

2008-2009 Geometry in Construction CSAP Performance Thompson R2J School District

Introduction

Geometry in Construction is a course at Loveland High School in Loveland, Colorado, that combines math and industrial arts. Geometry in Construction students apply their knowledge of geometry through the natural progression of constructing a home. For the cost of building materials, a local non-profit organization purchases the home to support families in need of transitional housing.

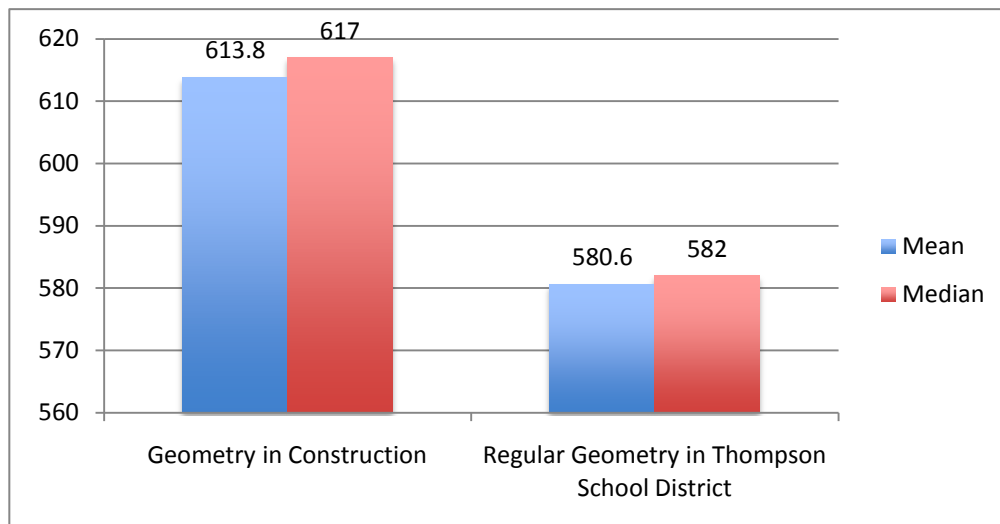
Purpose

The Office of Student Achievement Services in Thompson R2J School District provided CSAP scores of the entire geometry student population in Thompson R2J School District. Based upon that data, this synopsis provides an overview of Thompson R2J School District 9th-grade Math CSAP results. Four groups of students enrolled in regular geometry courses within Thompson R2J School District were points of comparisons to Geometry in Construction: Loveland High, Berthoud High, Mountain View High, and Thompson Valley High. Honors, Advanced Placement, and International Baccalaureate students were removed to establish group comparability.

Results

- Table 1 shows that on average, Geometry in Construction students yielded higher overall Math CSAP scores than all regular geometry students combined in Thompson R2J School District.

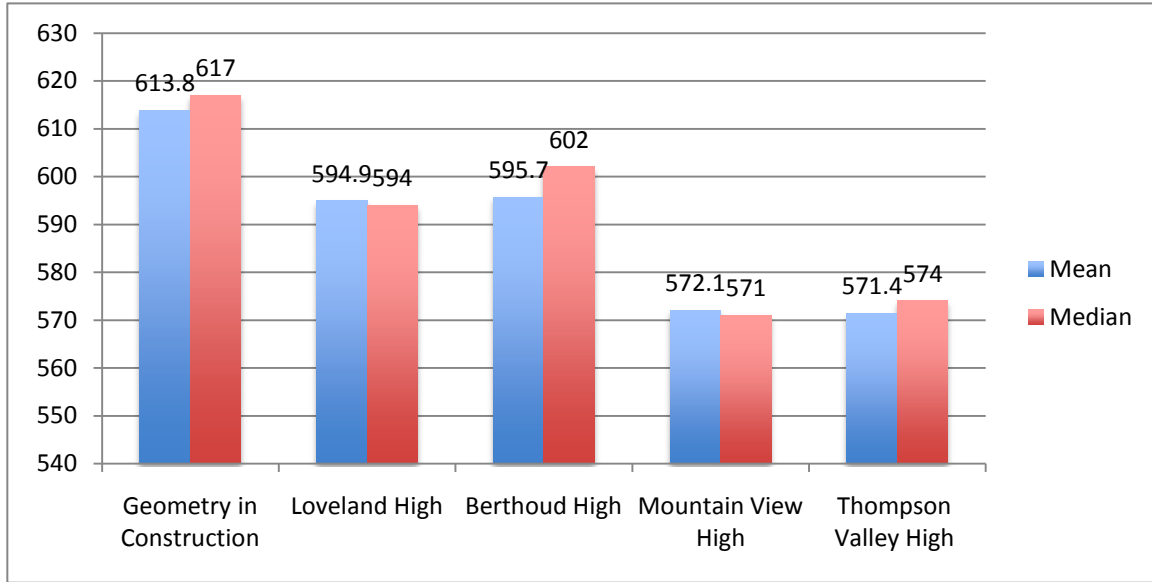
Table 1. 2009 Math CSAP Scores of Geometry in Construction versus Regular Geometry Students.¹



¹ Median scores are shown in addition to mean scores since median values can provide a more robust measure unaffected by outliers, that is, students with extremely high or low scores.

- Table 2 displays a similar trend when comparing Geometry in Construction students to regular Geometry students enrolled at each high school in Thompson R2J School District, where Geometry in Construction demonstrated the highest mean and median Math CSAP scores.

Table 2. 2009 Math CSAP Scores by High School.



- Tables 3 and 4 focus specifically on the Geometry and Measurement portion of CSAPs. On average, the Geometry in Construction students received higher Geometry and Measurement CSAP scores than the regular geometry students in Thompson R2J School District. Geometry in Construction outperformed regular Geometry students by 43.5 points.

Table 3. 2009 Geometry and Measurement CSAP Scores of Geometry in Construction vs. Regular Geometry Students.

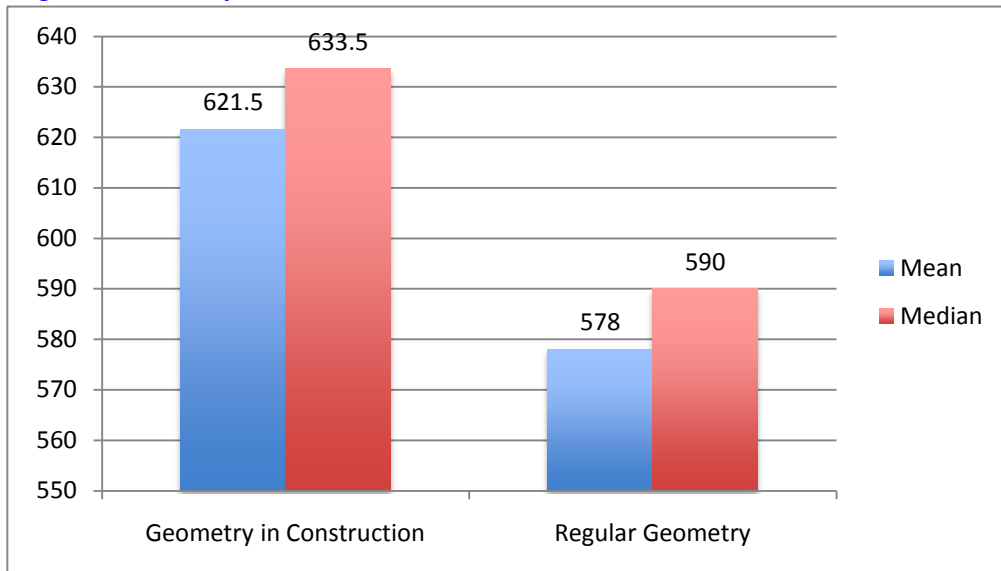
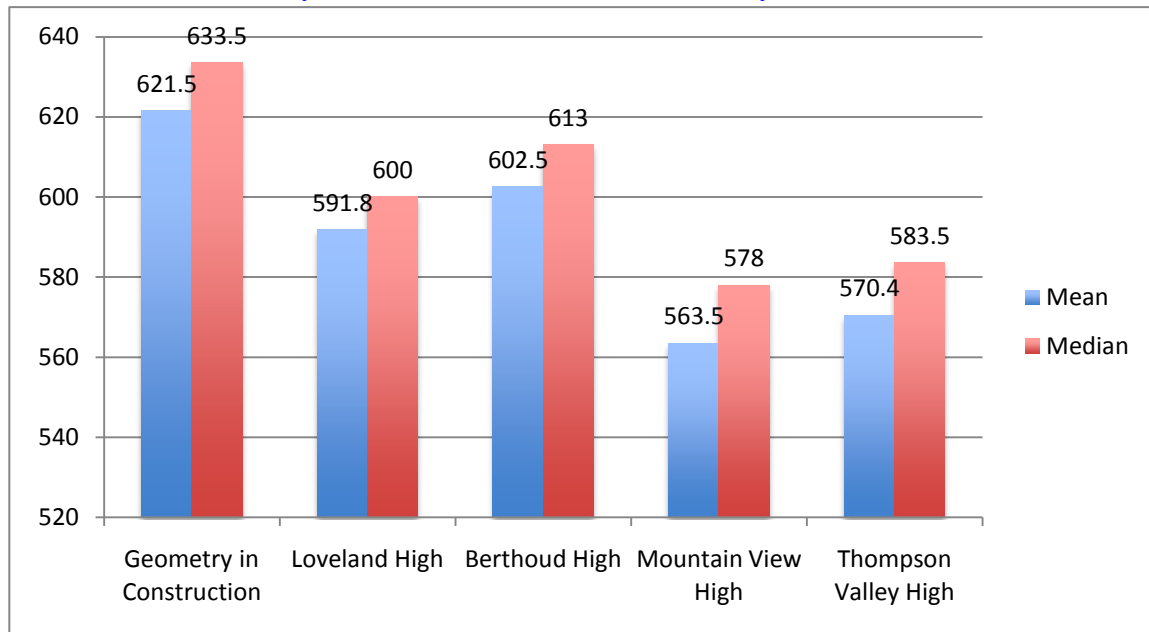


Table 4. 2009 Geometry and Measurement CSAP Scores by School.



- Similarly, Table 4 shows that on average, Geometry in Construction students outperformed other regular Geometry students from high schools in Thompson R2J School District.

Conclusion

Geometry in Construction students yielded higher CSAP scores than comparison groups in spring of 2009. Additional quantitative and qualitative studies are recommended to determine the relationship between Geometry in Construction and academic performance.