

**Appendix A to the 2016 PARCC Consortium Growth
Model Report:
Growth Model Fit Plots**

January 2017

1 Student Growth Percentile Fit Plots

A goodness of fit plot is produced for each unique Spring 2016 Student Growth Percentile (SGP) analysis. All fit plots will contain at least four panels. Each panel is a different depiction of the distribution of the SGPs calculated in that analysis relative to the students' prior or current achievement (i.e. the test scores used as the independent and dependent variables in the model).

The top panel is a mosaic plot that shows the percentage of students that fall into each prior proficiency level, and the location of the 10th through 90th quantiles of the SGP distribution represented as dashed white lines (with the exception of the solid white line for the median/50th percentile). Ideally the median SGP will be at or near 50 for all prior achievement level groups. The top panel is excluded when students' prior achievement level data is unavailable.

The “Ceiling/Floor Effects Test” panel helps identify problems in SGP estimation at the Highest and Lowest Obtainable/Observed Scale Scores (HOSS and LOSS). Appendix C provides a more detailed description of ceiling and floor effects and their causes. The table of values shows whether the current year scores at both extremes yield expected SGP values. The expectation is that the majority of SGPs for students scoring at or near the LOSS will be low (preferably less than 5 and not higher than 20), and that SGPs for students scoring at or near the HOSS will be high (preferably higher than 95 and not less than 80). Because few students may score *exactly* at the HOSS/LOSS, the top/bottom 50 students are selected and any student scoring within their range of scores are selected for inclusion in these tables. Consequently, there may be a range of scores at the HOSS/LOSS rather than a single score, and there may be more than 50 students included in the HOSS/LOSS row if the 50 students at the extremes only contain the single HOSS/LOSS score.

The “Student Growth Percentile Range” panel at bottom left shows the empirical distribution of SGPs given prior scale score deciles in the form of a 10 by 10 cell grid. Percentages of student growth percentiles between the 10th, 20th, 30th, 40th, 50th, 60th, 70th, 80th, and 90th percentiles were calculated based upon the empirical decile of the cohort's prior year scaled score distribution¹. Deviations from perfect fit are indicated by red and blue shading. The further above 10 the darker the red, and the further below 10 the darker the blue. A more detailed discussion about the reasons for and implications of model misfit can be found in the “Goodness of Fit” section of the 2016 Georgia Student Growth Model report.

The bottom right panel of each plot is a Q-Q plot which compares the observed distribution of SGPs with the theoretical (uniform) distribution. An ideal plot here will show black step function lines that do not deviate from the ideal, red line which traces the 45 degree angle of perfect fit.

Goodness of fit plots for SIMEX measurement error corrected models are also presented here for each analysis. The expectations in the SGP distribution panels are different for these models, where lower attaining students will receive higher SGPs and vice versa. This typically shifts the median lines in the mosaic plot panel and causes a red shift (more SGPs than expected) in the upper-right and lower-left quadrants of the “Student Growth Percentile Range” panel. See Appendix B of this report for a more detailed discussion of SIMEX models and description of their impact on SGP distributions.

¹The total students in each analysis varies depending on grade and subject, and prior score deciles are based only on scores for students used in the SGP calculations.

2 End-of-Grade Analyses

2.1 ELA

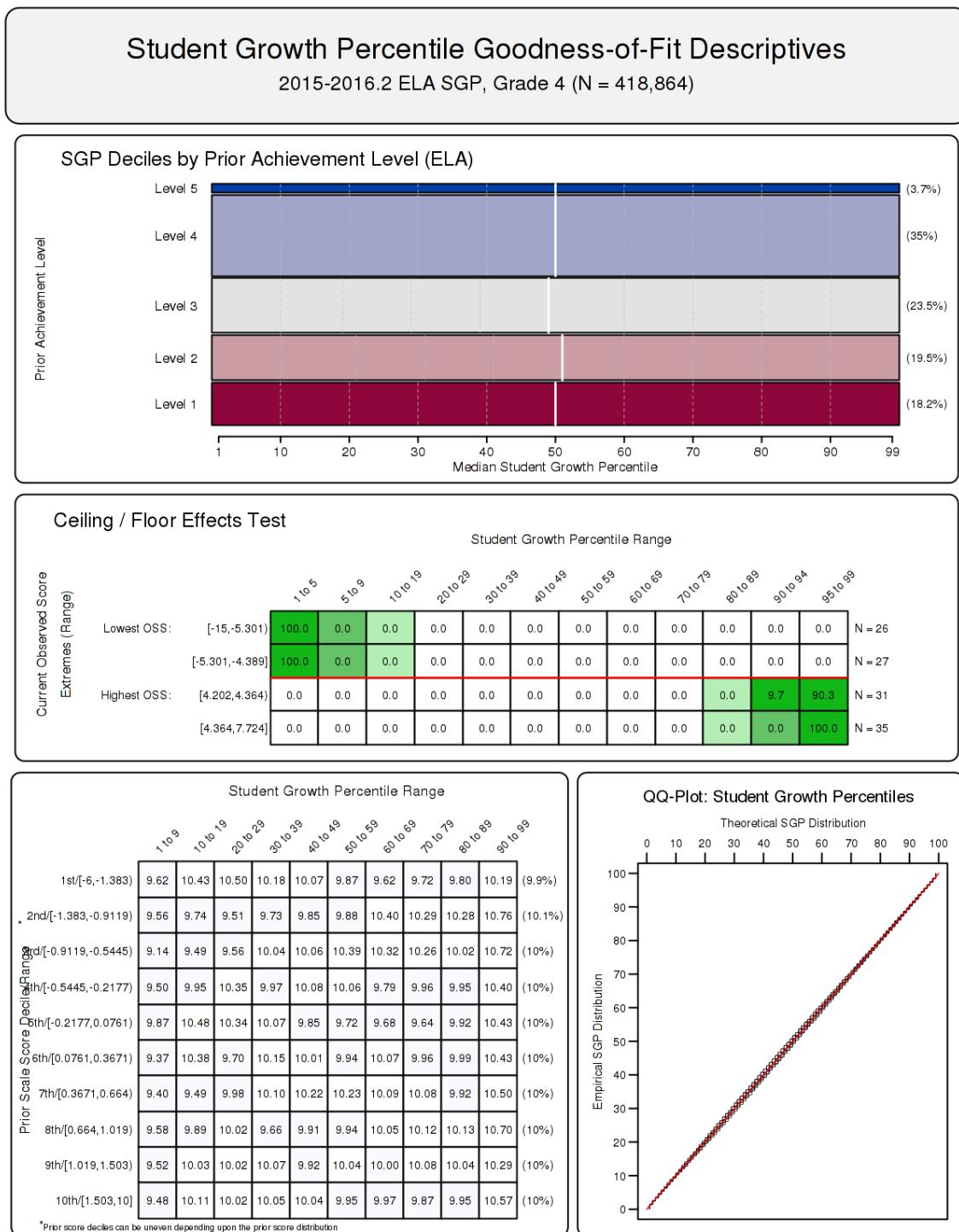


Figure 1: Goodness of Fit Plot for Grade 4 ELA, 2016 (Uncorrected).

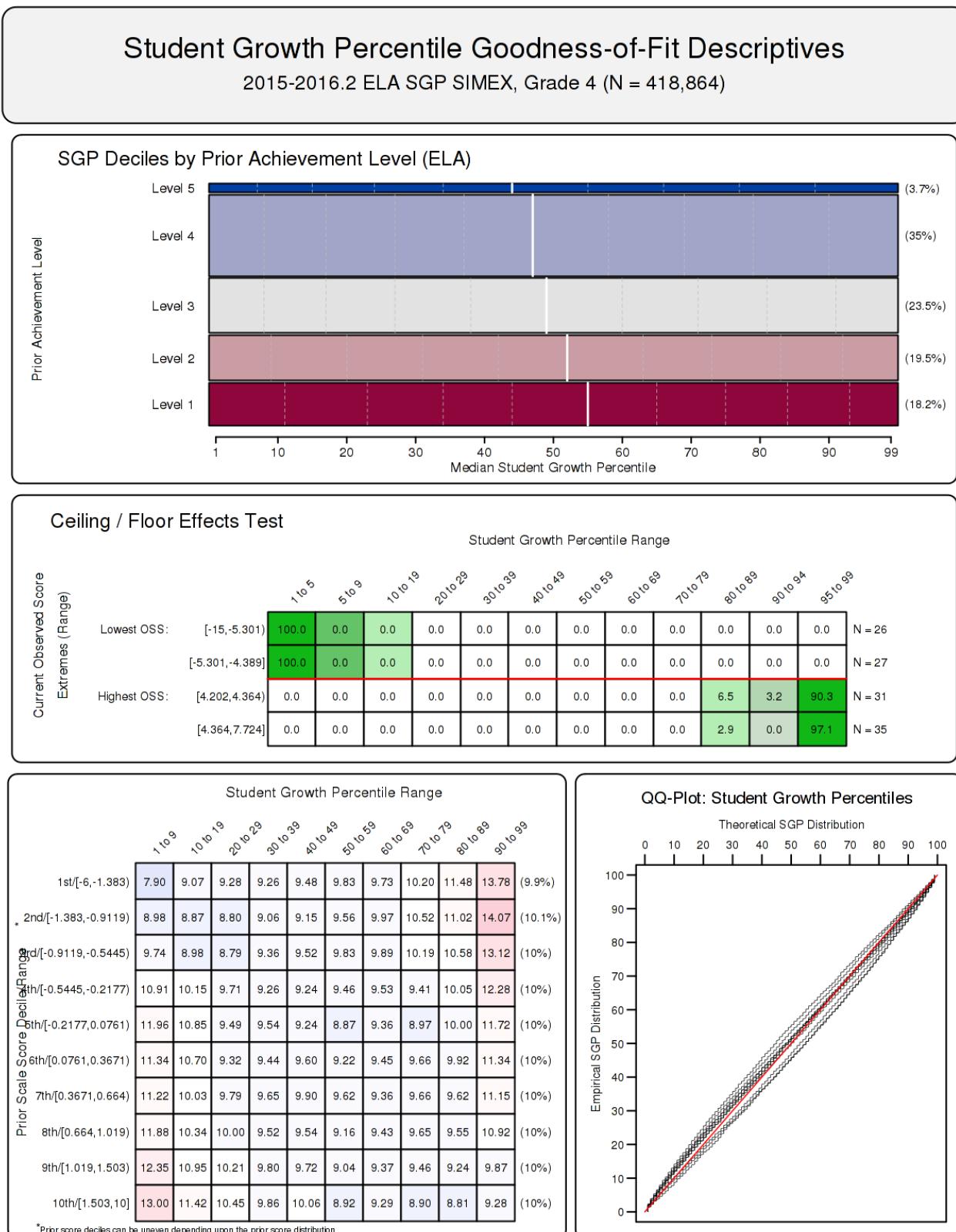


Figure 2: Goodness of Fit Plot for Grade 4 ELA, 2016 (SIMEX Corrected).

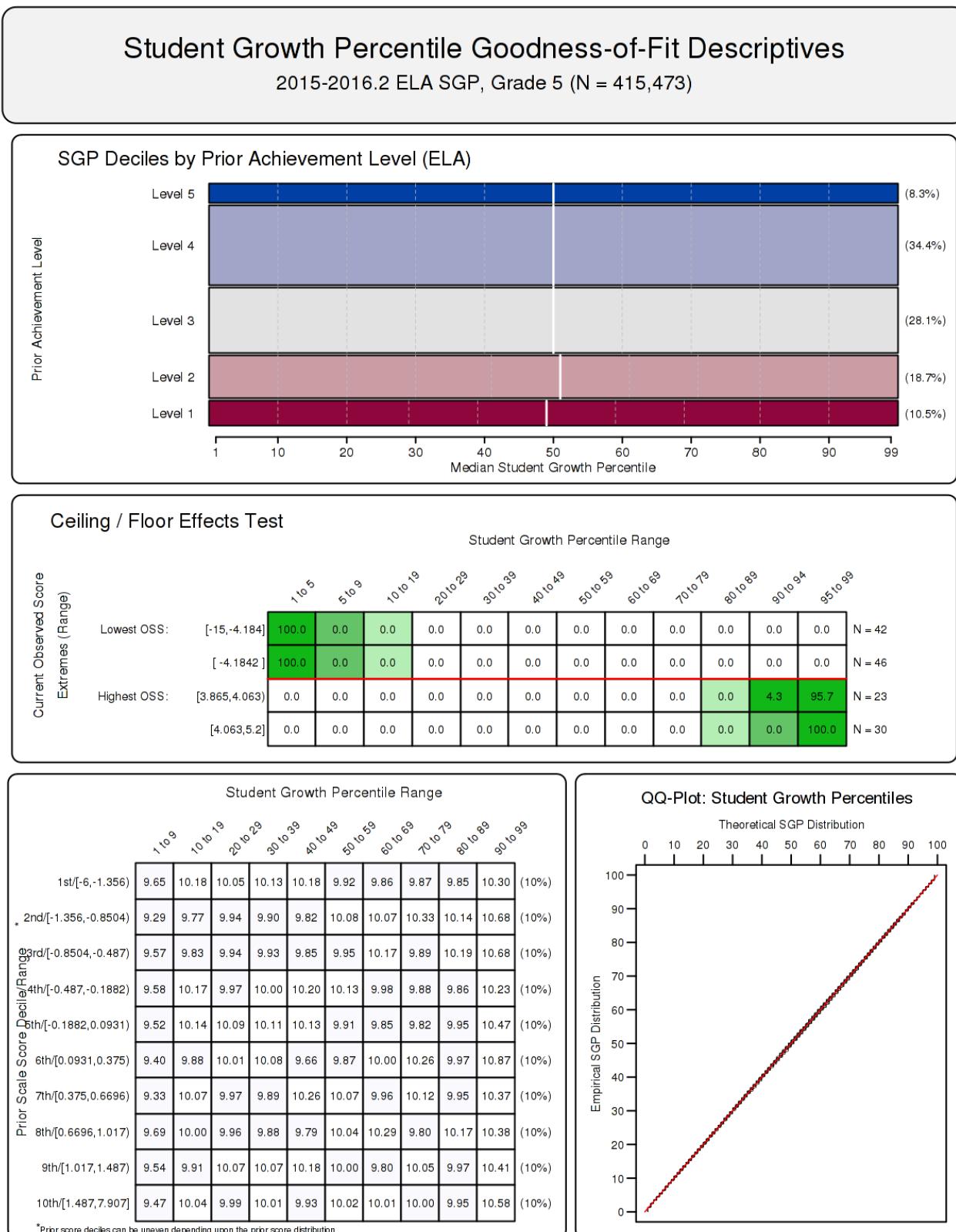


Figure 3: Goodness of Fit Plot for Spring 2016 Grade 5 ELA (Uncorrected).

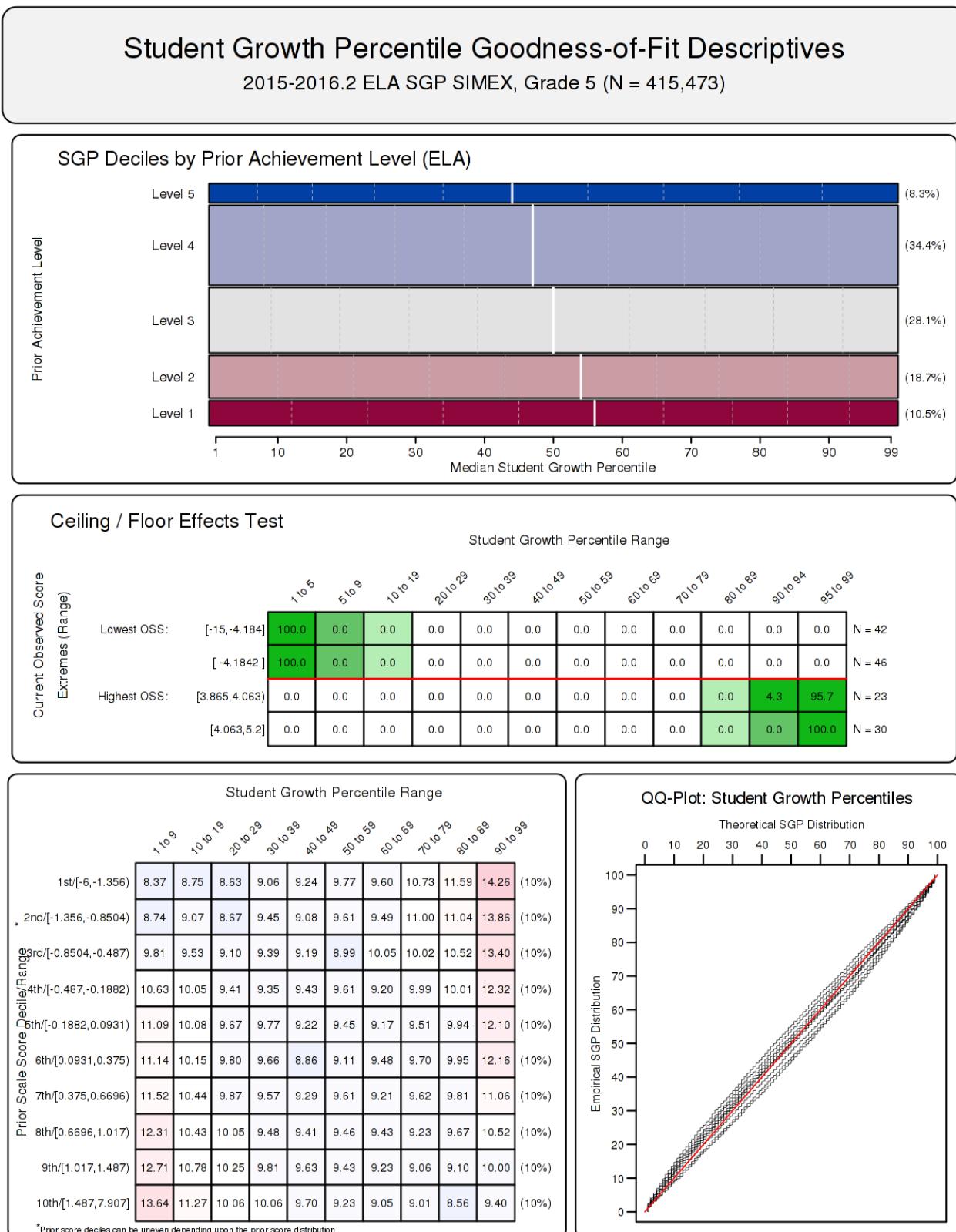


Figure 4: Goodness of Fit Plot for Spring 2016 Grade 5 ELA (SIMEX Corrected).

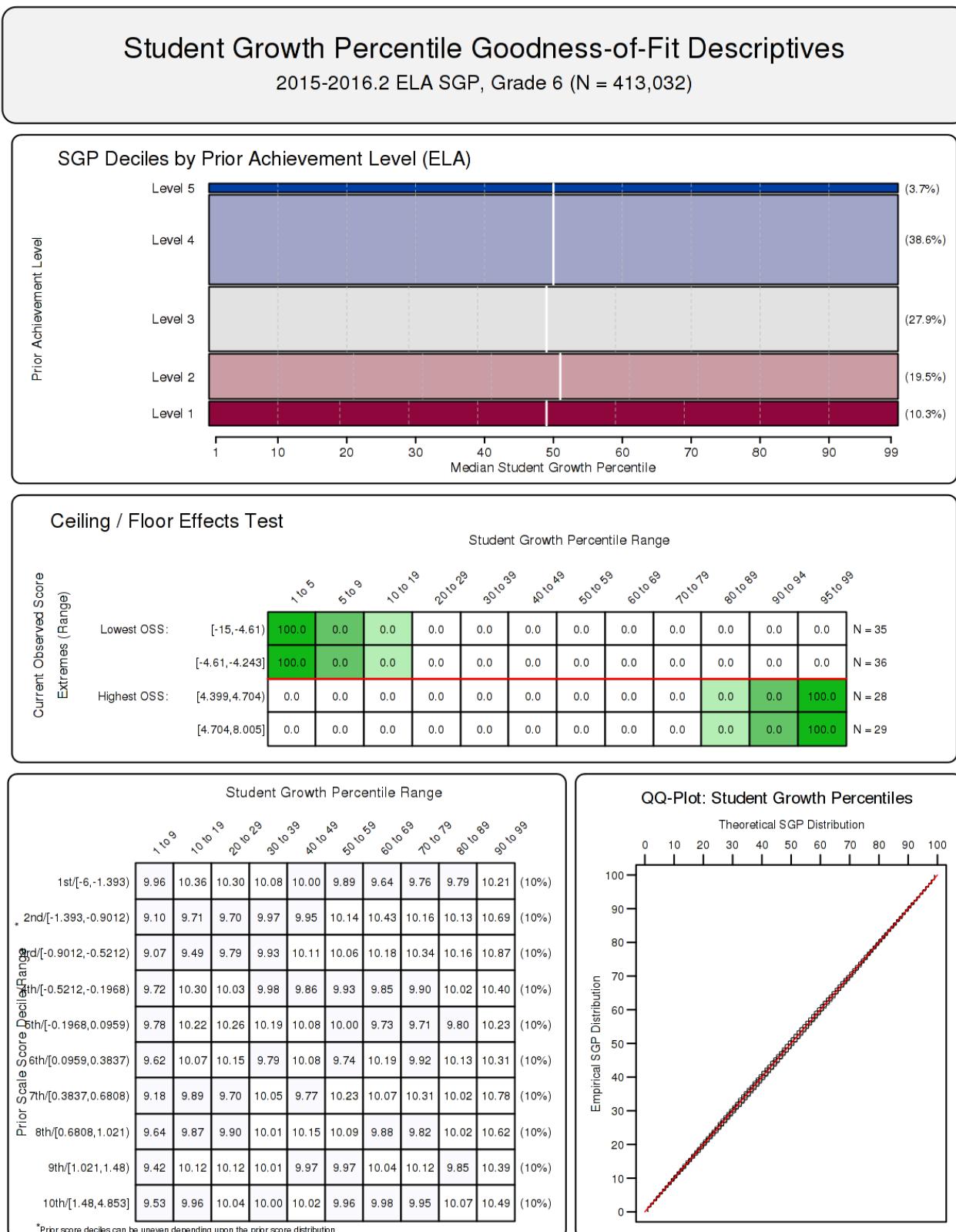


Figure 5: Goodness of Fit Plot for Spring 2016 Grade 6 ELA (Uncorrected).

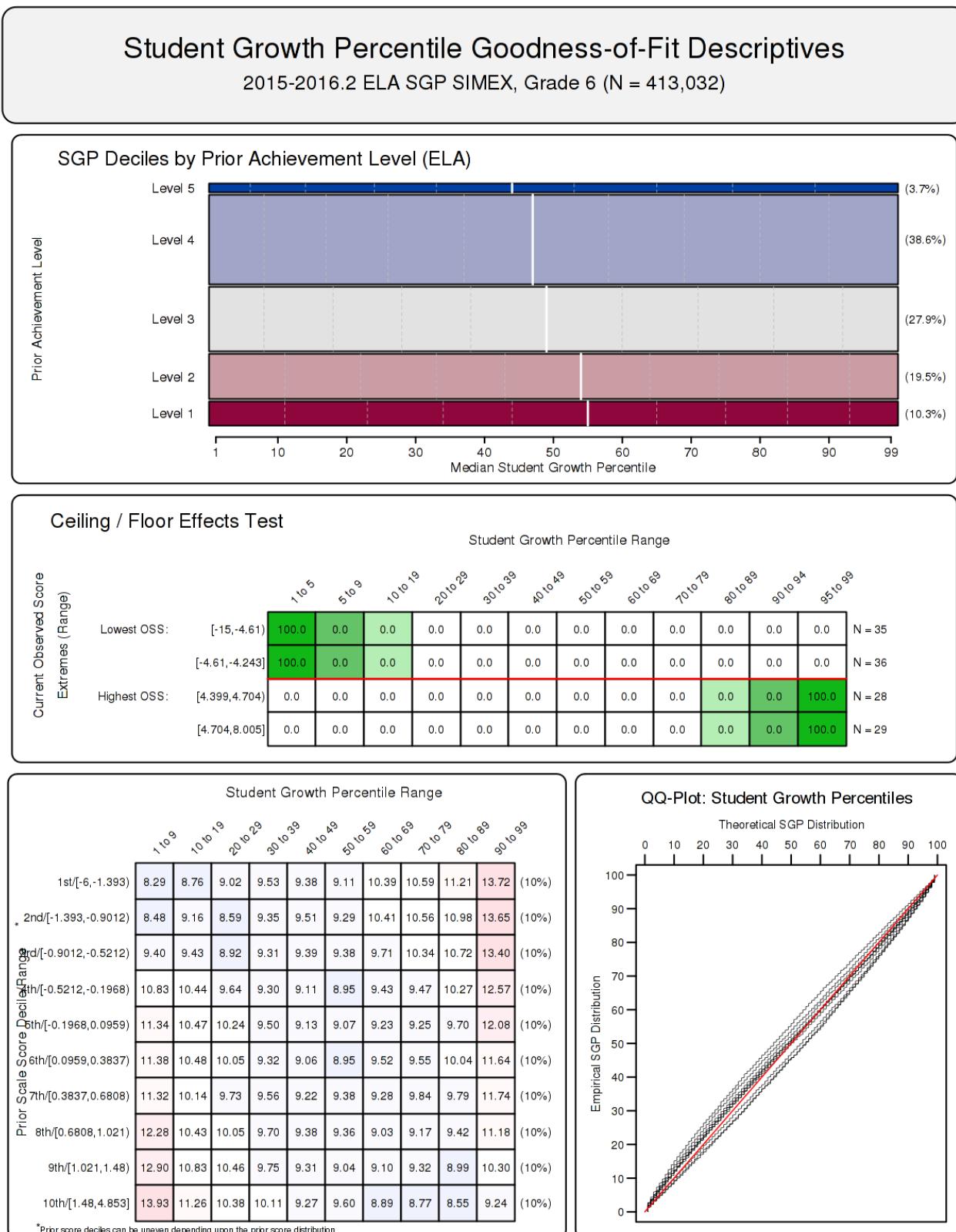


Figure 6: Goodness of Fit Plot for Spring 2016 Grade 6 ELA (SIMEX Corrected).

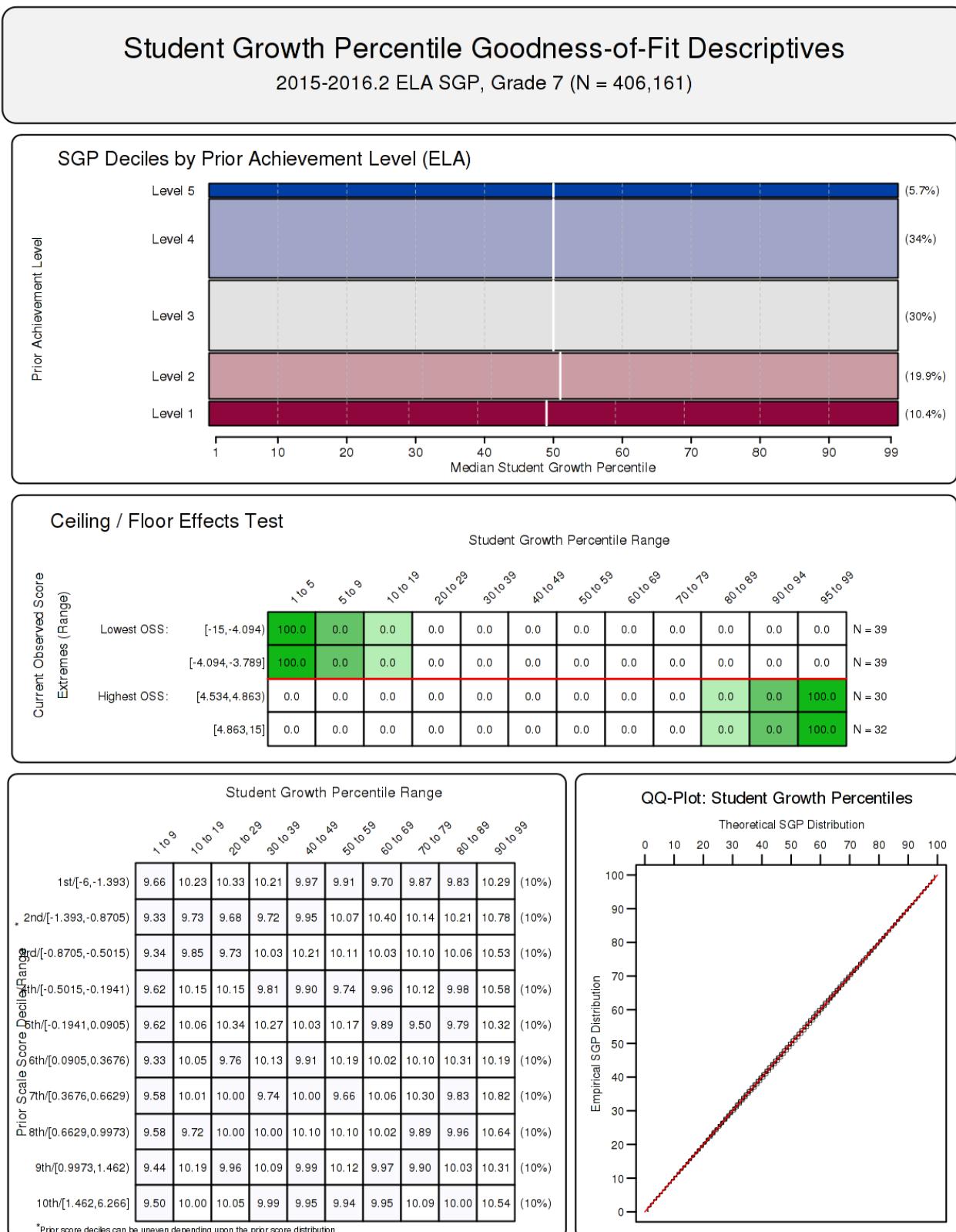


Figure 7: Goodness of Fit Plot for Spring 2016 Grade 7 ELA (Uncorrected).

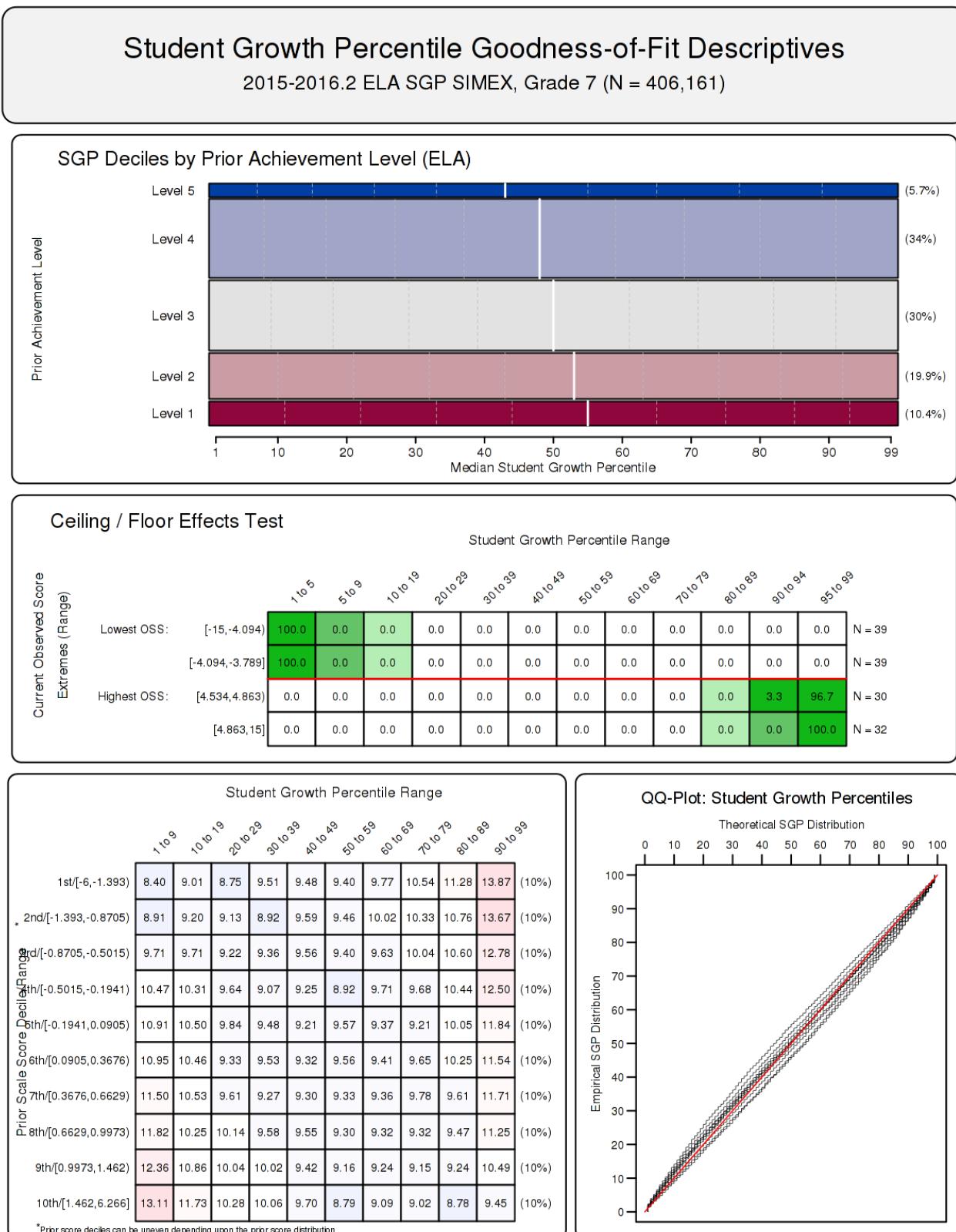


Figure 8: Goodness of Fit Plot for Spring 2016 Grade 7 ELA (SIMEX Corrected).

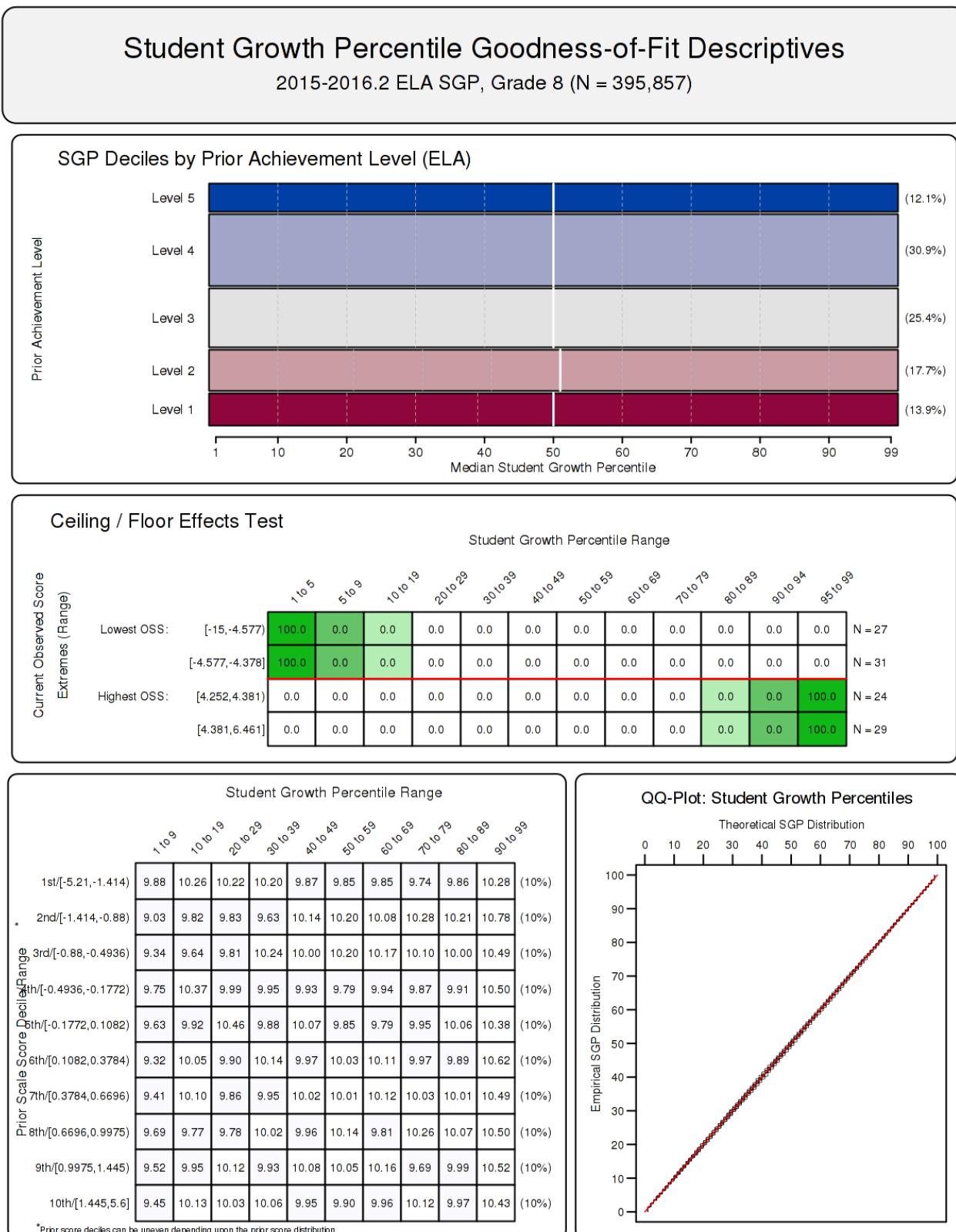


Figure 9: Goodness of Fit Plot for Spring 2016 Grade 8 ELA (Uncorrected).

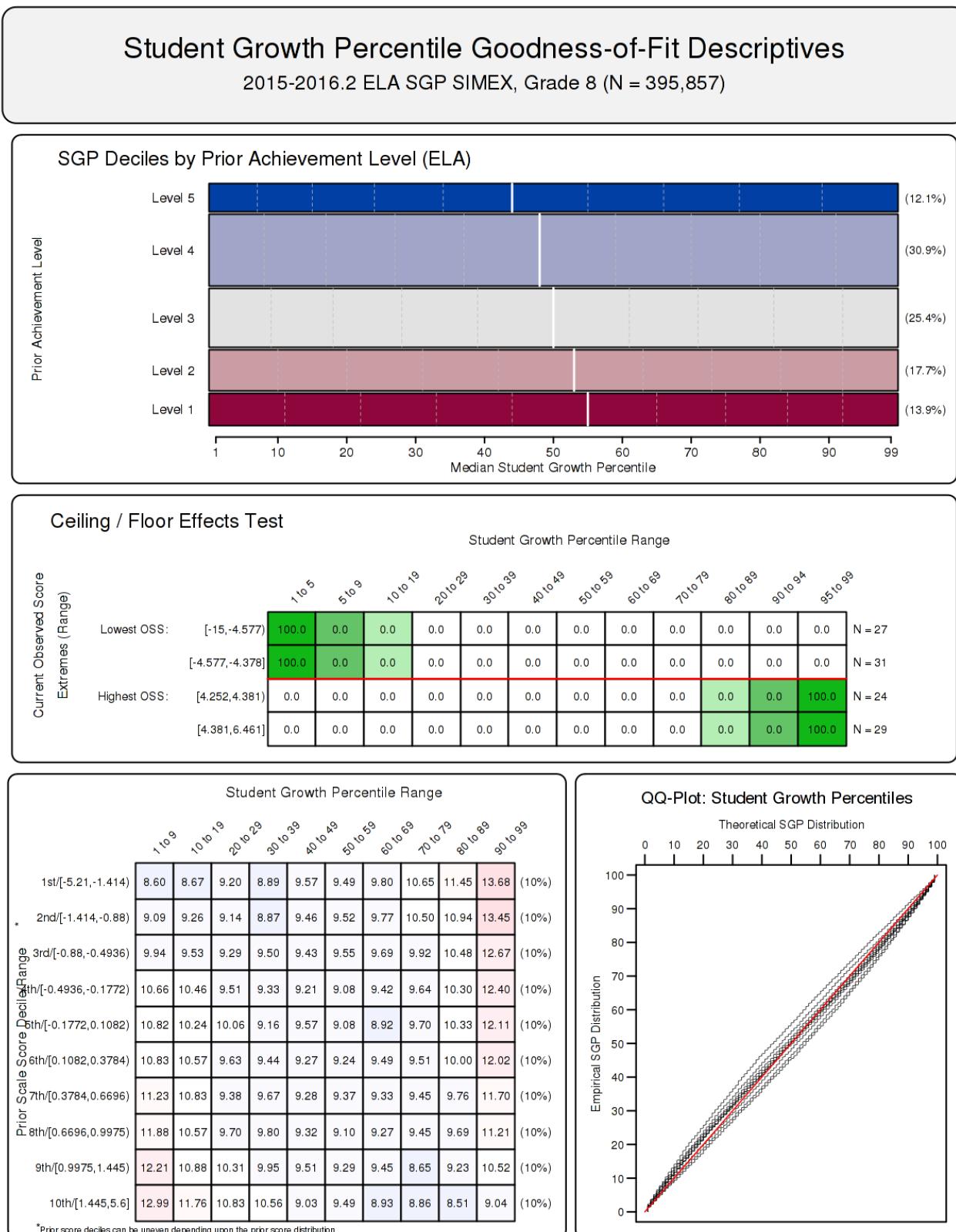


Figure 10: Goodness of Fit Plot for Spring 2016 Grade 8 ELA (SIMEX Corrected).

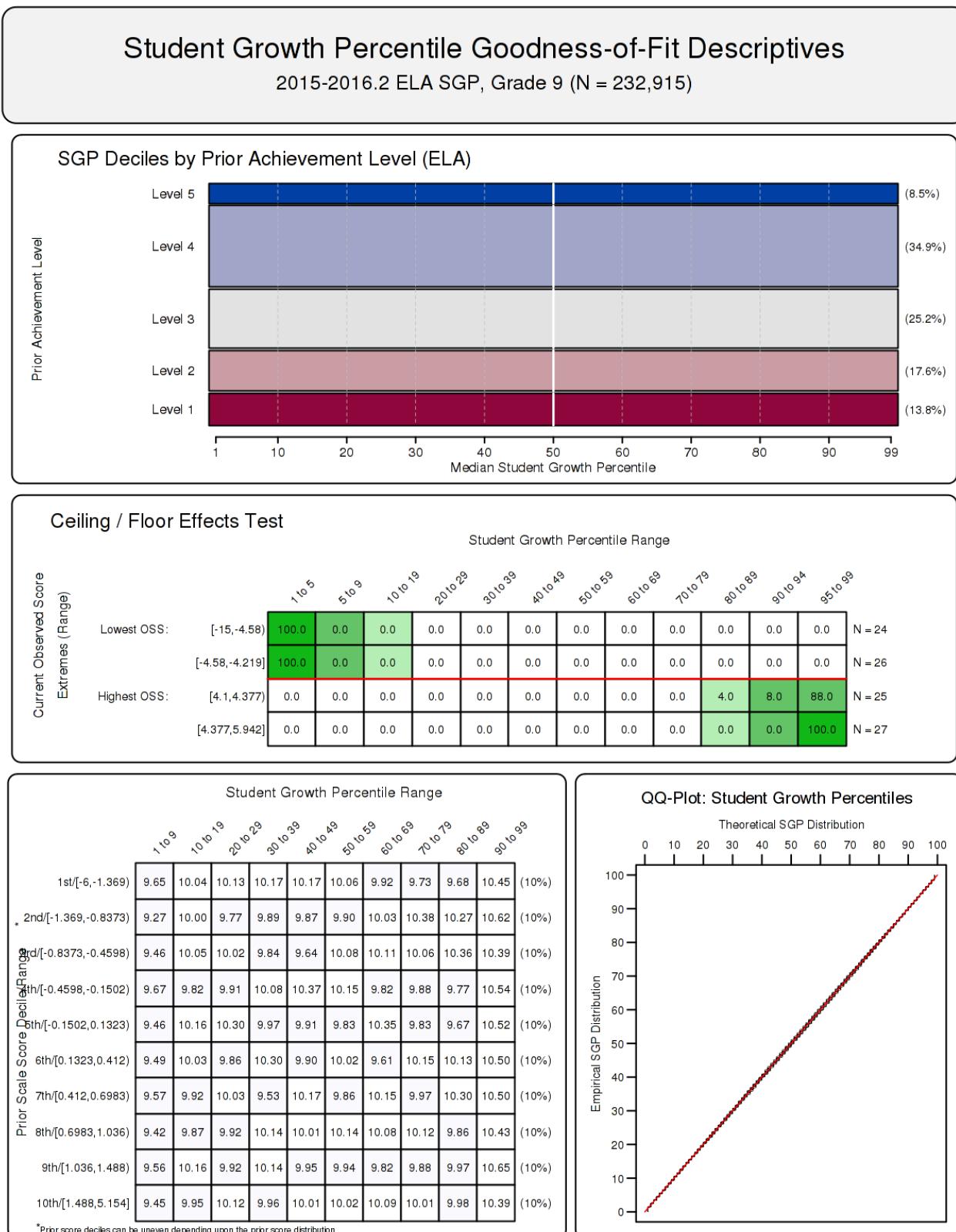
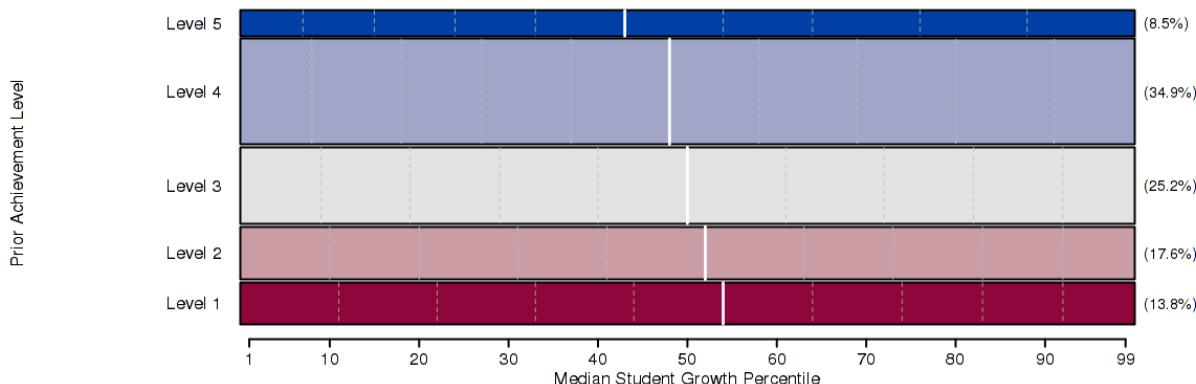


Figure 11: Goodness of Fit Plot for Spring 2016 Grade 9 ELA (Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 ELA SGP SIMEX, Grade 9 (N = 232,915)

SGP Deciles by Prior Achievement Level (ELA)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | | Student Growth Percentile Range | | | | | | | | | | | | N = 24 |
|---|-----------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: | [-15, -4.58] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 24 |
| | [-4.58, -4.219] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Highest OSS: | [4.1, 4.377] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 8.0 | 88.0 | N = 25 |
| | [4.377, 5.942] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-6, -1.369] | 8.82 | 9.21 | 9.03 | 9.28 | 9.48 | 9.48 | 9.83 | 10.67 | 11.19 | 13.02 | (10%) | |
| 2nd/[-1.369, -0.8373] | 9.09 | 9.44 | 9.56 | 9.33 | 9.29 | 9.23 | 9.79 | 10.26 | 11.23 | 12.78 | (10%) | |
| 3rd/[-0.8373, -0.4598] | 9.60 | 9.80 | 9.85 | 9.46 | 9.00 | 9.30 | 9.74 | 9.78 | 11.07 | 12.40 | (10%) | |
| 4th/[-0.4598, -0.1502] | 10.01 | 9.76 | 9.70 | 10.00 | 9.56 | 9.39 | 9.35 | 9.53 | 10.12 | 12.58 | (10%) | |
| 5th/[-0.1502, 0.1323] | 9.92 | 10.53 | 10.11 | 9.51 | 9.37 | 9.24 | 9.77 | 9.57 | 9.69 | 12.30 | (10%) | |
| 6th/[0.1323, 0.412] | 10.29 | 10.31 | 9.94 | 10.04 | 9.33 | 9.37 | 9.05 | 9.54 | 10.22 | 11.92 | (10%) | |
| 7th/[0.412, 0.6983] | 10.69 | 10.84 | 9.73 | 9.20 | 9.77 | 9.42 | 9.11 | 9.67 | 9.94 | 11.63 | (10%) | |
| 8th/[0.6983, 1.036] | 11.10 | 10.53 | 10.17 | 9.86 | 9.82 | 9.75 | 9.04 | 9.43 | 9.23 | 11.07 | (10%) | |
| 9th/[1.036, 1.488] | 11.94 | 11.43 | 10.28 | 9.88 | 9.50 | 9.64 | 8.72 | 8.88 | 9.11 | 10.63 | (10%) | |
| 10th/[1.488, 5.154] | 13.43 | 11.58 | 11.17 | 9.78 | 9.34 | 9.77 | 8.78 | 8.77 | 8.33 | 9.04 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

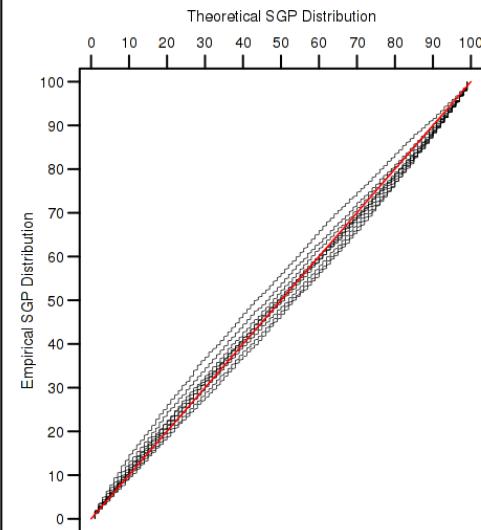


Figure 12: Goodness of Fit Plot for Spring 2016 Grade 9 ELA (SIMEX Corrected).

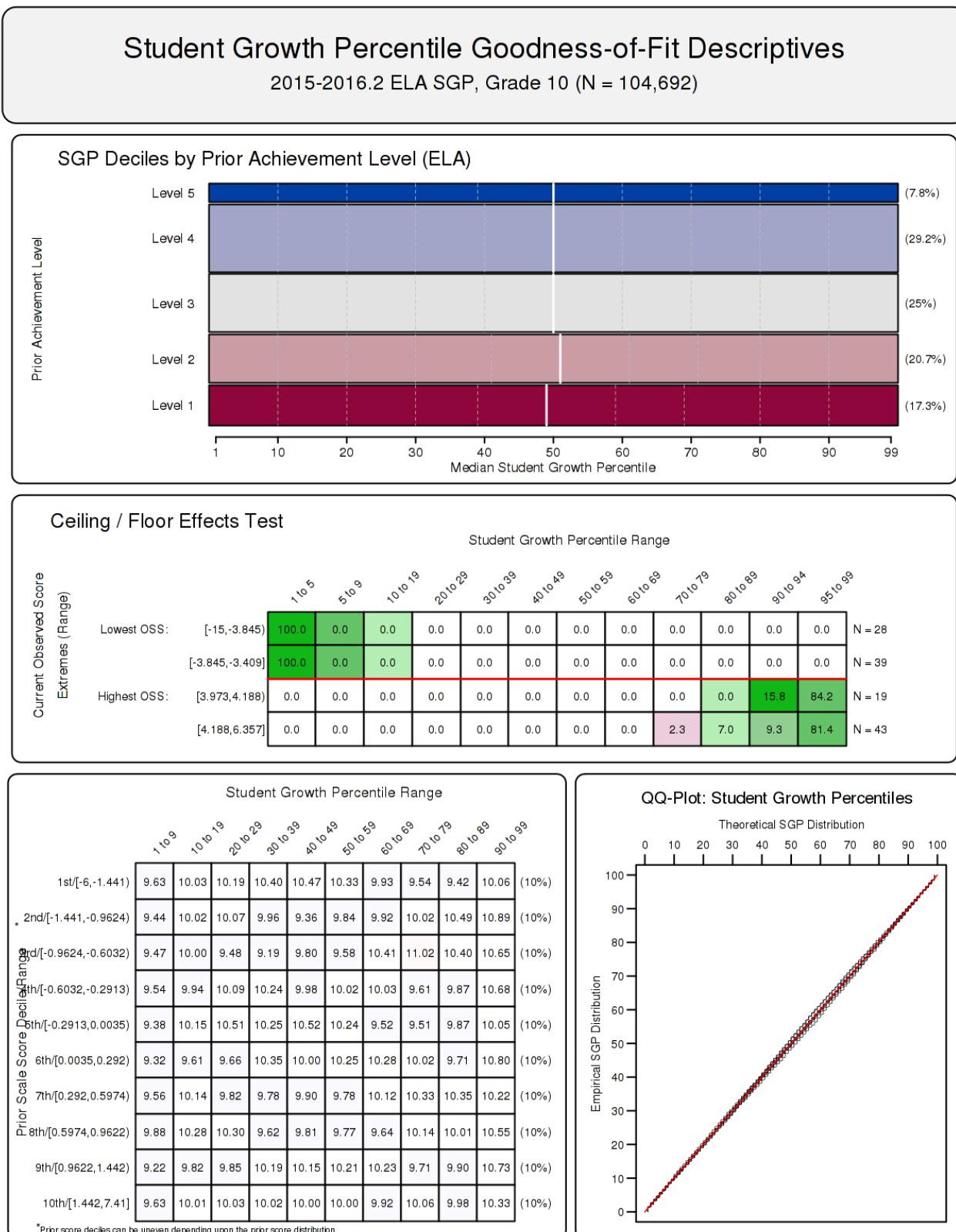


Figure 13: Goodness of Fit Plot for Spring 2016 Grade 10 ELA (Uncorrected).

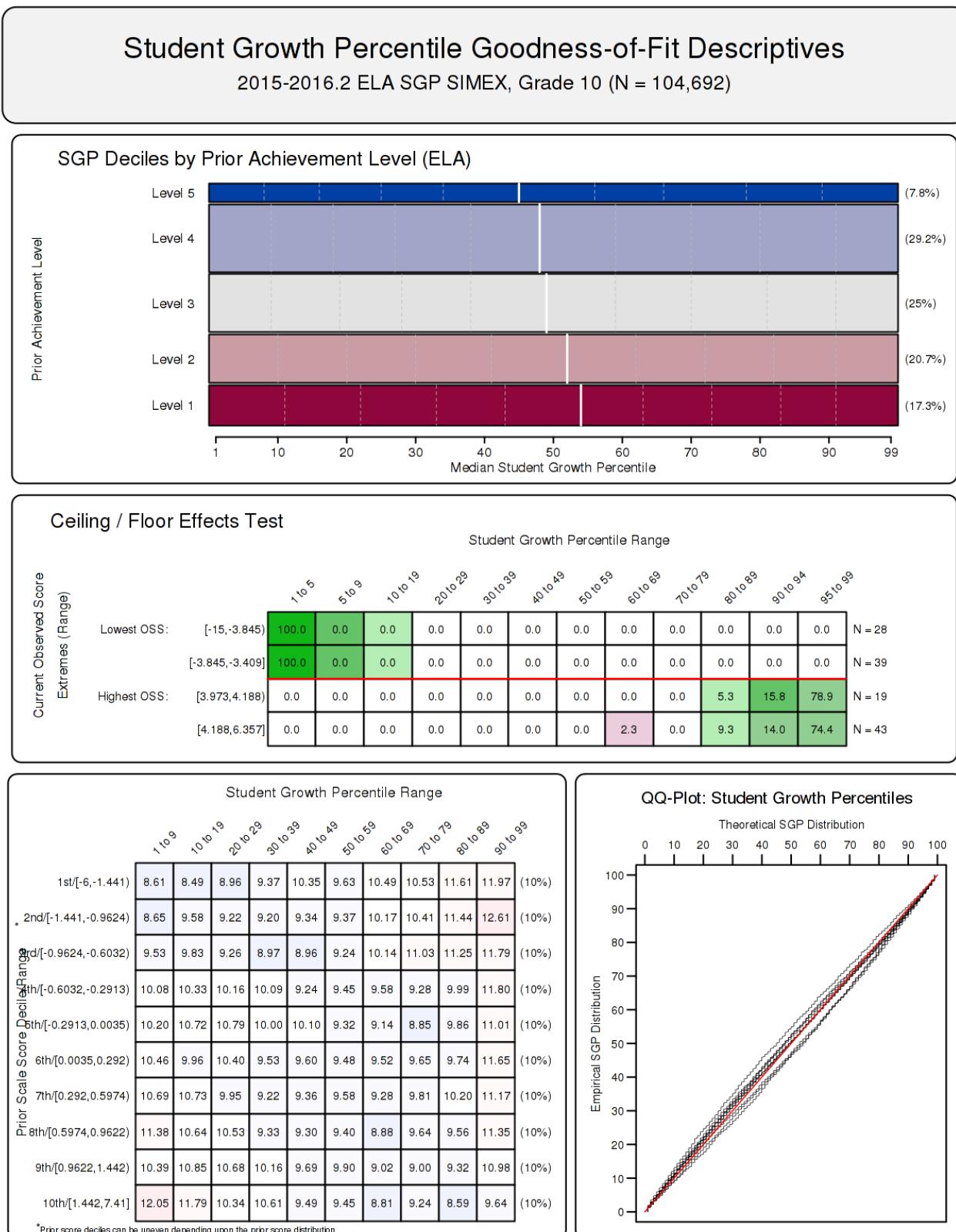


Figure 14: Goodness of Fit Plot for Spring 2016 Grade 10 ELA (SIMEX Corrected).

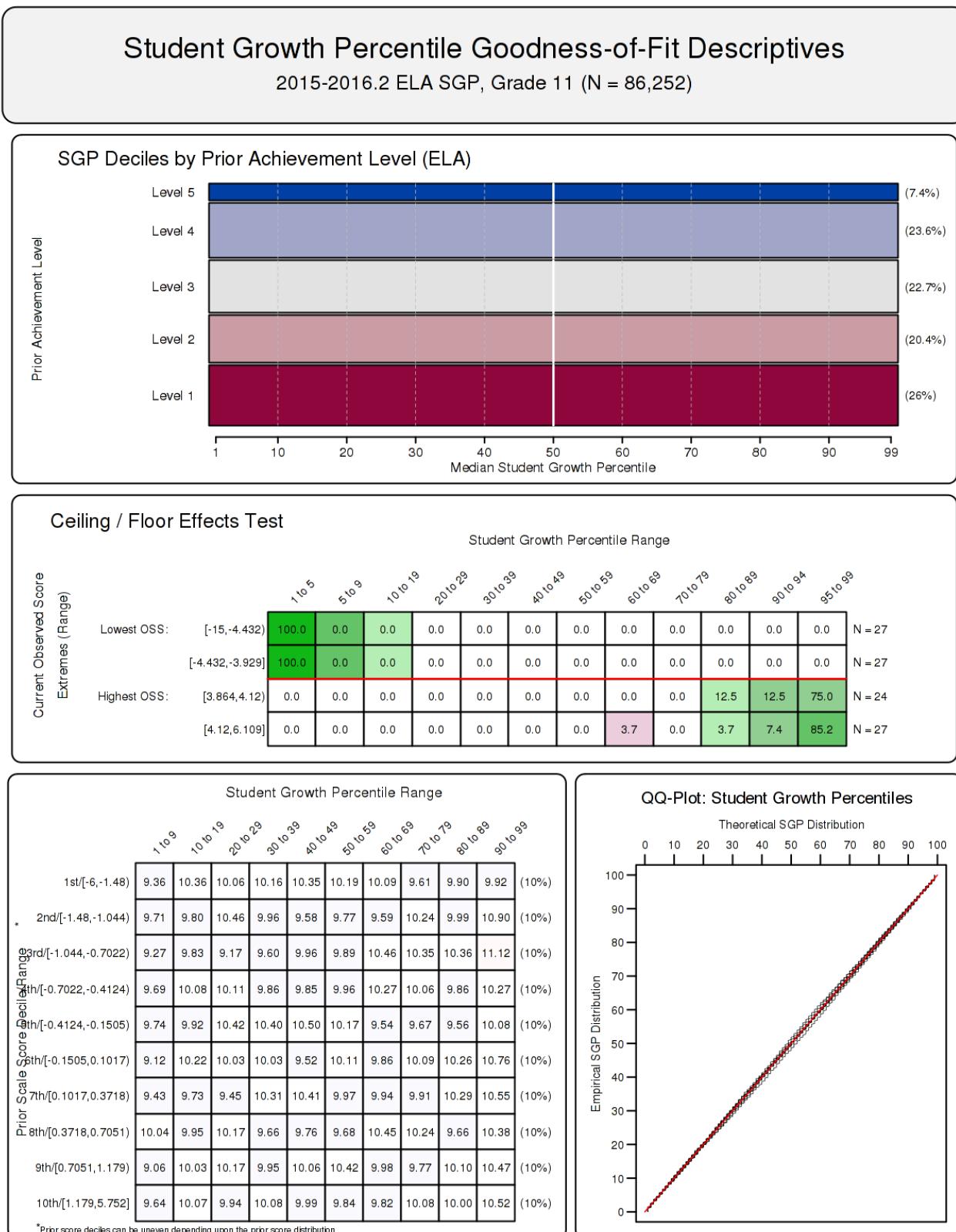


Figure 15: Goodness of Fit Plot for Spring 2016 Grade 11 ELA (Uncorrected).

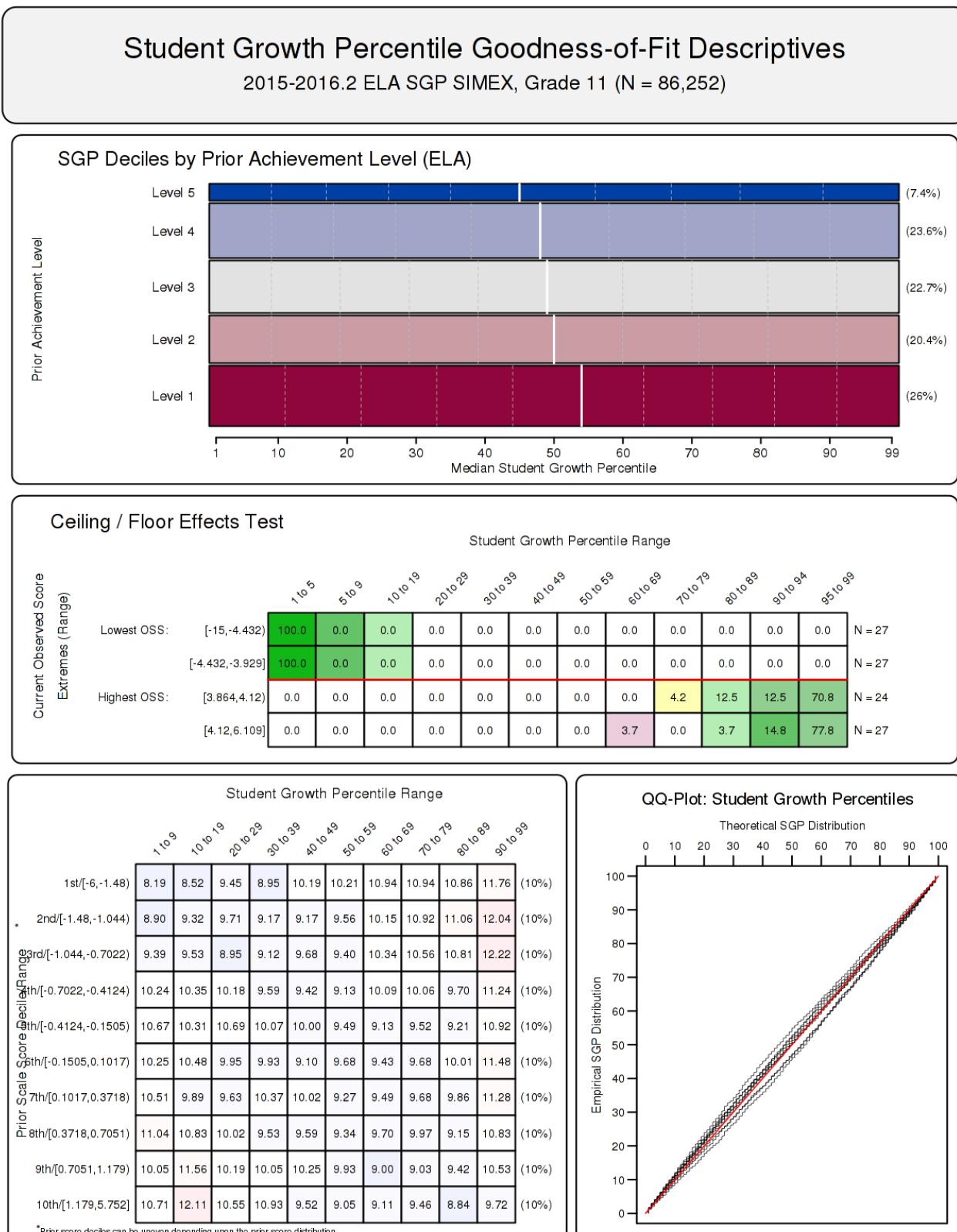


Figure 16: Goodness of Fit Plot for Spring 2016 Grade 11 ELA (SIMEX Corrected).

2.2 Mathematics

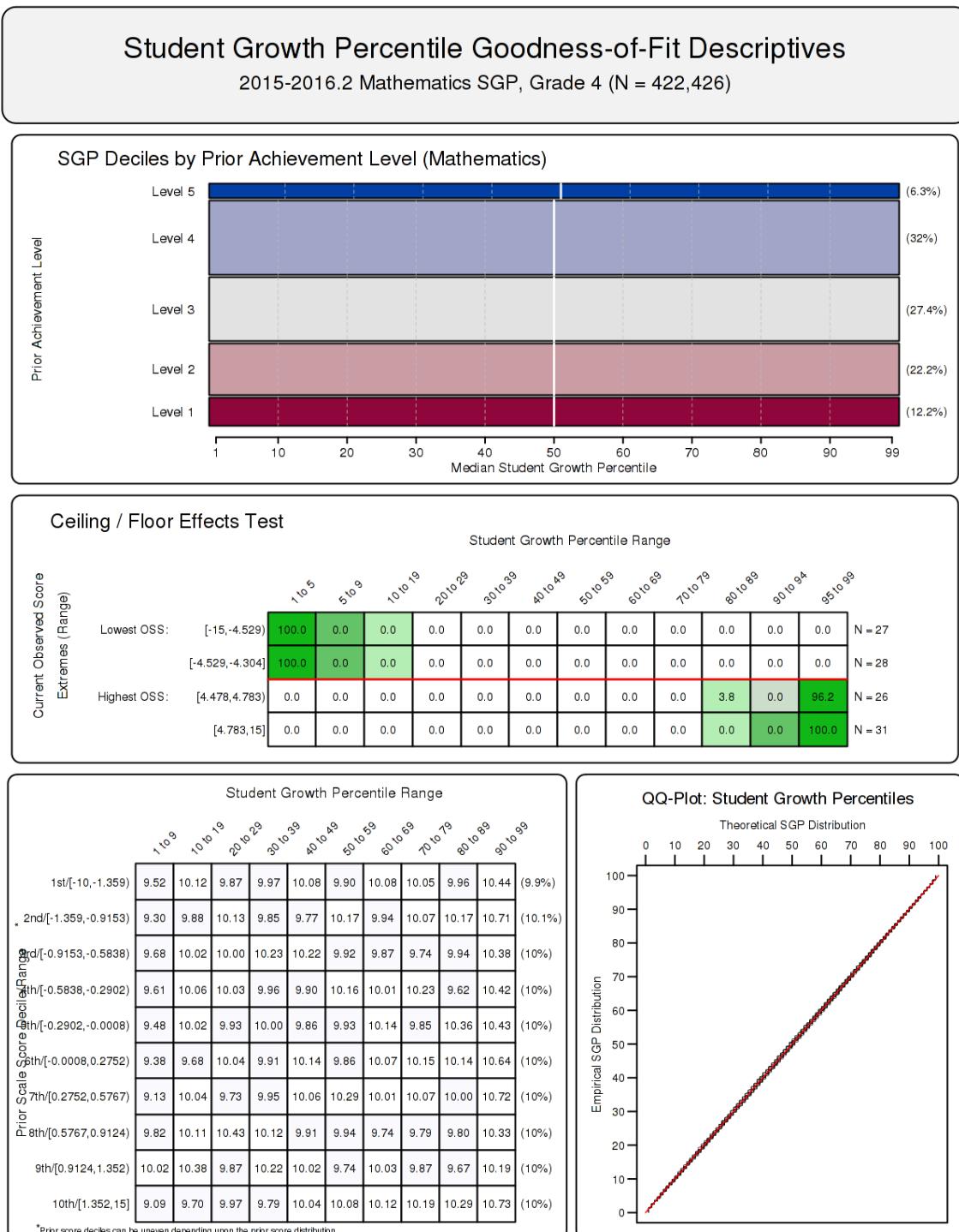


Figure 17: Goodness of Fit Plot for Grade 4 Mathematics, 2016 (Uncorrected).

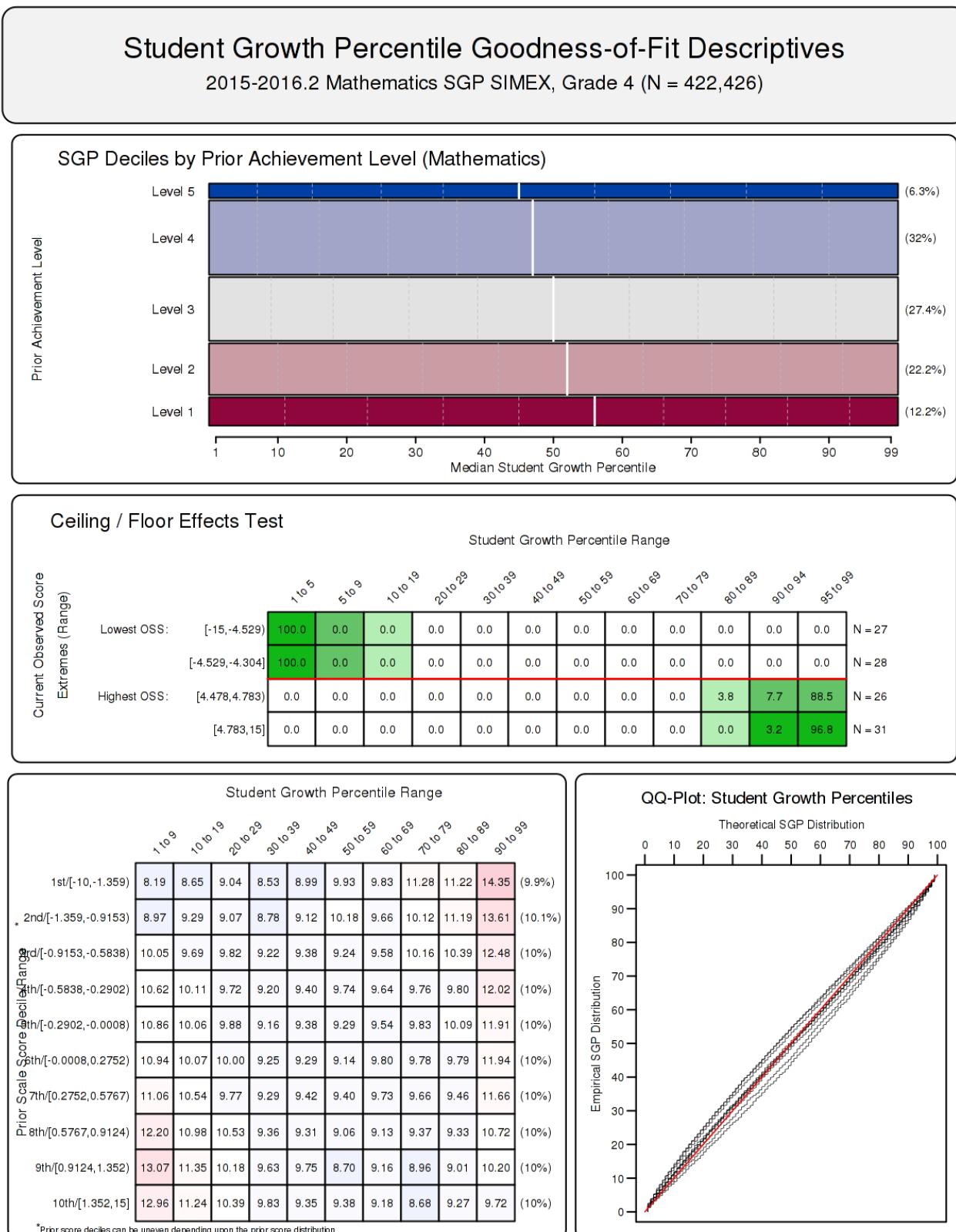


Figure 18: Goodness of Fit Plot for Grade 4 Mathematics, Spring 2016 (SIMEX Corrected).

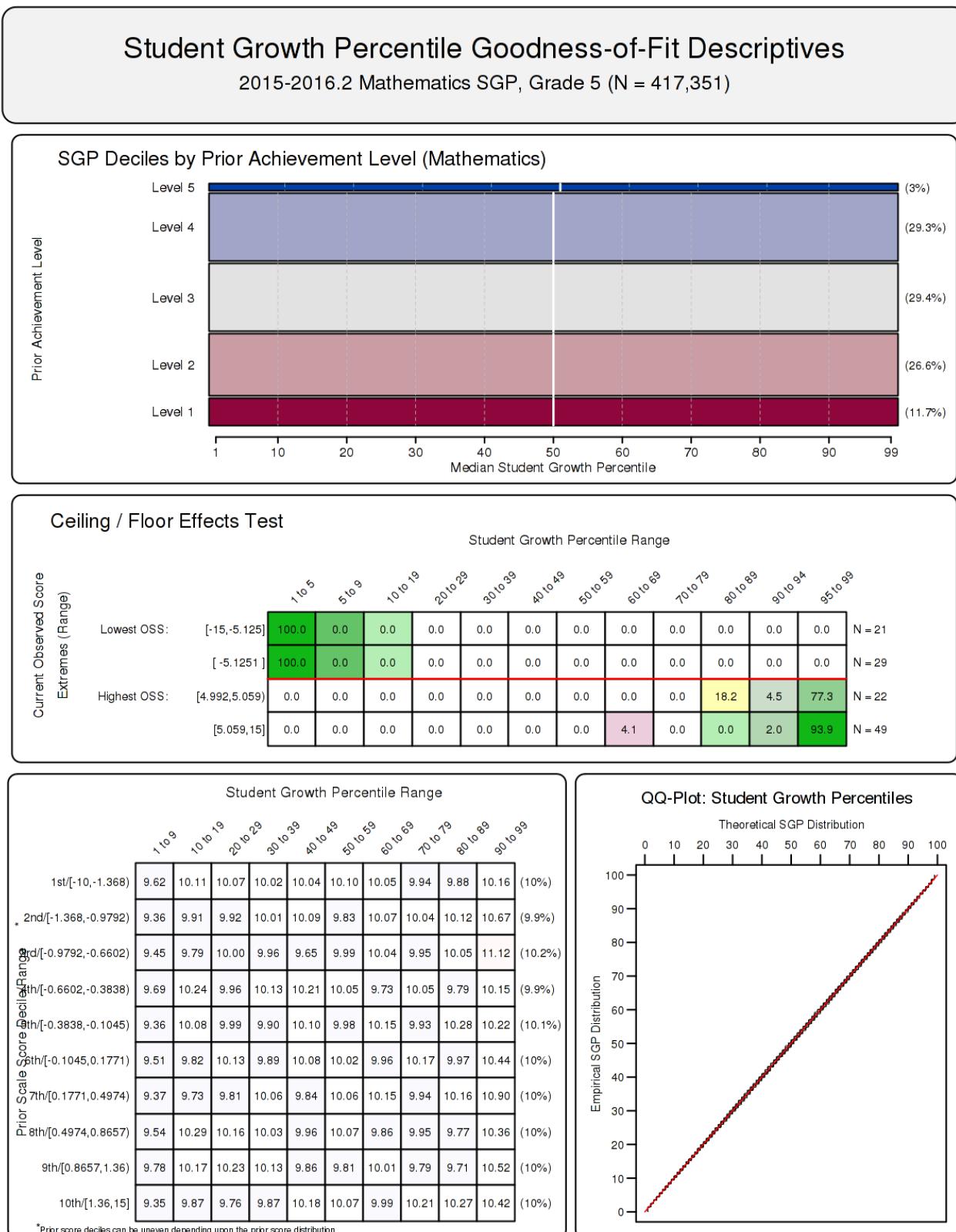
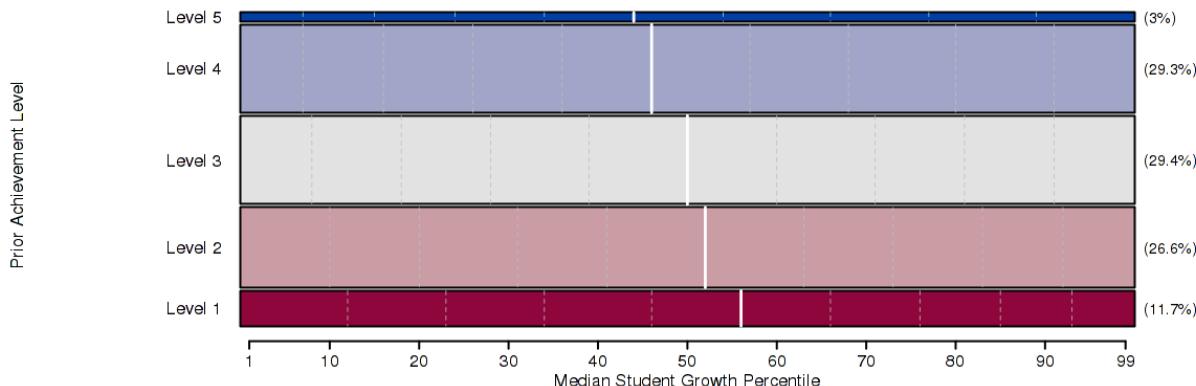


Figure 19: Goodness of Fit Plot for Spring 2016 Grade 5 Mathematics (Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Mathematics SGP SIMEX, Grade 5 (N = 417,351)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | |
|---|---------------------------------|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| Lowest OSS: | [-15, -5.125] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | [-5.125, 1] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Highest OSS: | [4.992, 5.059] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 18.2 | 0.0 | 77.3 | N = 22 |
| | [5.059, 15] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 2.0 | 0.0 | 4.1 | 91.8 | N = 49 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -1.368] | 8.05 | 8.78 | 8.77 | 9.20 | 9.01 | 9.88 | 9.89 | 10.51 | 11.82 | 14.10 | (10%) | |
| 2nd/[-1.368, -0.9792] | 9.35 | 8.73 | 9.16 | 9.51 | 9.27 | 9.38 | 9.39 | 10.30 | 10.99 | 13.91 | (9.9%) | |
| 3rd/[-0.9792, -0.6602] | 9.85 | 9.34 | 9.79 | 9.18 | 8.91 | 9.36 | 9.63 | 10.15 | 10.19 | 13.60 | (10.2%) | |
| 4th/[-0.6602, -0.3838] | 10.73 | 10.08 | 9.90 | 9.63 | 9.29 | 9.50 | 9.14 | 9.87 | 9.83 | 12.04 | (9.9%) | |
| 5th/[-0.3838, -0.1045] | 10.73 | 10.22 | 9.92 | 9.60 | 9.00 | 9.51 | 9.66 | 9.42 | 10.11 | 11.82 | (10.1%) | |
| 6th/[-0.1045, 0.1771] | 11.22 | 10.26 | 10.01 | 9.43 | 9.32 | 9.19 | 9.46 | 9.47 | 9.81 | 11.83 | (10%) | |
| 7th/[0.1771, 0.4974] | 11.52 | 10.19 | 9.83 | 9.51 | 9.14 | 9.19 | 9.32 | 9.24 | 9.94 | 12.11 | (10%) | |
| 8th/[0.4974, 0.8657] | 12.40 | 10.79 | 10.27 | 9.35 | 9.37 | 8.93 | 8.98 | 9.10 | 9.42 | 11.39 | (10%) | |
| 9th/[0.8657, 1.36] | 13.07 | 10.94 | 10.33 | 9.72 | 9.30 | 9.06 | 8.90 | 8.77 | 8.92 | 10.99 | (10%) | |
| 10th/[1.36, 15] | 13.47 | 11.34 | 9.93 | 10.12 | 9.42 | 9.55 | 8.63 | 9.08 | 8.93 | 9.54 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

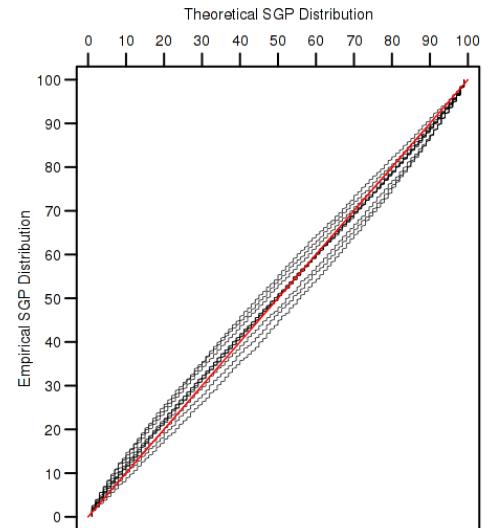
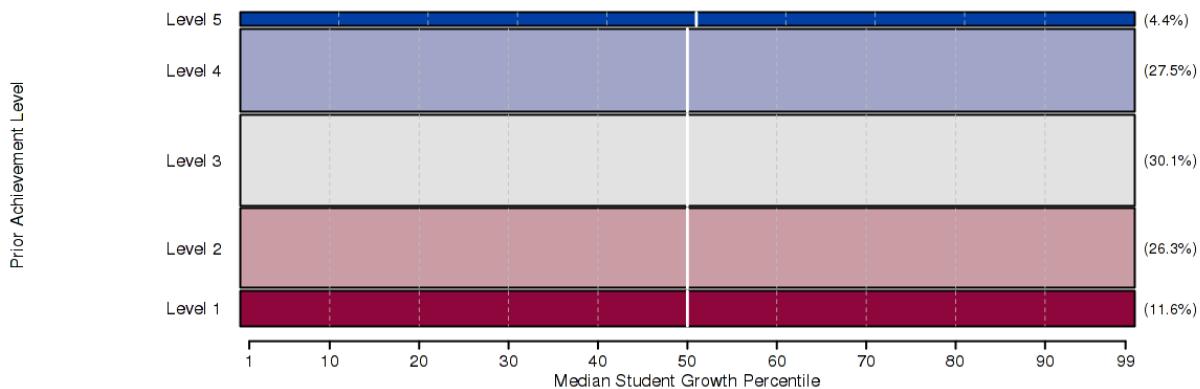


Figure 20: Goodness of Fit Plot for Spring 2016 Grade 5 Mathematics (SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Mathematics SGP, Grade 6 (N = 414,501)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 204 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 204 |
| Highest OSS: [6.036, 15] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 95.2 | N = 21 |
| | [15] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 0.0 | 96.9 | N = 32 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -1.364] | 9.42 | 10.04 | 10.17 | 9.98 | 10.08 | 10.24 | 9.90 | 10.04 | 9.84 | 10.29 | (10%) | |
| 2nd/[-1.364, -0.9507] | 9.57 | 10.01 | 9.60 | 10.24 | 9.88 | 9.73 | 10.18 | 9.87 | 10.18 | 10.74 | (10%) | |
| 3rd/[-0.9507, -0.6408] | 9.51 | 10.00 | 10.24 | 9.70 | 9.91 | 10.14 | 9.71 | 10.10 | 10.14 | 10.56 | (10%) | |
| 4th/[-0.6408, -0.3544] | 9.49 | 10.07 | 10.00 | 9.86 | 10.06 | 9.82 | 10.26 | 9.97 | 9.98 | 10.47 | (9.9%) | |
| 5th/[-0.3544, -0.0815] | 9.68 | 9.90 | 9.98 | 10.31 | 10.18 | 10.08 | 9.89 | 9.95 | 9.67 | 10.34 | (10%) | |
| 6th/[-0.0815, 0.2015] | 9.14 | 9.92 | 10.16 | 9.87 | 10.11 | 10.05 | 10.17 | 10.04 | 10.07 | 10.47 | (10.1%) | |
| 7th/[0.2015, 0.5116] | 9.31 | 9.85 | 9.70 | 9.98 | 9.92 | 10.19 | 9.99 | 10.30 | 10.34 | 10.42 | (10%) | |
| 8th/[0.5116, 0.8748] | 9.87 | 10.26 | 9.83 | 10.08 | 9.85 | 9.88 | 9.78 | 9.78 | 9.91 | 10.75 | (10%) | |
| 9th/[0.8748, 1.364] | 9.77 | 9.99 | 10.48 | 10.08 | 9.76 | 9.67 | 10.03 | 9.85 | 9.80 | 10.58 | (10%) | |
| 10th/[1.364, 15] | 9.26 | 9.98 | 9.82 | 9.87 | 10.25 | 10.22 | 10.05 | 10.11 | 10.08 | 10.34 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

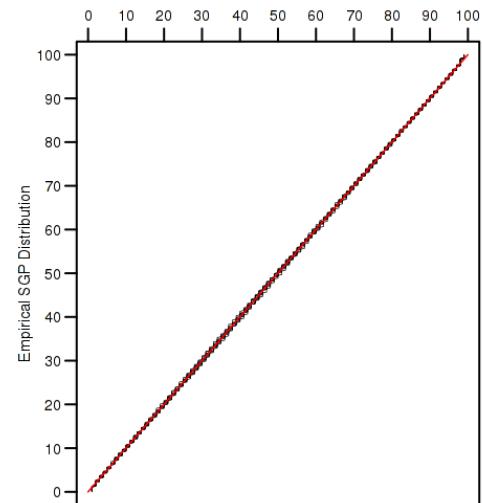


Figure 21: Goodness of Fit Plot for Spring 2016 Grade 6 Mathematics (Uncorrected).

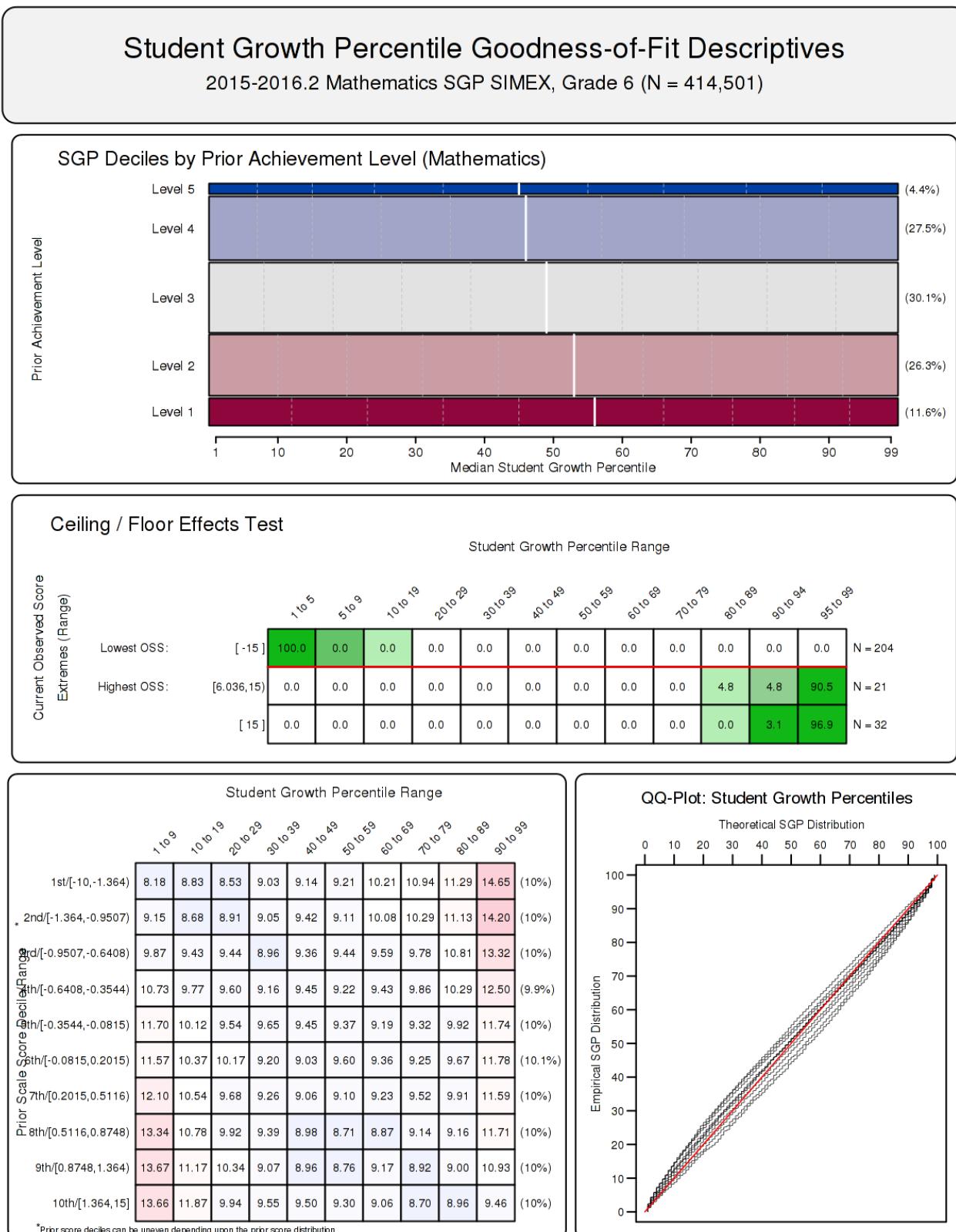


Figure 22: Goodness of Fit Plot for Spring 2016 Grade 6 Mathematics (SIMEX Corrected).

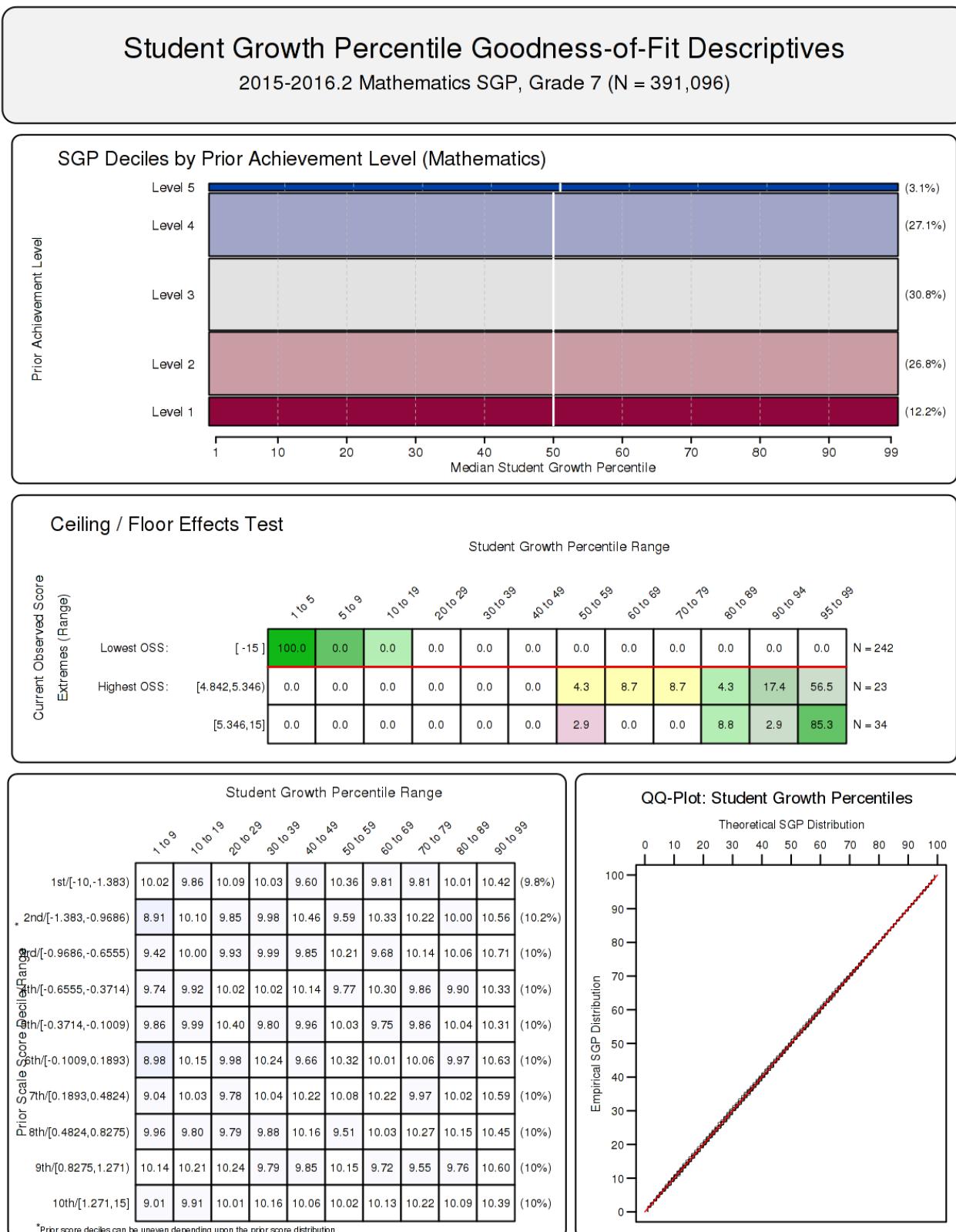


Figure 23: Goodness of Fit Plot for Spring 2016 Grade 7 Mathematics (Uncorrected).

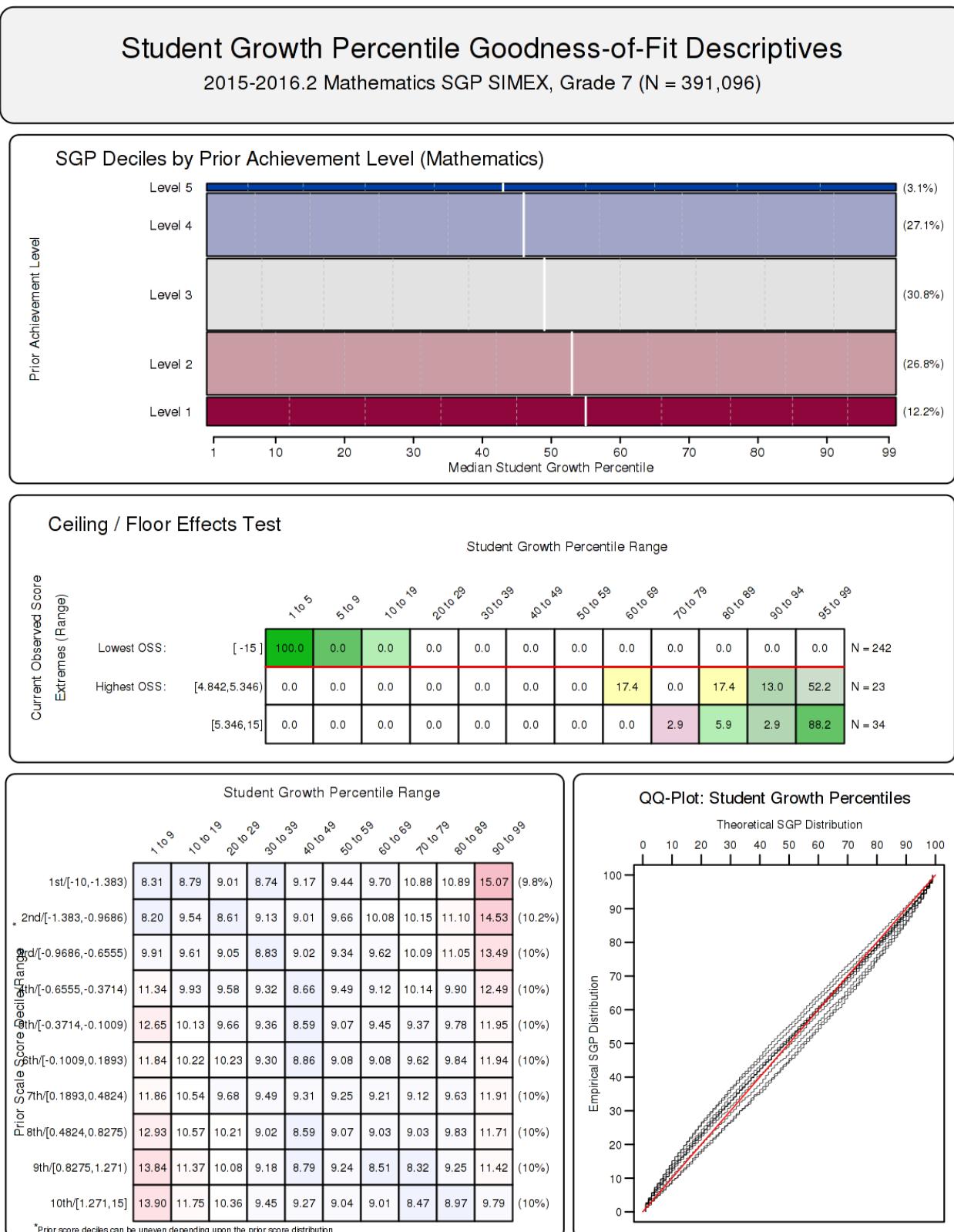
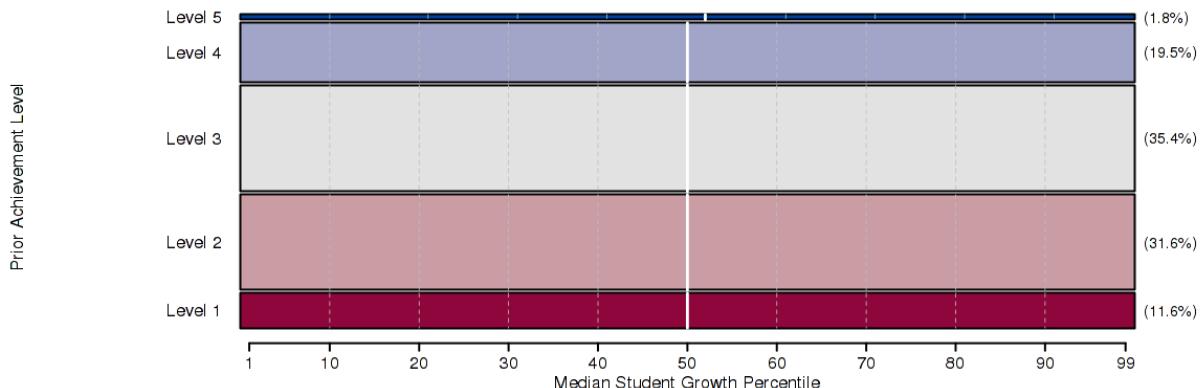


Figure 24: Goodness of Fit Plot for Spring 2016 Grade 7 Mathematics (SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Mathematics SGP, Grade 8 (N = 312,787)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 138 |
|--|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 138 |
| Highest OSS: [5.415, 6.08] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 8.3 | 4.2 | 20.8 | 4.2 | 54.2 | N = 24 |
| | [6.08, 15] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 0.0 | 6.1 | 87.9 | N = 33 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| 1st/[-10, -1.444] | 9.30 | 9.77 | 10.40 | 10.20 | 9.53 | 10.24 | 10.12 | 9.97 | 10.06 | 10.42 | | (9.7%) |
| 2nd/[-1.444, -1.026] | 10.02 | 10.07 | 9.86 | 9.85 | 10.47 | 9.77 | 9.90 | 9.73 | 9.78 | 10.55 | | (10.1%) |
| 3rd/[-1.026, -0.7184] | 9.51 | 10.37 | 9.71 | 9.85 | 10.02 | 9.94 | 9.98 | 10.21 | 10.01 | 10.41 | | (10.2%) |
| 4th/[-0.7184, -0.4566] | 8.98 | 10.18 | 9.88 | 10.25 | 9.98 | 9.91 | 10.14 | 10.09 | 10.17 | 10.42 | | (9.9%) |
| 5th/[-0.4566, -0.2072] | 9.97 | 9.80 | 10.08 | 9.82 | 9.76 | 10.07 | 9.88 | 9.95 | 10.00 | 10.67 | | (10%) |
| 6th/[-0.2072, 0.0481] | 9.34 | 9.63 | 9.94 | 10.11 | 10.16 | 10.30 | 10.06 | 10.12 | 9.89 | 10.45 | | (10%) |
| 7th/[0.0481, 0.3196] | 9.10 | 9.96 | 9.97 | 10.18 | 10.01 | 9.70 | 10.06 | 10.10 | 10.07 | 10.85 | | (10%) |
| 8th/[0.3196, 0.6481] | 9.63 | 10.09 | 10.21 | 9.70 | 10.01 | 10.08 | 9.75 | 10.02 | 10.13 | 10.38 | | (10%) |
| 9th/[0.6481, 1.116] | 10.01 | 10.24 | 9.89 | 9.97 | 9.83 | 10.12 | 10.11 | 9.76 | 9.85 | 10.21 | | (10%) |
| 10th/[1.116, 15] | 9.24 | 9.91 | 10.02 | 10.12 | 10.13 | 9.89 | 10.00 | 10.07 | 10.00 | 10.61 | | (10%) |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

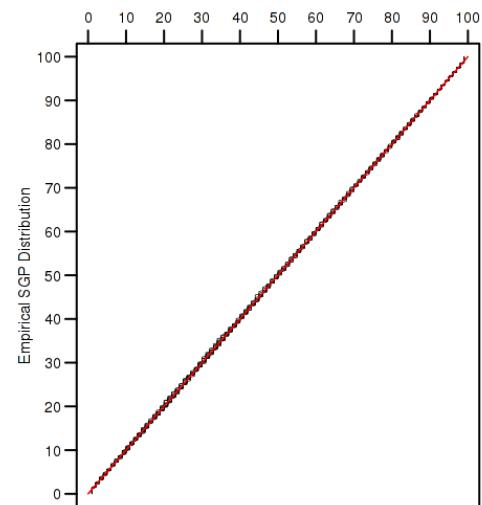


Figure 25: Goodness of Fit Plot for Spring 2016 Grade 8 Mathematics (Uncorrected).

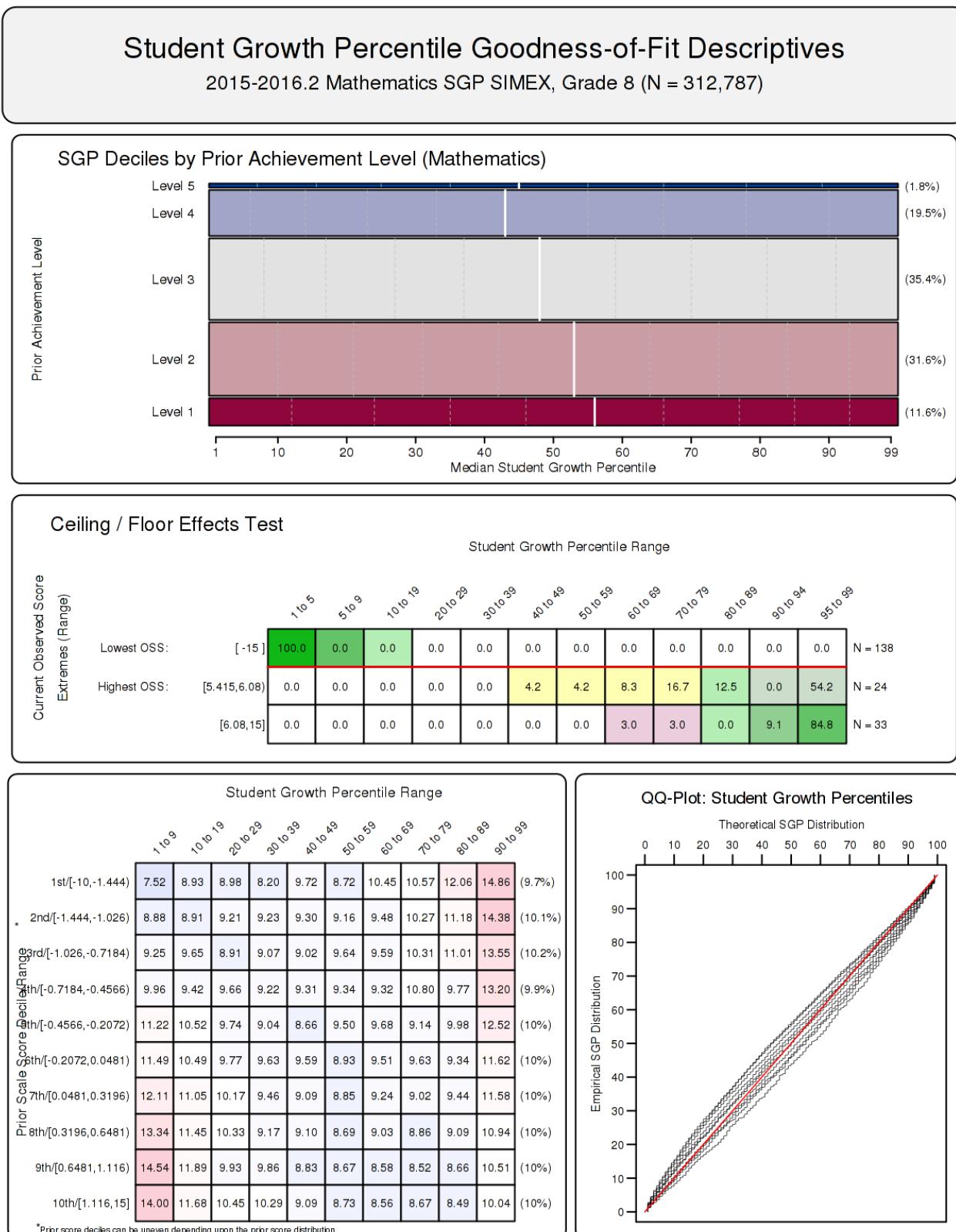


Figure 26: Goodness of Fit Plot for Spring 2016 Grade 8 Mathematics (SIMEX Corrected).

3 End-of-Course Analyses (by Course Progression)

3.1 Algebra I

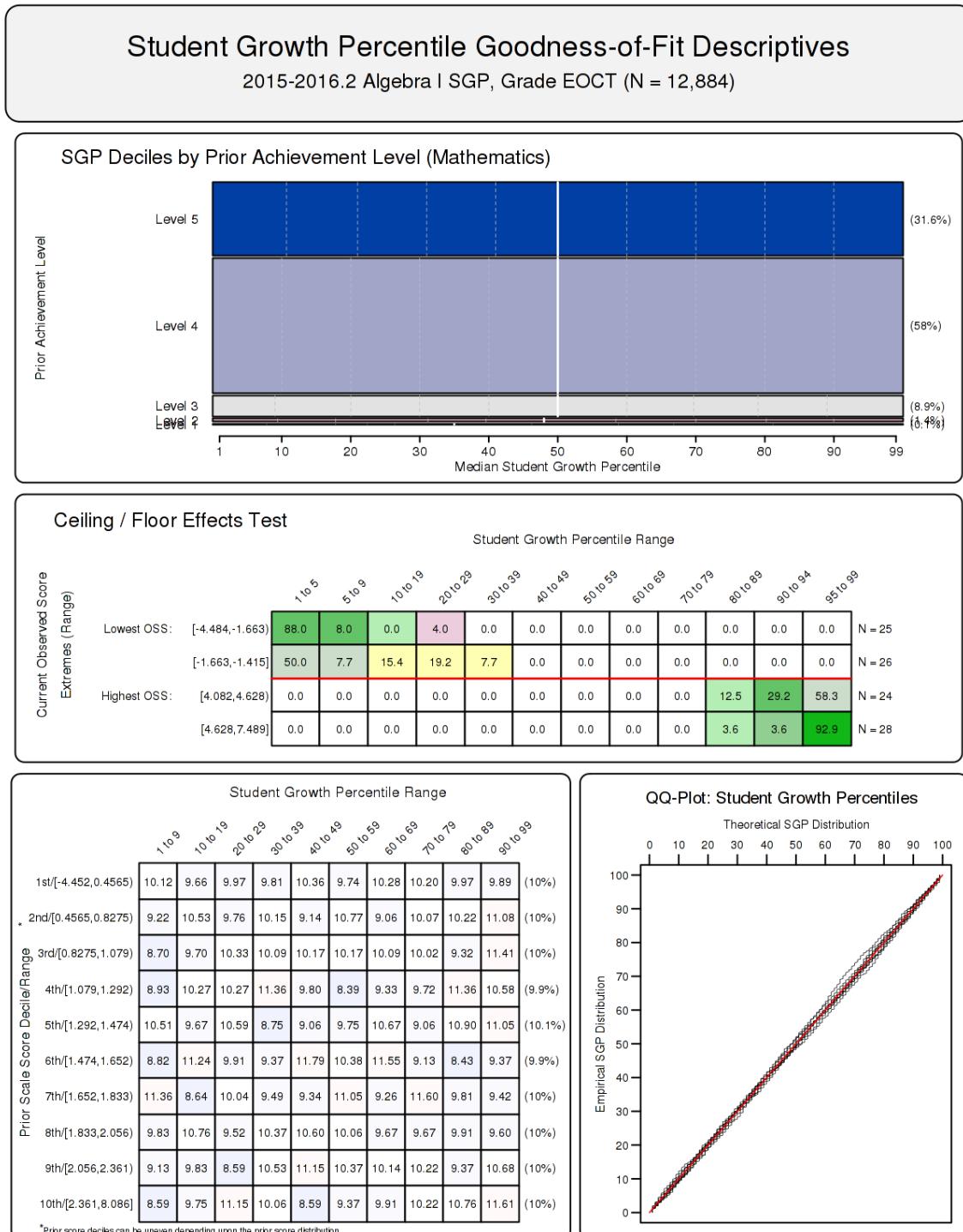
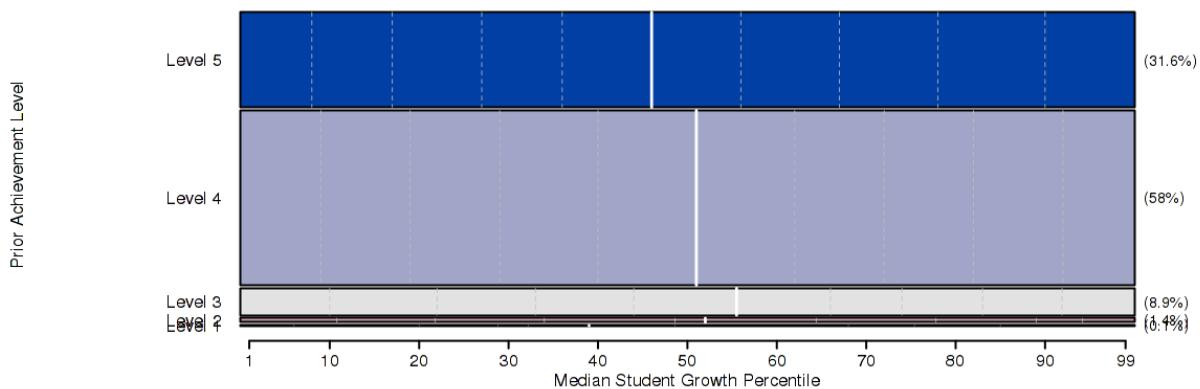


Figure 27: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: 2015 Grade 6 Math - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP SIMEX, Grade EOCT (N = 12,884)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 25 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-4.484, -1.663] | 80.0 | 16.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 25 |
| | 42.3 | 15.4 | 11.5 | 11.5 | 19.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 26 |
| Highest OSS: [4.082, 4.628] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 20.8 | 54.2 | N = 24 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 3.6 | 92.9 | 0.0 | N = 28 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-4.452, 0.4565) | 9.27 | 8.80 | 8.41 | 9.03 | 8.96 | 9.11 | 11.29 | 9.89 | 12.23 | 13.01 | (10%) | |
| 2nd/[0.4565, 0.8275) | 8.91 | 9.68 | 9.53 | 9.06 | 8.83 | 9.14 | 9.37 | 10.38 | 11.23 | 13.87 | (10%) | |
| 3rd/[0.8275, 1.079) | 9.16 | 9.39 | 9.32 | 9.16 | 9.32 | 9.63 | 9.70 | 10.02 | 10.87 | 13.43 | (10%) | |
| 4th/[1.079, 1.292) | 9.64 | 9.95 | 10.03 | 10.11 | 9.80 | 7.68 | 8.86 | 9.72 | 10.97 | 13.24 | (9.9%) | |
| 5th/[1.292, 1.474) | 11.51 | 9.67 | 9.90 | 8.75 | 8.06 | 9.36 | 9.36 | 8.44 | 10.97 | 13.97 | (10.1%) | |
| 6th/[1.474, 1.652) | 9.91 | 11.01 | 10.07 | 8.90 | 10.85 | 10.07 | 10.30 | 8.98 | 9.29 | 10.62 | (9.9%) | |
| 7th/[1.652, 1.833) | 12.84 | 8.56 | 10.43 | 9.26 | 8.87 | 9.88 | 9.26 | 10.51 | 9.73 | 10.66 | (10%) | |
| 8th/[1.833, 2.056) | 12.23 | 11.30 | 9.52 | 10.91 | 9.98 | 9.29 | 8.90 | 8.82 | 8.44 | 10.60 | (10%) | |
| 9th/[2.056, 2.361) | 12.15 | 10.14 | 10.84 | 9.67 | 11.61 | 9.60 | 9.52 | 8.28 | 8.28 | 9.91 | (10%) | |
| 10th/[2.361, 8.086] | 12.07 | 13.00 | 10.91 | 8.51 | 8.28 | 10.68 | 7.97 | 9.98 | 8.13 | 10.45 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

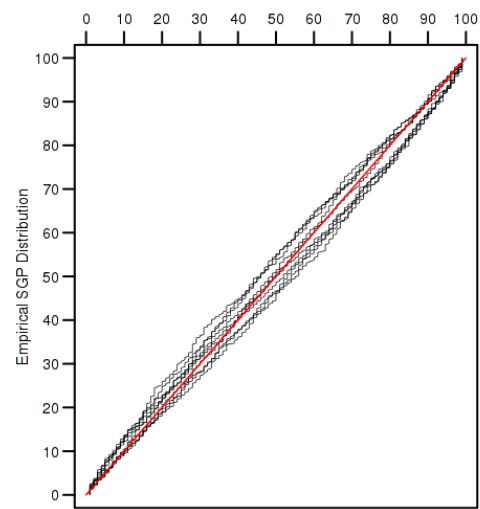
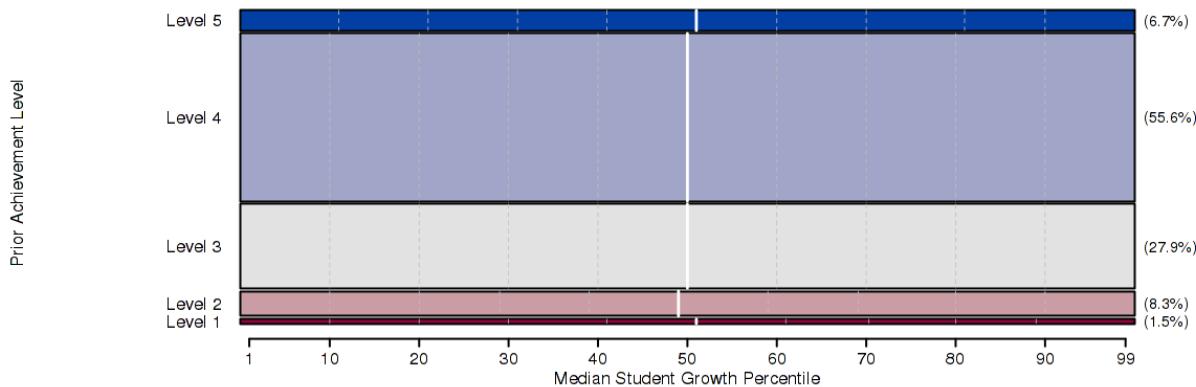


Figure 28: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: 2015 Grade 6 Math - SIMEX Corrected).

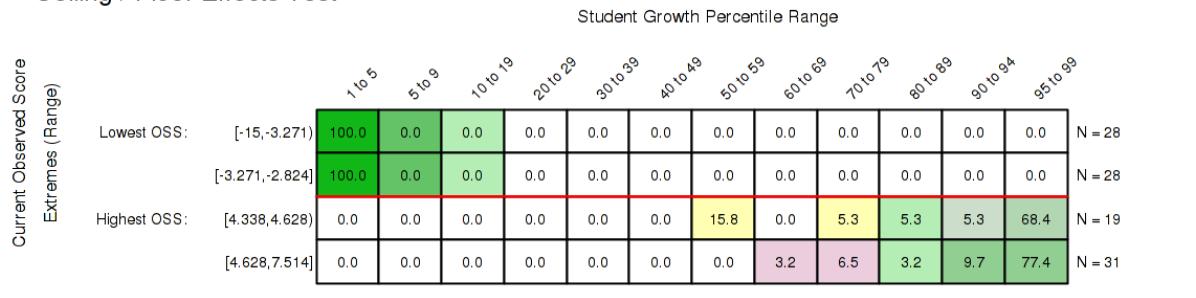
Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP, Grade EOCT (N = 69,317)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test



Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | |
| 1st/[-10, -0.3702) | 9.58 | 9.95 | 10.43 | 9.98 | 10.10 | 9.73 | 9.97 | 10.02 | 9.77 | 10.46 | (10%) | |
| 2nd/[-0.3702, 0.1042) | 9.56 | 10.02 | 9.29 | 10.01 | 9.68 | 10.47 | 10.11 | 10.12 | 10.15 | 10.59 | (10%) | |
| 3rd/[0.1042, 0.4067) | 9.42 | 10.16 | 9.94 | 9.84 | 10.20 | 9.87 | 10.19 | 10.15 | 10.06 | 10.16 | (10%) | |
| 4th/[0.4067, 0.6497) | 9.59 | 9.79 | 10.67 | 10.27 | 10.31 | 9.82 | 9.63 | 10.02 | 9.84 | 10.05 | (10%) | |
| 5th/[0.6497, 0.8689) | 8.94 | 10.21 | 9.71 | 9.97 | 9.48 | 10.07 | 10.31 | 9.78 | 10.01 | 11.51 | (10%) | |
| 6th/[0.8689, 1.073) | 9.71 | 9.39 | 9.81 | 10.10 | 10.77 | 10.01 | 9.60 | 9.52 | 10.37 | 10.73 | (10%) | |
| 7th/[1.073, 1.291) | 9.48 | 10.60 | 9.87 | 9.98 | 9.61 | 9.84 | 10.04 | 10.11 | 9.62 | 10.85 | (10%) | |
| 8th/[1.291, 1.534) | 10.23 | 10.01 | 10.28 | 10.00 | 9.58 | 9.89 | 9.58 | 10.25 | 10.04 | 10.14 | (10%) | |
| 9th/[1.534, 1.851) | 9.44 | 9.86 | 9.80 | 9.83 | 10.45 | 10.09 | 10.68 | 9.98 | 10.12 | 9.75 | (10%) | |
| 10th/[1.851, 7.562] | 9.14 | 9.97 | 10.19 | 10.03 | 9.90 | 10.12 | 9.89 | 10.08 | 9.95 | 10.74 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

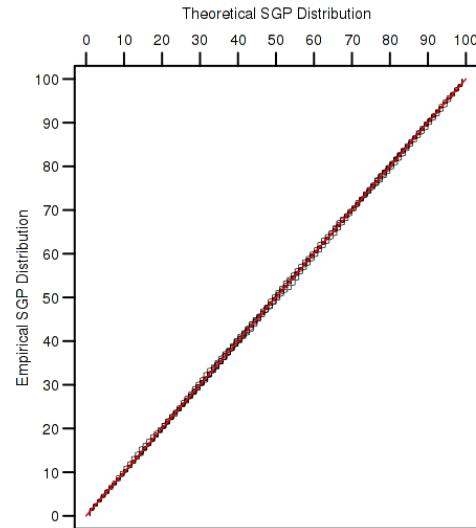
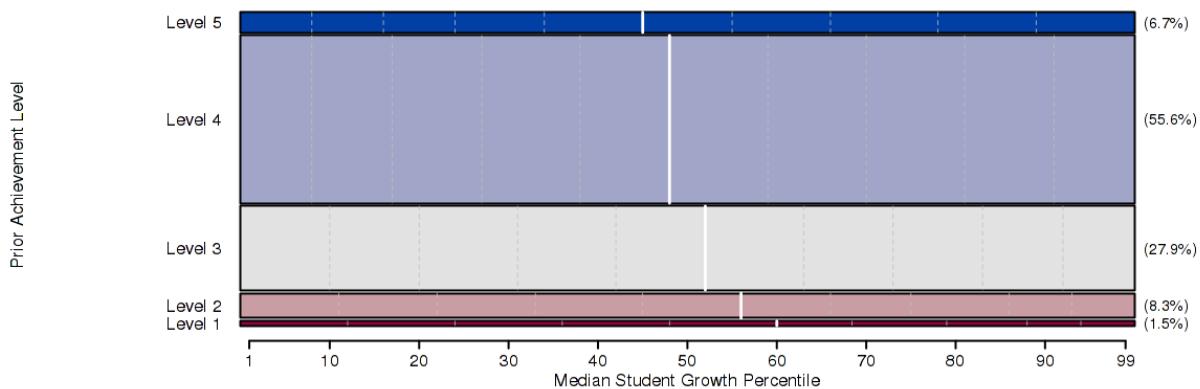


Figure 29: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Math Grade 7 - Uncorrected).

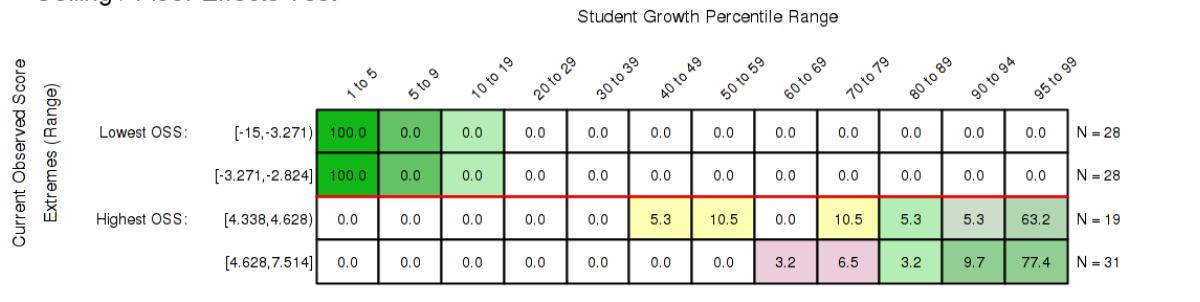
Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP SIMEX, Grade EOCT (N = 69,317)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test



Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| 1st/[-10, -0.3702) | 8.59 | 8.67 | 8.78 | 8.38 | 9.27 | 8.91 | 10.77 | 10.34 | 10.89 | 15.40 | (10%) | |
| 2nd/[-0.3702, 0.1042) | 9.59 | 8.90 | 8.75 | 8.42 | 9.35 | 9.71 | 10.38 | 10.02 | 11.54 | 13.34 | (10%) | |
| 3rd/[0.1042, 0.4067) | 9.80 | 9.78 | 9.13 | 9.34 | 9.52 | 9.47 | 9.70 | 9.80 | 10.91 | 12.55 | (10%) | |
| 4th/[0.4067, 0.6497) | 10.76 | 9.88 | 9.74 | 9.65 | 10.04 | 9.25 | 9.19 | 9.66 | 10.08 | 11.77 | (10%) | |
| 5th/[0.6497, 0.8689) | 10.57 | 9.94 | 9.33 | 9.22 | 9.30 | 9.61 | 9.80 | 9.02 | 10.20 | 13.01 | (10%) | |
| 6th/[0.8689, 1.073) | 11.19 | 9.81 | 9.59 | 9.76 | 9.84 | 9.39 | 9.11 | 9.00 | 10.51 | 11.80 | (10%) | |
| 7th/[1.073, 1.291) | 11.53 | 10.94 | 9.66 | 9.98 | 8.55 | 9.45 | 9.40 | 9.29 | 9.26 | 11.93 | (10%) | |
| 8th/[1.291, 1.534) | 12.85 | 10.54 | 10.60 | 9.59 | 9.02 | 9.03 | 8.92 | 9.39 | 9.38 | 10.69 | (10%) | |
| 9th/[1.534, 1.851) | 12.39 | 11.10 | 10.09 | 10.16 | 9.21 | 9.76 | 9.20 | 9.11 | 9.04 | 9.93 | (10%) | |
| 10th/[1.851, 7.562] | 12.64 | 12.04 | 11.39 | 9.56 | 9.40 | 9.17 | 8.72 | 8.67 | 8.86 | 9.56 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

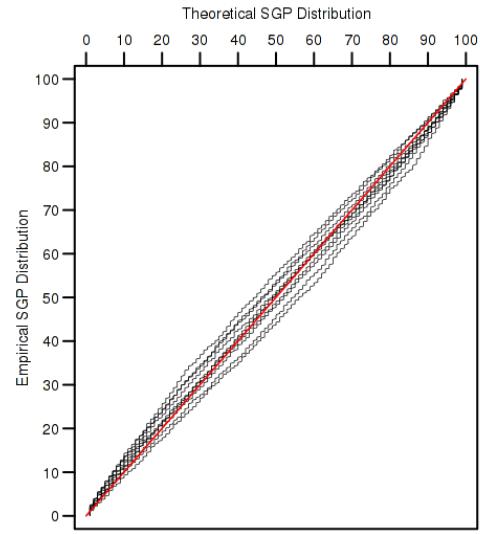
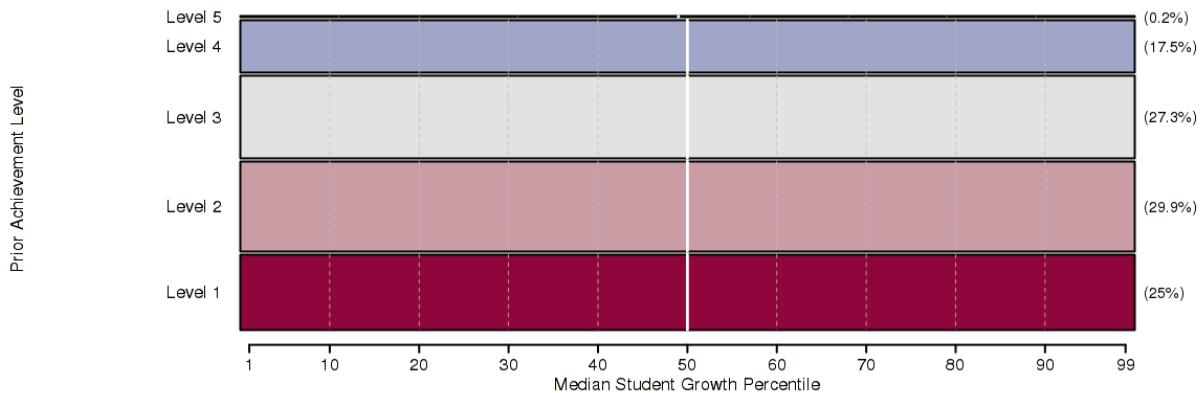


Figure 30: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Math Grade 7 - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP, Grade EOCT (N = 172,218)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

| | | Student Growth Percentile Range | | | | | | | | | | | | |
|---|--------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Current Observed Score Extremes (Range) | Lowest OSS: | [-15] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 47 | |
| | | (-15, -5.518] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 13 | |
| Current Observed Score Extremes (Range) | Highest OSS: | [2.645, 2.838) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 12.0 | 12.0 | 16.0 | 56.0 | N = 25 |
| | | [2.838, 4.018] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 7.7 | 15.4 | 73.1 | N = 26 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| 1st/[-10, -1.376) | 9.85 | 9.53 | 10.07 | 9.68 | 9.98 | 9.76 | 9.77 | 10.39 | 9.97 | 11.00 | (9.9%) | |
| 2nd/[-1.376, -0.9906) | 8.88 | 10.98 | 10.34 | 10.30 | 10.04 | 10.34 | 10.11 | 9.33 | 9.90 | 9.78 | (10%) | |
| 3rd/[-0.9906, -0.7102) | 9.92 | 9.86 | 9.64 | 10.50 | 9.77 | 10.01 | 10.16 | 9.89 | 10.02 | 10.24 | (10%) | |
| 4th/[-0.7102, -0.4506) | 9.44 | 9.52 | 10.24 | 9.60 | 10.16 | 9.91 | 10.09 | 10.15 | 10.04 | 10.85 | (9.9%) | |
| 5th/[-0.4506, -0.2136) | 9.39 | 9.83 | 10.01 | 9.67 | 10.22 | 9.90 | 9.85 | 10.27 | 10.04 | 10.82 | (10.1%) | |
| 6th/[-0.2136, 0.0249] | 9.57 | 10.22 | 9.54 | 10.27 | 10.11 | 10.13 | 10.01 | 10.01 | 10.07 | 10.07 | (10%) | |
| 7th/[0.0249, 0.27) | 9.49 | 10.31 | 10.16 | 9.98 | 9.84 | 10.05 | 9.78 | 9.82 | 9.86 | 10.71 | (10%) | |
| 8th/[0.27, 0.5767) | 9.57 | 9.80 | 10.00 | 10.07 | 9.78 | 10.05 | 10.15 | 10.07 | 10.10 | 10.41 | (10%) | |
| 9th/[0.5767, 0.9576) | 9.49 | 9.66 | 9.82 | 10.03 | 10.12 | 9.94 | 10.24 | 10.26 | 9.76 | 10.68 | (10%) | |
| 10th/[0.9576, 3.524] | 9.44 | 10.36 | 10.15 | 9.87 | 9.96 | 9.99 | 9.84 | 9.78 | 10.23 | 10.39 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

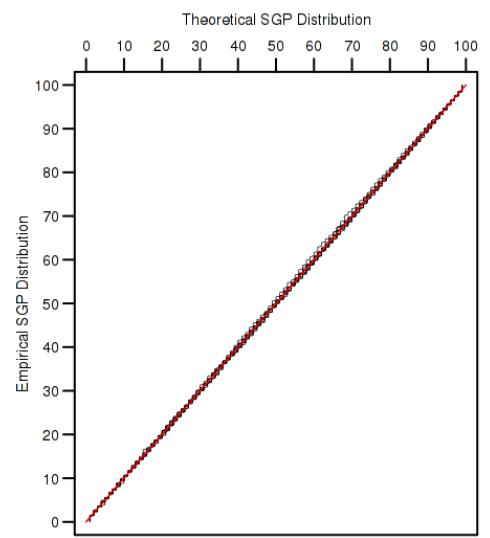
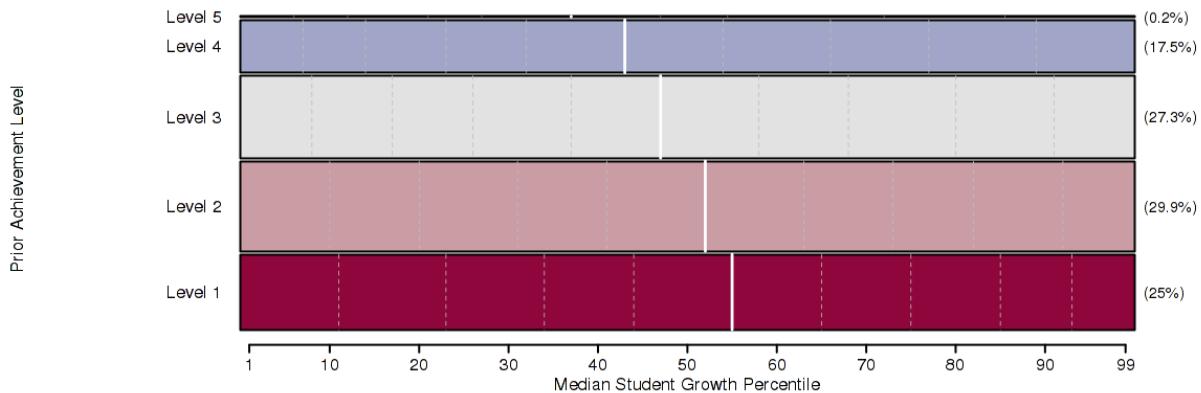


Figure 31: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Math Grade 8 - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP SIMEX, Grade EOCT (N = 172,218)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 47 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 47 |
| (-15, -5.518] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 13 |
| Highest OSS: [2.645, 2.838] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 8.0 | 12.0 | 16.0 | 12.0 | 44.0 | N = 25 |
| [2.838, 4.018] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 3.8 | 15.4 | 3.8 | 73.1 | N = 26 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | 95 to 99 |
| 1st/[-10, -1.376) | 8.44 | 8.58 | 8.80 | 9.21 | 7.93 | 10.14 | 9.63 | 10.38 | 11.26 | 15.64 | | (9.9%) |
| 2nd/[-1.376, -0.9906) | 8.17 | 9.73 | 8.48 | 9.87 | 9.60 | 9.45 | 9.50 | 10.56 | 11.27 | 13.37 | | (10%) |
| 3rd/[-0.9906, -0.7102) | 9.46 | 9.08 | 9.03 | 9.62 | 8.76 | 9.55 | 10.28 | 10.14 | 11.03 | 13.04 | | (10%) |
| 4th/[-0.7102, -0.4506) | 9.40 | 9.52 | 9.27 | 9.28 | 9.62 | 8.87 | 10.05 | 10.24 | 10.87 | 12.88 | | (9.9%) |
| 5th/[-0.4506, -0.2136) | 9.86 | 10.22 | 9.54 | 9.46 | 9.12 | 9.37 | 9.72 | 10.06 | 10.16 | 12.49 | | (10.1%) |
| 6th/[-0.2136, 0.0249] | 10.62 | 10.53 | 10.10 | 9.86 | 9.26 | 9.57 | 9.44 | 9.63 | 9.91 | 11.10 | | (10%) |
| 7th/[0.0249, 0.27) | 11.40 | 11.29 | 10.03 | 10.23 | 8.68 | 9.77 | 8.90 | 9.20 | 9.27 | 11.23 | | (10%) |
| 8th/[0.27, 0.5767) | 12.01 | 11.27 | 10.66 | 9.67 | 9.33 | 9.42 | 8.89 | 9.08 | 9.04 | 10.62 | | (10%) |
| 9th/[0.5767, 0.9576) | 13.02 | 11.37 | 11.33 | 9.25 | 9.29 | 9.02 | 9.00 | 8.61 | 9.04 | 10.06 | | (10%) |
| 10th/[0.9576, 3.524] | 15.01 | 11.84 | 11.26 | 9.49 | 10.10 | 8.49 | 8.33 | 7.86 | 8.72 | 8.90 | | (10%) |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

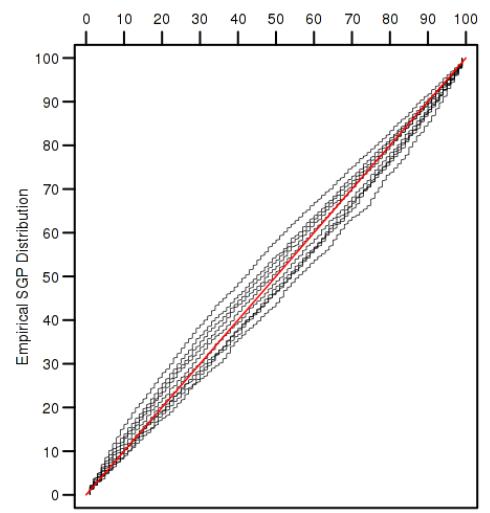
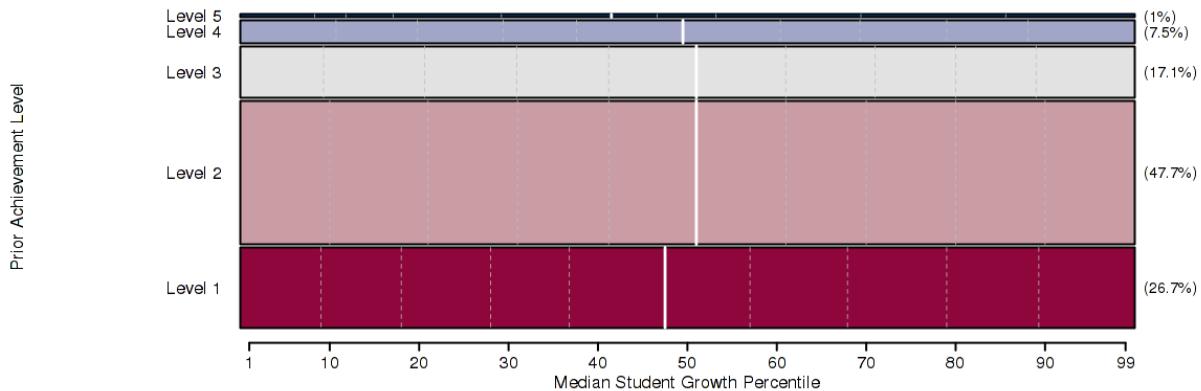


Figure 32: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Math Grade 8 - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP, Grade EOCT (N = 1,193)

SGP Deciles by Prior Achievement Level (Geometry)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 21 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, 2.558] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 21 |
| | 79.3 | 20.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 29 |
| Highest OSS: [1.907, 2.579] | 4.0 | 4.0 | 4.0 | 12.0 | 12.0 | 8.0 | 8.0 | 4.0 | 12.0 | 20.0 | 8.0 | 4.0 | N = 25 |
| | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 12.0 | 12.0 | 16.0 | 16.0 | 16.0 | 12.0 | 12.0 | N = 25 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | | (10.1%) |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|---------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -1.773) | 11.67 | 8.33 | 9.17 | 12.50 | 8.33 | 7.50 | 10.00 | 12.50 | 10.00 | 10.00 | 10.00 | | |
| 2nd/[-1.773, -1.422) | 8.40 | 12.61 | 12.61 | 11.76 | 10.08 | 8.40 | 9.24 | 7.56 | 7.56 | 11.76 | | | (10%) |
| 3rd/[-1.422, -1.17) | 12.61 | 9.24 | 9.24 | 5.88 | 10.08 | 16.81 | 7.56 | 7.56 | 10.92 | 10.08 | | | (10%) |
| 4th/[-1.17, -0.9834) | 7.63 | 6.76 | 8.47 | 11.02 | 13.56 | 8.47 | 11.86 | 13.56 | 6.78 | 11.86 | | | (9.9%) |
| 5th/[-0.9834, -0.8082) | 9.32 | 9.32 | 10.17 | 7.63 | 11.02 | 8.47 | 13.56 | 11.86 | 11.86 | 6.78 | | | (9.9%) |
| 6th/[-0.8082, -0.6062) | 11.48 | 12.30 | 9.02 | 8.20 | 8.20 | 9.84 | 10.66 | 8.20 | 13.11 | 9.02 | | | (10.2%) |
| 7th/[-0.6062, -0.393) | 7.63 | 13.56 | 14.41 | 9.32 | 7.63 | 12.71 | 6.78 | 11.02 | 5.08 | 11.86 | | | (9.9%) |
| 8th/[-0.393, -0.20578) | 10.83 | 5.00 | 5.83 | 14.17 | 13.33 | 7.50 | 8.33 | 10.00 | 12.50 | 12.50 | | | (10.1%) |
| 9th/[-0.20578, 0.618) | 9.24 | 11.76 | 10.92 | 10.08 | 6.72 | 10.08 | 11.76 | 9.24 | 10.92 | 9.24 | | | (10%) |
| 10th/[0.618, 3.226] | 10.83 | 10.00 | 9.17 | 10.00 | 12.50 | 9.17 | 10.00 | 10.00 | 9.17 | 9.17 | | | (10.1%) |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

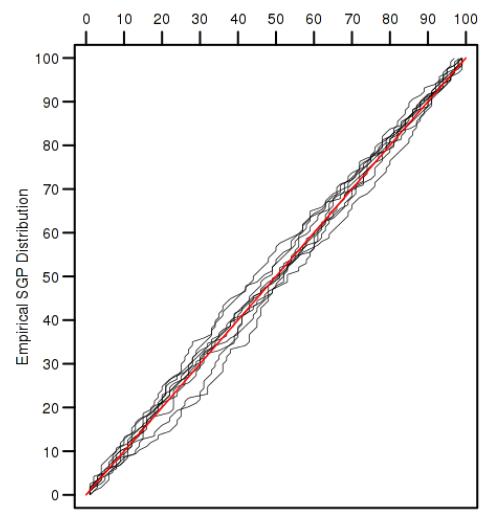
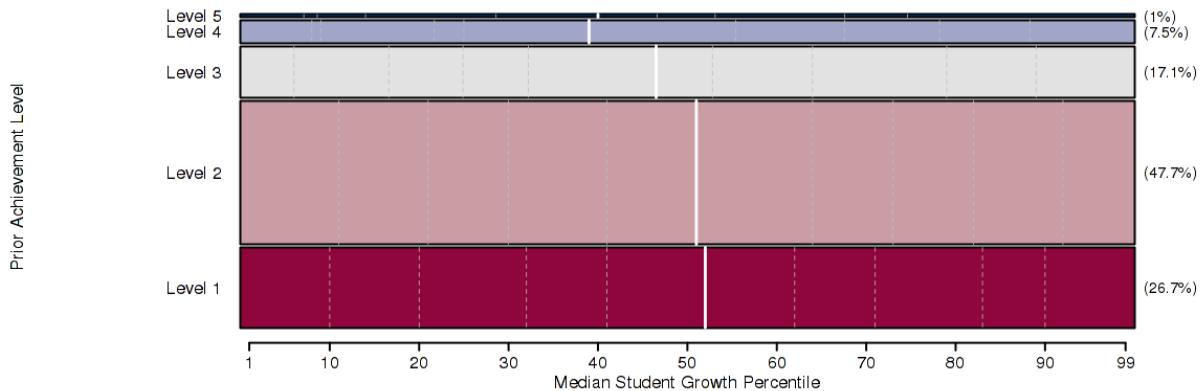


Figure 33: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Geometry - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra I SGP SIMEX, Grade EOCT (N = 1,193)

SGP Deciles by Prior Achievement Level (Geometry)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 21 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, 2.558] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 21 |
| | 75.9 | 20.7 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 29 |
| Highest OSS: [1.907, 2.579] | 4.0 | 8.0 | 0.0 | 20.0 | 8.0 | 12.0 | 4.0 | 4.0 | 8.0 | 20.0 | 8.0 | 4.0 | N = 25 |
| | 0.0 | 0.0 | 4.0 | 0.0 | 0.0 | 8.0 | 16.0 | 20.0 | 16.0 | 8.0 | 16.0 | 12.0 | N = 25 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | |
| 1st/[-10, -1.773) | 10.00 | 5.83 | 9.17 | 10.83 | 9.17 | 9.17 | 10.83 | 7.50 | 13.33 | 14.17 | (10.1%) | |
| 2nd/[-1.773, -1.422) | 6.72 | 14.29 | 9.24 | 13.45 | 8.40 | 5.04 | 10.08 | 10.08 | 8.40 | 14.29 | (10%) | |
| 3rd/[-1.422, -1.17) | 10.92 | 7.56 | 9.24 | 6.72 | 10.08 | 9.24 | 14.29 | 9.24 | 8.40 | 14.29 | (10%) | |
| 4th/[-1.17, -0.9834) | 6.78 | 5.93 | 10.17 | 11.02 | 10.17 | 5.93 | 13.56 | 12.71 | 7.63 | 16.10 | (9.9%) | |
| 5th/[-0.9834, -0.8082) | 8.47 | 10.17 | 9.32 | 9.32 | 6.78 | 11.86 | 15.25 | 10.17 | 9.32 | (9.9%) | | |
| 6th/[-0.8082, -0.6062) | 11.48 | 10.66 | 9.84 | 5.74 | 11.48 | 4.92 | 10.66 | 11.48 | 11.48 | 12.30 | (10.2%) | |
| 7th/[-0.6062, -0.393) | 8.47 | 16.10 | 12.71 | 9.32 | 5.08 | 11.02 | 8.47 | 10.17 | 6.78 | 11.86 | (9.9%) | |
| 8th/[-0.393, -0.20578) | 11.67 | 5.83 | 10.83 | 12.50 | 10.83 | 5.83 | 10.83 | 8.33 | 9.17 | 14.17 | (10.1%) | |
| 9th/[-0.20578, 0.618) | 15.13 | 14.29 | 8.40 | 9.24 | 10.08 | 6.72 | 14.29 | 5.04 | 8.40 | 8.40 | (10%) | |
| 10th/[0.618, 3.226] | 20.83 | 6.67 | 14.17 | 7.50 | 9.17 | 7.50 | 9.17 | 8.33 | 7.50 | 9.17 | (10.1%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

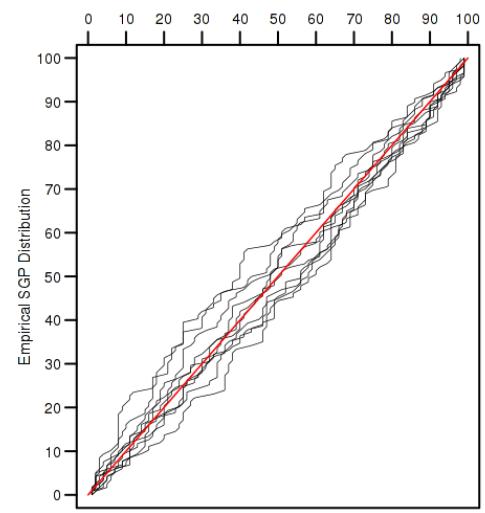


Figure 34: Goodness of Fit Plot for Spring 2016 Algebra I (Prior: Spring 2015 Geometry - SIMEX Corrected).

3.2 Geometry

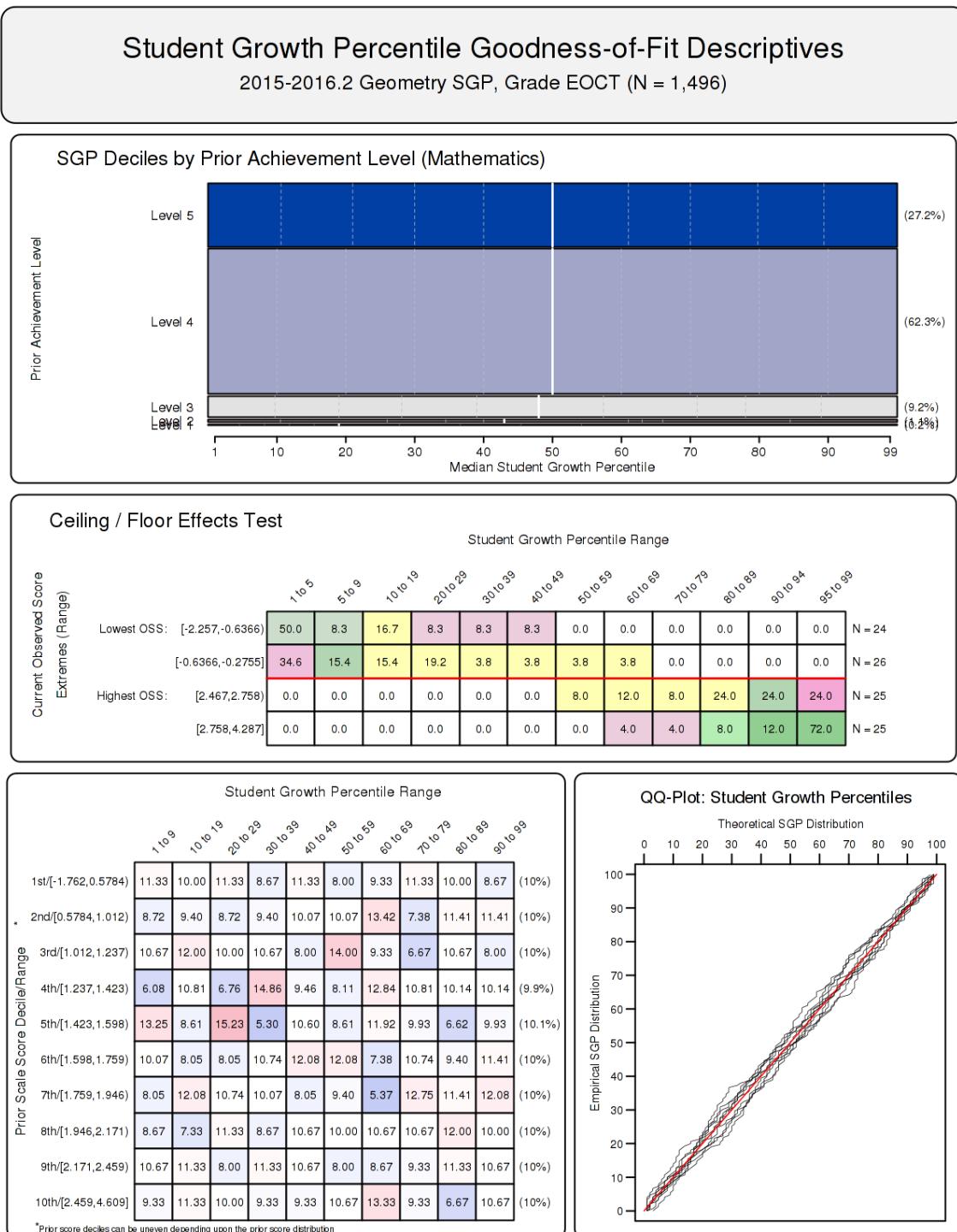
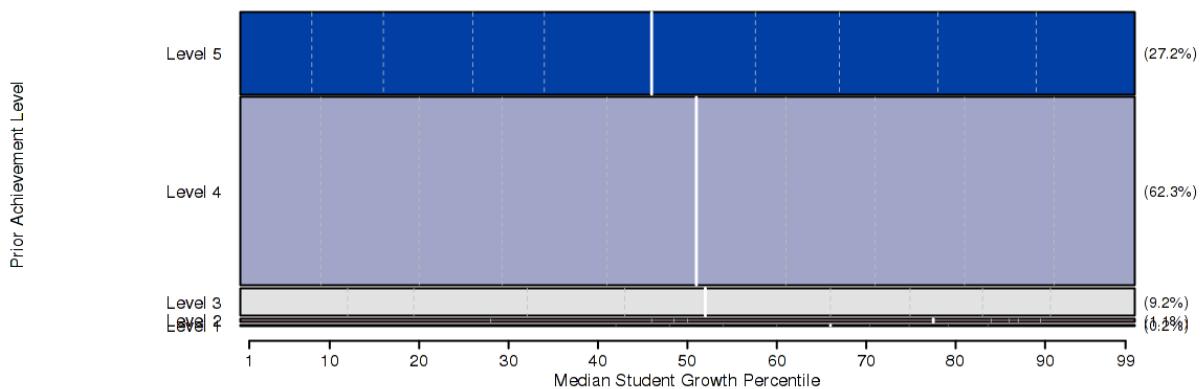


Figure 35: Goodness of Fit Plot for Spring 2016 Geometry (Prior: 2015 Grade 7 Math - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP SIMEX, Grade EOCT (N = 1,496)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 24 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-2.257, -0.6366) | 29.2 | 4.2 | 25.0 | 8.3 | 8.3 | 12.5 | 0.0 | 4.2 | 0.0 | 8.3 | 0.0 | 0.0 | N = 24 |
| [-0.6366, -0.2755] | 34.6 | 11.5 | 15.4 | 15.4 | 11.5 | 0.0 | 3.8 | 3.8 | 3.8 | 0.0 | 0.0 | 0.0 | N = 26 |
| Highest OSS: [2.467, 2.758) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 16.0 | 4.0 | 24.0 | 24.0 | 24.0 | N = 25 |
| [2.758, 4.287] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 4.0 | 12.0 | 8.0 | 72.0 | N = 25 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | | (10%) |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|-------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-1.762, 0.5784) | 6.67 | 11.33 | 9.33 | 7.33 | 12.00 | 6.67 | 7.33 | 10.67 | 17.33 | 11.33 | | | |
| 2nd/[0.5784, 1.012) | 8.72 | 6.71 | 10.74 | 8.72 | 10.07 | 9.40 | 9.40 | 10.74 | 12.75 | 12.75 | | | |
| 3rd/[1.012, 1.237) | 10.67 | 9.33 | 13.33 | 7.33 | 10.00 | 12.00 | 7.33 | 10.00 | 10.00 | 10.00 | | | |
| 4th/[1.237, 1.423) | 6.76 | 9.46 | 6.76 | 13.51 | 8.78 | 8.11 | 12.16 | 10.14 | 12.84 | 11.49 | | | |
| 5th/[1.423, 1.598) | 14.57 | 7.95 | 13.91 | 5.30 | 9.27 | 8.61 | 11.92 | 7.28 | 8.61 | 12.58 | | | |
| 6th/[1.598, 1.759) | 10.07 | 8.72 | 9.40 | 8.72 | 12.08 | 11.41 | 8.05 | 10.74 | 8.72 | 12.08 | | | |
| 7th/[1.759, 1.946) | 10.07 | 11.41 | 11.41 | 8.72 | 10.07 | 6.04 | 6.04 | 10.74 | 13.42 | 12.08 | | | |
| 8th/[1.946, 2.171) | 10.00 | 10.67 | 7.33 | 10.00 | 13.33 | 7.33 | 10.00 | 8.67 | 12.67 | 10.00 | | | |
| 9th/[2.171, 2.459) | 13.33 | 12.67 | 6.67 | 13.33 | 8.67 | 8.00 | 7.33 | 8.67 | 10.67 | 10.67 | | | |
| 10th/[2.459, 4.609] | 14.67 | 11.33 | 14.67 | 6.67 | 7.33 | 10.67 | 10.67 | 7.33 | 6.67 | 10.00 | | | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

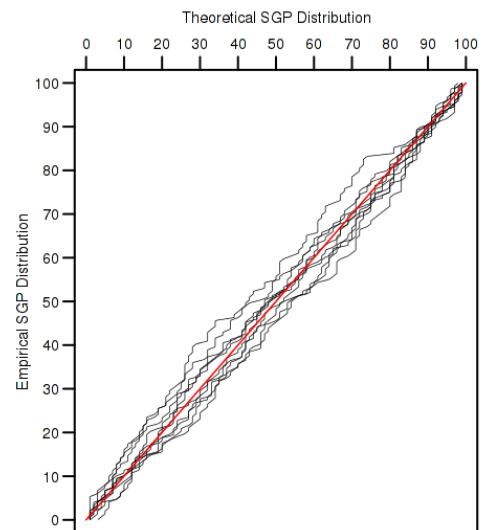
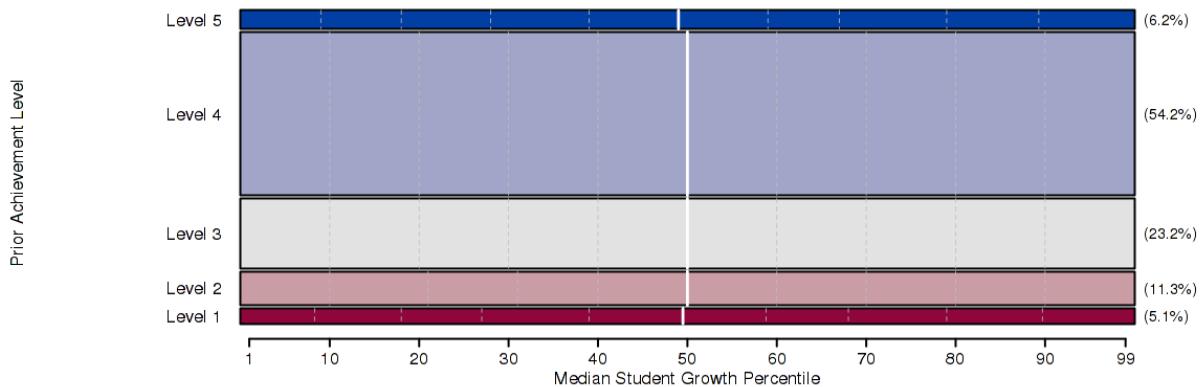


Figure 36: Goodness of Fit Plot for Spring 2016 Geometry (Prior: 2015 Grade 7 Math - SIMEX Corrected).

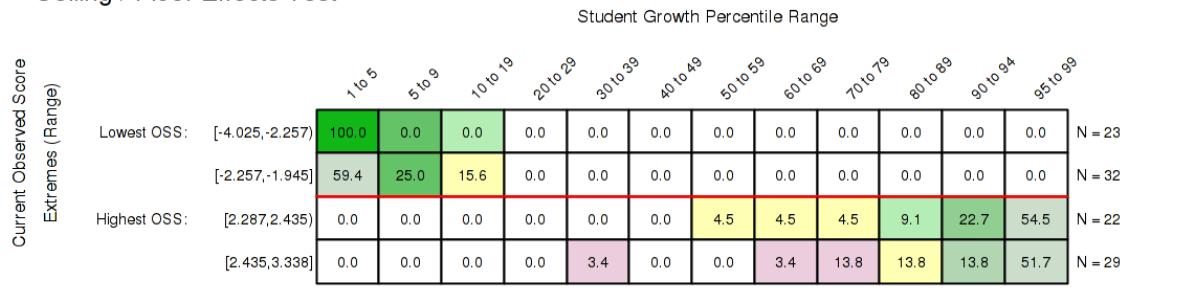
Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP, Grade EOCT (N = 5,934)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test



Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -0.425) | 9.78 | 10.29 | 10.46 | 9.78 | 9.78 | 9.95 | 10.79 | 10.12 | 9.61 | 9.44 | (10%) | |
| 2nd/-0.425, 0.056) | 9.95 | 9.61 | 9.27 | 10.62 | 11.13 | 10.62 | 7.59 | 9.78 | 10.29 | 11.13 | (10%) | |
| 3rd/[0.056, 0.4098) | 9.80 | 9.80 | 9.63 | 10.47 | 9.29 | 8.95 | 10.98 | 10.64 | 9.80 | 10.64 | (10%) | |
| 4th/[0.4098, 0.6586) | 9.40 | 9.23 | 10.74 | 9.56 | 9.40 | 11.24 | 10.07 | 8.89 | 11.41 | 10.07 | (10%) | |
| 5th/[0.6586, 0.9024) | 6.94 | 11.51 | 12.86 | 9.81 | 9.81 | 8.63 | 11.00 | 11.00 | 7.61 | 10.83 | (10%) | |
| 6th/[0.9024, 1.132) | 10.25 | 10.76 | 9.41 | 9.41 | 8.91 | 11.09 | 10.08 | 8.91 | 11.26 | 9.92 | (10%) | |
| 7th/[1.132, 1.357) | 10.75 | 9.22 | 7.68 | 9.56 | 12.63 | 10.07 | 9.04 | 9.04 | 9.73 | 12.29 | (9.9%) | |
| 8th/[1.357, 1.614) | 10.33 | 9.17 | 10.00 | 10.17 | 8.17 | 9.33 | 10.17 | 12.67 | 10.83 | 9.17 | (10.1%) | |
| 9th/[1.614, 1.977) | 8.92 | 9.76 | 8.25 | 12.12 | 11.45 | 10.27 | 9.76 | 9.09 | 9.26 | 11.11 | (10%) | |
| 10th/[1.977, 4.205] | 9.43 | 10.61 | 11.78 | 8.59 | 9.60 | 9.76 | 10.44 | 9.93 | 9.76 | 10.10 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

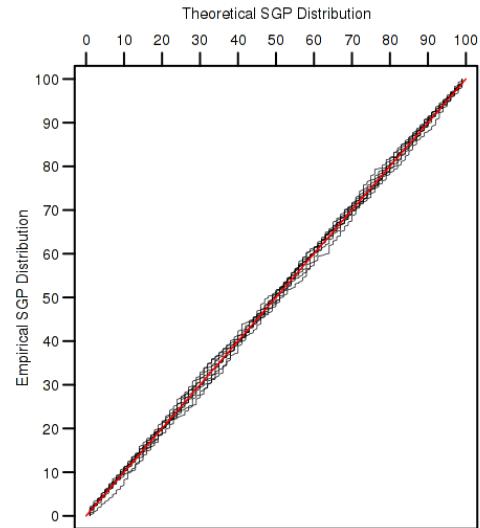
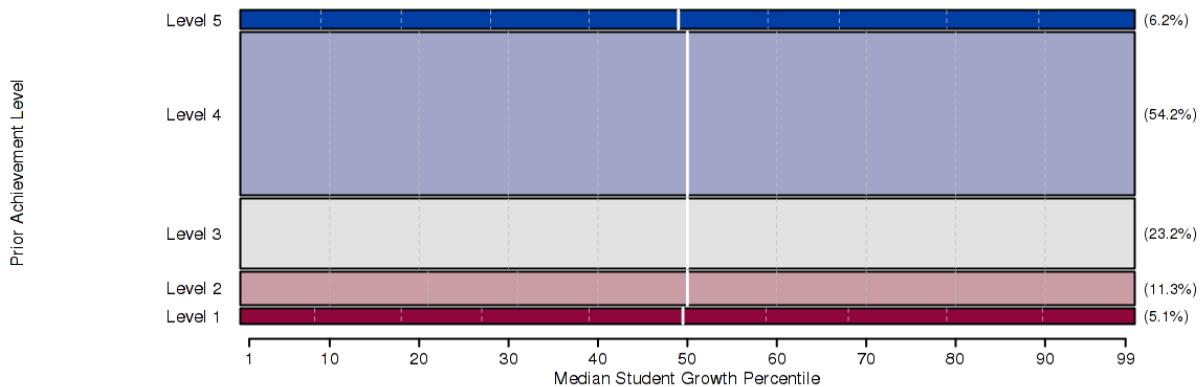


Figure 37: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Math Grade 8 - Uncorrected).

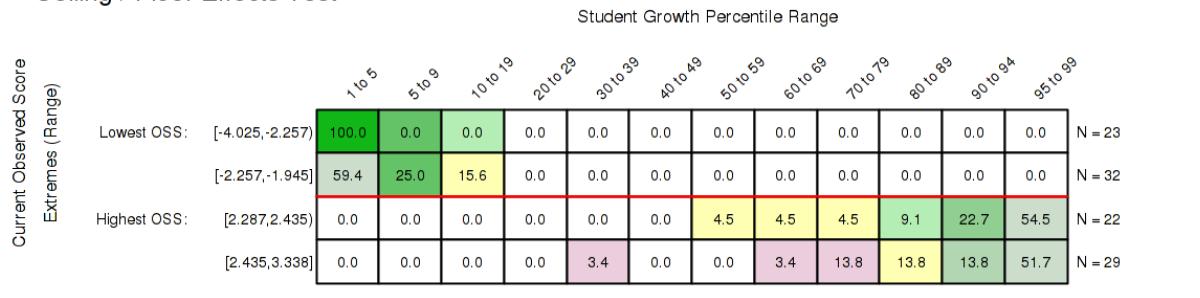
Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP, Grade EOCT (N = 5,934)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test



Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | |
| 1st/[-10, -0.425) | 9.78 | 10.29 | 10.46 | 9.78 | 9.78 | 9.95 | 10.79 | 10.12 | 9.61 | 9.44 | (10%) | |
| 2nd/-0.425, 0.056) | 9.95 | 9.61 | 9.27 | 10.62 | 11.13 | 10.62 | 7.59 | 9.78 | 10.29 | 11.13 | (10%) | |
| 3rd/[0.056, 0.4098) | 9.80 | 9.80 | 9.63 | 10.47 | 9.29 | 8.95 | 10.98 | 10.64 | 9.80 | 10.64 | (10%) | |
| 4th/[0.4098, 0.6586) | 9.40 | 9.23 | 10.74 | 9.56 | 9.40 | 11.24 | 10.07 | 8.89 | 11.41 | 10.07 | (10%) | |
| 5th/[0.6586, 0.9024) | 6.94 | 11.51 | 12.86 | 9.81 | 9.81 | 8.63 | 11.00 | 11.00 | 7.61 | 10.83 | (10%) | |
| 6th/[0.9024, 1.132) | 10.25 | 10.76 | 9.41 | 9.41 | 8.91 | 11.09 | 10.08 | 8.91 | 11.26 | 9.92 | (10%) | |
| 7th/[1.132, 1.357) | 10.75 | 9.22 | 7.68 | 9.56 | 12.63 | 10.07 | 9.04 | 9.04 | 9.73 | 12.29 | (9.9%) | |
| 8th/[1.357, 1.614) | 10.33 | 9.17 | 10.00 | 10.17 | 8.17 | 9.33 | 10.17 | 12.67 | 10.83 | 9.17 | (10.1%) | |
| 9th/[1.614, 1.977) | 8.92 | 9.76 | 8.25 | 12.12 | 11.45 | 10.27 | 9.76 | 9.09 | 9.26 | 11.11 | (10%) | |
| 10th/[1.977, 4.205] | 9.43 | 10.61 | 11.78 | 8.59 | 9.60 | 9.76 | 10.44 | 9.93 | 9.76 | 10.10 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

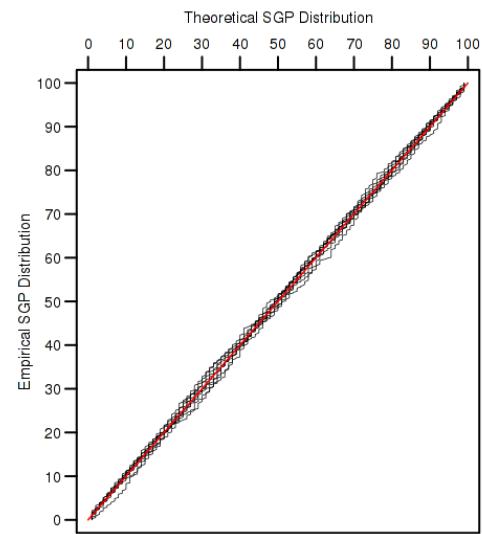
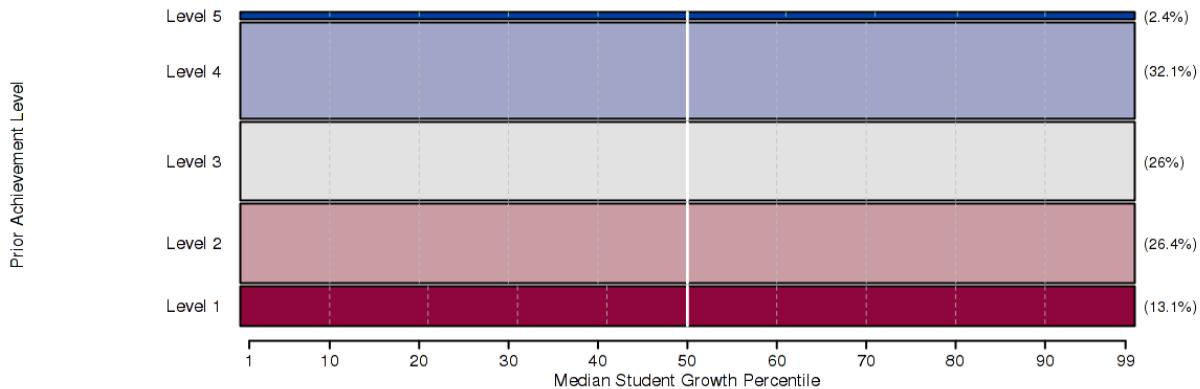


Figure 38: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Math Grade 8 - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP, Grade EOCT (N = 104,364)

SGP Deciles by Prior Achievement Level (Algebra I)



Ceiling / Floor Effects Test

| Student Growth Percentile Range | | | | | | | | | | | | |
|---|------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Current Observed Score Extremes (Range) | | | | | | | | | | | | |
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| Lowest OSS: [-15, -4.883) | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | [-4.883, -4.311] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Highest OSS: [3.507, 3.709) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 25.0 | 20.0 | 45.0 |
| | [3.709, 5.478] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 11.8 | 85.3 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| 1st/[-10, -1.272) | 9.10 | 9.95 | 9.83 | 10.02 | 9.68 | 10.18 | 10.01 | 10.08 | 10.24 | 10.90 | | |
| 2nd/[-1.272, -0.8787) | 10.07 | 10.65 | 10.48 | 10.02 | 10.28 | 9.89 | 9.67 | 9.76 | 9.56 | 9.63 | | |
| 3rd/[-0.8787, -0.5578) | 9.94 | 9.81 | 9.87 | 10.27 | 9.67 | 9.93 | 10.49 | 9.84 | 9.90 | 10.28 | | |
| 4th/[-0.5578, -0.2666) | 9.06 | 9.89 | 9.67 | 9.82 | 10.43 | 9.29 | 10.05 | 10.13 | 10.28 | 11.37 | | |
| 5th/[-0.2666, 0.0367) | 9.24 | 9.55 | 9.94 | 9.84 | 10.22 | 10.65 | 9.81 | 10.23 | 10.14 | 10.38 | | |
| 6th/[0.0367, 0.357) | 9.63 | 9.87 | 10.18 | 10.09 | 9.68 | 10.16 | 9.82 | 9.97 | 9.91 | 10.69 | | |
| 7th/[0.357, 0.7026) | 9.46 | 10.17 | 10.06 | 10.03 | 10.40 | 9.70 | 10.10 | 10.08 | 9.78 | 10.22 | | |
| 8th/[0.7026, 1.102) | 9.74 | 10.45 | 10.22 | 9.89 | 9.54 | 10.05 | 10.16 | 9.72 | 10.19 | 10.05 | | |
| 9th/[1.102, 1.623) | 9.30 | 9.85 | 9.78 | 10.00 | 9.86 | 10.10 | 9.77 | 10.22 | 10.06 | 11.04 | | |
| 10th/[1.623, 6.792] | 9.53 | 9.79 | 9.99 | 10.05 | 10.21 | 10.02 | 10.13 | 9.96 | 9.93 | 10.40 | | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

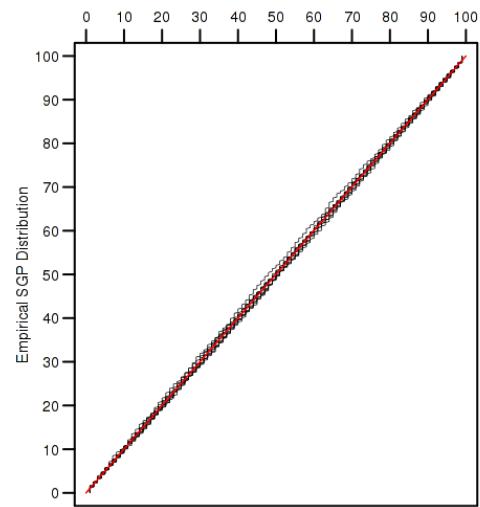
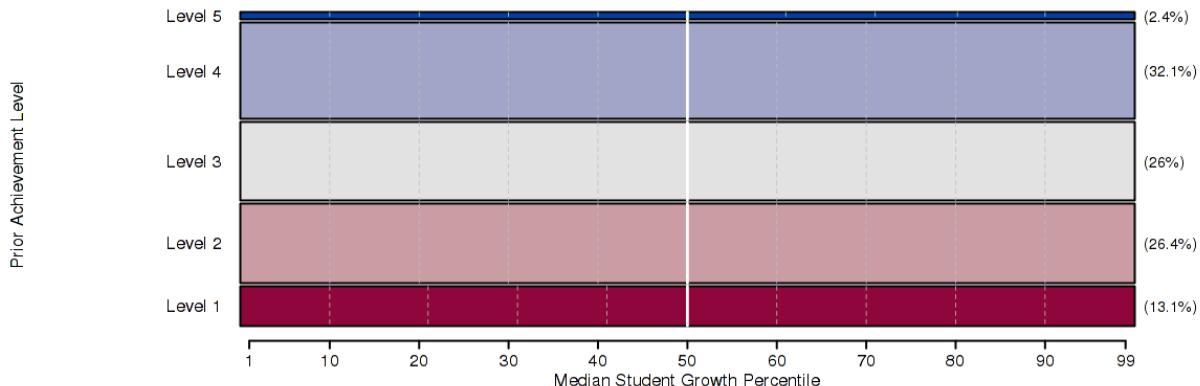


Figure 39: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Algebra I - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP, Grade EOCT (N = 104,364)

SGP Deciles by Prior Achievement Level (Algebra I)



Ceiling / Floor Effects Test

| Student Growth Percentile Range | | | | | | | | | | | | | |
|---|------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| Current Observed Score Extremes (Range) | | | | | | | | | | | | | |
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, -4.883) | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| | [-4.883, -4.311] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Highest OSS: [3.507, 3.709) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 25.0 | 20.0 | 45.0 | N = 20 | |
| | [3.709, 5.478] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 11.8 | 85.3 | N = 34 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| 1st/[-10, -1.272) | 9.10 | 9.95 | 9.83 | 10.02 | 9.68 | 10.18 | 10.01 | 10.08 | 10.24 | 10.90 | | |
| 2nd/[-1.272, -0.8787) | 10.07 | 10.65 | 10.48 | 10.02 | 10.28 | 9.89 | 9.67 | 9.76 | 9.56 | 9.63 | | |
| 3rd/[-0.8787, -0.5578) | 9.94 | 9.81 | 9.87 | 10.27 | 9.67 | 9.93 | 10.49 | 9.84 | 9.90 | 10.28 | | |
| 4th/[-0.5578, -0.2666) | 9.06 | 9.89 | 9.67 | 9.82 | 10.43 | 9.29 | 10.05 | 10.13 | 10.28 | 11.37 | | |
| 5th/[-0.2666, 0.0367) | 9.24 | 9.55 | 9.94 | 9.84 | 10.22 | 10.65 | 9.81 | 10.23 | 10.14 | 10.38 | | |
| 6th/[0.0367, 0.357) | 9.63 | 9.87 | 10.18 | 10.09 | 9.68 | 10.16 | 9.82 | 9.97 | 9.91 | 10.69 | | |
| 7th/[0.357, 0.7026) | 9.46 | 10.17 | 10.06 | 10.03 | 10.40 | 9.70 | 10.10 | 10.08 | 9.78 | 10.22 | | |
| 8th/[0.7026, 1.102) | 9.74 | 10.45 | 10.22 | 9.89 | 9.54 | 10.05 | 10.16 | 9.72 | 10.19 | 10.05 | | |
| 9th/[1.102, 1.623) | 9.30 | 9.85 | 9.78 | 10.00 | 9.86 | 10.10 | 9.77 | 10.22 | 10.06 | 11.04 | | |
| 10th/[1.623, 6.792] | 9.53 | 9.79 | 9.99 | 10.05 | 10.21 | 10.02 | 10.13 | 9.96 | 9.93 | 10.40 | | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

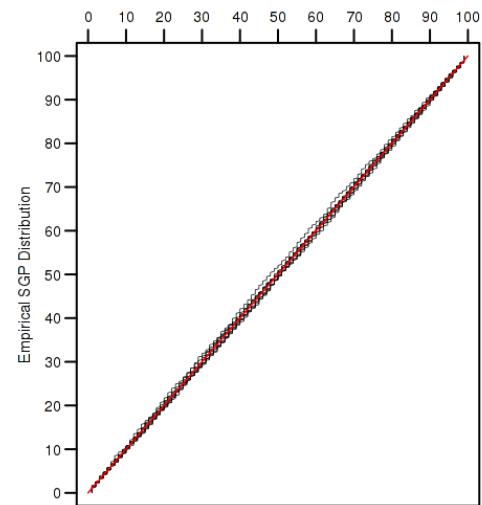
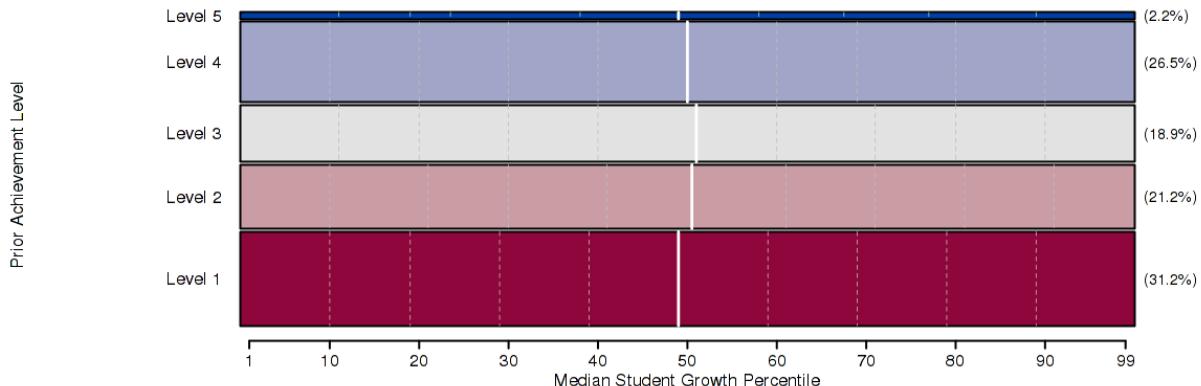


Figure 40: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Algebra I - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

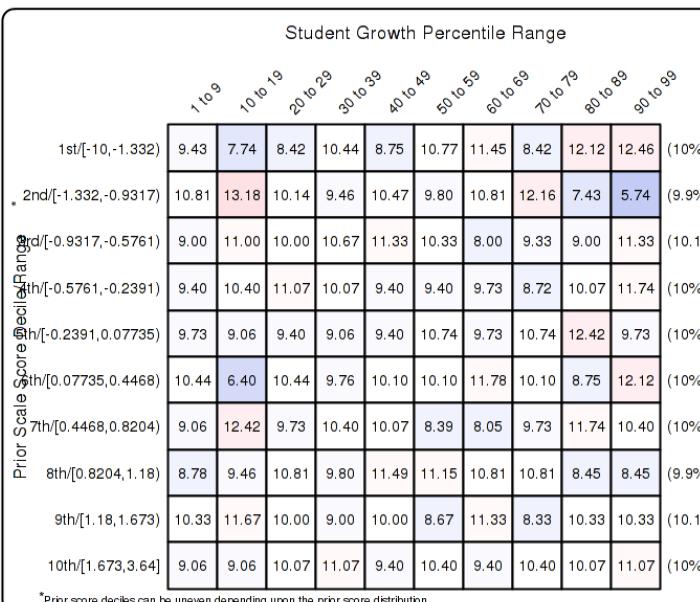
2015-2016.2 Geometry SGP, Grade EOCT (N = 2,978)

SGP Deciles by Prior Achievement Level (Algebra II)



Ceiling / Floor Effects Test

| Student Growth Percentile Range | | | | | | | | | | | | |
|---|--------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Current Observed Score Extremes (Range) | | | | | | | | | | | | |
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| Lowest OSS: [-15, 2,413) | 94.4 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 79.4 | 20.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Highest OSS: [2,742, 2,989) | 0.0 | 0.0 | 0.0 | 7.7 | 0.0 | 7.7 | 3.8 | 15.4 | 15.4 | 11.5 | 19.2 | 19.2 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 3.7 | 14.8 | 22.2 | 14.8 | 37.0 |
| | | | | | | | | | | | | |



*Prior score deciles can be uneven depending upon the prior score distribution

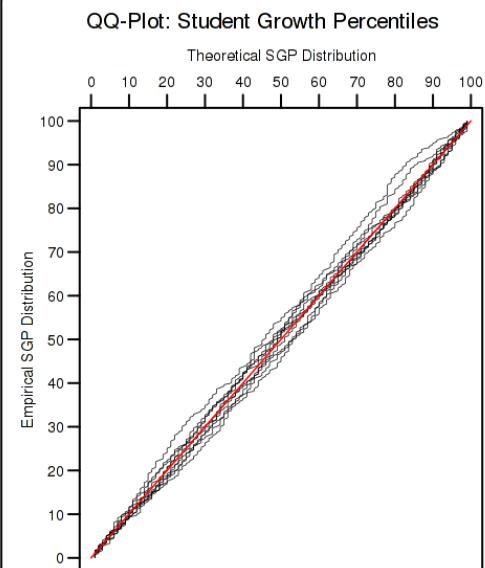
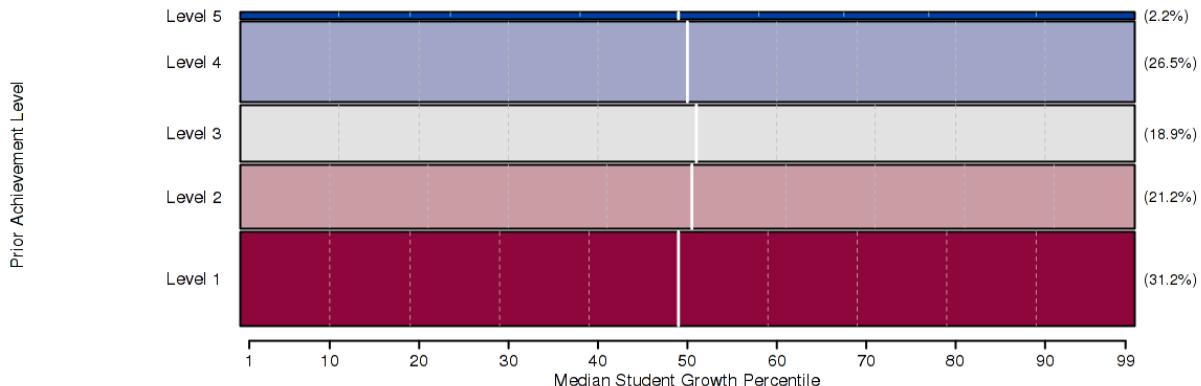


Figure 41: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Algebra II - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Geometry SGP, Grade EOCT (N = 2,978)

SGP Deciles by Prior Achievement Level (Algebra II)



Ceiling / Floor Effects Test

| Student Growth Percentile Range | | | | | | | | | | | | |
|---|-----------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Current Observed Score Extremes (Range) | | | | | | | | | | | | |
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 |
| Lowest OSS: [-15, 2,413) | 94.4 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | [2,413, -2,056] | 79.4 | 20.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Highest OSS: [2,74, 2,989) | 0.0 | 0.0 | 0.0 | 7.7 | 0.0 | 7.7 | 3.8 | 15.4 | 15.4 | 11.5 | 19.2 | 19.2 |
| | [2,989, 5,478] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 3.7 | 3.7 | 14.8 | 22.2 | 14.8 |

| Student Growth Percentile Range | | | | | | | | | | | | |
|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|--|
| Prior Scale Score Decile Range | | | | | | | | | | | | |
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -1.332) | 9.43 | 7.74 | 8.42 | 10.44 | 8.75 | 10.77 | 11.45 | 8.42 | 12.12 | 12.46 | (10%) | |
| 2nd/[-1.332, -0.9317) | 10.81 | 13.18 | 10.14 | 9.46 | 10.47 | 9.80 | 10.81 | 12.16 | 7.43 | 5.74 | (9.9%) | |
| 3rd/[-0.9317, -0.5761) | 9.00 | 11.00 | 10.00 | 10.67 | 11.33 | 10.33 | 8.00 | 9.33 | 9.00 | 11.33 | (10.1%) | |
| 4th/[-0.5761, -0.2391) | 9.40 | 10.40 | 11.07 | 10.07 | 9.40 | 9.40 | 9.73 | 8.72 | 10.07 | 11.74 | (10%) | |
| 5th/[-0.2391, 0.07735) | 9.73 | 9.06 | 9.40 | 9.06 | 9.40 | 10.74 | 9.73 | 10.74 | 12.42 | 9.73 | (10%) | |
| 6th/[0.07735, 0.4468) | 10.44 | 6.40 | 10.44 | 9.76 | 10.10 | 10.10 | 11.78 | 10.10 | 8.75 | 12.12 | (10%) | |
| 7th/[0.4468, 0.8204) | 9.06 | 12.42 | 9.73 | 10.40 | 10.07 | 8.39 | 8.05 | 9.73 | 11.74 | 10.40 | (10%) | |
| 8th/[0.8204, 1.18) | 8.78 | 9.46 | 10.81 | 9.80 | 11.49 | 11.15 | 10.81 | 10.81 | 8.45 | 8.45 | (9.9%) | |
| 9th/[1.18, 1.673) | 10.33 | 11.67 | 10.00 | 9.00 | 10.00 | 8.67 | 11.33 | 8.33 | 10.33 | 10.33 | (10.1%) | |
| 10th/[1.673, 3.64] | 9.06 | 9.06 | 10.07 | 11.07 | 9.40 | 10.40 | 9.40 | 10.40 | 10.07 | 11.07 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

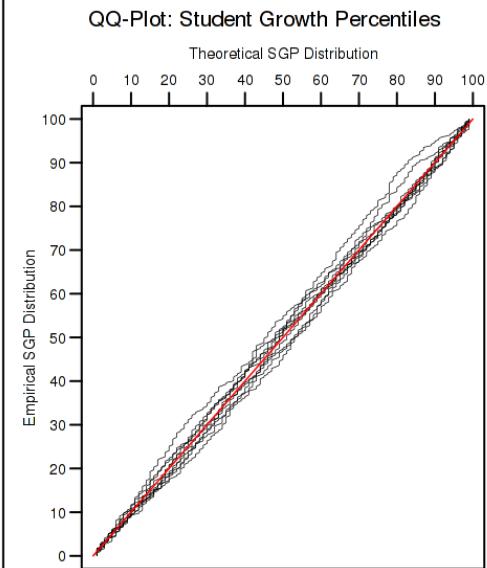


Figure 42: Goodness of Fit Plot for Spring 2016 Geometry (Prior: Spring 2015 Algebra II - SIMEX Corrected).

3.3 Algebra II

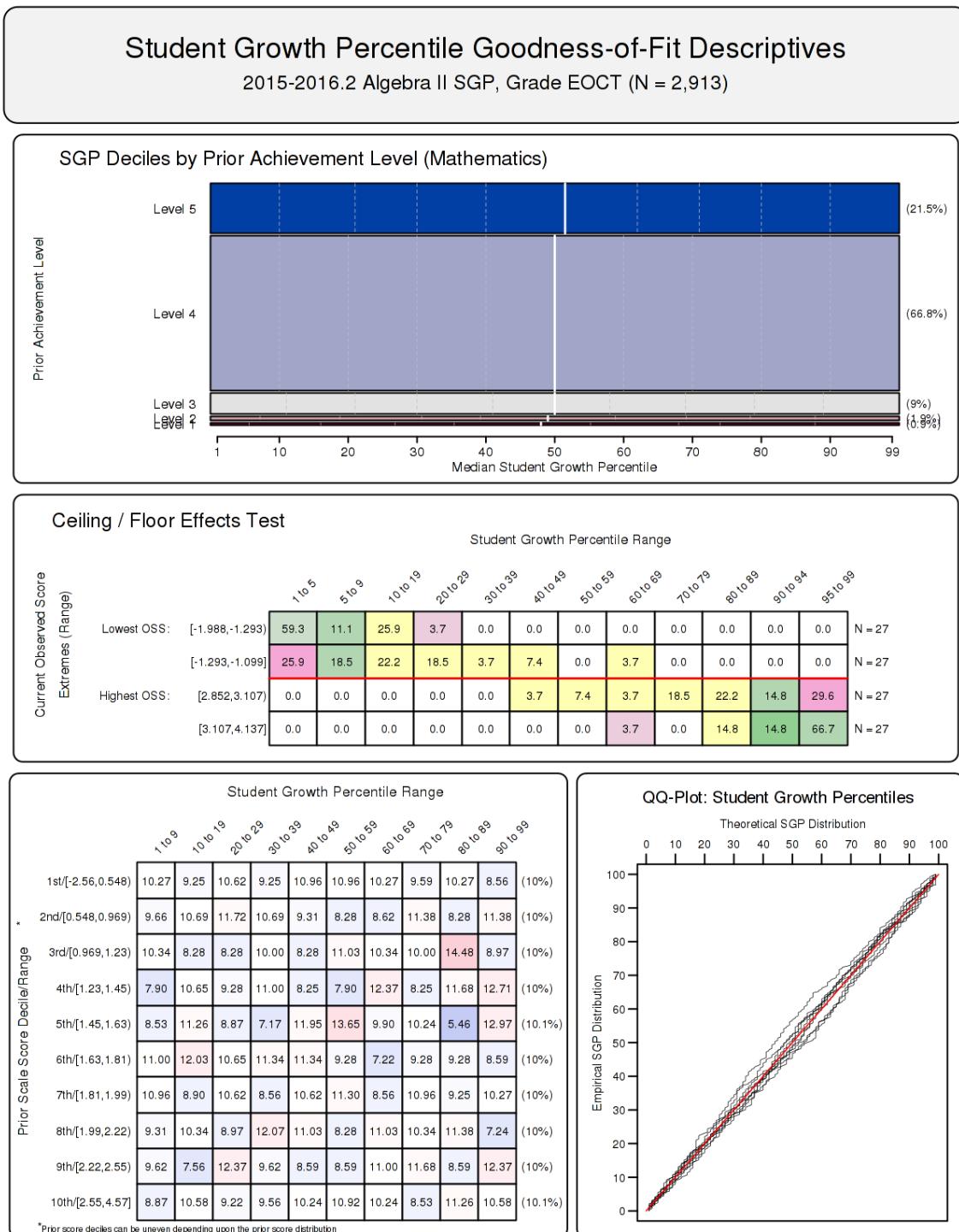
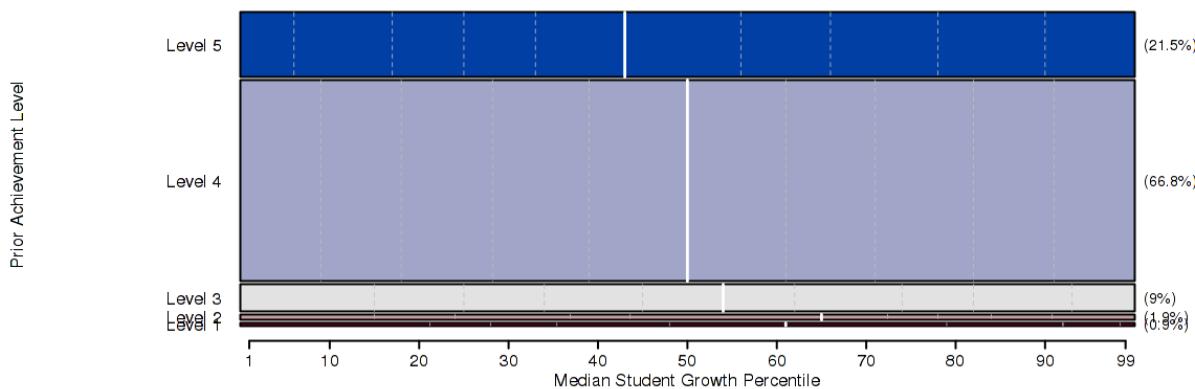


Figure 43: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: 2015 Grade 8 Math - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra II SGP SIMEX, Grade EOCT (N = 2,913)

SGP Deciles by Prior Achievement Level (Mathematics)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 27 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-1.988,-1.293] | 37.0 | 14.8 | 29.6 | 14.8 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 27 |
| | 22.2 | 14.8 | 22.2 | 14.8 | 11.1 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 0.0 | N = 27 |
| Highest OSS: [2.852,3.107] | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 7.4 | 0.0 | 7.4 | 22.2 | 18.5 | 14.8 | 25.9 | N = 27 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.7 | 0.0 | 0.0 | 3.7 | 14.8 | 18.5 | 59.3 | N = 27 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | | (10%) |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|-------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-2.56,0.548] | 7.88 | 8.56 | 9.25 | 8.90 | 8.56 | 9.25 | 9.93 | 12.67 | 11.30 | 13.70 | | | |
| 2nd/[0.548,0.969] | 8.97 | 10.34 | 10.69 | 9.66 | 8.97 | 10.00 | 7.24 | 10.34 | 10.34 | 13.45 | | | |
| 3rd/[0.969,1.23] | 10.00 | 8.97 | 7.59 | 9.31 | 8.28 | 9.66 | 8.62 | 11.03 | 15.17 | 11.38 | | | |
| 4th/[1.23,1.45] | 8.59 | 12.03 | 8.59 | 8.93 | 6.53 | 9.28 | 7.56 | 12.37 | 11.68 | 14.43 | | | |
| 5th/[1.45,1.63] | 9.56 | 11.26 | 6.83 | 10.58 | 9.22 | 12.29 | 8.53 | 9.22 | 8.19 | 14.33 | | | |
| 6th/[1.63,1.81] | 11.68 | 12.37 | 11.68 | 9.97 | 9.97 | 9.28 | 6.87 | 8.59 | 9.28 | 10.31 | | | |
| 7th/[1.81,1.99] | 11.64 | 9.93 | 11.64 | 7.53 | 10.62 | 10.62 | 7.53 | 8.90 | 9.25 | 12.33 | | | |
| 8th/[1.99,2.22] | 11.03 | 11.72 | 10.69 | 10.34 | 10.69 | 8.62 | 9.31 | 8.28 | 11.72 | 7.59 | | | |
| 9th/[2.22,2.55] | 11.68 | 12.03 | 11.34 | 10.31 | 5.84 | 9.97 | 9.97 | 9.62 | 6.19 | 13.06 | | | |
| 10th/[2.55,4.57] | 11.95 | 10.58 | 12.29 | 12.97 | 10.24 | 7.51 | 8.19 | 7.17 | 9.90 | 9.22 | | | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

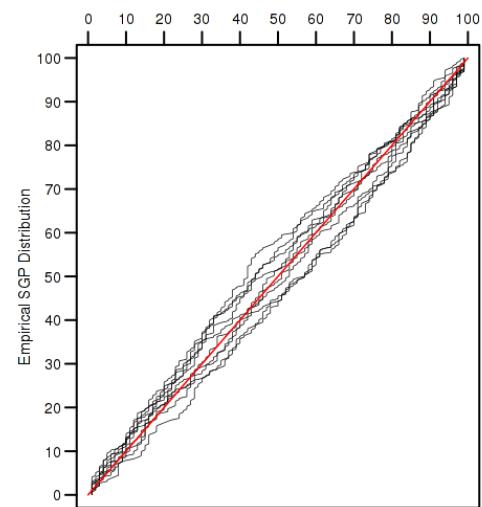
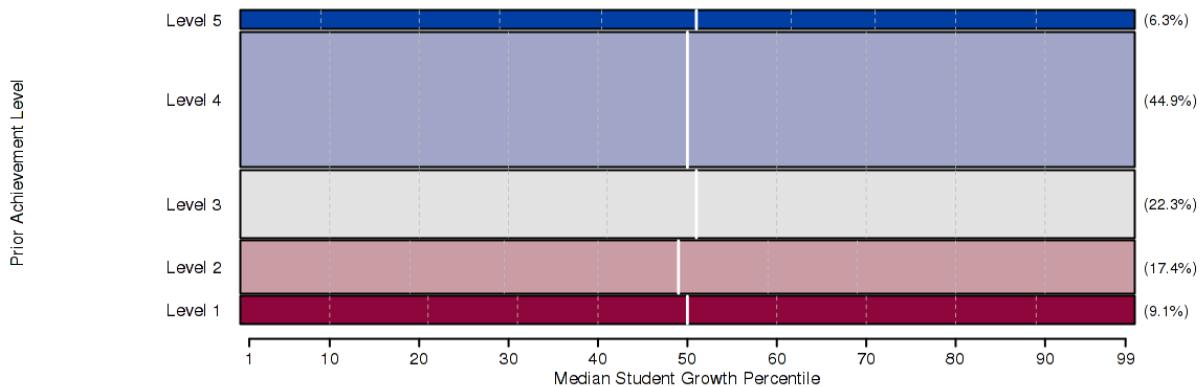


Figure 44: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: 2015 Grade 8 Math - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra II SGP, Grade EOCT (N = 11,698)

SGP Deciles by Prior Achievement Level (Algebra I)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 22 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, 3.189] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 22 |
| | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 29 |
| Highest OSS: [3.279, 3.465] | 0.0 | 0.0 | 0.0 | 4.3 | 0.0 | 13.0 | 0.0 | 8.7 | 8.7 | 21.7 | 21.7 | 21.7 | N = 23 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 6.7 | 6.7 | 13.3 | 13.3 | 56.7 | N = 30 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-------|--|
| | 1 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10,-1.059] | 9.49 | 10.09 | 10.34 | 10.26 | 9.40 | 9.57 | 10.17 | 10.60 | 10.17 | 9.91 | (10%) | |
| 2nd/[-1.059,-0.5674] | 10.02 | 10.62 | 9.16 | 9.59 | 11.73 | 10.27 | 9.85 | 8.82 | 8.90 | 11.04 | (10%) | |
| 3rd/[-0.5674,-0.1289] | 9.50 | 9.15 | 10.09 | 9.92 | 8.90 | 9.92 | 9.92 | 11.12 | 10.86 | 10.61 | (10%) | |
| 4th/[-0.1289,0.2367] | 9.13 | 9.81 | 11.01 | 9.56 | 8.96 | 11.09 | 10.49 | 9.13 | 10.75 | 10.07 | (10%) | |
| 5th/[0.2367,0.583] | 8.90 | 10.52 | 9.67 | 10.18 | 11.38 | 9.92 | 9.58 | 10.09 | 8.81 | 10.95 | (10%) | |
| 6th/[0.583,0.8853] | 10.53 | 9.76 | 9.33 | 11.30 | 9.42 | 9.33 | 9.93 | 10.19 | 9.93 | 10.27 | (10%) | |
| 7th/[0.8853,1.214] | 9.05 | 10.33 | 10.42 | 9.05 | 9.56 | 9.22 | 9.14 | 10.42 | 12.04 | 10.76 | (10%) | |
| 8th/[1.214,1.577] | 9.74 | 10.00 | 10.43 | 8.97 | 10.00 | 10.34 | 11.28 | 9.91 | 9.23 | 10.09 | (10%) | |
| 9th/[1.577,2.085] | 9.49 | 9.23 | 8.89 | 10.09 | 11.71 | 10.43 | 10.51 | 10.00 | 8.29 | 11.37 | (10%) | |
| 10th/[2.085,6.686] | 9.65 | 10.42 | 10.85 | 10.76 | 8.97 | 9.99 | 9.14 | 9.74 | 10.93 | 9.56 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

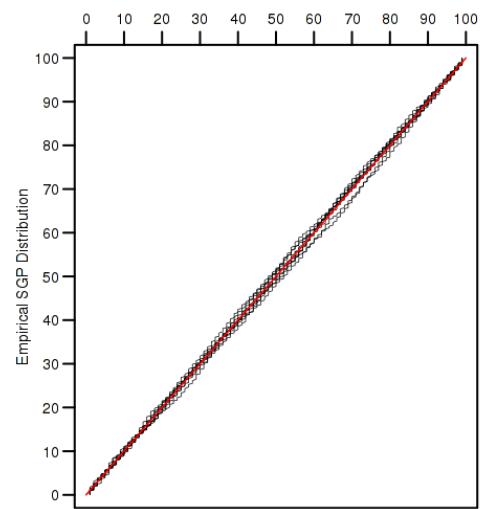
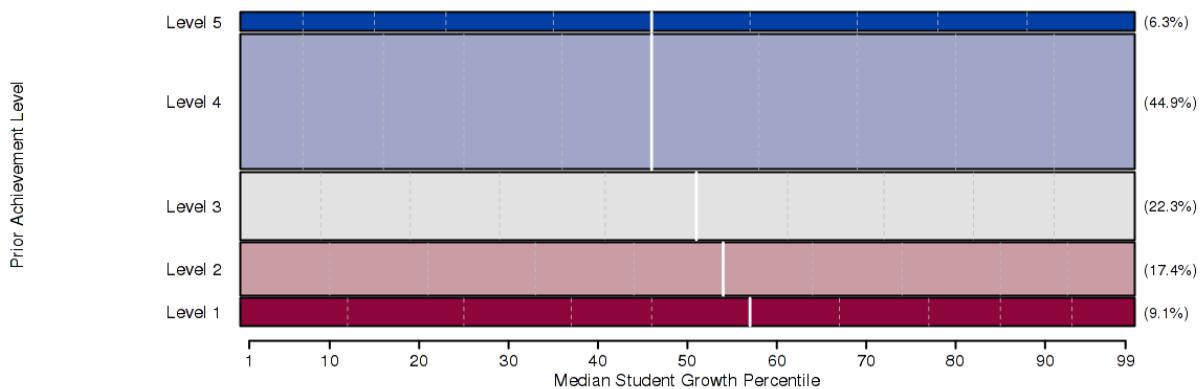


Figure 45: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: Spring 2015 Algebra I - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra II SGP SIMEX, Grade EOCT (N = 11,698)

SGP Deciles by Prior Achievement Level (Algebra I)



Ceiling / Floor Effects Test

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 22 | |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | | |
| Lowest OSS: [-15, 3.189) | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 22 | |
| | [-3.189, -2.638] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 29 | |
| Highest OSS: [3.279, 3.465) | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 8.7 | 4.3 | 8.7 | 13.0 | 17.4 | 34.8 | 8.7 | N = 23 | |
| | [3.465, 6.445] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 6.7 | 6.7 | 13.3 | 16.7 | 53.3 | N = 30 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | |
| 1st/[-10, -1.059) | 7.78 | 8.63 | 9.57 | 6.41 | 11.11 | 9.83 | 8.72 | 9.83 | 14.27 | 13.85 | (10%) | |
| 2nd/[-1.059, -0.5674) | 9.16 | 9.50 | 8.13 | 9.25 | 9.16 | 11.13 | 9.25 | 10.27 | 9.59 | 14.55 | (10%) | |
| 3rd/[-0.5674, -0.1289) | 9.50 | 8.73 | 8.73 | 9.50 | 8.13 | 9.32 | 9.58 | 11.46 | 11.98 | 13.09 | (10%) | |
| 4th/[-0.1289, 0.2367) | 10.41 | 9.39 | 11.09 | 8.70 | 7.68 | 10.24 | 10.24 | 9.13 | 11.01 | 12.12 | (10%) | |
| 5th/[0.2367, 0.583) | 11.21 | 11.80 | 9.75 | 7.78 | 11.12 | 9.15 | 8.98 | 8.90 | 8.73 | 12.57 | (10%) | |
| 6th/[0.583, 0.8853) | 13.01 | 11.13 | 9.16 | 10.10 | 8.99 | 8.65 | 8.99 | 8.65 | 10.27 | 11.04 | (10%) | |
| 7th/[0.8853, 1.214) | 12.30 | 11.61 | 9.91 | 8.28 | 8.97 | 8.37 | 8.20 | 8.88 | 11.53 | 11.96 | (10%) | |
| 8th/[1.214, 1.577) | 13.08 | 11.88 | 8.55 | 9.57 | 8.12 | 10.68 | 9.83 | 8.63 | 9.06 | 10.60 | (10%) | |
| 9th/[1.577, 2.085) | 12.99 | 9.57 | 9.74 | 10.17 | 10.85 | 9.32 | 9.23 | 8.89 | 6.92 | 12.31 | (10%) | |
| 10th/[2.085, 6.686] | 13.83 | 12.72 | 10.50 | 9.48 | 8.80 | 8.88 | 8.20 | 8.80 | 9.39 | 9.39 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

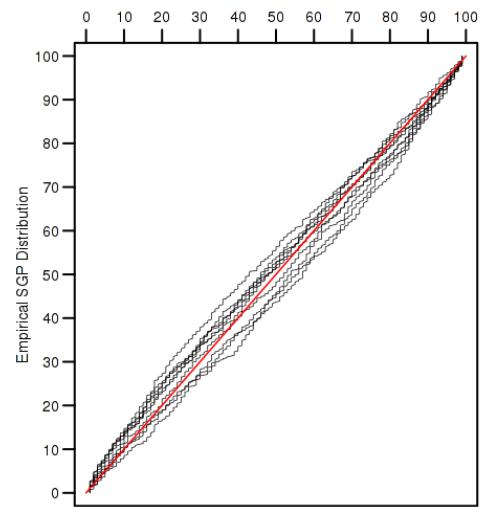
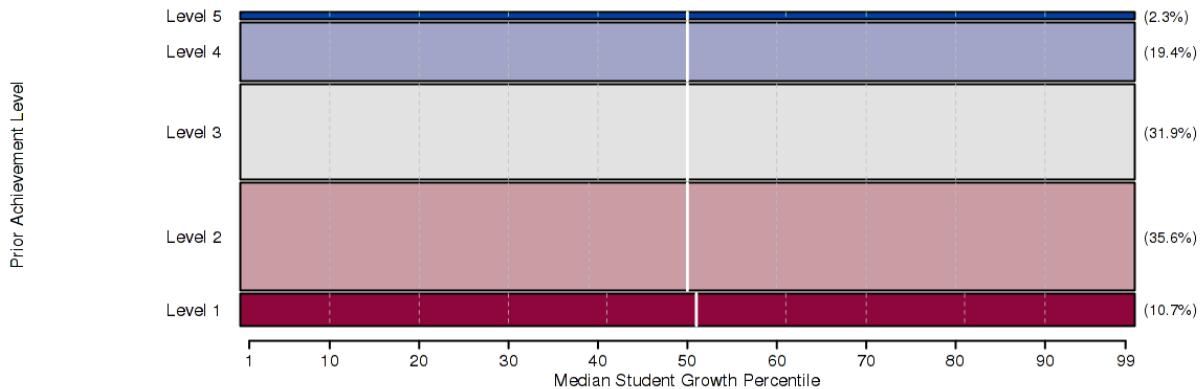


Figure 46: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: Spring 2015 Algebra I - SIMEX Corrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra II SGP, Grade EOCT (N = 67,945)

SGP Deciles by Prior Achievement Level (Geometry)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 26 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, -4.665) | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 26 |
| | [-4.665, -4.555] | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 41 |
| Highest OSS: [3.628, 3.868) | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 3.6 | 3.6 | 10.7 | 21.4 | 46.4 | 0.0 | N = 28 |
| | [3.868, 5.532] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 10.7 | 10.7 | 71.4 | N = 28 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | | (10%) |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|-------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | | |
| 1st/[-10, -1.283) | 9.43 | 9.37 | 9.68 | 9.51 | 10.46 | 10.10 | 10.45 | 10.05 | 10.02 | 10.92 | | | |
| 2nd/-1.283, -0.9115) | 9.50 | 10.58 | 10.50 | 10.12 | 9.63 | 10.21 | 9.48 | 9.88 | 9.90 | 10.21 | | | |
| 3rd/-0.9115, -0.6613) | 10.23 | 10.76 | 9.25 | 10.67 | 10.12 | 9.53 | 9.83 | 10.01 | 9.65 | 9.95 | | | |
| 4th/-0.6613, -0.4133) | 9.01 | 9.95 | 10.29 | 10.01 | 10.02 | 10.41 | 9.97 | 9.54 | 10.27 | 10.52 | | | |
| 5th/-0.4133, -0.1657) | 9.27 | 9.30 | 10.13 | 9.37 | 9.96 | 9.81 | 10.16 | 10.75 | 10.24 | 11.02 | | | |
| 6th/-0.1657, 0.1018) | 9.53 | 9.66 | 9.92 | 10.20 | 9.67 | 10.12 | 10.38 | 9.85 | 10.12 | 10.56 | | | |
| 7th/[0.1018, 0.4292) | 9.57 | 10.37 | 10.28 | 10.06 | 10.50 | 9.35 | 10.06 | 10.10 | 9.72 | 9.99 | | | |
| 8th/[0.4292, 0.8082) | 9.31 | 10.27 | 9.89 | 10.14 | 9.66 | 10.83 | 9.31 | 9.81 | 9.97 | 10.81 | | | |
| 9th/[0.8082, 1.335) | 9.67 | 9.74 | 9.77 | 9.88 | 9.89 | 9.66 | 10.30 | 10.13 | 10.35 | 10.61 | | | |
| 10th/[1.335, 5.135] | 9.55 | 10.05 | 10.27 | 10.03 | 10.08 | 10.03 | 10.02 | 9.87 | 9.77 | 10.34 | | | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

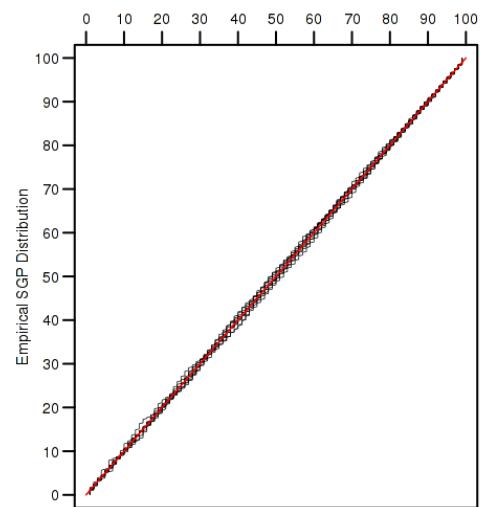
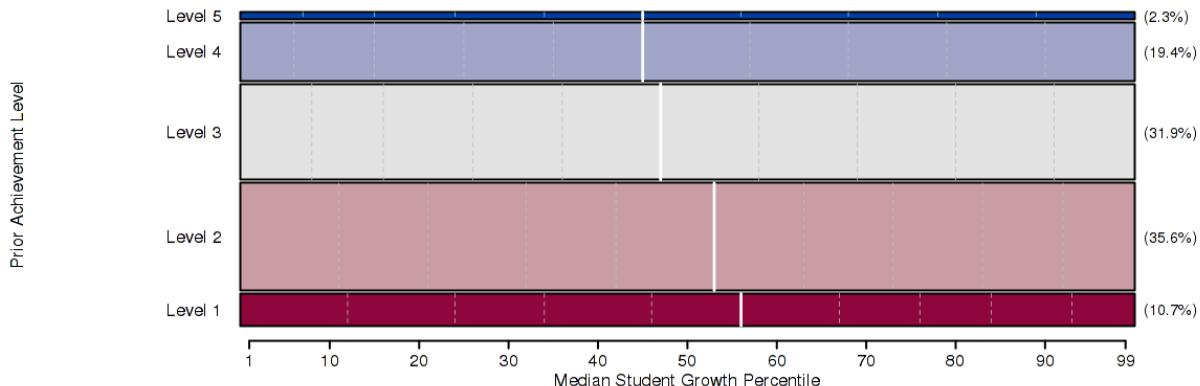


Figure 47: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: Spring 2015 Geometry - Uncorrected).

Student Growth Percentile Goodness-of-Fit Descriptives

2015-2016.2 Algebra II SGP SIMEX, Grade EOCT (N = 67,945)

SGP Deciles by Prior Achievement Level (Geometry)



Ceiling / Floor Effects Test

Student Growth Percentile Range

| Current Observed Score Extremes (Range) | Student Growth Percentile Range | | | | | | | | | | | | N = 26 |
|---|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 94 | 95 to 99 | |
| Lowest OSS: [-15, -4.665) | 96.2 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 26 |
| | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | N = 41 |
| Highest OSS: [3.628, 3.868) | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 0.0 | 3.6 | 7.1 | 7.1 | 14.3 | 14.3 | 46.4 | N = 28 |
| | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 7.1 | 10.7 | 14.3 | 60.7 | N = 28 |

Student Growth Percentile Range

| Prior Scale Score Decile Range | Student Growth Percentile Range | | | | | | | | | | | |
|--------------------------------|---------------------------------|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | 1 to 5 | 5 to 9 | 10 to 19 | 20 to 29 | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 to 79 | 80 to 89 | 90 to 99 | |
| 1st/[-10, -1.283) | 7.98 | 8.33 | 8.71 | 8.71 | 10.27 | 10.17 | 9.46 | 10.30 | 11.51 | 14.55 | (10%) | |
| 2nd/-1.283, -0.9115) | 8.78 | 9.34 | 9.75 | 8.83 | 9.60 | 8.72 | 10.28 | 10.35 | 11.21 | 13.14 | (10%) | |
| 3rd/-0.9115, -0.6613) | 9.06 | 9.64 | 8.94 | 9.89 | 9.65 | 9.98 | 9.05 | 10.37 | 10.73 | 12.69 | (10%) | |
| 4th/-0.6613, -0.4133) | 8.88 | 9.47 | 9.82 | 9.54 | 9.47 | 9.53 | 9.85 | 9.75 | 10.89 | 12.81 | (10%) | |
| 5th/-0.4133, -0.1657) | 9.90 | 9.18 | 9.90 | 9.38 | 8.85 | 9.32 | 10.03 | 10.15 | 10.72 | 12.56 | (10%) | |
| 6th/-0.1657, 0.1018) | 11.07 | 10.47 | 10.12 | 10.13 | 8.80 | 9.14 | 9.33 | 9.67 | 9.72 | 11.55 | (10%) | |
| 7th/[0.1018, 0.4292) | 12.86 | 12.04 | 10.28 | 10.13 | 8.38 | 9.25 | 8.55 | 9.18 | 8.80 | 10.53 | (10%) | |
| 8th/[0.4292, 0.8082) | 13.50 | 11.77 | 10.53 | 9.49 | 8.65 | 9.27 | 8.25 | 8.33 | 9.18 | 11.03 | (10%) | |
| 9th/[0.8082, 1.335) | 14.12 | 10.42 | 10.16 | 9.35 | 9.04 | 8.95 | 8.74 | 9.07 | 9.21 | 10.95 | (10%) | |
| 10th/[1.335, 5.135] | 13.15 | 11.05 | 11.39 | 9.50 | 9.53 | 8.83 | 8.75 | 8.99 | 8.99 | 9.83 | (10%) | |

*Prior score deciles can be uneven depending upon the prior score distribution

QQ-Plot: Student Growth Percentiles

Theoretical SGP Distribution

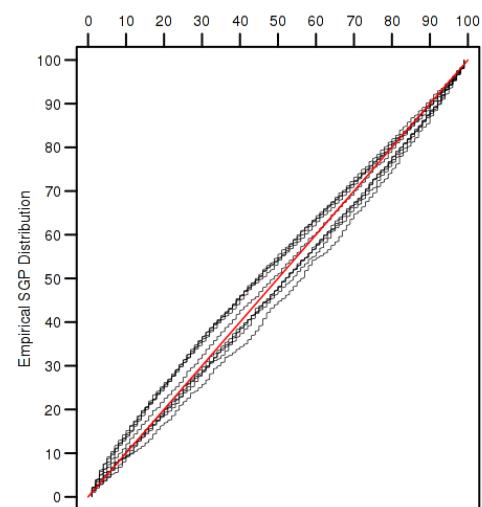


Figure 48: Goodness of Fit Plot for Spring 2016 Algebra II (Prior: Spring 2015 Geometry - SIMEX Corrected).