March, 2014, Vol. 17, No. 1, pp. 126–130

Challenges to Student Enrollment Forecasting in the 21st Century

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Abstract

Student enrollment forecasting has been performed by school district educational planners at least annually if not more often to look into the crystal ball of district growth. It generates basic information for the budget planning for the entire school district. Cohort Survival Method has been used for years with an acceptable level of accuracy. However, educational, economic and social developments in recent years have raised new challenges to educational planners in performing their daily forecasting duties. In this article, the authors identified these challenging issues and suggested possible strategies to meet with these challenges.

Introduction

Student enrollment forecasting is an important planning function of a school district. A short range forecast has immediate direct impact on the planning of budgets, personnel, educational programs and school facilities for the upcoming year. A long range planning, usually covering five to ten years, examines current district data to project for possible happenings to student enrollment figures and locations in the near future. It has major bearing on decision making in school facilities, school attendance zones, capital outlay funding and educational programs.

The accuracy of student enrollment forecasting is most critical to the developmental planning of the entire district since the entire planning process is based on the forecast figures. It is understandable that forecasting can no way be exact but the forecast figures have to be close enough to be used for educational planning without incurring major planning errors. A student enrollment forecast staying within one percent of error is generally considered acceptable. Common student enrollment forecasting methods such as the Regression Method (Lavilles & Arcilla, 2012) and the Cohort Survival Method (Taylor, 1982) have been in use for years and are still popularly employed as reliable forecasting tools. Regression Method is often used for long range enrollment forecasting examining the trend of district wide development. Cohort Survival Method is focused more in detailed enrollment trends by school and by grade. It is used more frequently in short range forecasts to provide information for budget planning.

Student enrollment forecasting has been a difficult administrative job. It is increasingly difficult because of changes in legislative, social, academic and technological environments. It is the intent of this manuscript to examine the trend of enrollment forecasting issues and identify the challenges of enrollment forecasting challenges today. Strategies to address forecasting challenges are also recommended.

Enrollment Forecasting Issues in the Past Decades

For years, planning experts have identified the difficulties they encountered through their actual work experiences. When parents are given the choice of selecting the schools they prefer their children to go to, the accuracy of student enrollment forecasting is compromised (Chan,

1993). Much has to be done to poll the parents of their possible moves to do a more accurate enrollment forecasting. Similarly, parental decision to home school their children often come after student enrollment forecasting is performed. Additionally, the change of school attendance zones creates many community issues the superintendent's office has to deal with. The impact of attendance zone changes on student enrollment forecast cannot be underestimated. Furthermore, schools with special program provision offer attractions to parents who may request for transfer of their children to attend these schools (Salem-Keizer Public Schools, Oregon, 2013).

Emerging Challenges in the 21st Century

It is anticipated that the student enrollment forecasting issues in the past decades will continue to be concerns for educational planners in this century. They are aggravating enough that full attention has to be paid to watch their impact and development to ensure an accurate student enrollment forecasting. In addition, latest social, educational and technological development in recent years has created major challenges to educational planners of public schools as elaborated in the following.

Change in Population Demographics

The major change in population demographics as indicated by a national report (Shrestha & Heisler, 2011) is the continued rapid growth of immigrant population. It has been known that immigrant families have the tendency of frequent relocation inside and outside of state. With this transient population, it is very difficult for educational planners to forecast the number of their children that will attend different levels of schools based on limited available data in hand. The impact of unpredicted mobility of immigrant families has created a major challenge to forecast student enrollment in the upcoming years, especially in city districts.

Economic Recession

The economic recession in recent years has led to slow population mobility because people are reluctant to move to ensure job security. However, this is not true to all school districts. Some developing districts continue to grow because poor economy has pushed a large number of workers into developing districts to seek for better employment opportunities (Moore, 2008). Exactly how economic development would impact school enrollment is difficult to estimate.

No Child Left Behind Act

The No Child Left Behind Act initiated in 2001 has led to overall changes in how schools and school districts are operated nationwide. The pressure on school administrators and teachers has been enormous particularly in disadvantaged areas where schools could face the possible fate of closing. A school closed by legislation or taken over by the state has tremendous impact on the student enrollment forecasting job of a school district. Since many variables are uncontrollable, educational planners will need to prepare several "if" plans for possible contingencies.

Development of Charter Schools

Charter schools as initiated by many state legislatures have been developing by leaps and bounds in recent years (Buddin, 2012). Not only do they draw much needed resources from public education, their existence has created many unknown variables including school enrollment that seriously impact on school district planning. Educational planners in public schools almost have

to guess the approximate number of students who will move from their districts to charter schools and the possible impact it has on their budget, personnel, facilities and programs.

Technology Integration

The impact of technology development on educational administration is huge. Not only administrators have to continue to learn new technologies coming up day after day, they are also faced with everyday challenges created as a result of technology integration (Redish, Williamson & Chan, 2006). While the electronic database is helpful to analysis of student demographic information, student enrollment in online classes has posted an issue of concern for educational planners in their enrollment forecasting. How many courses/programs at what school and level are planned to be online? The number of students enrolled in online courses/programs has direct impact on school scheduling, teacher assignment, facility planning, technology setting, food service, pupil transportation and after all the per-child appropriation of educational funds. The forecasting of online student enrollment almost has to be separate from the forecasting of regular student enrollment for the information to be meaningful for use by other district departments.

Strategies in Meeting the Challenges

To meet with the student enrollment forecasting challenges of the 21st Century, much effort has to be planned on communication to build a resourceful database so that available data can be analyzed from multiple sources for triangulation. Strategies to meet the 21st Century challenges can be focused in the following areas.

Working with other Public Agencies

School districts as public agencies offer educational services to their respective communities. So do other public agencies such as city/county planning commissions, building departments, tax collection offices, chambers of commerce, labor departments, real estate associations and utility companies. These public agencies hold the most reliable and updated information about the growth of the communities. School districts establishing direct frequent contacts with these public agencies will have access to the latest information about county/city development which is needed in performing accurate student enrollment forecasting.

Collaboration within the School District

A school district is a complex organization with many divisions, sections, departments and units to operate different functions of an education business. These entities work together with the same purpose of offering the best service for the education of the children. The work of student enrollment forecasting relates to every component of the school district organization. The educational planner has to depend on the assistance of all the district office units to do an excellent job in student enrollment forecasting. The district offices in turn need the most accurate enrollment forecasting information to perform an outstanding planning job in their respective areas. In addition, administrators in schools know the development of their school communities best. Educational planners working closely with school administrators will benefit from their professional experiences when performing school by school and grade by grade student enrollment forecasting.

Resourceful Database

The advancement of technological skills has contributed tremendously to the development of a powerful and resourceful database in a school district. The database needs to contain all the historical and up-to-date data about the school district including student enrollment records by year, by school, by grade, by level, and by attendance cluster. Capability of retrieving school and student data in any format should be made available. Additionally, school districts need to establish a channel of access to the vast geo-network of information storage of the city or county planning offices. In this information age, sophisticated multi-level analysis of data will support a more accurate job of student enrollment forecasting

Conclusion

The task of student enrollment forecasting is the foundational component of the entire school district planning process. Educational planners simply could not afford making serious mistakes in any component of the enrollment forecasting process. However, the work is getting more and more difficult year by year because of continuously added challenges due to social, economic, technology and educational changes. In addition to increased internal and external communications, the authors strongly recommend the use of cross checking strategy through powerful capability of database. There is more than one way to look at the crystal ball. Observing the crystal ball in different directions will provide a means to verify the accuracy of student enrollment forecasting.

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