

Continuous Academic Improvement: A Case Study

Comparison of Private and Public School

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SBSC 400

Second Semester Capstone: Spring 2002

Social & Behavioral Sciences Center

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June 28, 2002

"Education is a companion which no misfortune can depress, no crime can destroy, no enemy can alienate, no despotism can enslave. At home a friend, abroad an introduction, in solitude a solace, in society an ornament. It chastens vice, it guides virtue, it gives at once, grace and government to genius. Without it, what is man? A splendid slave, a reasoning savage."

- Joseph Addison, "Spectator", 1711 (Gross, 1999)

Special thanks go to George Baldwin, Armando Arias, Gerald Shenk, Yong Lao, Manuel Carlos, Juan Gutierrez, Angie Tran, the principal & staff at Notre Dame High School, and the principal & staff at Public High School for making this research possible.

To my family: Thank you for all the support you have given me.

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Continuous Academic Improvement: A Case Study Comparison of Private and Public School

Abstract

This research was based on comparing a private high school and a public high school in terms of organizational differences and continuous improvement. The continuous improvement concept is a theory and method used in business for improving an organization and was applied to these schools. There have been previous studies conducted that have shown there are fundamental organizational differences between public and private school. Studies have also shown that using the theory of continuous improvement in an organizational setting may increase efficiency and effectiveness. There were two research questions in this study: (1) Are there differences in organizational characteristics between the two schools and (2) Are there differences in the way that each school uses continuous improvement? The location quotient for SAT scores at each school was calculated compared to that of California and the Nation. The location quotient is a statistical formula used in Demography to compare local ratios (of a population) to regional ratios (of a population). Each school's mean SAT scores for the year 2000 were also compared. The private high school had a higher location quotient than California and the Nation. The private school had a higher mean SAT score in both verbal and math as compared to the public school, the State of California, and the Nation. A questionnaire was distributed to each principal and an interview was also conducted with each principal. The results found that there is considerable organizational and continuous improvement similarity between the private and public school. Any organizational differences are due to the nature of each school, one being public and one being private; they have separate goals.

Continuous Academic Improvement: A Case Study Comparison of Private and Public School

Introduction

This research project is a comparative case study of a private high school (Notre Dame) and a public high school (the name of this school has been changed to Public High School as to maintain anonymity) comparing them on their process of continuous improvement and organizational differences. I was interested in examining how these two schools as complex organizations attempt to engage in what they call “continuous improvement” as operationalized by how they bring resolution to problems in the areas of teaching, academics, and budget so as they are not frozen into a pattern where their services do not meet the needs of the students. A fourth area of interest was in administration. Mean SAT scores for the year 2000 for both math and verbal were compared. The location quotient of each school’s SAT score was compared to the State of California and the United States location quotients. Interviews of the principal at each school were also conducted. The subject of these interviews was their continuous improvement practices and decision-making, the organization of the high school, and school quality.

The hypothesis was that Notre Dame High School would have a higher SAT location quotient than the State of California and the Nation, as previous research has concluded that, generally, private schools educate students better than public schools.

This research had two questions to solve: (1) Are there differences in organizational characteristics between the two high schools? (2) Is there a difference in the ways in which each school uses continuous improvement?

The assumption in this study is that the statistical information used (standardized test scores) can measure a quality education and level of knowledge. Using standardized testing to measure quality is very controversial. There are experts in academia who oppose the use of a standardized test as the sole factor in determining a student's knowledge. Alfie Kohn's (2000) primary objection to standardized testing is not the tests' fallibility but the inevitable tendency to "teach to the test". Kohn says that standardized tests actually measure best, the economic backgrounds of the groups of test takers: "Break down the test takers by income, measured in \$10,000 increments, and without exception the scores rise with each jump in parents' earnings." While I acknowledge the arguments against standardized testing, this debate is not what my study examines. Therefore, I am assuming that standardized tests can measure quality, and am moving forward from there.

Many authors agree that private schools (K-12) are performing better than public schools in the U.S., as demonstrated in the following literature review section. Our failing public school system (as a whole) is a critical social problem, which concerns the Social and Behavioral Sciences discipline. The entire nation should be concerned with this topic and knowing more about this research since all are affected by it. Children are the future and will someday run this nation. This is my concern: no one ought to be left behind.

This study will not attempt to make a comparison of every private and public school (K-12) in the U.S. The actual case studies will be limited to Public High School (the name of this high school is not revealed as to protect anonymity) and Notre Dame High School (private) in the Monterey County. This study will not attempt to include

every factor of what makes a successful school, only those factors related to the two research questions.

Terms Defined

Private School. An institution for teaching persons under college age undertaken or operated independently at the student's expense.

Public School. An institution for teaching persons under college age, open to all persons, and maintained at the public expense and under public control.

A Review of the Related Literature: The National Picture

According to previous studies (Gross, M., & Olson, C., Shokraii, N. & Youssef, S., & Toch, T), children who attend private schools perform better than children who attend public schools do. In a study comparing private and public school systems in the District of Columbia in 1995, more students attended private schools than at any time since 1986 (Olsen, Shokraii, & Youssef, 1997). Seventeen percent of school age children in the district attended private schools that year. This increase in private school attendance may be attributed to our failing public educational system. For example, 23 percent of eighth graders from the poorest families who attend public schools across the country perform below basic levels in reading, compared with 11.2 percent of private school students (Olsen, Shokraii, & Youssef, 1997).

The D.C. public school system average per pupil expenditure was about \$7,300 in fiscal year 1996. The average cost of educating a student at one of the 88 private schools in the District was less than \$4,000 a year (Olsen, Shokraii, & Youssef, 1997). In

summary, this study confirms that the district's public schools have failed to prepare students for success with the district's private schools offering a less expensive, more effective alternative. My research corroborates this study in that the private school is performing better (in terms of standardized testing) than the public school. Yet, it disputes the notion of private schools spending less on students' education than public school, which is not the case in my research.

Comparing private to public schools has been a major topic of interest and debate. Many authors (Ardon, K., Brunner, E., & Sonstelie, J., & Baker, D., Broughman, S., & Han, M., & Ballou, D. & Podgursky, M., & Belden, N., & Platter, A., & Brewer, D., Kaganoff, T., Krop, C., Ross, K., & Zimmer, R., & Coddling, J. & Tucker, M., & Darling-Hammond, L., & Farkas, S., Folen, T., & Johnson, J., & Gross, Martin L., & Hadderman, M., & Keating, P., & Kozol, J., & Mayer, D, Moore, M, & Mullens, J., & Subotnik, R.) have studied one or all of the three fundamental factors that I have concluded relate to a quality education. These are teacher quality, academics, and budget.

Teacher quality is a major aspect to a student's quality of education. Defining quality teaching is a difficult task. Along with teaching classes, teachers at all levels must also prepare lesson plans, grade tests, hold conferences with parents, evaluate student performance, and attend school meetings. All states require teachers in public schools to hold at least a bachelor's degree. Teacher education programs are usually coordinated with state requirements for certification. If there are not enough teachers available, most states will issue emergency credentials to college graduates who want to teach but who have not met the state's minimum requirements for regular credentials (U.S.; District of Columbia, 1992).

Emergency credentials given to college graduates who have not met the state's *minimum* requirements certainly may constitute a cause of the poor education given in the public school system. Emergency credentials prove that states do hire "unqualified" teachers (in terms of licensing) in certain circumstances.

In Massachusetts, in April 1998, the state department of education introduced a new examination for the licensing of prospective teachers, almost all of whom had received a bachelor of education degree shortly before. Of the 1,800 test takers, 59 percent- 3 out of every 5 -failed. The state education chief commented that the results were "abysmal", pointing out that not only were many teaching graduates unable to write complete sentences containing nouns and verbs, but also their spelling was often atrocious (Gross, 1999). This is yet another example of the poorly educated teachers that are expected to teach our children. If educators cannot perform basic English skills themselves, how can we expect them to teach it well to others?

According to Gross (1999), academic standards have been falling over the years. Curriculum requirements in the U.S. are tremendously under par to many other developed countries.

"There is a general rule that seems to dominate educational thinking in America. If the curriculum in any subject is not strong enough and students are failing, as American youngsters are, don't simply raise the requirements. That might well work. Instead, the establishment does an intellectual back flip at every sign of failure. It starts to modify, change, weaken, and reinvent the curriculum to provide more show than light and make it appear that it is up to the challenge" (Gross, 1999, p 104).

Student curriculum is a major part of academic standards. Subject material is often inadequate, as well as the teachers who teach it. Other countries are way ahead of the U.S. in the complexity of math they require students to study. Middle school children

(generally aged eleven to fourteen) in other developed countries quickly graduate out of simple 4th grade arithmetic by that age and move into algebra and geometry. Yet, in America, where middle school teachers are not well trained in math, basic arithmetic is still the staple of 8th grade math (Gross, 1999). In my research, I found that the private school requires more years of instruction in core subjects than the public school.

Budget is key to running a successful “business”. According to Gross, the budget in the public school system is often abused and misdirected. “Administrators are often ridiculously overpaid and treated in godly fashion, as in the case of the chancellor of public schools in New York City, who receives \$235,000 a year, more than the president of the United States” (Gross, 1999).

The conclusion made by D. Ballou and M. Podgursky (1997) was that higher salaries of teachers have little impact on the quality of newly recruited teachers. My research adds to Ballou and Podgursky’s conclusions. Teachers at the private school I studied are paid less than at the public school, yet the private school has better standardized test scores, which suggests the quality of teaching ability is not a function of pay. The authors feel that market based reforms may improve the quality of the teaching workforce. Suggestions from this study to improve job prospects of more capable teachers include differentiating salaries based on performance, relaxing licensing requirements, and weaken teacher tenure and other job protections.

Jonathan Kozol’s, Savage Inequalities (1991), describes the educational experience of children in poor, urban areas. He terms these ghetto schools, in that,

“They have old buildings, and classrooms given in closets because there is no space. There is no lab equipment in the science rooms, no advising for the students, and not enough teachers. In many of these ghetto schools, sewage

constantly floods the facility, and dead rats are found in the area where lunch is given” (Kozol, 1991, p 65).

The cause of inadequate schools such as these is distribution of funding. The majority of public school funding comes from property taxes in the surrounding district. The implication is that low-income neighborhoods generate inferior schools (Kozol, 1991). In California, proposition 13, passed in the seventies, removed the issue of property taxes funding education to try to equalize funding to poorer districts. So, Kozol’s study no longer applies to the schools I studied.

As the public demands that schools be more productive and be held more accountable, a popular reform strategy is to give schools more authority over their budgets. Under traditional, district centered finance system, a school receives resources (teachers, textbooks, transportation), but rarely money (Hadderman, 1999). Private sector research shows that decentralizing four key resources (power, information, knowledge, and rewards) can enhance organizational effectiveness and productivity (Hadderman, 1999).

School-based budgeting (SBB) would give schools power over the budget to decide how and where to allocate resources; they need fiscal and performance data for making informed decisions about the budget; their staff needs professional development and training to participate in the budget process; and the school must have control over compensation to reward performance (Hadderman, 1999). Lump sum, decentralized budgeting allows schools to determine the mix of professionals, spend or save money for substitute teachers and utilities, and carry over unused funds to the following year. School based budgeting would allow schools to start performing on an enhanced level. Money can be spent on resources that schools actually need, rather than suffer

bureaucratic holdup. My study agrees with Hadderman on this issue, both schools are performing and improving very well as both principals have control over their budgets.

With regard to the three key aspects of education: teacher quality, academic standards, and budgeting, it is no wonder the United States ranks almost dead last in global academic competitions. The next section of the literature review is dedicated to two aspects of continuous improvement: teachers working in teams and school goals. I will then document a study that looked at organizational differences and similarities between private and public school.

Mike Schmoker (1996) declares that all school efforts should be focused on results. Attention to increased standards and appropriate measures of their attainment are key factors in his remedy for poor performance. The combination of three concepts constitutes the foundation for results: meaningful teamwork; clear, measurable goals; and the regular collection and analysis of performance data.

Schmoker found that schools would perform better if teachers worked in focused, supportive teams rather than in isolation. This would bring an expanded pool of ideas, materials, and methods to the teaching arena, higher-quality solutions to problems, and would ultimately lead to remarkable gains in achievement. The explanation of why teachers are not working in teams is that meetings seem to be a “waste of time” and takes away from lesson planning and instruction (Schmoker, 1996). My research confirms Schmoker’s conclusion. Both the private and public school I studied have their teachers work in teams, thus contributing to their success.

At Northview Elementary School in Kansas, the principal began to arrange for teams of teachers to meet routinely to analyze scores, identify strengths and weaknesses,

and develop ways to effectively address them. The results were that in reading, 4th and 6th grade scores on district achievement tests rose 59 to 100 percent higher, and 41 to 97 percent higher, respectively. In math, 4th grade scores rose 70 to 100 percent higher; 6th grade scores, 31 to 97 percent higher (Schmoker, & Wilson, 1993, from Schmoker, 1996).

Goals give teamwork meaning. Teams are vehicles for increasing efficiency, and effectiveness. Clear, attainable goals give a team motivation. In the absence of goals, entropy and aimlessness rush in. In this report, I have dedicated an entire section to goals, since they are a major aspect of continuous improvement. Both schools I looked at develop goals, whether it be for the entire school or within individual departments.

A study by Baker, Broughman, & Han (1996), was conducted to examine organizational differences, if any, between public secondary schools and private secondary schools. This report used data from a national sample of secondary schools in the 1990-91 Schools Staffing Survey, conducted by the National Center for Education Statistics. I developed the questionnaire that was administered to each principal using the Schools and Staffing Survey. Six organizational domains of schools that were chosen for comparison in this study are: education goals, professionalization of principals, teacher compensation, size of administration staff, school-based control, and curricular emphasis. I used these domains to establish questions for interviews of the principals.

The goals pursued by any organization influence its structure and ultimate functioning. Main educational goals may not influence everything a school does as an organization, but goals clearly have an influence over how schools function. The seven educational goals used in this study are: building basic literacy skills (reading, math,

writing, speaking), encouraging academic excellence, promoting occupational or vocational skills, promoting good work habits and self-discipline, promoting personal growth (self-esteem, self-knowledge, and so forth), promoting human relations skills, and promoting specific moral values. For principals of private schools, an eighth goal- the fostering of religious or spiritual development- was included (Baker, Broughman, & Han, 1996). These are the same goals I used in the questionnaire that was distributed to each principal.

School principals in the public sector indicated basic literacy skills as their school's most important educational goal, followed by academic excellence. At the public school I studied, these two goals were the top goals chosen, just in reverse order. Catholic schools were more evenly split between having religious development and academic excellence as a primary goal (Baker, Broughman, & Han, 1996). At the private school I studied, promoting religious development was the primary goal, followed by promoting good work habits and self-discipline.

The principal as the school's chief educational leader plays a major role in shaping the nature of the organization. Principals who take a professional approach to closely manage the instruction in a school may positively influence student academic outcomes. Two characteristics of school principals used are the level of formal schooling that principals have attained. Second is the degree to which principals participate in on-the-job leadership and professional training. The credentials earned by principals are similar between Catholic schools and public schools (Baker, Broughman, & Han, 1996). In my study, the principal of the private school has more experience, while the principal of the public school has a higher degree and both participate in professional development.

A school's faculty is the largest part of its total workforce, its biggest operational cost, and its single greatest resource. The kind of teachers that a school can attract and retain has as much to do with its educational functioning as any other organizational quality. The mean annual salary range in a public school was \$20,614 – \$37,953. The mean annual salary range in a Catholic diocesan school was \$16,853 - \$31,536 (Baker, Broughman, & Han, 1996). Since their study in 1996, salary ranges have increased. In my research, the public school's lowest to highest salary range for teachers is \$33,000 - \$67,000. The private school's lowest to highest salary range for teachers is \$25,207 - \$61,022.

One major characteristic of organizations is the size of their administration. All complex organizations require administrative management to operate, but the size and nature of administration can vary greatly across organizations, even when the organizations are of equal size. Catholic diocesan secondary schools have average administrative staff ratios similar to public schools (Baker, Broughman, & Han, 1996). This was not the case in my study. The public school had a much larger administrative staff ratio than the private school.

Another major component of how a school is organized is the degree to which its on-site administration controls its own major educational decisions about faculty, students, and curriculum. In general, it has been argued that more school-based control and less "outside" control over such decisions produces more flexible and ultimately more effective schools. In both public and Catholic diocesan schools, the principal had the main influence over hiring policy and in disciplinary policy. In terms of establishing curriculum, principals of the Catholic diocesan schools have the main influence, with

teachers as a secondary influence (Baker, Broughman, & Han, 1996). My study agrees with all of these preceding conclusions. Public school principals, on the other hand, attributed more influence to the State Department of Education, school district staff, and even to teachers than to themselves (Choy, 1997).

The amount of academic coursework a secondary school requires for graduation is one indicator of the school's general curricular emphasis. Although private schools require more math and science, the differences are small, and in general public and private secondary schools have similar graduation requirements with the exception of Catholic schools requiring on average, two years of foreign language (Baker, Broughman, & Han, 1996). In my research, this is not the case. The private school requires more course work in every subject except computer science for graduation.

“A perception may have emerged from research that the private sector is *different* from the public sector and that it is organizationally exceptional throughout... Far less attention has been paid to understanding the degree to which the distribution of qualities overlap across the private and public sectors” (Baker, Broughman, & Han, 1996. p 2).

Overall, the results showed considerable organizational similarity between Catholic schools and public schools, which I have also found in my research.

Theory

The theory used in this research was the concept of continuous improvement used in business as a theory (and method) to increase efficiency and effectiveness in an organization.

“Success begins with the desire to achieve an ideal. An ideal represents a standard of perfection that one can strive for but never achieve- a fact that makes continuous improvement possible. The difference between an ideal and the actual

is referred to as a variation, and reducing variation is the key to quality” (Clark, 1999, p xvii).

The lack of understanding of common and special cause variation may result in a situation where the majority of changes that we make to either improve efficiency (doing things right) and/or effectiveness (doing the right things) results in no improvement. Reducing variation is the key to quality, and understanding variation is the foundation needed to determine whether the change resulted in improvement. Quality is defined by combining efficiency with effectiveness (Clark, 1999).

Continuous improvement is the method to reduce the gap from where you currently are to where you could be if you reached your full potential and is used with the theory that everyone is born with a special purpose in life and that each person is provided with the ability and talents needed to achieve this purpose (Clark, 1999).

With the industrial revolution came the quota system for workers and established the standard of “good enough” once the quota was reached (Clark, 1999).

“Since these approaches for managing quality and people were deemed ‘successful,’ other manufacturers, government, and service industries adopted them. Even educational institutions hopped on the bandwagon. Children progressed through the grades like parts in an assembly line, regardless of individual variation. The number of missed questions on quizzes and tests became the work standard or inspection criteria. If students answered enough questions correctly, it was “good enough” and they received a passing grade” (Clark, 1999, p 31).

Variation represents a factual difference between the ideal outcomes in a perfect world versus the actual outcomes. A problem arises when there is an unacceptable degree of variation. A solved problem represents an acceptable degree of variation (Clark, 1999).

Reducing variation between the three types of quality: perceived, expected, and actual is the key to continuous improvement. Perceived quality is based on what you

think it is. Expected quality is based on either what you think it will be or what you want it to be. Actual quality is based on facts or numbers (Clark, 1999).

Two methods that provide for controlling variation so that quality can be continuously improved are the use of charts and diagrams, and the PDSA cycle. The PDSA cycle is referred to as plan (problem recognition and decision making), do (problem resolution), study (compare actual results with expected outcomes), act (follow through). The majority of all problems occurring within a process can be solved with the use of the flowchart, cause-and-effect diagram, Pareto chart, scatter diagram, histogram, run chart, and control chart (Clark, 1999).

Optimum results are achieved when quality is improved in one area without making it worse in another, but the continuous improvement paradigm implies that a problem is never solved because variation is never eliminated (Clark, 1999).

Methodology

To initially determine which school is performing better, the location quotient was calculated for each school, compared to California and to the U.S. The location quotient is a statistical formula used in Demography. It is used to compare a local ratio (the school) to a regional ratio (the state or nation). Both verbal and math scores were used, and within each category, the scores were divided into 4 subgroups of score ranges: 200-349, 350-499, 500-649, and 650-800. This was done to make a comparison of the school's SAT scores for 2000 to both California and to the U.S.

The formula for the location quotient is:

$$Q_i = \frac{S_i / P_i}{S^* / P^*}$$

S_i = The number of scores in a subgroup
 P_i = Total score for the category (verbal or math)
 S^* = The number of scores in a subgroup for the state or nation
 P^* = Total score for the category (verbal or math) for the state or nation

To calculate this equation, the number of persons who fell within a score range is divided by the total number of test takers. In the location quotient formula, the numerator is the particular school and the denominator is either California or the Nation.

In comparing a school to the U.S., for example, in each score subgroup, if the location quotient is higher than 1.0, then the school is performing better than the nation. If the location quotient is equal to 1.0, then the school is performing at the same level as the nation. If the location quotient is lower than 1.0, then the school is under performing compared to the nation. I also used mean SAT scores to compare each school to each other to determine which school has a higher mean score.

A questionnaire was also distributed; administered to each principal before the interview to gain introductory information about each school, examine organizational aspects, and decision-making within the organization. (See Appendix 1 for questionnaire).

To ground these aggregate data in the social fabric of the schools, qualitative interviews (see Appendix 2 for interview schedule) were carried out with each principal. The interview goal was to find out about the organization as a whole in terms of the principal, administration, teaching, academics, and budget to discover organizational differences between the two schools. The second interview goal was to establish whether the school uses continuous improvement and how they use it. It is important to note that the interview was a relaxed conversation. Therefore, quotes used in this report are direct

quotes that have been edited for written work. Keywords, similarities and differences within each group were screened for in the interview transcript to determine what the school did to become successful, what steps they are currently taking in continuous improvement, and organizational structure. Similar questions were used to form categories, and later, themes within the report. This was used to compare qualitative and quantitative measures of school success, organizational differences, and continuous improvement, to gain a deeper insight into the bigger topic of schools as complex organizations and how effective schools compare to each other.

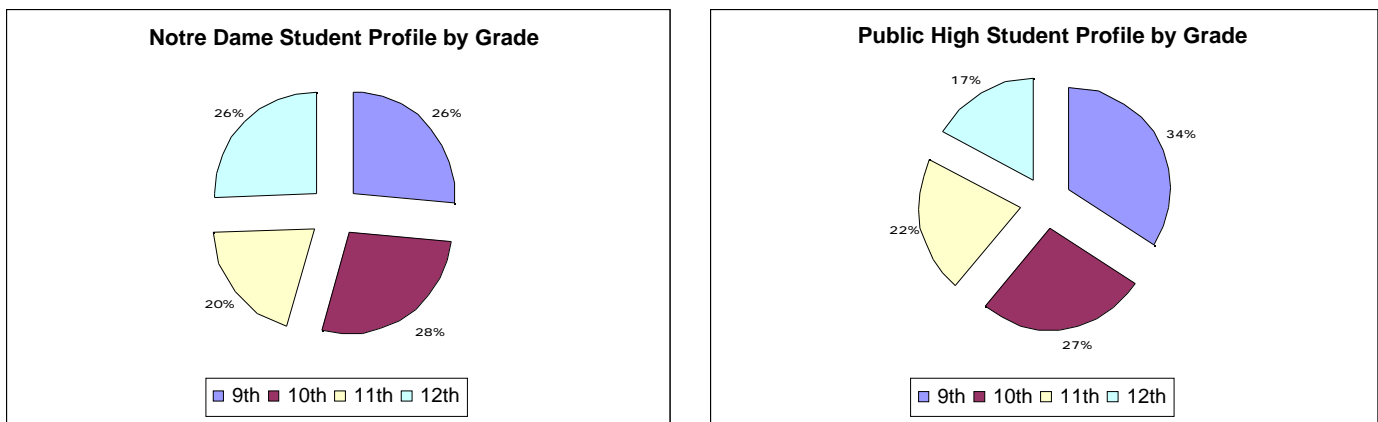
Results

The results of this study are organized into sections according to the research questions. The sections may contain information or data that was gathered from the questionnaire or from the interview. The first research question was to find differences in organizational characteristics between the two schools. The three principle sub-topics I chose to study were teaching, academics, and budget. Other sub-topics of related interest are included. The following sections are structured by sub-topics and are as follows: (1) School Characteristics, (2) Scholastic Assessment Test Scores, (3) The Principal, (4) Decision Making, (5) Professional Development, (6) Teaching, (7) Academics, (8) Budget, (9) Student Demographics, and (10) Future Projections.

School Characteristics

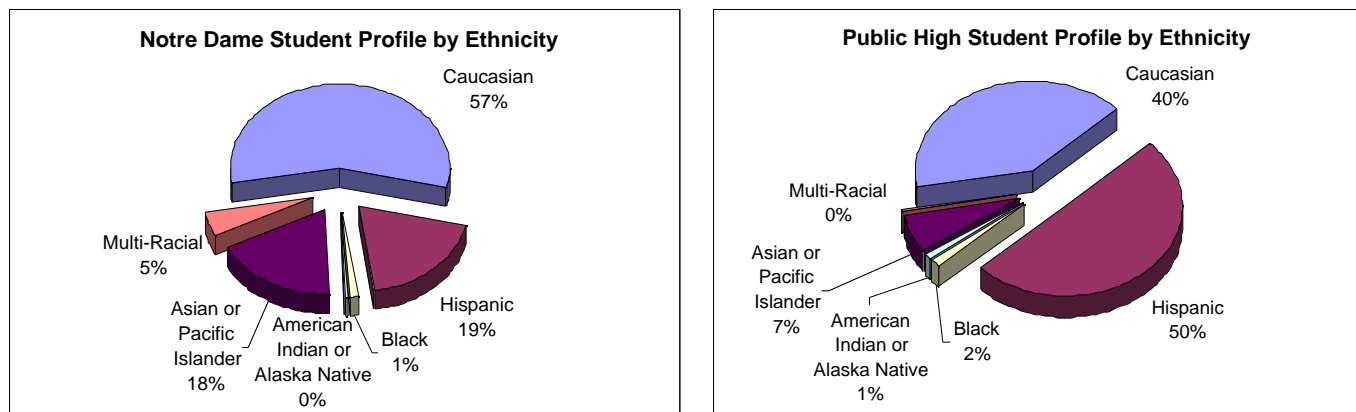
This section serves to introduce the characteristics of each school. The figure (Student Profile by Grade) below represents the student profile at each school by grade level. Although the majority of students at Public High are freshman, there is not a major difference between the two schools in this area. The biggest difference in student body is by gender. Notre Dame is an all-girls school, while Public High is co-educational. This is a factor that I did not study in depth, but may be attributable to differences in SAT scores, as documented in the section “Scholastic Assessment Test Scores”. There is also a considerable difference in student body size. At Notre Dame, there are 432 students this year. At Public High, there are 2,413 students this year.

Figure 1: Student Profile by Grade



The next figure (Student Profile by Ethnicity) represents the student profile at each school by ethnicity. The majority of students at Notre Dame are Caucasian, followed by Hispanic, then Asian or Pacific Islander. The majority of students at Public High are Hispanic, followed by Caucasian. This is one of the major differences in student body at each school. Whether or not certain race categories have a correlation to efficient education has been a topic of research and debate, but is not analyzed in this research.

Figure 2: Student Profile by Ethnicity



To get an idea of the student composition at each school by socio-economic status, at Notre Dame, there are 34 students eligible for free or reduced priced lunches. This amounts to 7.87 percent of the student population. They do not offer this program, but they must know these figures for grants eligibility. At Public High, they do offer this program and there are 550 students that are eligible for free or reduced price lunches. This amounts to 22.79 percent of the student population. This research did not study student socio-economic status in depth, but these figures show that Public High has more students in a lower socio-economic status than Notre Dame. This is another factor that may be attributable to the difference in the SAT scores. In terms of parental involvement, both schools seem to have no problems in parental participation within the school, as gathered by the interviews and questionnaires.

With respect to class size at Notre Dame, according to the principal,

“We try to maintain all classes at 25 students and below. Most classes are about 22, however... we might occasionally run into a situation where one section has 16 and another section has 26 just because of scheduling for other classes. But typically, it’s about 22, 23.”

With respect to class size at Public High, the 2001 school wide average is 24.83.

In academic classes, the average is 30. School wide, class size is approximately equal at

both schools. For academic classes, Public High has larger class sizes than Notre Dame by approximately 6 to 7 students on average.

At Notre Dame, the school day is approximately 6 hours and 40 minutes. At Public High, the school day is approximately 6 hours and 45 minutes. At both schools, the school year is 180 days. Figure 3 shows the years of instruction that are required for graduates of the class of 2002. Notre Dame also has a four-year religion requirement.

Figure 3: Years of Instruction Required for Graduation

	Notre Dame	Public High
English/ Language Arts	4	2
Mathematics	3	2
Computer Science	0.5	1
Social Sciences/ Social Studies	3.5	3
Sciences	3	2
Foreign Languages	2	1

As you can see, in every core subject but computer science, students at Notre Dame are required to take these courses for a longer period of time. This is another major organizational difference between the two schools in terms of academics. The ratio of computers to students at Notre Dame is 1/5, whereas at Public High, the ratio of computers to students is 2/5.

Of the students who graduated last year at Notre Dame, approximately 75 percent went to a four-year college, compared to approximately 29 percent at Public High. At Notre Dame, approximately 25 percent went to a two-year college, and none went to a technical or specialized school. At Public High, approximately 60 percent went to a two-year college, and 10 percent went to a technical or specialized school. This leaves one percent not going on to higher education at Public High. These figures were obtained from the questionnaire and therefore, may not be completely accurate since it may be a guess or the opinion of the principal. Yet, if these figures are accurate, this shows that

Notre Dame's students are either "more successful" (in college enrollment) than students at Public High or the students at Notre Dame are more likely to be "college bound" than students at Public High due to the academics of the school and students socio-economic status.

Scholastic Assessment Test Scores

In this study, SAT I scores for the year 2000 were used as a basis of establishing which school was performing better. Again, I must state that the biggest assumption in this study is that standardized test scores can measure a quality education. First, the location quotient for each school was calculated, comparing them to the state of California. Next, the location quotient for each school was calculated, comparing them to the Nation. The location quotient is used to compare a local ratio (the school) to a regional ratio (the State or Nation). I looked at both verbal and math scores, and within each category, I divided the range of scores into 4 subgroups: 200-349, 350-499, 500-649, and 650-800. Notre Dame had 121 test takers for the year 2000. Public High had 115 test takers for the year 2000. These students are typically either juniors or seniors.

As previously stated, if the location quotient is higher than 1.0, then the school SAT score subgroup is higher than the state or nation SAT score subgroup. If the location quotient is equal to 1.0, then the school SAT score subgroup is the same as the state or nation SAT score subgroup. If the location quotient is lower than 1.0, then the school SAT score subgroup is lower than the state or nation SAT score subgroup.

At Notre Dame, the location quotient for SAT scores compared to the State of California is as follows by score range:

<u>Verbal</u>	<u>Math</u>
200-349 = 0.00	200-349 = 0.00
350-499 = 0.81	350-499 = 0.79
500-649 = 1.35	500-649 = 1.32
650-800 = 1.26	650-800 = 1.10

At Notre Dame, the location quotient for SAT scores compared to National level is as follows by score range:

<u>Verbal</u>	<u>Math</u>
200-349 = 0.00	200-349 = 0.00
350-499 = 0.83	350-499 = 0.76
500-649 = 1.27	500-649 = 1.30
650-800 = 1.22	650-800 = 1.25

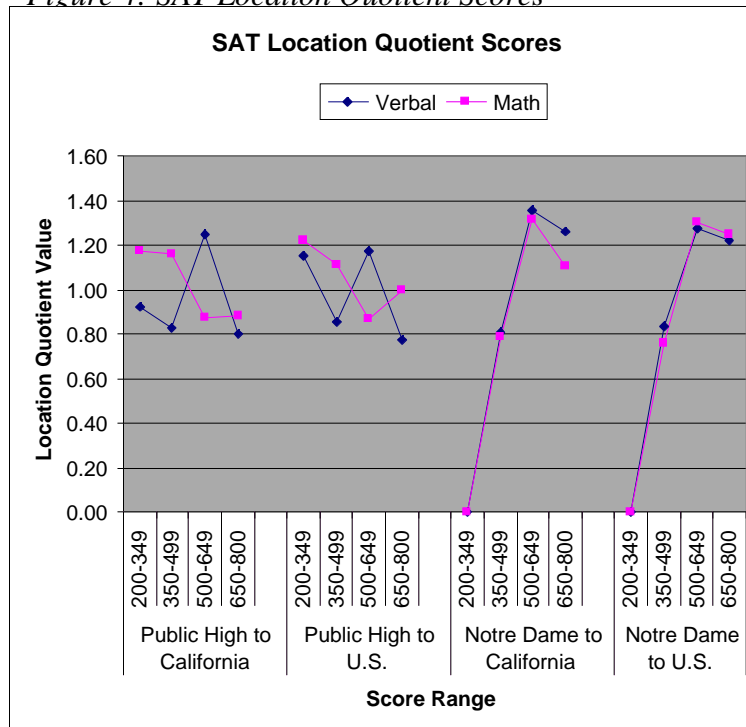
At Public High, the location quotient for SAT scores compared to the State of California is as follows by score range:

<u>Verbal</u>	<u>Math</u>
200-349 = 0.92	200-349 = 1.17
350-499 = 0.83	350-499 = 1.16
500-649 = 1.25	500-649 = 0.87
650-800 = 0.80	650-800 = 0.88

At Public High, the location quotient for SAT scores compared to the National level is as follows by score range:

<u>Verbal</u>	<u>Math</u>
200-349 = 1.15	200-349 = 1.22
350-499 = 0.85	350-499 = 1.11
500-649 = 1.17	500-649 = 0.87
650-800 = 0.77	650-800 = 1.00

Figure 4: SAT Location Quotient Scores



As you can see by this graph (figure 4), in the score ranges of 500-649 and 650-800, for both verbal and math, Notre Dame is significantly higher than both the State of California and the U.S. The real interest of the location quotient is in the score ranges of 500-649 and 650-800 because the higher the SAT score, the better. In the score ranges of 500-649 in verbal, Public High is performing significantly better than the State of California. In the score ranges of 650-800 for verbal, 500-649 in math, and 650-800 for math, Public High is under-performing compared to the State of California. In the score ranges of 500-649 in verbal, Public high exceeds the National level. In the score ranges for 650-800 in math, Public high is performing at the same level as the U.S. In the score ranges for 650-800 in verbal and 500-649 in math, Public High is under-performing as compared to the U.S. As you can see, these SAT location quotient results prove my hypothesis: Notre Dame High School has a higher SAT location quotient than the State of California and the Nation.

This next chart (figure 5) shows the mean verbal SAT score for the year 2000 for Notre Dame, Public High, California, and the U.S. Notre Dame is performing the best, followed by Public High, who is performing better than California and the U.S.

Figure 5: Mean SAT Verbal Score

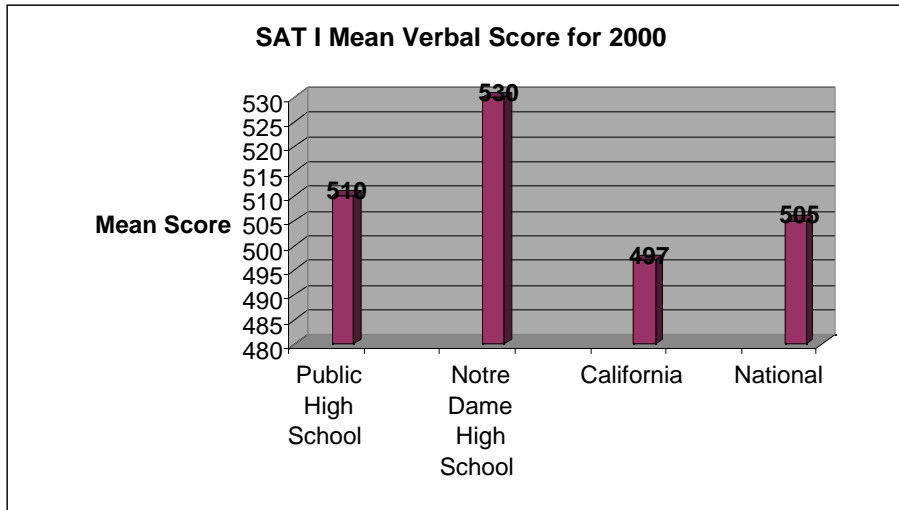


Figure 6 shows the mean math SAT score for the year 2000 for Notre Dame, Public High, California, and the U.S. In math, Notre Dame is performing the best, followed by California, the U.S., and Public High.

Figure 6: Mean SAT Math Score

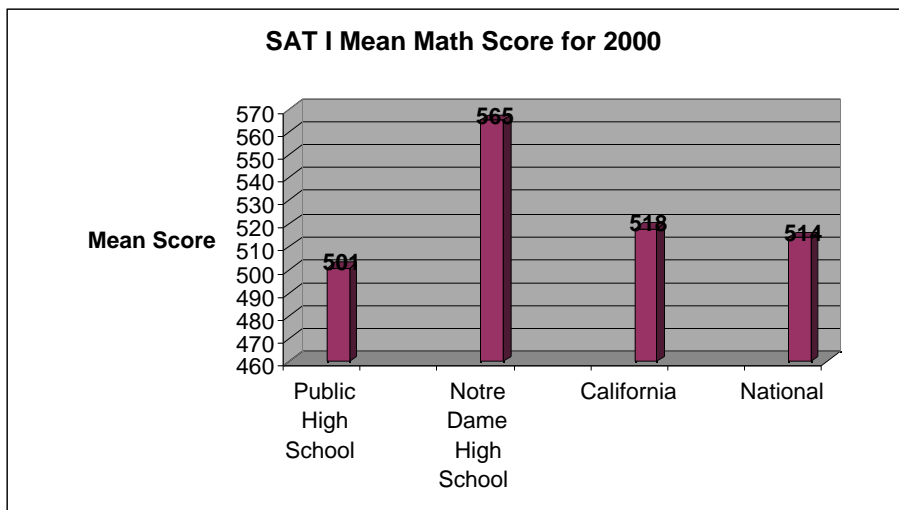
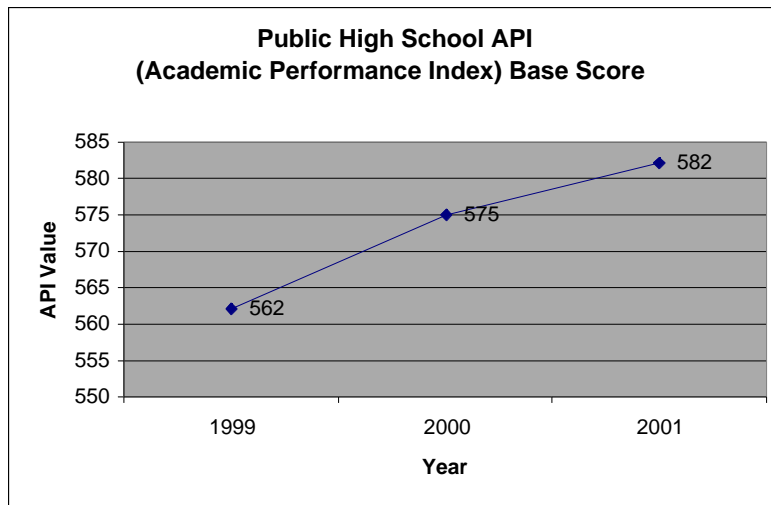


Figure 7, below, shows the Academic Performance Index (API) Base Score for Public High for the last 3 years. The purpose of the API is to measure the academic performance and growth of schools. It is a numeric index (or scale) that ranges from a low of 200 to a high of 1000. A school's score or placement on the API is an indicator of a school's performance level. The interim statewide API performance target for all schools is 800. A school's growth is measured by how well it is moving toward that goal. I have included this information to inform the reader that although Public High's SAT scores are low in some comparisons, it is a school in the process of reform and has been continuously improving, as documented by these API Base Scores. Therefore, I present this as evidence of my intent to compare these schools as both successful institutions.

Figure 7: Public High API Base Score

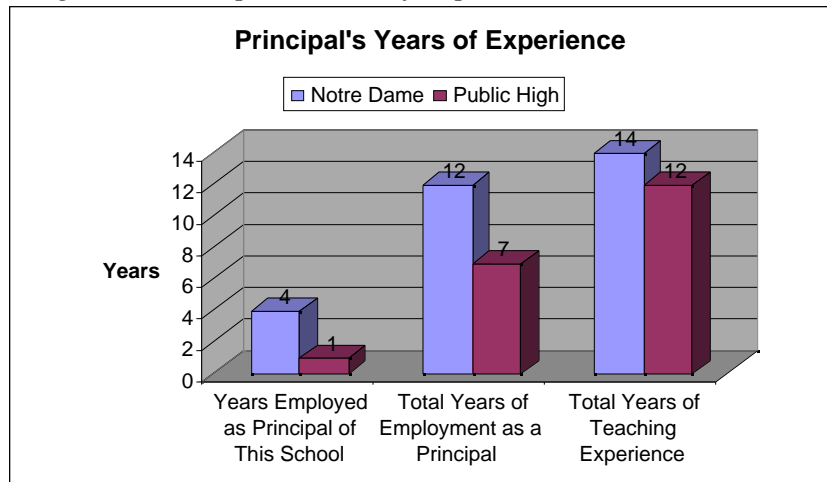


The Principal

The following section serves to introduce the characteristics of each school's principal. In conducting my interviews and surveys, the following are the things that I have discovered. The principal at Notre Dame has been in that position for 4 years,

totaling 12 years altogether as a principal with an additional 14 years of teaching. The principal of Public High has been in that position for only 1 year, totaling 7 years altogether as a principal with an additional 12 years of teaching. Therefore, the principal of Notre Dame has more experience and has obtained 2 Masters' Degrees, yet the principal of Public High has obtained a higher degree; an EDD Degree (see figure 8). However, both principals have a considerable amount of experience in education, and both principals have held other school positions.

Figure 8: Principal's Years of Experience



Both principals have been very active and energetic in making positive change within their school. This is a major organizational similarity between the two principals. When asked, what changes have you made in this school since you've been here, the principal at Notre Dame answered,

“I'm not so sure I'd say that I've made all the changes, but I may have been a catalyst for some change. We've gone from an open campus for seniors to a closed campus except for a lunchtime privilege for seniors only... We've required freshman and sophomores to be accountable in a place at all times, so if they don't have a class, they have a study hall. Juniors and seniors who don't have a class are allowed to work or visit in approved areas on campus. Before I came, if you didn't have a class, you could do whatever or go wherever you wanted. We've increased some graduation requirements and added more AP classes. We have done a number of things to the physical plant including renovating the gym and the softball field. We are in a capital campaign to renovate the theater. We've

done a lot of upgrading, replacing roofs, replacing heaters, replacing floors, and painting the exterior of the building. We've re-organized offices to try and make them more effective and efficient. We've really upscaled our use of technology on the campus. We have moved from a DOS based program to a Windows based master program. All of our bulletins are sent out by e-mail for faculty and students. We report and track attendance by computer. We've added computers in every classroom and upgraded the standards for the computer classes. We've adjusted a number of policies. We've added a development department to broaden our base of financial supports. We've expanded our campus ministry program and retreats; we've expanded our fine arts."

When asked, what changes have you made in this school since you've been here, the principal at Public High answered,

"Well first, I've created an educational climate that is safe and secure, clean and conducive to learning. I would say that I've vastly improved the efficient and effective operations in the school. And the most notable improvement is increased parent involvement in the school. My focus this year involves mostly professional staff development, student achievement, and technology. I've also brought a lot of additional monies into this school through grants and other funding sources."

Decision Making

This section's topic is regarding decision-making within each school, which is one of the biggest organizational difference between the two schools. When asked who has primary responsibility for deciding the academic content, the principal at Notre Dame indicated that administration and academic council does. They use recognized standards such as State Curriculum Guidelines, as well as teacher input. At Public High, the principal and staff are primarily responsible for deciding the academic content. When asked, who has primary responsibility for designing, planning and conducting activities, both principals indicated that teachers do.

A series of questions asked the principal to rate the influence of various groups on the following areas. Figure 9 represents who has the greatest deal of influence in decision making at each school, which is where organizational differences are found.

In setting performance standards for students at Notre Dame, the principal and teachers have the greatest deal of influence. At Public High, the principal and the school site council have the greatest deal of influence.

On establishing curriculum at Notre Dame, the principal and teachers have the greatest deal of influence. At Public High, the local school board, principal, curriculum specialists, and school site council have the greatest deal of influence.

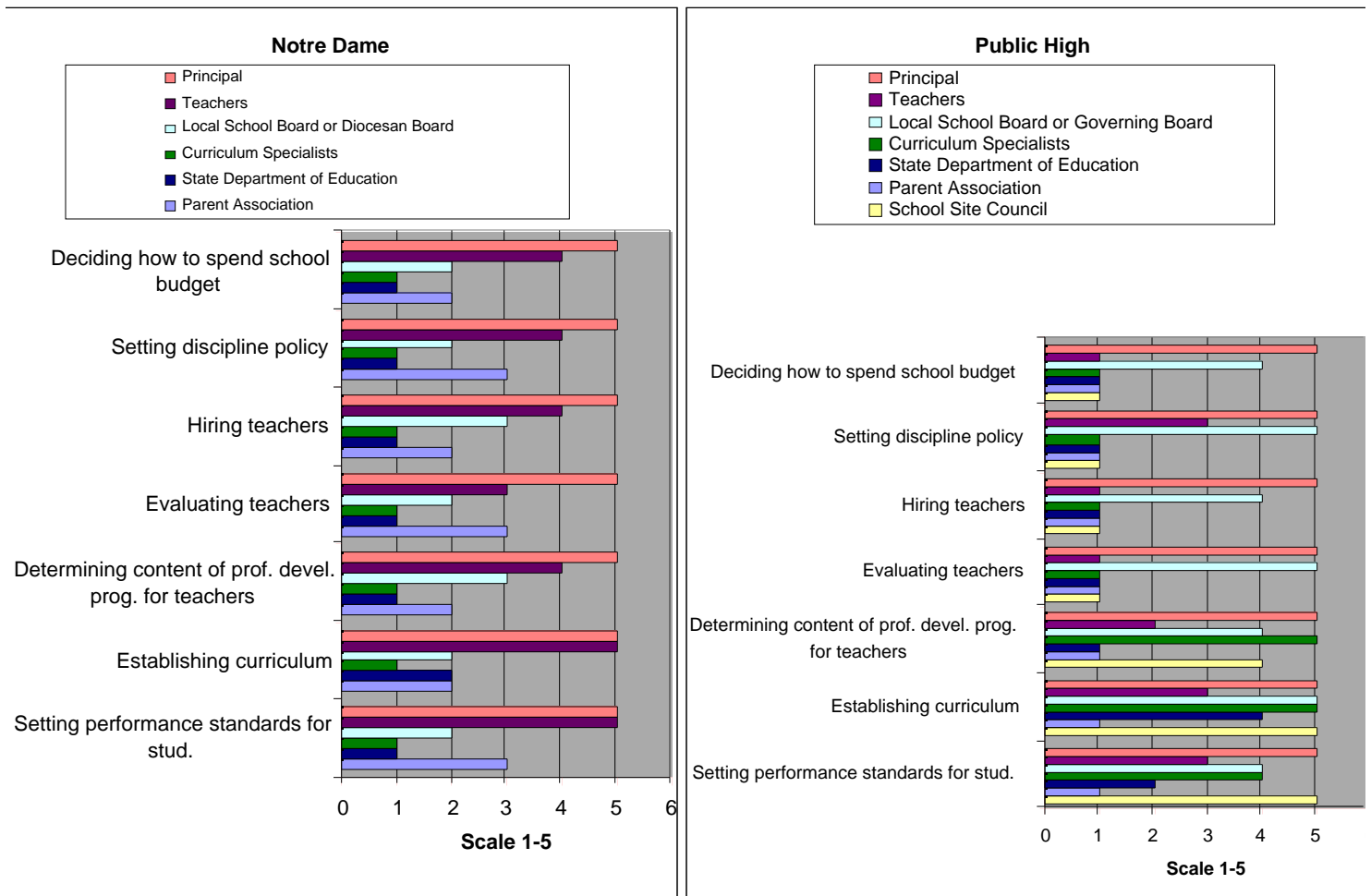
On determining the content of in-service professional development programs for teachers at Notre Dame, the principal has the greatest deal of influence. At Public High, the principal and curriculum specialists have the greatest deal of influence.

On evaluating teachers at Notre Dame, the principal and other administrators have the greatest deal of influence. At Public High, the local school board and the principal have the greatest deal of influence.

In hiring new full-time teachers, both schools indicated that the principal has the greatest deal of influence. In deciding how the school budget will be spent, both schools indicated that the principal has the greatest deal of influence.

In setting discipline policy at Notre Dame, the principal has the greatest deal of influence. At Public High, the local school board and the principal have the greatest deal of influence. When it comes to enforcing school policies, both principals stated they enforce them consistently.

Figure 9: The Person(s) With the Greatest Deal of Influence in Decision Making



As you can see from figure 9, at Notre Dame, the principal has primary influence on decision-making, followed by teachers. At Public High, the principal also has primary influence on decision making, but the local school board, school site council, and curriculum specialists all have a great deal of influence on decision making as well.

Professional Development

This section compares each school on the topic of professional development for administrators and for teachers. This sub-topic contains many organizational similarities

between the two schools. Neither school has an official training or development program for aspiring school administrators. Yet, the principal of Notre Dame comments,

“However, when I see somebody who I believe has potential, I work with them to get them into positions on various committees. If we’re needing a change for a department chair, I try to move people with strong leadership potential into those spots. I try to nurture them into more leadership roles in a number of ways.”

As for professional development for aspiring school administrators at Public High,

“It’s not school based, but what I do is I look at my rising stars and I enroll them in California School Administration Weekend Training Programs such as the Principals Academy or the Personnel Managers academy.”

Both principals participate in professional development activities with teachers from their school, and there is time and money for professional development for teachers. At Notre Dame, teachers are required to do 10 hours a year of professional development in religious studies or spiritual development and 10 hours of professional academic development. If this is not fulfilled, their contract cannot be renewed. They can complete most of this on-site. The only pay incentive to complete this is to move up on the pay scale when you reach a certain number of units past your BA. The following is a quote from the principal of Notre Dame explaining how professional development works,

“Every year there’s something that we focus on as a whole faculty. Last year, we all went to a workshop on promoting success for students. It was really focused on developing positive attitudes, developing good test taking skills. The year before that we focused on the student study team process. We try and do something together every year that supports something we’re working on, that everybody can focus on. Individual departments may develop something that they’re working on within their departments. As an example, math, next year, is going to be working on developing their ladder to AP calculus.”

In regards to professional development at Public High, they do have rewards for excellence in teaching. The student of the month picks a teacher who gets \$25. There is a teacher of the year award through the California League of High Schools. The following

is a quote from the principal of Public High explaining how professional development is handled,

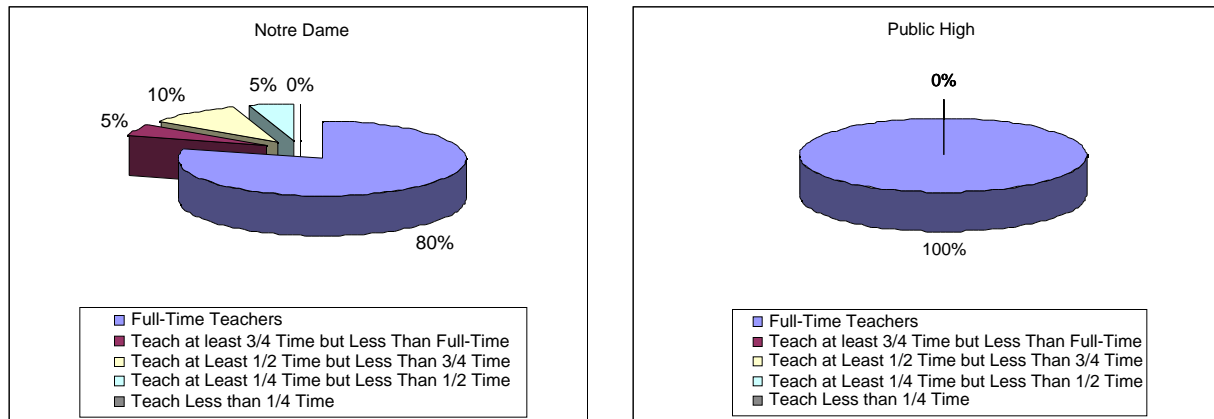
“Here’s the way I look at this... you find in the staff, what I call ‘hot spots’. See my philosophy is: the teachers that do, get everything. And the teachers that don’t, they get nothing. And so I look for ‘hot spots’. So, lets say I have three teachers in Social Science that are really interested in critical thinking skills and they start playing with it and they get something going. So I feed the ‘hot spot’ with money and send them [for professional development]. And they come back and they radiate what they’re doing to other teachers. And then I have 8 curricula readers in the 4 tested areas out of the grant. They walk through the classrooms and they mentor the teachers and provide them with all of the coaching that they need on-site. That’s an enormous amount of money. It’s almost 350,000 dollars to pay teachers to coach other teachers.”

So, while both schools participate in professional development, there is a difference in the way professional development is structured.

Teaching

Quality teaching is one of the three major sub-topics I chose to focus on in this study (refer to “A Review of the Related Literature”). Organizationally, Notre Dame has a better student-teacher ratio than Public High. Notre Dame has a total of 39 teachers with a student-teacher ratio of 1 to 11. Public High has a total of 90 teachers with a student-teacher ratio of 1 to 27. The normal contract year for a teacher at Notre Dame is 190 days. The normal contract year for a teacher at Public High is 183 days. Figure 10 represents the percentages of teachers by time category employment at each school. Notre Dame employs mostly full-time teachers, but does employ non-full time teachers. Public High employs only full-time teachers. This is an organizational difference, which shows that a school can still have quality teachers (as demonstrated by student SAT scores) who are not full time employees.

Figure 10: Teacher Employment by Time Category



During the last school year, there were no teachers at Notre Dame who were dismissed for poor performance. During the last school year at Public High, there were 16 teachers with three or fewer years of experience that were dismissed for poor performance, and 2 teachers with more than 3 years experience that were dismissed for poor performance. This is an example of the difference in school improvement immediacy and may be attributable to the new principal at Public High doing some “in-house cleaning” as the principal is trying to increase performance at this school.

There is a standard classroom teaching philosophy at both schools, which is an organizational similarity. At Notre Dame, the standard classroom teaching philosophy is about connecting with students and creating a positive learning environment. At Public High, the standard classroom teaching philosophy is to maximize students’ opportunities for success by finding the right teacher match for the classroom.

At Notre Dame, the only thing that may be a barrier to the dismissal of poor or incompetent teachers is if a well-documented record is not kept. At Public High, the only barrier to the dismissal of poor or incompetent teachers is tenure, however, they must also keep a well-documented record. This is an example of a major organizational difference.

Notre Dame does not have tenure, while Public High does. So, barriers to the dismissal of poor or incompetent teachers are distinct.

In the area of filling vacancies in teaching positions, the overwhelming response was that there is only a teacher shortage in the areas of science, math, and special education. In every other area of teaching, there is not a teacher shortage, but rather, there is a difficulty in finding quality teachers. This indicates an organizational similarity: both principals are looking for quality teachers, rather than bodies to fill a position.

At Notre Dame,

“I think it’s hard to find quality. Sometimes, because we’re not a public school, sometimes people think, ‘oh, I always wanted to teach, I went to school, so I can do this’. They have no teaching experience, no training in education. They went to school and have a BA, but don’t understand the educational process. There are some people who are natural born teachers. But there are some people who have to learn how to teach. Just because you like kids doesn’t mean you’re a good teacher. So we often get applications in of people who think, ‘oh this would be a nice thing to do’. They have no idea the intensity of teaching. This isn’t like a doctor or a lawyer where you have one client at a time. You have 23, 25 there that you’ve got to deal with and everyone has a different personality and everyone is on a slightly different place in the range of skills you’re working on and you’ve got to mesh all that. That’s just one period and you do that 5 times a day... First year of teaching is tough, really tough. I think a lot of people get frustrated and think, ‘oh man, this is too much’. If they get past the first year they can usually make good progress. But it’s not an easy job. Your hours may appear to be shorter, but if you’re a good teacher, you’ve got work after school, you’ve got work on the weekends, you’re participating in activities at the school. So, it’s work. I think sometimes we get people in who think it’s just, ‘oh, you just show up and everybody does what you ask them to do’, and that’s not how it works. Finding quality teachers can be very difficult.”

At Public High,

“See, I want the immortals. The teachers who are the immortal teachers, the legends. And what our district has done, as part of their mission statement, is that they want to attract and retain the finest staff. And in doing that, they’re giving me 15 years of credit across the board. And any math teacher or special Ed teacher I find with a clear credential gets a 5,000-dollar bonus to sign. And a 5,000-dollar loan at 1% with a 4-year payback. So, the bodies are out there, in all of these areas, but the quality teachers are coming to Public High. Because this is

the place to teach... Now the demise of Monterey Peninsula has really helped me, because I've raided the best teachers. And they're my best informal network. If I need a Calculus teacher, I ask, 'Who's the best one over there'? Then I take them to lunch. I can count right now, 9 teachers from Seaside High who were the best teachers they had, working here."

An organizational difference between the two schools is that at Notre Dame, the principal is looking most of all, for quality. At Public High, the principal is most concerned with an applicant's sense of mission to determine quality. Quality and sense of mission may be related, but organizationally, are different entities. In hiring new teachers at Notre Dame,

"When we lose a teacher for whatever reason whether they've retired or moved out of the area or just decided not to teach or took a job at another school, we're looking for somebody who can move in and do as good or better job than that person... So, that sort of depends, but we are always looking at getting the right match for the position."

In hiring new teachers at Public High,

"I basically use the tenants of what I call a teacher perceiver. The first thing I'm looking for whether they're a new teacher... or experienced, is their sense of mission for students. I'm trying to assess their sense of mission; that what we do is really important, and it's noble... So, I have a question that I ask... Have you had a great teacher in your life? Can you tell me who it was? Where it was? ...How has it changed you to be the person that you are today? ... After that, the next thing is rapport drive. They must be able to connect [with students], no matter what their age and will have a rapport drive with students. The third thing, and hardly as important, is knowledge of subject matter at the high school level. But see, I can get them trained... if they have a sense of mission. The last thing is, what else are you bringing to Public High School besides being a classroom teacher? Are you going to be my mock trial coach? Of the 45 teachers I've hired, all of them do something, the new ones; all of them do something in addition."

Organizationally, both schools require their teachers to have a California credential. At Notre Dame, teachers can be working on their credential and in some cases, out of state credentials are acceptable. The only other criteria for considering

applicants for teaching positions is that Public High requires a passage of a test of basic skills.

There exists an organizational difference between the two schools in the area of employment status for teachers. In terms of credentialing issues and hiring of part-time teachers, Notre Dame has hired non-credentialed teachers and part-time teachers, whereas Public High has not. In reference to the budget for employment status for teachers at Public High, “I don’t need to [hire part-time or non-credentialed teachers]. I have too much money. I can’t spend it all. It’s hard.” Yet, at Notre Dame, hiring part-time teachers was not done to fill a space for budgetary reasons. They have to be qualified.

“We have hired non-credentialed teachers, but if they’re non-credential, they have to be working on a credential and have a goal to complete it within a certain amount of time. We have also hired teachers who are credentialed in other states. We’ve done that, not to save money though, but to find the right match. We do hire part-time people, but not to save money. Actually, if you have too many part-time people, it can present problems because they’re not in the loop with all the communications. If I had 2 teachers, one with 10 years experience, one with 5, and I thought that they were equal in ability and skill and have the same potential, I might hire the one with the 5 years experience because he or she would be cheaper. But, I’d have to believe that he or she could be just as good as this other person. If I had a 5 and 10-year person and the 10-year person clearly was the more skilled, was clearly going to be a better match for us, I’d hire the 10-year person. Do I have to work within a budget? I do, but again, based on the number of teachers I’m replacing, usually 2 or 3, a difference of five thousand dollars for somebody is not going to break my budget. If I were hiring 10 or 15 a year at that kind of difference, that could have a major impact. I’m really after quality for that.”

Academics

Academics is the second major sub-topic of focus in my study. Organizational similarities are as follows: both schools offer before school and after-school enrichment programs, as well as summer school for students needing extra assistance and for those seeking academic advancement. Both schools offer advanced placement and honors

courses. At Notre Dame there are 3 AP classes offered, with 12 AP exams accessible and there are 9 honors courses. At Public High there are 10 AP classes offered and 25 honors classes.

Both schools have the ability to dismiss students if they don't perform and both schools have requirements for admission, which is a primary organizational similarity in student quality at each school. At Notre Dame, the requirements are for everyone. At Public High, homes within the school's attendance zone have first priorities. The next two admittance priority levels have an admission requirement. The second priority is students from other high schools within the district that opt to use the school choice policy. Generally it is because of a specific program that Public High offers that other school's do not. The third admittance priority is inter-district transfer.

With reference to organizational characteristics and continuous improvement, there is a difference in the way that each school uses standardized test scores. In terms of using student performance tests to determine instructional focus, Notre Dame does not specifically use standardized tests to determine instructional focus.

“Do we take note of trends? Yes. And if there were a significant trend would we respond to it? Yes, we would. But we're not seeing significant trends and I think that's because being small, our departments meet regularly, and then the department chairs meet regularly as our Academic Council... We realized that on some of the standardized tests that our students weren't as competent in understanding statistics and reading charts and graphs. So, we added that, we did emphasize those areas more strongly in both math and science because they had showed up on the standardized test. And it does seem to be paying off.”

While at Public High, standardized tests are what determine instructional focus,

“What we do is, I take all of the data as it relates either directly to a program or overall school achievement. And we look at it probably at about 14 different angles to determine who the under-performing students are. Then what we do is a thorough comprehensive two-day briefing with the staff about where the

performances lie... We do [quarterly] benchmark testing in math and English. So, the teachers may be told over the next month to focus in on rational expressions or in English at this grade level, our weakest area is vocabulary and analysis. And then, I spend 40% of my day in the classrooms, so do all my administrators, just walking through. We have a certain format for this walkthrough; we're trained in certain observational techniques to see that the teaching behavior is actually focused on the tested curriculum. There are three curriculums in reality. There's the one that's taught, there's the one that's written, and there is the one that's tested. And the only one I care about is the one that's tested. We can get the tested curriculum covered in about 97 days out of 180, so the teachers have half a year to do Romeo and Juliet, all those good things they do."

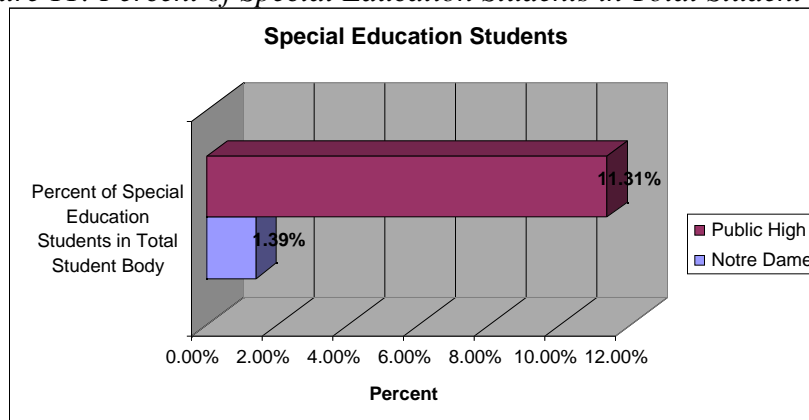
Two organizational differences between the schools in terms of academics fall under special education students and limited-English language students. In regards to students with learning disabilities or special education students at Notre Dame,

"We do not have anybody on a formal individualized education plan. We do have about 6 students who we know have diagnosed learning disabilities, who we are making some modifications for. The modifications are agreed upon in a meeting with the counselor, the parents, the student, and the student's teachers. Our modifications are minor because of the type of curriculum we offer. When students graduate from here, they're expected to be able to read well, write well and perform math, algebraic and geometric functions without difficulty. We allow diagnosed students to have extended testing time. We also set up support for those students with additional tutoring on campus or additional work with a teacher. Teachers make special accommodations for a student for a particular project if they feel there is a need. I know students with learning disabilities, often very bright, they can do the work. We're really trying to help them learn how to cope and adapt so that they can be productive and successful, but not through a formal plan."

At Public High there are 273 students on an individual education plan because they have disabilities or are special education students. The specific learning disabled will generally be in a resource specialist program, but in a regular program 50-100 percent of the day. Special day class students have more severe disabilities, therefore are not out in regular classes as much because "the services of a regular classroom might accommodate their self-esteem but will not accommodate their achievement". Figure 11,

below, demonstrates the percentage of special education students that each school educates. At Notre Dame, 1.39 percent of the study body has a disability, whereas at Public High, 11.31 percent of the study body has a disability. This may be a justification of Notre Dame not having a formal individual education program for students with disabilities: there is not a need for one. This example serves to demonstrate the difference in student body at each school.

Figure 11: Percent of Special Education Students in Total Student Body



The second profound organizational difference between the two institutions is in regards to students with limited-English proficiency, Notre Dame does not have a formal program for these types of students, while Public High does.

“Do we get limited-English proficient students? On occasion. They are usually foreign students coming in. It’s been my experience in elementary and high school that immersion is the best way to go. It’s rare for us to get a student from Mexico or Central America with limited English because most of the students we get from there come in with moderate English skills and I think they have better support because we have so many girls who are bilingual, speak Spanish and English. The girls pick up on our language very quickly. Are they perfect at it? No, but they’re always diligent.”

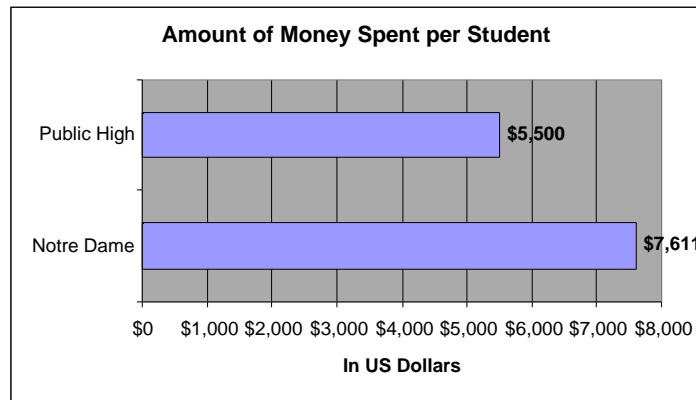
At Public High, limited-English students who have not been in California public schools for more than 10-12 months enter into a three-tiered immersion program. In core subject areas, they have a transitional level class for students transitioning into English.

The principal comments, “There is an enormous amount of financial support around the ELL and we specially test them every year to measure progress.”

Budget

The last major school sub-topic in this study is budget. Figure 12 shows the amount of money spent per student at each school. Notre Dame spends approximately \$7,611 per student, whereas Public High spends \$5,500 per student (district wide). Organizationally, this is a considerable difference.

Figure 12: Amount of Money Spent per Student



Both principals have full control over their school’s budget. The estimated budget at Notre Dame is \$3,500,000 (see figure 13). At Notre Dame, the principal and the business manager develop a budget every year, as well as seek input from every department chair for their departmental budget, even if they’re not academic. Tuition pays about 85% of the cost of educating each student. This year tuition costs \$6,358. Next year it will be \$6,688. Their other sources of income are grants, donations, and fundraisers. So, they will estimate next year’s income in the budget and after expenses, they find out what they will need to charge for tuition and fees.

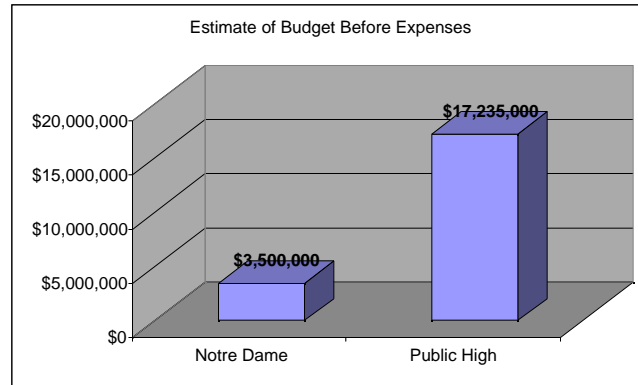
When asked if the school is generally strongly funded, the principal of Notre Dame replied,

“It’s always a battle because you always have more needs than you have money... We get good community support; however, we need to broaden our Development Program in order to be able to support our growing programs and the need to provide a range of tuition assistance to families who cannot afford the cost of a Notre Dame education. We’ll keep working at this.

Notre Dame has a tuition assistance program for families who don’t feel that they can pay full tuition. There is an application that is evaluated by an outside company. Then the principal, business manager, and a school board member review the evaluated applications. “First, if they meet the requirements, we assign the family what they’re requesting. Then we add it up and go, ‘Oops, we don’t have enough money to do that for everybody.’ So we go back and pare down until we get to the amount available.” Notre Dame also has endowments from people who have set up scholarship funds for students.

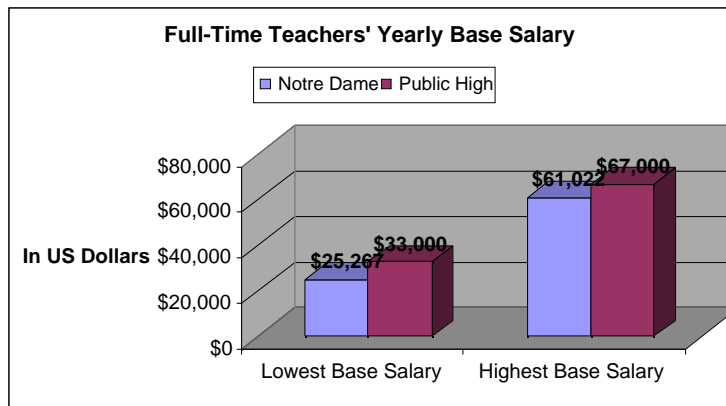
At Public High School, a rough estimate of the amount of money that the principal controls is \$17,235,000. The money is given out program-by-program. A lot of the monies that come to the school site and the district are determined by CASBO (the California Association of School Business Officers) formulas. The school’s site budget is in the principal’s control, but the district apportionment comes in 2 sections: general fund fixed and Principal's discretionary formula funds. The fixed fund covers salaries and benefits for employees and is set by the district. The discretionary fund is about \$210K of which the principal has full control over. This is another organizational difference within the budget of each school. Notre Dame spends \$2,111 more per student (see figure 12), but the difference in the budget of Notre Dame from Public High is \$13,735,000. Yet, we must note that Public High is a larger school, therefore does have more expenses.

Figure 13: Estimate of the School Budget Before Expenses



Both schools pay teachers by a salary schedule based on years of experience and years of education. The figure (14) below demonstrates the difference in teacher salary between the schools. Teachers at Public High currently have a higher salary than teachers at Notre Dame. While teacher salary is a difference between the two schools, both schools are organizationally similar in how the salary schedule is structured.

Figure 14: Full-Time Teachers' Yearly Base Salary



An organizational difference of the budget between the two schools is that at Public High, retirees don't have an effect on the school's budget but on the district's budget, yet it at Notre Dame, retirees do have a direct effect. As far as retirees impacting the budget; at Notre Dame,

“Well, obviously when a higher paid person leaves, if I can find a qualified talented person at a lower rate of pay, that's great. When I budget, I typically

budget for someone with a master's degree with 3 years of experience at a minimum. We just don't have many people retiring."

Student Demographics

In the area of student demographics and the organizational differences of the student body, both schools have experienced changing student demographics in different ways. At Notre Dame they've experienced a change in the quality of the students,

"There was a period of time when we weren't getting a large pool of quality applicants. If a student is a priority for us, in that their families are Catholic families and a mother or a sibling had graduated from Notre Dame or they had a father or a brother who was either a graduate or a current student at Palma...But if the student is coming from a school where they weren't prepared adequately, that presents a problem for our teachers and for those students when they get here. We looked at what the problems were, so we adjusted, we built in a probationary policy for incoming freshmen who didn't fully meet our standards. So, if they were a priority student, they might get in on probation and they had a semester to improve themselves. They also have to go to summer school. If they were low in reading skills, they had to come to our summer reading program. If they were low in math skills, they had to come to our summer math program. If they're low in writing skills, then we enroll them in a full-year writing course with us their freshman year. This gave them an opportunity to improve and it gave them the skills and the tools that they needed to improve, then they had to do the work. And if they could do it, they could stay. And it actually worked very well... I'm not so sure I'd call that demographics, but it does affect us, that type of thing."

As for changing student demographics at Public High, their demographics are becoming wealthier (possibly due to the jump from private schools into Public High),

"Essentially what's happened at Public High, with the advent of the new building and my marketing plan (we market our school heavily), in that our student demographics are becoming wealthier. And I'm not going to racially target that; we're just becoming wealthier. And along with the rising socio-economic status comes improved academic performance. Actually, we had 175 kids jump from private schools back into Public High. This year it could go over 200."

Future Projections

The future projections of each school relate to the difference in improvement goals between the two schools. A prime difference in the way each school uses continuous improvement can be found in the principal's leadership style. Both are very effective, yet the principal at Notre Dame is most interested in long-term or slow change, whereas the principal of Public High is most interested in short-term or rapid change. According to the principal at Notre Dame, when asked what the future projections for the school is,

“Well, we are going to keep working on academics... Maintaining and improving high quality is always an issue. You don't want to become complacent, so we'll always continue to work on academics. We'll continue to work on what we are as a school, which includes spiritual development. I think we do a fabulous job at it right now, but again you don't want to become complacent. So we constantly review that and set goals. Sometimes the goals are to actually improve the program; sometimes it's to just make it more efficient... We will continue to work on the plant. These plants get older and we have new needs for them. I think the other thing is, continually work to keep a balance with the co-curricular activities and the academics... And then, keep working on building community. How do we maintain a sense of community and a care? Because when you don't individually touch each other, you don't think the other people care sometimes. We have to constantly work at that.”

According to the principal at Public High, when asked what the future projections for the school is:

“By December of the year 2002, we will be a California Distinguished School. I would project increased enrollment for one more year, and then a decline of 100 students a year for the next 5 years. I believe we will be recognized as a National Blue Ribbon High School by the United States Department of Education within 2 years.”

The next section of results relate to the research question of looking for differences in the way that each school uses continuous improvement. One sub-topic of

continuous improvement is goals, which is a major part of the continuous improvement theory.

Continuous Improvement

In this study, the theory of continuous improvement was used as a way for an organization to improve its operations to be effective and efficient. This section describes similarities and differences in how each school uses continuous improvement. Both principals stated they had had some training in continuous improvement. A major common theme between the two schools in regards to how they use continuous improvement is:

“We always have to identify what our needs are because if you don’t know where you’re headed, you don’t know what you need to do, then you could be spinning your wheels for improvement. So, identify needs, set goals to accomplish those needs, implement the strategies and then assess the progress,” comments the principal of Notre Dame.

The principal of Public High uses this strategy as well, but is mostly concerned with assessing the progress (data) over everything else, which is a difference between the two principal’s continuous improvement styles,

“Everything I do is data driven in terms of teaching behavior or how I structure the organization or use the facilities. The only way any money can get spent is that it has to align with the student achievement improvement plan. You can’t even get a pencil for a classroom without a committee meeting and saying, ‘how’s this pencil going to improve the achievement and how is it attached to our plan’... I know our underachieving students by 5 or 6 different parameters. I know how many single-family parents I have. I know who’s rich and who’s poor. I know who’s working and who’s not. I know how many D’s, F’s, and I’s there at every marking period. And we know the standardized test performances in the classroom by teacher. I have a full time assessment and data collector on site. More than saying I’m data driven, I’m really results driven. The school is results driven at this point.”

Both principals stated that they value continuous improvement and use its fundamental principles, yet Notre Dame recognizes that change is difficult for most people. So, change often has to be slower than the principal would like in order to “get everybody on board and move things along”. Every year they look at certain areas of curriculum, because every department can’t be studied in depth every year. This again relates to the biggest difference in continuous improvement styles between the two principals: the principal of Notre Dame is most concerned with a long-term or slow change improvement approach, whereas the principal of Public High is most concerned with a short-term or rapid improvement approach.

Both principals feel that continuous improvement has been brought up to the faculty. At Notre Dame, “I think our faculty would say they’re aware that we’re always looking to make things better but also striking a balance for not overloading people on change.” When asked, has continuous improvement ever been brought up to the faculty, the principal at Public High answered, “Ten times a year. It’s what I lead with. It’s about becoming a distinguished school.”

Both schools use continuous improvement in their school plans. Both have a technology plan that is regarded as highly important. Notre Dame is currently working on revising their old plan because they have met the goals outlined in the previous plan. Both schools have a library policy for continuously refreshing books and information. At Notre Dame, an amount of money to purchase new books is built into the budget every year. They also do an annual inventory of the library to remove items that are out of date or no longer in use. “We have a limited amount of space so we try to get the biggest bang for our buck in there.” Public High has just spent 68,000 dollars for new shelf entries and

tapes. They are in transition from a library to a media center, headed by the school's librarian. "She's a dynamo". This project is strongly funded, seventy five thousand dollars were spent on this library revision.

Continuous improvement does play a role in academic planning for each school. An example of this is Notre Dame's yearly event before Christmas called "Home for the Holidays" where graduates from the past 4 years are invited back for lunch. The school has recently started doing surveys of these former students asking them if they were prepared for college. They were interested in determining if there were areas the students felt could be improved. Notre Dame has found, according to former students, that, "overwhelmingly, they're well prepared." At Public High, they look at the data and "then we change either our institutional behavior or teacher behavior within the classrooms through professional development." An example of this is that they have no general level classes; they only have college preparation classes now. "Because the data tells us that the kids can perform at that level if we expect it of them."

A similarity in continuous improvement is that both schools have an established school improvement plan. Notre Dame has not been formally required to write a school or program improvement plan, although, they do have a long-range plan called the Notre Dame 2010 plan.

"We do have a long-range plan; we call it our Notre Dame 2010 plan. So, we're looking ahead to the year 2010. We've projected out what we want to do in a number of areas, what we want to address in a number of areas between now and then. There are seven categories in all including such areas as technology, academics, personnel, and finances."

Public High has been required to write a school or program improvement plan, which they call “a student achievement action plan.” They do have their own goals for the school:

“So the one thing I can assure you is that there is a clearly articulated vision for this school right now that is understood by every member of the organization. And that is to become a California Distinguished School by the end of this year. Now I know the components of that, I can break that all down, but that’s the vision statement. They all know that we are going to be number one in the top five percent of all high schools at the end of this year.”

In grant writing and fundraising, both schools use continuous improvement. Based on what the goals are to get accomplished, they write grants to match those goals. Public High is so strongly funded that grant writing is not a big part of their procedures. At Notre Dame, “We apply for grants on a regular basis. Right now two key areas for grant money are upgrading and improving technology and the renovation of our theater. ”

Goals

In the questionnaire, each school was asked to choose which of eight educational goals was the most important for their school. The eight goals were taken from the 1999-2000 Schools and Staffing Survey, conducted by the National Center for Education Statistics. The eight goals are the following:

- Building basic literacy skills
- Encouraging academic excellence
- Promoting occupational or vocational skills
- Promoting good work habits and self-discipline
- Promoting personal growth
- Promoting human relations skills
- Promoting moral values
- Fostering religious or spiritual development

The top three goals indicated at Notre Dame were (1) fostering religious or spiritual

development, (2) promoting good work habits and self-discipline, and (3) encouraging academic excellence. The top three goals indicated at Public High were (1) encouraging academic excellence, (2) building basic literary skills, and (3) promoting occupational or vocational skills. This shows that although goals play a strong role in both schools, they have different goals and objectives, based on the distinct characteristics of their student body.

When asked, has either your diocese or your district established school performance goals, the principal of Notre Dame replied that, specifically, the diocese has not. Yet, they are “working on an ongoing basis to update curriculum guidelines.” The school is also not required to meet state performance goals. “Do I believe we surpass them? Yeah, but no, we’re not required to.” Although, at this school, goals are formed within each department.

Public High’s district has established school performance goals (as well as the state). “There is a district mission statement. That mission statement captures in big chunks what the expectations are for performance. It means to educate students to the highest standards.” As far as meeting state goals, Public High has made incredible strides,

“In our three target populations, which are White students, Latino students, and socio-economically disadvantaged students, the White and Latino students doubled their target goal. This was the year before I got here. But, our socio-economically disadvantaged students lost 8 points. They went the other way. Because of that I was able to pick up an additional \$1.8 million. So then in my first year here, focusing on the socio-economically disadvantaged students, they had the highest academic gains of any of the target groups. They gained 26 points in their API in one year, which is enormous. I would expect a regression to the mean this year. If they hold their own, I’ll be really happy.”

Discussion

In summing up the previous section, I'll refer back to my research questions. Are there organizational differences between the two schools? Yes, there are. First, I will start with the organizational similarities I have found. There are seventeen.

- (1) Both principals have been very active and energetic in being the agents of change within their school.
- (2) Teachers have the primary responsibility for designing, planning, and conducting activities.
- (3) In regards to decision making, the principal has the greatest deal of influence in deciding how the budget will be spent and when hiring new full-time teachers.
- (4) Both principals enforce school policies by using consistency.
- (5) Both schools have training for aspiring school administrators, though not officially.
- (6) Both principals participate in professional development activities with teachers from their school.
- (7) Both schools have a standard classroom teaching philosophy imbedded in their program.
- (8) Both principals look for quality teachers and both agree that the pool of quality teachers is limited.
- (9) The teachers at both schools work in teams.
- (10) Both schools require their teachers to obtain a California credential, though at Notre Dame teachers may complete their credential while working.
- (11) School-wide, class size is roughly equal at both schools.
- (12) At each institution, students are in school approximately the same amount of time.
- (13) Both schools offer before school and after-school enrichment programs, as well as summer school for students needing extra assistance and for those seeking academic advancement. Both also offer honors and AP courses.
- (14) Both schools have requirements for admission. At Notre Dame this is for the entire student body. At Public High it is only for the second and third admittance group, those who take advantage of school choice who are not in their attendance zone.
- (15) Both schools can remove students from their school who do not perform.

(16) Both principals have full control of their school's budget.

(17) Teachers are paid by a salary schedule based on years of experience and years of education.

Next, I will outline the organizational differences I have found within my research. There are fifteen.

- (1) There are key differences between the two schools in respect to the student body:
 - Notre Dame is an all-girls school. Public High is a co-educational institution.
 - The student body composition at Notre Dame is primarily Caucasian, followed by Hispanic. The student body composition at Public High is primarily Hispanic, followed by Caucasian.
 - Public High has more students in a lower socio-economic status.
- (2) The principal of Notre Dame has more years of experience, but the principal of Public High has obtained a higher degree.
- (3) In deciding academic content at Notre Dame, administration and Academic Council have primary responsibility. At Public High, principals and staff are primarily responsible for deciding the academic content.
- (4) In general decision making at Notre Dame, the principal and teachers have the greatest deal of influence. At Public High, the principal, school board, curriculum specialists and the school site council (both for academics and professional development only) have the greatest deal of influence in general decision making.
- (5) The student teacher ratio at Notre Dame (1/11) is better (perhaps because they are a smaller institution) than Public High (1/27).
- (6) The main barrier to the dismissal of poor or incompetent teachers at Notre Dame is if a well-documented record is not kept. The main barrier to the dismissal of poor or incompetent teachers at Public High is tenure.
- (7) In hiring new teachers, the principal of Notre Dame looks for an applicant who can do as good or better job than the person he/she is replacing. At Public High, in hiring new teachers, the most important thing for the principal to assess is the applicant's sense of mission. Next is the ability to connect with students, knowledge of subject matter, and what other duties they may hold while at Public High.

- (8) Notre Dame has hired non-credentialed and part-time teachers as long as they're qualified. Public High only hires full-time teachers.
- (9) In every core subject but computer science, Notre Dame requires more years of instruction for students than at Public High.
- (10) Notre Dame does not specifically use student performance tests to determine instructional focus, whereas student performance tests at Public High are what determine instructional focus.
- (11) Notre Dame does not have a formal program for students with learning disabilities or special education students, however, Public High does.
- (12) Notre Dame does not have a formal program for students with limited-English proficiency, however, Public High does.
- (13) Notre Dame spends more money per student than Public High, yet Public High has a larger budget and teachers have higher salaries at Public High than at Notre Dame.
- (14) Retirees leaving Notre Dame do have a positive impact on the budget if a lower paid person replaces the retiree; however, it is rare to have teachers retire. Retirees leaving Public High do not have an impact on the school's budget. It impact's the district's budget.
- (15) Both schools have experienced changing student demographics. At Notre Dame, there has been a change in the quality of students, while at Public High, student demographics are becoming wealthier.

My second research question was, is there a difference in the ways in which each school uses continuous improvement? First, I will detail the continuous improvement similarities I found. There are eight.

- (1) Both principals stated that they have had some kind of training in continuous improvement.
- (2) Both principals stated that they value continuous improvement and use it's fundamental principles, which is to identify your needs, set goals, implement strategies to achieve those goals, and assess the progress.
- (3) Both principals feel that they have brought the subject of continuous improvement to the faculty.

- (4) Both schools use continuous improvement concepts in their school plans; the technology plan and the library policy for refreshing books and information.
- (5) Using the fundamental concepts, continuous improvement does play a role in academic planning at both schools.
- (6) Both schools have an established school improvement plan.
- (7) Both use continuous improvement in grant writing and fundraising.
- (8) Both schools develop goals whether it be for the whole school or within individual departments.

Next, I will detail the continuous improvement differences I have found. There are six.

- (1) There is a difference in continuous improvement styles between each principal. The principal of Notre Dame is concerned with long-term, slow change. The principal of Public High is concerned with short-term, rapid change.
- (2) The principal of Public High uses the strategy of continuous improvement, but is mostly concerned with it's last step, assessing the progress, whereas Notre Dame does not put as much emphasis on data.
- (3) Notre Dame recognizes that although continuous improvement is important, keeping a balance with change and not overloading is essential.
- (4) Notre Dame has not been required to write a school improvement plan, whereas Public High has been required to. Yet, Notre Dame does have an improvement plan in place.
- (5) The top three goals (given my list to chose from) at Notre Dame are
 - a) fostering religious development
 - b) promoting good work habits and self-discipline
 - c) encouraging academic excellence.

The top three goals (given my list to chose from) at Public High are

- a) encouraging academic excellence
 - b) building basic literary skills
 - c) promoting occupational or vocational skills.
- (6) The diocese of Monterey has not formally established school performance goals, but the district of Public High has established school performance goals.

Limitations & Recommendations for Future Research

The biggest limitation of this study was that almost all of my results come from the principal, and most are based on opinion, or their perception (bias) of reality. A future research project that incorporates my study and adds the perceptions of teachers (who are in the trenches) would give an account of perceived reality (by the principal) and actual reality (by the teachers).

Another limitation to my study is the main areas I have chosen to focus on: teaching, academics, and budget. Within the topic of education, there are thousands of sub-topics. I limited my study to these sub-topics (but did include others that were found in the results) because this is what I was most interested in. Moreover, I only brushed the surface of each one. Future research might add more sub-topics to this study, such as parental involvement, socio-economic status and race of the student population.

The last limitation to my study is that I chose to focus on competing schools, that is, both schools are doing very well. This limits the differences one might find. This study outlines what good schools have in common. A future study may want to compare a very successful and a moderately successful school.

Conclusion

From this study, we learned what these two efficient and effective schools have in common. From these school principals', we can learn what is found in a successful school. When asked, what do you think constitutes a successful school, the principal of Notre Dame answered,

“There needs to be a sense of community, a real sense of caring for the students and the faculty and staff. I think a successful school needs to be a center for

learning, for education. Learning and the learning process must be held in high esteem. In our schools we look at the total development of the child, we're not just looking at academics. For us, a successful school would include excellent academics, but spiritual growth, social development, emotional development, physical development, and being able to use those skills, abilities are also critical. So, a successful school is where students are nurtured, where faculty is nurtured and community is built and learning takes place."

At Public High, the principal spent a good amount of time in doctoral work studying highly effective high schools and what they had in common,

"If we look at all the top 100 most highly rated effective high schools, here's what we see; we see a principal who generally has a doctorate that radiates infectious enthusiasm for education and everything in the school, who is highly visible. There is a large, active parent driven site council. There is a preponderance of technology and teachers know how to use the technology to improve student achievement... There are character themes that are practiced as part of the culture. Here, I can say that Cowboys [mascot] have demonstrated responsibility, perseverance, and kindness, and we have those imbedded in everything we do. You'll often hear us say, 'This is not what Cowboys do. Cowboys don't leave their trash on the ground at lunch.' Generally then, a competent and caring staff that has knowledge of their subject matter and background in the pedagogy to deliver the subject matter. There are a few other correlates, but they're not in every highly effective school."

While reformers have taken many steps in recent years to raise student achievement, have enacted higher standards, introduced new instructional strategies, and sought out stronger teachers, it is increasingly clear to business leaders that the public education system is not going to respond sufficiently to reformers without incentives to perform at higher levels. Although the private sector encourages hard work, innovation, and high standards through risks and rewards of competition, in public schools, educators and students have faced few consequences for their failures and even fewer rewards for their successes. Introducing consequences and rewards into education is essential to raising student achievement and spurring schools to improve (Toch, 2000).

Currently, President Bush is working on his “No Child Left Behind” Education Act, which calls for accountability for schools and districts with student performance, along with several other areas for reform. This act introduces consequences and rewards into education. My study opens up a path for administrators on what quality schools have in common, thus, what their school should have and what they should be doing in order to continuously improve.

From this research, we know that a successful school needs to have these organizational and continuous improvement characteristics: (1) A principal who is very active and energetic in making change, (2) Principals and teachers must participate in professional development, (3) There needs to be quality teachers (although what makes a quality teacher is still hard to define), (4) The teachers must work in teams, (5) The school must have the ability to remove students who do not perform (and do not wish to try), (6) The principal must have full control over the budget, (7) The principal should have training in continuous improvement and use it’s fundamental principles, (8) Continuous improvement must be used in all school plans and in all areas of education, (9) The school should develop goals.

The main differences between these two schools are that Notre Dame has a different student body composition than Public High in terms of gender, ethnicity, and socio-economic status. Yet, both schools are improving and performing well. So, I would attribute some of the difference among SAT scores between the two schools to the differentiation in student body composition. However, on the scale of improvement, the two schools are in different places. I feel that this is the main reason for the difference in scores. Notre Dame has been working to continuously improve, but has remained

relatively stable. Public High has started their continuous improvement process not long ago, so their needs are more immediate. Because of the difference in immediacy in improvement, the second key difference is in the continuous improvement style of the principal. The principal of Notre Dame is more concerned with long-term or slow change. The principal of Public High is more concerned with short-term or rapid change. Therefore, assessing progress or examining the data is the most important step for the principal of Public High.

The organizational and continuous improvement differences I have found may be due to one school being private and one school being public. At Notre Dame, the principal and teachers primarily do the decision-making. At Public High, the principal, school board, curriculum specialists, and the school site council primarily influence decision-making. Notre Dame does not have the barrier of tenure to the dismissal of poor or incompetent teachers, yet Public High does. Notre Dame requires more years of instruction in core subjects than Public High. Last, the goals of each school are fundamentally different. Fostering religious development is the primary goal at Notre Dame. Encouraging academic excellence is the primary goal at Public High.

As for recommendations from successful principals' themselves, when asked, what are your suggestions to fix a failing school, the principal of Notre Dame answered,

“In order to fix a failing school, a strong leader with a clear vision must be found. Outstanding and dedicated teachers must be hired. The problems of the school would be evaluated, a viable plan would be devised, the plan would be implemented and progress evaluated. If goals aren't being met, other approaches should be taken. It isn't easy and it takes strong leadership, dedicated teachers, parent and community support and determination.”

The principal of Public High commented,

“To fix a failing school, find dynamic leadership, hire great teachers, strongly fund the teachers and I would stay out of their way. Also, have efficient and effective operations, focused long range professional development, excessive parent involvement, and very high expectations for student achievement.”

In conclusion, my research has affirmed the work of Baker, Broughman, and Han (1996) in that there is considerable organizational and continuous improvement similarity between the private and public school. My study also adds that there is continuous improvement similarity between high performing private and public schools. As a result of my research, I attribute any differences to the different missions’ of the two schools due to the nature of each school, one being public and one being private in that they have separate fundamental goals.

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