

Does Religion Make Kids Learn Better? An Inquiry Into How Religious School As An Indicator For Student Performance

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1 Introduction

Does practicing religion in schools affect the students' math and verbal test scores? Over the years since millennia, The United States has grown increasingly secular. Such trend has drawn significant discussions within the religious community: some are reflecting on what has gone wrong in their religious practicing that caused the general public to slowly drift away from it, while others are claiming that the country is "lost" and blames the government and public schools as the reason behind the lack of religious education. Nevertheless, it would be very interesting to see how religion plays a role in elementary education. In this report, I will specifically focus on the math and verbal scores of a previous field research that targets the third-graders.

2 Methodology

third_grade.dta is a dataset that contains 51250 observations. This dataset is constructed likely via a survey targeted against a fraction of the third grade population. The survey contains basic information of the student and the school (student ID, town code, school code, class ID, school enrollment, etc.). It also contains some specific information regarding the individual students' math and verbal scores, as well as socioeconomic status and religious backgrounds. In order to determine the relationship between "whether the student is in a religious school or not" and "math and verbal scores", I will split the math test score observations into two sets of observations, one being "in a religious school" and the other being "in a secular school," and then build a histogram on each of them. Ultimately, there will be:

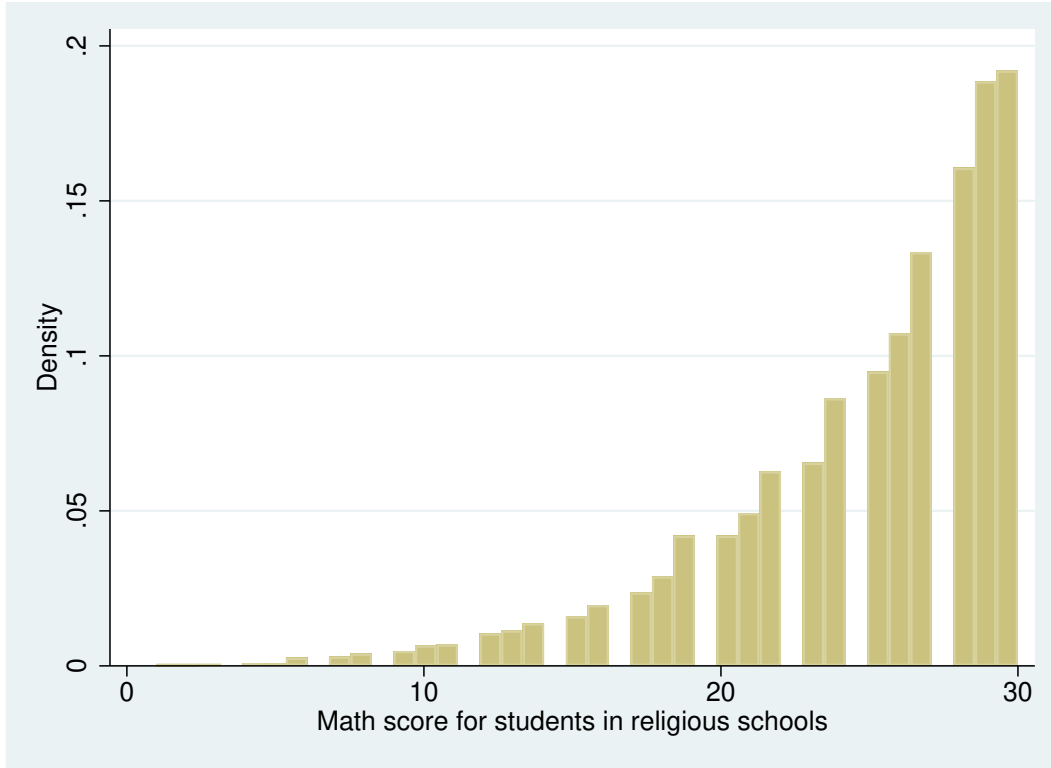
1. A summary of statistics
2. A histogram of math scores of students in religious schools;
3. A histogram of verbal scores of students in religious schools;
4. Same above except for students in secular schools.

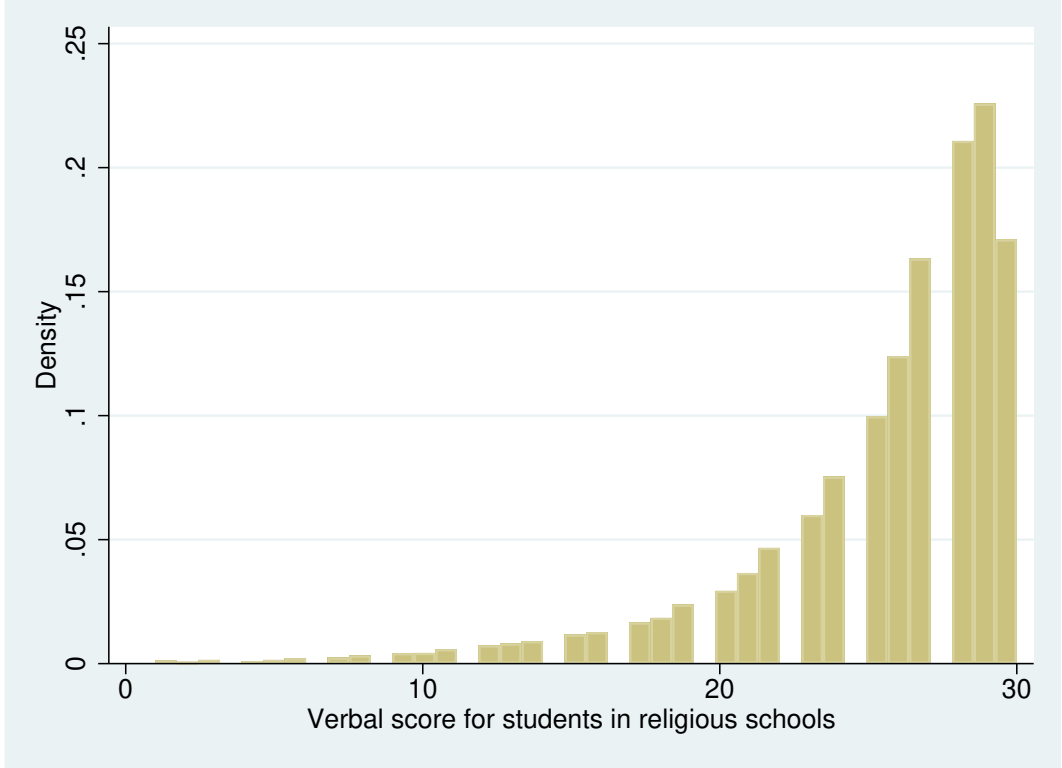
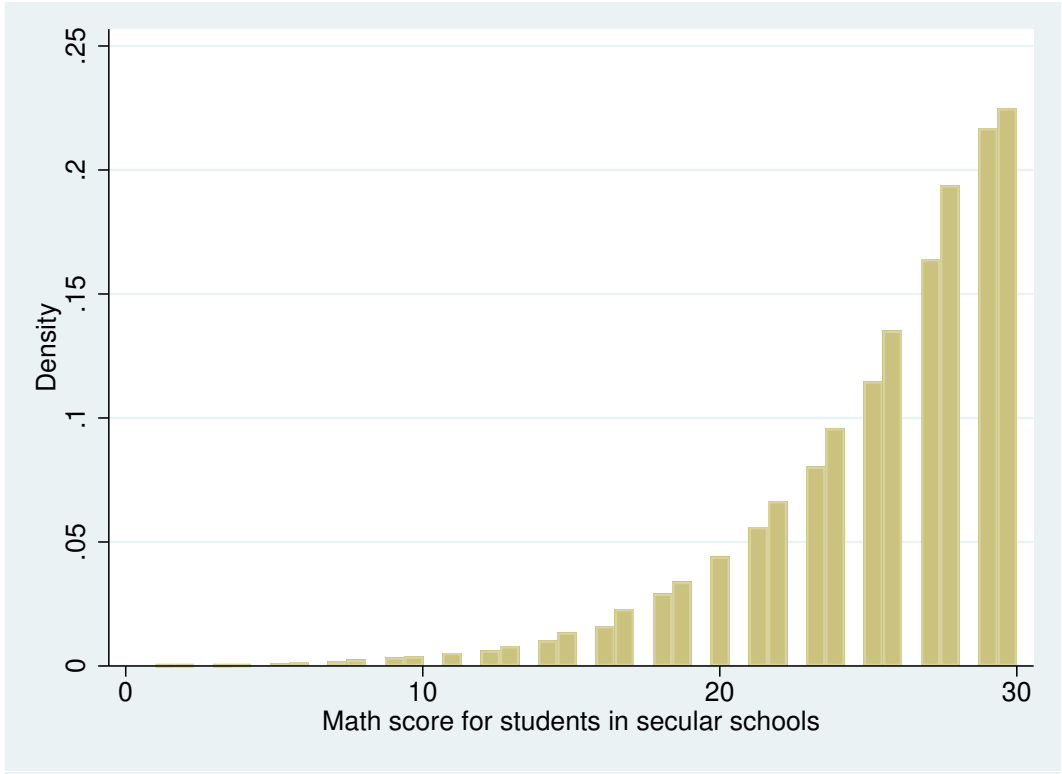
We will hold all other variables constant, so that they do not affect the observations from above.

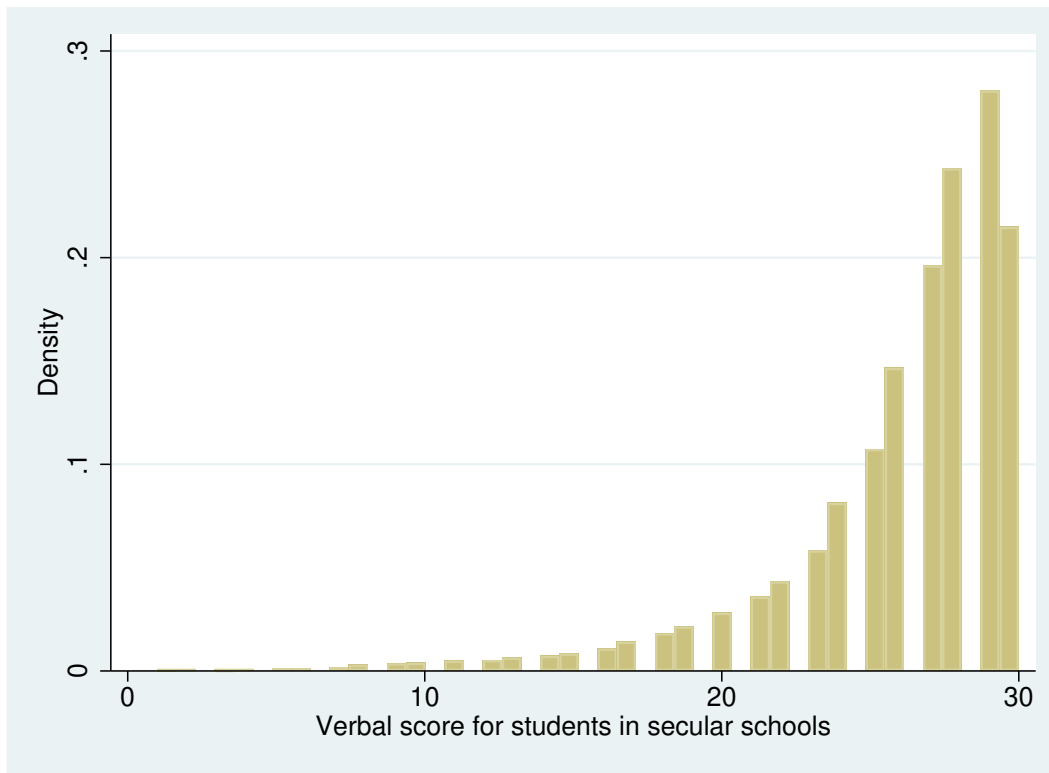
Table 1: Summary of statistics

	Mean	SD	Min	Max	N
Math score for students in religious schools	24.89	4.95	1.00	30.00	11471.00
Verbal score for students in religious schools	25.58	4.61	1.00	30.00	11391.00
Math score for students in secular schools	25.42	4.39	1.00	30.00	39721.00
Verbal score for students in secular schools	26.08	4.17	1.00	30.00	39393.00

3 Results







We could reasonably assume that the results are statistically significant, given that there is no statistical inference involved in the creation of these diagrams. From the dataset, we find out that there are some amounts of insufficient data: A couple dozen of the 51250 observations did not have math scores and a few hundred did not have verbal scores. Still, however, we believe there is enough statistic such that minor data loss should not affect the result. there are around 3.5 times the number of observations from secular schools than that from religious schools, which confirms that, at least within the survey range, the population is significantly more secular than religious.

All four histograms are left-skewed, meaning that most students get almost full scores.

From the statistic in Table 1, it can be clearly seen that the students who attend religious schools have a higher average verbal and math score than those who attend secular schools. However, the discrepancy is really small - only 0.53 for math scores and 0.50 for verbal scores. Even in a test worth 30 points and every point matters a lot more, such a small difference does not signify a drastically different performance. On the other hand, the standard deviation of the statistics for students who attend religious schools are higher than that for students who attend secular schools, meaning that the statistics for the performances of students attending religious schools are more spread out. Still, however, these statistics are not different enough to state either the students in religious schools or those in secular schools are better academically.

4 Conclusion

From the statistics above, it would make a lot of sense to say that religion is not a significant factor, if not a factor, in students' academic performance. There are definitely some drawbacks in this inquiry, in that it is solely focused on third graders who have only entered K-12 education for so long, and who would probably not recognize the influence of religion in their daily lives and studies yet, which may account for the reason why there is not a score discrepancy between students who attend religious schools and those who attend secular schools. Ideally, there should be an experiment that traces the

academic performances of these students over time, and there might be some interesting results coming out.