10.667
Utah	92	>49.333	≤49.333	>32.000	≤32.000	>14.667	≤14.667	>4.000	≤4.000
Vermont	40	>90.000	≤90.000	>67.333	≤67.333	>37.333	≤37.333	>16.667	≤16.667
Virgin Islands	1	>88.667	≤88.667	>48.667	≤48.667	>28.667	≤28.667	>11.333	≤11.333
Virginia	280	>76.750	≤76.750	>48.000	≤48.000	>28.667	≤28.667	>12.667	≤12.667
Washington	231	>98.000	≤98.000	>59.333	≤59.333	>30.667	≤30.667	>14.667	≤14.667
West Virginia	128	>116.667	≤116.667	>70.333	≤70.333	>44.333	≤44.333	>22.667	≤22.667
Wisconsin	389	>89.833	≤89.833	>48.667	≤48.667	>27.333	≤27.333	>10.000	≤10.000
Wyoming	38	>118.000	≤118.000	>68.667	≤68.667	>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 (02-01-2010)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
Alabama	224	0.07339	0.09615	0.11585	0.14789
Alaska	11	0.07895	0.10638	0.11702	0.15528
Arizona	120	0.07759	0.10810	0.14752	0.19145
Arkansas	222	0.07960	0.11275	0.14634	0.19718
California	1,122	0.05128	0.07937	0.11000	0.15094
Colorado	196	0.09444	0.13018	0.16733	0.20541
Connecticut	234	0.10931	0.13415	0.16216	0.21368
D. C.	17	0.06349	0.07558	0.11765	0.15224
Delaware	41	0.11340	0.12556	0.15116	0.20188
Florida	658	0.07837	0.10552	0.13194	0.17241
Georgia	345	0.08274	0.11286	0.14406	0.17783
Guam	0	0.08696	0.12162	0.15625	0.20455
Hawaii	38	0.06250	0.10112	0.12903	0.17500
Idaho	72	0.09244	0.12727	0.15217	0.18519
Illinois	718	0.07692	0.11735	0.15323	0.19946
Indiana	476	0.15152	0.18824	0.22727	0.26829
Iowa	424	0.08148	0.11224	0.13907	0.17680
Kansas	325	0.09091	0.12307	0.15158	0.18801
Kentucky	265	0.10496	0.13854	0.17827	0.22649
Louisiana	261	0.14694	0.18878	0.21901	0.25952
Maine	107	0.10526	0.12264	0.16071	0.20213
Maryland	219	0.09191	0.11579	0.14563	0.18204
Massachusetts	415	0.09526	0.12078	0.13964	0.16740
Michigan	402	0.07826	0.10294	0.13028	0.17037
Minnesota	378	0.10417	0.13636	0.16165	0.19048
Mississippi	194	0.09200	0.12844	0.17054	0.21739
Missouri	488	0.06667	0.09259	0.12281	0.16754
Montana	82	0.10236	0.13080	0.16173	0.18132
Nebraska	214	0.09417	0.12459	0.15929	0.20000
Nevada	43	0.13506	0.17910	0.20588	0.23785
New Hampshire	76	0.12883	0.15139	0.17123	0.21711

Cut Point Table 2
Quintile Cut points for ADL QM Late Loss ADL Worsening (02-01-2010)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New Jersey	338	0.07667	0.09412	0.11475	0.14773
New Mexico	64	0.10599	0.14815	0.20690	0.25743
New York	630	0.09489	0.12633	0.15571	0.20297
North Carolina	392	0.15098	0.19340	0.22870	0.27273
North Dakota	79	0.12245	0.14583	0.16788	0.20408
Ohio	914	0.08257	0.11055	0.13873	0.17949
Oklahoma	300	0.06758	0.09677	0.12009	0.15513
Oregon	133	0.05634	0.08125	0.10588	0.13675
Pennsylvania	666	0.13043	0.16895	0.19915	0.24333
Puerto Rico	0	0.08696	0.12162	0.15625	0.20455
Rhode Island	86	0.09444	0.12298	0.14692	0.17391
South Carolina	161	0.07447	0.10194	0.14078	0.18325
South Dakota	109	0.11828	0.14583	0.17857	0.20301
Tennessee	295	0.08108	0.10704	0.13123	0.17049
Texas	1,071	0.11896	0.16129	0.20332	0.25275
Utah	79	0.07527	0.10204	0.14932	0.23256
Vermont	40	0.12224	0.16064	0.20741	0.26846
Virgin Islands	0	0.08696	0.12162	0.15625	0.20455
Virginia	263	0.11765	0.15365	0.18243	0.22800
Washington	225	0.07407	0.10347	0.13227	0.17708
West Virginia	117	0.12745	0.16256	0.19209	0.25000
Wisconsin	377	0.10044	0.13187	0.16092	0.18919
Wyoming	35	0.11258	0.13299	0.15614	0.19558

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 (02-01-2010)**

State	Number of Facilities	20th percentile	40th percentile	60th percentile	80th percentile
Alabama	223	0.05815	0.07507	0.09746	0.12438
Alaska	9	0.03878	0.09309	0.14050	0.17298
Arizona	113	0.05292	0.08297	0.11490	0.14818
Arkansas	221	0.06134	0.08670	0.10778	0.14760
California	1,071	0.04725	0.07545	0.09915	0.13559
Colorado	195	0.06244	0.09379	0.12623	0.16845
Connecticut	233	0.09038	0.11632	0.13739	0.17662
D. C.	16	0.05626	0.06357	0.08459	0.12561
Delaware	41	0.08644	0.09840	0.12853	0.16924
Florida	643	0.05749	0.07882	0.09729	0.13256
Georgia	343	0.06636	0.08564	0.11236	0.14495
Guam	0	0.06576	0.09258	0.12172	0.16221
Hawaii	31	0.07544	0.10836	0.13162	0.18167
Idaho	69	0.06921	0.09972	0.12415	0.15880
Illinois	714	0.06382	0.09496	0.12630	0.16644
Indiana	474	0.07000	0.09834	0.13136	0.18343
Iowa	422	0.05880	0.08158	0.10680	0.13962
Kansas	322	0.06637	0.09206	0.11846	0.14478
Kentucky	256	0.06932	0.09171	0.12340	0.16573
Louisiana	261	0.05573	0.08319	0.10156	0.13436
Maine	104	0.10844	0.13659	0.17046	0.21110
Maryland	215	0.07416	0.09875	0.11944	0.16174
Massachusetts	411	0.08172	0.10951	0.13055	0.15667
Michigan	401	0.06153	0.08624	0.11046	0.14679
Minnesota	377	0.07691	0.09729	0.12226	0.15869
Mississippi	194	0.06459	0.08780	0.11553	0.15946
Missouri	486	0.05257	0.07452	0.09276	0.12804
Montana	82	0.06677	0.09978	0.12322	0.15370
Nebraska	209	0.07969	0.11296	0.13911	0.16920
Nevada	42	0.10088	0.15718	0.17309	0.21556
New Hampshire	75	0.09372	0.12390	0.15449	0.19179
New Jersey	331	0.06156	0.07983	0.09817	0.12850
New Mexico	63	0.07964	0.11830	0.14197	0.19729

Cut Point Table 3
Quintile Cut points for ADL QM Worsening Locomotion (02-01-2010)

State	Number of Facilities	20 th percentile	40 th percentile	60 th percentile	80 th percentile
New York	622	0.08597	0.11556	0.14026	0.18035
North Carolina	388	0.06935	0.10268	0.13917	0.18699
North Dakota	79	0.08830	0.10591	0.12414	0.15729
Ohio	906	0.06588	0.08796	0.11491	0.15802
Oklahoma	299	0.04129	0.05789	0.08251	0.10995
Oregon	129	0.04393	0.06695	0.09433	0.12819
Pennsylvania	652	0.12580	0.15518	0.18914	0.23011
Puerto Rico	0	0.06576	0.09258	0.12172	0.16221
Rhode Island	85	0.07208	0.09869	0.12550	0.15568
South Carolina	157	0.05918	0.08365	0.11332	0.15639
South Dakota	109	0.07285	0.10294	0.13676	0.16191
Tennessee	290	0.06050	0.07916	0.09920	0.12634
Texas	1,060	0.06909	0.10050	0.13322	0.17966
Utah	79	0.04999	0.07640	0.11061	0.16487
Vermont	38	0.13322	0.15284	0.16467	0.21311
Virgin Islands	0	0.06576	0.09258	0.12172	0.16221
Virginia	257	0.08983	0.12130	0.15501	0.19373
Washington	219	0.06423	0.08703	0.11387	0.14772
West Virginia	115	0.08259	0.11976	0.14899	0.19028
Wisconsin	376	0.07743	0.10451	0.12593	0.15565
Wyoming	35	0.07121	0.09803	0.13241	0.14571

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.