

Data-driven Ways to Choose Your Child's Catholic School

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Abstract

While Texas public schools have a means to evaluate and compare them, the School Report Card, it is inadequate for parents seeking objective data on which school to choose. Catholic schools usually do not have the equivalent “report card.”. Parents desiring excellent academic learning, a creative, safe, morally uplifting school that properly socializes the child, instead, can use six particular measures of the effectiveness of a Catholic school. These criteria include the data dashboard (a depiction of static data found on many school websites), the value-added assessment (whereby how well a school does its job of teaching is quantified), student engagement (the child’s commitment to learning), teacher efficiency (comparing the learning imparted by one teacher to that of others), learning in the affective domain (how happy and devoted to learning the child is), and Catholic values (whether the youngster lives her life in an age-appropriate Catholic way). These data evaluation tools are resources for parents looking for more than the minimum in educational outcomes. All or some of these tools are available to the parents.

## **Introduction**

\_\_\_\_\_ In the public school setting of Texas in this second decade of the twenty-first century, judging how well a school is doing is easy. The Texas Education Agency issues a School Report Card for each and every school. There are only four factors to pay attention to: whether a school or school district has met the minimum score (State of Texas Assessments of Academic Readiness results) for the school and its various subpopulations, has met the minimum score for student progress of those same subpopulations in those same academic subjects, has met the minimum score for closing performance gaps between school subpopulations, and has met the minimum score for meeting postsecondary readiness standards.

In Catholic schools, not so much. In order for a parent to believe in the value of paying thousands of dollars per year for a child's academic, social and religious learning so as to actually pay it out, that parent is looking for something more than reaching minimum standards. The parent wants the whole package: maximum academic achievement, the best outlet for their child's creativity, a totally safe environment, uplifting the child's spiritual awareness and proclivities, and well-rounded and appropriate social growth. The minimums set forth by the state of Texas do not account for any of these requirements. Hence, those who can - or who qualify for financial subsidy - look for something better for their child. Catholic schools in the Archdiocese of San Antonio qualify on all four counts.

But how can a parent choose which Catholic school setting is the best available for her student? Possibilities include using resources available to the school's administration such as a school data dashboard, or the "value-added" assessments that might be available, or the ratings of individual teachers, as well as their schools, based on teacher efficiency, or the middle school

and high school versions of student engagement surveys, or how the child “feels” in the affective domain, or even whether the student believes and acts in accordance with the Catholic values and processes taught by the school.

This study will briefly describe each of these proposed measures of Catholic school effectiveness in light of what a parent would want to know: what quality of education will her child attain? In other words, what are the data-driven tools parents can make use of to decide on choosing a Catholic school for their child?

## **Discussion**

### **Data Dashboards**

The data dashboard, borrowed from the corporate world, has graphics showing performance indicators deemed important by school leadership. Its purpose is to monitor the “health” of the organization (Gulla, 2014, p. 33). For schools, indicators of a healthy educational milieu could include budget compliance, and diversity of the student body and faculty, student retention and transfer data (whether a student remains enrolled for the next school year or moves to different school), and standardized testing results,. Data dashboards display trends in these data in an easily interpreted format, but normally do not show measures of the affective domain, nor of character or personality traits such as “stick-to-itiveness,” vitality, and self-restraint.



Figure 1. Example of a corporate data dashboard with its colorful graphics exhibiting data in “snapshot” form.

Retrieved from <https://www.datapine.com/dashboard-examples-and-templates/>

### Value-added Assessment

Concerning the value-added measurement, the school will take the incoming student and, over time, impart learning and growth. How well it does this is what is most important to many parents. One could say that the value-added measurement is telling the parent the value of the education in dollar terms, extremely important to parents paying for an education. A parent does not want to waste his time, money, or efforts when he seeks to get the best for his child. He seeks value.

An early attempt to apply value-added analysis to educational efforts was a 1991 American study, wherein the effects of different kinds of schooling on student growth during the last two years of American high school were assessed. Manipulated variables consisted of three:

public schools, Catholic single-sex schools, and Catholic coeducational schools.. Comparisons examined were:

- public schools versus Catholic schools;
- single-sex Catholic schools versus coeducational Catholic schools;
- educational outcomes of sophomore year versus senior year versus postsecondary years;
- discipline strategies of public schools versus Catholic schools. (Marsh, 1991, p, 16)

The study was able to draw conclusions in the areas of Catholic schools being superior in terms of standardized test results, course selection choices, homework load, sophomore and senior year attitude factors, and disciplinary action outcomes. Such conclusions would be of great value to a parent seeking to compare schools for their child.

In an investigation from English Catholic schools of 2009 (Morris, 2009), is introduced the Conceptualized Value Added (CVA) method of determining the effect of the presently-attended school. CVA is a statistical technique using test results of all pupils in a group for a given year. It uses a more complex definition of prior attainment than the simple value-added model, together with a range of variables known to affect academic outcomes and to predict the attainment of individual pupils. It then compares each individual's actual test results against that prediction. (p. 729)

All Catholic schools have the same reason for being, to provide “an education appropriate to any state supported institution” while transmitting the “Catholic faith and culture for the faith community.” (p. 725) It is stated that three factors affect student learning: the home environment, prior academic learning, as well as “present schooling.” Using student test records, a statistical model predicts the learning attainment of a student. That prediction is compared to the actual

learning level for the student, rendering a positive or negative ranking. A CVA for an entire student body of a particular age group can be calculated.

The CVA process yields three values, the CVA, and its upper and lower confidence limits. Using the numerical standard range of from 100 to 1000, a school's CVA and its two confidence limits might cluster near the 100 to 1000 range, thus giving immediate visual feedback on the ranking of the school as concerns whether it is achieving student learning according to what would be expected. For example, if the CVA and its limits aggregate below 100-1000 the school is not living up to expectations. And if the CVA and its confidence limits group above 100-1000, then it is above expectations. Although the CVA analysis tells nothing about how well a school causes student learning, it does reveal whether a school is going in the right direction, that is, whether the school is reaching levels of academic attainment expected. (p. 730)

Another effort in the mode of estimating the value added to a student's learning by a school is the College and Work Readiness Assessment (CWRA+), developed by the Council for Aid to Education, a private non-profit funded by corporations and foundations, that creates "innovative assessments of critical-thinking skills for middle schools, high schools, and colleges." (Council for Aid to Education, 2018) The CWRA+ purports to measure critical thinking, problem resolution, communication via written media, and reasoning analytically. Upon gathering value-added data, a teacher could note areas of strong student learning as well as weak ones. The assessment consists of open-ended written responses to specific situations, rather than multiple choice questions or linear-scale ratings surveys. According to Gulla and Jorgenson, (2014), the long-form answers are judged for good writing, good analysis, good solutions, and good critical thinking; (Gulla & Jorgenson, 2014, p. 31)

## **Student Engagement**

A different tool for judging the effectiveness of a Catholic school would be on the basis of how well students are engaged in their learning. After all, the late Phillip Schlechty, in his primer *Creating Great Schools* (Schlechty, 2005), puts forth the idea that today's schools should try for student engagement, not mere student compliance, the end result being vastly improved learning for the student. When a student is compliant, she is paying attention but her only motivation is her receipt of extrinsic rewards, such as candy or grades. But when a student is at the higher level of engagement, she not only is focused on the task but is persistent in doing so because she values the task itself. (p. 9)

The High School Survey of Student Engagement measures indicators that schools should be able to control, such as whether students feel affirmed by school faculty and staff, whether the student feels challenged academically, if students received feedback from the teacher (Torres, 2015, p. 22), whether expectations of student behavior are applied fairly, do students feel threatened or safe while on campus, and can students get creative in the context of their required school work. (Gulla & Jorgenson, 2014, p. 32) Such a test of student engagement in coursework and in the greater school environment can help unambiguously pin down educational practices that contribute to desired outcomes, and can allow school leaders to adjust practices that are leading in the wrong direction.

Concerning student engagement, investigations into factors affecting better student learning have revealed that the more a student is constructively immersed in his learning - whether in academic areas or in school-oriented socialization activities - the more efficiently and more deeply he learns. Hence, any valid indication of amplitude of student engagement would be met with real interest by school leaders. It could show where the school is weak - and therefore



student learning is not maximized - and where it is strong, so that learners could be led into these good learning environments.

### **Teacher Efficiency**

This study suggested a way to gauge the “efficiency” of any particular teacher. One would find the number of teachers whose students exceed the average score for that teacher (for a particular grade and subject), as well as the number of other teachers compared to whom that teacher is higher. Thus teacher grading systems could legitimately be contrasted. The author suggested that this measurement of Catholic teacher effectiveness could be considered as one of a multiplicity of factors determining whether to promote the student or not.

Further, the study showed a graphical method of comparing schools in a particular city. One would determine a line-of-best-fit with the manipulated variable being the range of scores of a particular academic subject area, and the responding variable being the percentage rank of schools in a particular city. This is said to show a school’s efficiency in achieving student learning.

One of the investigation’s more profound conclusions was that “the reliability and, perhaps, the validity of a broadly based composite is likely to be higher than that of a single variable that is part of the composite. Any given outcome is likely to reflect many different characteristics, knowledge, attitudes, behaviors, etc. and so it is better to use a composite measure that more accurately reflects these different domains.” (Thurston, 1917, p. 330)

### **The Affective Domain**

Measurement in the scientific realm involves recognized units (such as meters) and mathematical analysis (to the degree possible; in physics, problems are eminently “treatable” via rigorous numerical manipulation, but in a social science like sociology, algorithmic application to values-laden judgements yields “soft” science, subject to interpretation and disagreement). Rigid application of inductive reasoning allows formation of testable hypotheses, while deductive reasoning in science allows the actual testing of the hypothesis to get to an underlying truth.

Measurement in the educational realm of Catholic schools is sometimes not so scientific. If there are hard data, such as test scores, financial records, or attendance rates, then most commonly statistical analysis works. But when one desires more nuanced information, such as the satisfaction level of parents and students with student educational attainment, or the academic and religious growth of the student body, then “feelings” and “judgements” are the order of the day, subject to all the interpretations available. As described in Owens and Valesky (2007), there is a paucity of hard research into Catholic school effectiveness, but that the number of studies is increasing, thus contributing to an growing body of knowledge. (p.27)

One study from 1991 (Marsh, 1991) compared American Catholic and public schools for a variety of variables. The manipulated variables (a manipulated variable, sometimes known as an independent variable, is, in an experiment, the factor the researcher changes on purpose; the responding variable, also known as a dependent variable, is the one that changes as a result of changes in the manipulated variable) were affective ones such as academic aspirations, educational self-appraisal, and self-esteem. It was found that Catholic schools have stronger discipline and that there is more homework. Only one manipulated variable was statistically found to cause the responding variable that Catholic schools have stronger discipline and that

there is more homework. That manipulated variable is the stronger academic orientation of Catholic schools in terms of course selection. Catholic schools tend to have fewer non-academic, lower-level courses, such as vocational courses, to choose from. Moreover they usually offer more higher-level (college readiness) courses than public schools. (p. 7)

### **Catholic Values**

Since my present efforts concern the measurement of Catholic school effectiveness for the purpose of guiding a parent in deciding whether a Catholic education is right for his child, it makes sense to have some evaluation of the factor that truly distinguishes the Catholic school from other non-public schools and from public schools, that is, values derived from Catholic beliefs. From England came an examination of The Teenage Religion and Values Survey, administered in England and Wales in the 1990's. The survey provided a database for the analysis of the manipulated variables of students' personal, religious, and social values. (Village & Francis, 2016)

Using this same database of information, a later inquiry compared British public schools to British Catholic schools. This study used multi-item scales to assess the survey data. One manipulated variable was for personality. It was found that Catholic school students valued themselves higher, were less racist, valued school less, and were more Christian in their beliefs. Certainly all but the third point would be highly sought after by parents, even if they were not paying for this schooling. In Great Britain, all educational institutions, even Catholic schools, are subsidized by the government. Catholic schools desire to provide "an education appropriate to any state supported institution" while transmitting the "Catholic faith and culture for the faith community." (Morris, 2009, p. 725)

As for morality, British Catholic school students were less tolerant of abortion and contraception, of civil divorce, of acceptance of same-sex relationships, and of extra-marital sex. The authors of the analysis could not determine if these effects were because Catholic schools attract students who are more religious or because the Catholic teachings imparted by the schools induced such feelings.

Such a survey analysis, were the data collected and interpreted here in the United States, would undoubtedly be of great interest to America parents who would be considering a Catholic education for their child. As we concluded long ago, my wife and I sent our children not to “public” school, and not to “private” school. Rather we sent them to a “Catholic” school because it taught, very specifically, Catholic values, while it also had superior academic and social student learning.

### **Conclusion**

The premise that parents considering Catholic schooling for their child need to be aware that various measures of Catholic school effectiveness exist has been proposed. These measures sometimes provide a snapshot of quantitative results like teacher efficiency and the academic value-added by the school to the student, and other times quantify such “soft science” factors as affective and religious values attitude formation.

Firstly, the data dashboard has become ubiquitous in some states’ school websites. At a glance it should provide a picture of where the school stands in those variables the school presumes are important and to which they have access. Often these consist of standardized test scoring compilations. Such non-academic assessments as how well the school manages its budget, how far along is the current fundraising effort, or how in what stage a school council project is often are included.

Secondly, value-added assessment, wherein a student's initial measure (usually via standardized academic testing) of learning is taken, and, after an interval (such as between the end fifth grade and the beginning of high school), is compared to similar testing so as to determine the academic growth imparted by the school, is amenable to rigorous statistical analysis. Thus it is the very definition of data-driven analysis. In a parent's eyes, it can tell how much "value" they will reap from their investment in a Catholic school education.

Thirdly, ratings of teachers' efficiencies in imparting the curriculum to their students can be compiled. The higher the rating of a particular teacher compared to other teachers of the same grade level and subject matter, the better. This comparison effort can be done between schools too by averaging numerical scores for the teachers within a school. Thus, a parent who believes teaching style is important to her child's learning can have data to peruse.

Fourthly, by way of surveys, how students feel about certain school procedures and values can be evaluated. The student's long-range academic goals and how he feels about himself can be of great value to the parents since they can know intimately what emotions allow their child to learn, and what emotions hinder it.

Lastly, how well Catholic values are taught by a school, and to what degree these values form the attitudes and behaviors of the students, since the parent is contemplating paying for the Catholic schooling, may in some cases be the most important reason that a Catholic school is chosen. The study cited above indicated that Catholic schools were overwhelmingly successful in this endeavor. Good to know for a parent.

It has been stated that the various assessments of American public school efficacy in student learning are strongly lacking in what is important to American parents contemplating a Catholic school education for their offspring. And it has been shown that important and objective

measures of Catholic school teaching are potentially available, even if not presently on every school's website. These dimensions of educational appraisal give hard information on how well the school is run, how much the students learn, how satisfied they might be, and how well they live their religion. In short, Catholic parents want the best educational setting for their child, and the numbers to use in deciding are definitely available.

#### References

- Council for Aid to Education. (2018). In *About CAE, What Do We Do section, para. 2*. Retrieved from <http://cae.org/about-cae/what-we-do/>
- Gulla, J., Jorgenson, O. (2014). Measuring our success: How to gauge the “value added” by an

independent school education. *Independent School*. Chicago, IL: National Association of Independent Schools.

<https://www.nais.org/magazine/independent-school/spring-2014/measuring-our-success/>

Marsh, H. W. (1990). Public, catholic single-sex, and catholic coeducational high schools: Their effects on achievement, affect and behaviors. *American Journal of Education*, 99, 3.

<https://files.eric.ed.gov/fulltext/ED328563.pdf>

Morris, A.B. (2009). Contextualizing catholic school performance in England. *Oxford Review of Education*, 35, 6.

Owens, R.G. and Valesky, T.C. (2007). *Organizational behavior in education, adaptive leadership and school reform* (9th ed.). Boston, MA: Pearson Education, Inc.

Schlechty, P.C. (2005). *Creating great schools: Six critical systems at the heart of educational innovation*. San Francisco, CA: John Wiley and Sons, Inc.

Thurstone, L.L. (1917). A statistical method for the treatment of school-survey data. *The School Review*, 5, 322. <http://www.jstor.org/stable/1078083>

Torres, A. (2016). Measuring student engagement, results from the 2015 high school survey of student engagement. *Independent School*. Retrieved from

<https://www.nais.org/magazine/independent-school/summer>

[-2016/measuring-student-engagement/](https://www.nais.org/magazine/independent-school/summer-2016/measuring-student-engagement/)

Village, A., & Francis, L. J. (2016). Measuring the contribution of roman catholic secondary schools to students' religious, personal and social values. *Journal Of Catholic Education*, 19, 85-113.