

Educational Policy and Management in the Equitable Allocation of School Resources: Budgetary Priorities and Funding in an American High School

Nathaniel Edwards, Yamaguchi National University, Japan

The Asian Conference on Education 2016
Official Conference Proceedings

Abstract

The building of a budget for an educational institution requires careful consideration of budgetary priorities and of the rationale behind the priorities. School leaders also need to define in adequate detail a realistic and effective funding formula to generate revenues for an educational institution (Antolovic, 2001). The funding formula employed by the Apollo High School in Owensboro, Kentucky allows the school to achieve clearly stated educational goals and objectives. A school budget must address adequacy and equity in school funding, and power over the budget planning process needs to be shared among key stakeholders. Data collected regularly from a wide range of sources can improve the quality and consistency of budgetary decisions (Chabotar, 1995). Alternative funding structures can help to raise funds for items and resources beyond the scope of the budget that can contribute to educational outcomes. Research into best practices in the reallocation of school resources and adjustments in the structure of schools can form the basis of the decision-making process when planning budgetary priorities (Odden & Picus, 2004). Various legal and regulatory considerations influence budget planning and educational funding. A school budget must meet the needs of all stakeholders by effectively allocating resources to enhance learning outcomes (Crawford, 2004). The funding formula employed by the Apollo High School helps the school to effectively allocate resources to provide sufficient levels of funding for program priorities. The school budget allocates resources in a logical, consistent, and equitable manner to meet the needs of all stakeholders.

Keywords: educational policy, management, budgetary priorities, funding formula, power

iafor

The International Academic Forum
www.iafor.org

Introduction

The building of a budget for an educational institution requires careful consideration of budgetary priorities and of the rationale behind the priorities. School leaders also need to define in adequate detail a realistic and effective funding formula to generate revenues for an educational institution (Antolovic, 2001). The funding formula employed by the Apollo High School in Owensboro, Kentucky allows the school to achieve clearly stated educational goals and objectives. A school budget must address adequacy and equity in school funding, and power over the budget planning process needs to be shared among key stakeholders. Data collected regularly from a wide range of sources can improve the quality and consistency of budgetary decisions (Chabotar, 1995). Alternative funding structures can help to raise funds for items and resources beyond the scope of the budget that can contribute to educational outcomes. Research into best practices in the reallocation of school resources and adjustments in the structure of schools can form the basis of the decision-making process when planning budgetary priorities (Odden & Picus, 2004). Various legal and regulatory considerations influence budget planning and educational funding.

Generating Revenue to Finance the Funding Formula of an Educational Institution

The funding formula employed at Apollo High School adequately address the needs, goals, and objectives of the school, teachers, and students. The school receives funding from local, state, and federal funding sources, and the majority of the financial burden falls on the state (Kentucky Department of Education, n.d.b). School leaders can increase the number of community projects, fundraising events, and partnerships between the school and the local business community to increase revenues and contribute more to the local community. Donations and regular fundraising events provide alternative sources of revenue at Apollo High School (2008b). State funding alone is not sufficient to adequately address all of the funding priorities of the school.

Apollo High School benefits from a foundation program that ensures a minimum amount of spending in each school district in Kentucky and a guaranteed tax base program that results in equalized spending for amounts greater than the foundation base (Odden & Picus, 2004). The funding formula is based on a combination of local tax revenues, state support, and adjusted using a pupil weighting system which takes into consideration the needs of students in special education programs. The current funding formula, involving a number of sources and three levels of government, effectively meets the needs and requirements of Apollo High School. The educational funding system in Kentucky combines equity with flexibility to meet local needs and requirements. Annual overlay provisions, set minimum and maximum spending amounts in school budgets, may help schools that experience a drop in enrollment but may lead to inequities in some areas (Toutkoushian & Michael, 2008). Kentucky employs various types of overlay provisions in the budgets of school districts.

Schools in Kentucky are eligible for some categorical aid from the state for students who possess special gifts or talents, for early education programs, vocational training, textbooks, and teacher training, including internships (Odden & Picus, 2004).

However, categorical aid may not be sufficient to cover all the costs of eligible programs. Apollo High School must also rely on funding from a variety of sources.

Addressing Adequacy and Equity in the School Budget

A school budget must meet the needs of all stakeholders by effectively allocating resources to enhance learning outcomes (Crawford, 2004). The adequacy and equity of the state funding that Apollo High School currently receives has been influenced by a landmark court ruling that has led to significant educational funding reforms. The Kentucky state Supreme Court ruled in 1989 that every student required an equal opportunity to achieve official learning standards (Rayburn, 2004). The court ruling associated learning standards with levels of school funding. Kentucky initiated the first comprehensive, statewide effort in the United States to reform the academic and financial structure of the state educational system (Rayburn, 2004). The Supreme Court of Kentucky ruled in the 1989 case of *Rose v. Council for Better Education* that the existing system of finance of the state schools was unconstitutional because the system did not provide equal levels of revenue to schools (Odden & Picus, 2004). Equal school funding may be necessary to achieve equal student learning outcomes. Court rulings are often necessary to cause changes in school funding policies (Wong, 2013). Administrative and political factors may present significant barriers to the improvement of adequacy and equity in school budgets.

The Kentucky state legislature responded to the court ruling by attempting to improve the uniformity and equality of educational funding in all school districts. The urgent need for improved equity in the basic finance of schools in Kentucky, following the landmark ruling of the state Supreme Court in 1989, led to the implementation of the innovative “Support Education Excellence in Kentucky (SEEK)” funding formula, and the formula was successful in substantially improving school equity without major changes to the formula over a period of ten years (Odden & Picus, 2004). The new funding formula permitted a certain degree of local control. Some local control of school funding may improve cost effectiveness and equity (Levacic, 1993). In some schools, the salaries of teachers were raised. Increasing the salaries of teachers may help to attract and retain highly qualified teachers and to significantly improve the quality of instruction and student learning outcomes (Jackson, Rucker & Persico, 2015).

Adequacy and equity could be further improved at Apollo High School and other schools in Kentucky by incorporating the Odden Model for adequacy into the existing SEEK formula. The Odden Model for adequacy provides a useful indication of the degree to which spending levels are adequate for school districts (Odden & Picus, 2004). The Odden-Picus Adequacy Index (OPAI) is not sensitive to inflation and employs statistics to measure adequacy in educational funding and uses a formula to calculate adequacy that is based on a selected adequate level of spending rather than on the median (Odden & Picus, 2004). The OPAI provides useful information to school leaders to help improve the efficient distribution of resources in school districts.

The Data-Driven Decision-Making Process in School Funding

The fiscal reporting system of Apollo High School in Owensboro Kentucky addresses

the need for accountability to stakeholders and serves to enhance school performance and student achievement. The reporting system collects a wide range of specific and general school data through the implementation of national and state accountability testing and assessment systems. The data collected regularly at the school through state and federal accountability tests can serve to improve the quality and consistency of budgetary decisions. The need for schools to consistently demonstrate improvements in levels of student achievement forms the basis of reforms in the educational system of the state of Kentucky (Kentucky Department of Education, 2007a). Apollo High School's accountability testing and assessment system plays a key role in the successful operation of the school and in the equitable and efficient distribution of school resources to meet the needs of stakeholders. Focus group interviews of teachers and questionnaires can also serve to improve the understanding of specific budget needs (Ho & Chen, 2011). Data can be collected in various forms from a variety of sources. Effective data collection is critical for understanding the link between resource allocation and actual student learning outcomes (Roza, 2009). More research is required to understand in detail the ways in which school resource allocation impacts student learning outcomes.

Resource allocation data on schools may focus on expenditures and staffing in specific programs, content areas, and educational strategies such as tutoring and professional development (Roza, 2009). Fiscal reporting at Apollo High School and other schools in Kentucky primarily addresses student achievement in the content areas of mathematics and language arts and collects a variety of school statistics such as graduation and dropout rates. Carefully structured, frequent testing measures student progress and provides the data required to review and adjust school programs, curricula, and programs (Kentucky Department of Education, 2007a). The fiscal reporting system enhances the ongoing data-driven, decision-making process of the school. Data from a wide range of sources help stakeholders to examine complex issues from multiple perspectives. An efficient and accurate fiscal reporting system may improve the operation of the school and the levels of student achievement.

The Kentucky Department of Education (2007a) asserts, "The Commonwealth Accountability Testing System (CATS) generates a wealth of data . . . [to] inform the public on the status of educational reform at all levels" (para. 3). Manuals and guides containing technical data analysis and future projections of school data are available to the public (Kentucky Department of Education, 2007a). The same regularly updated information in the form of graphs and charts is available online for free download in different formats. The state of Kentucky's CATS fiscal reporting system focuses on expenditures and staffing in core content areas and complements the National Assessment of Educational Progress (NAEP) system which focuses on student achievement in reading and writing.

The No Child Left Behind Act (NCLB) has required state participation in the National Assessment of Educational Progress (NAEP) evaluation program to be eligible for Title I funds since 2003 (Kentucky Department of Education, 2007b). The Kentucky Department of Education (2007b) states, "Under NCLB, states applying for Title I funds must indicate that they plan to participate in NAEP" (para. 7). The NAEP scores in Kentucky rose in 2007 and are close to the national average in reading and mathematics in the fourth and eighth grades (Kentucky Department of Education,

2007b). Fiscal reporting that provides high levels of accountability is necessary for Kentucky schools to receive various forms of state and federal funding.

The Kentucky CATS system collects a wide range of school statistics in addition to average test scores in different core subject areas, including attendance and dropout rates. The CATS system classifies schools in Kentucky into different categories based on student achievement levels and school performance statistics such as the dropout rate (Kentucky Department of Education, 2007c). A regularly updated CATS information package is available on the Kentucky Department of Education website, providing detailed school information for the public. Data from a wide range of sources help to substantiate the need for budgetary decisions. Academic and financial data collection systems are valuable tools and sources of information for school administrators, but such data systems may be too expensive for some schools to design and implement (Roza & Swartz, 2007). Schools which cannot afford data collection systems need to find alternative sources of funding to implement such data systems in order to benefit from long-term savings.

Alternative Funding Structures for Schools

A variety of methods can be employed to raise funds for new items and resources which may be beyond the scope of the budget but which are justified in terms of the potential contribution to educational outcomes. School districts can purchase large capital outlay items such as new buildings, buses and different types of school equipment in various ways. School facilities can impact student achievement on many different levels. Environmentally friendly buildings can save energy and create comfortable working environments that may increase productivity and improve learning (Tarricone, 1996). New designs for schools and classrooms can help to create more effective learning communities that meet the needs of each individual learner. Schools frequently need sufficient funds to build or renovate facilities and to purchase new equipment.

Corporate sponsorship, large settlements resulting from court findings against major companies, grants, and foundations can provide the funding necessary for major purchases and expenses in schools (Levacic, 1993). Corporate sponsorship may sometimes cause controversy. Some teachers and community members may, for example, question the wisdom of allowing a major fast-food restaurant chain to sponsor gym equipment and sporting events. School foundations may help schools to create a steady source of income from interest or investments. Schools may often be expected to spend all of the money they receive, but a foundation allows schools to keep relatively large amounts of funds available for unexpected expenses or long-term projects involving costs that may be difficult to accurately predict. General obligation bond issues can be proposed by school boards and voted on by local taxpayers (Odden & Picus, 2004). Good relations between the school and the local community may help in obtaining support for bond issues. Effective school leaders can use a variety of creative ways to obtain the funding necessary to purchase large capital outlay items for a school. Creative approaches to saving money include adjusting school hours according to the season to save energy costs, shorter school years, and larger school buses. School facilities can also be rented out for various uses to serve the local community (Stover, 2003). The local community and businesses can be a valuable source of funding and of ideas for reducing various costs. The decentralization of

budget decision-making in school districts may provide some benefits, but such benefits do not occur automatically. For example, charter schools in the United States are not necessarily more cost-efficient than traditional public schools (Arsen & Ni, 2012). Assumptions regarding funding needs and decision-making processes need to be carefully reviewed and evaluated on a regular basis.

Reconciling Economic Limitations and Student Needs

The choices made in the budget of Apollo High School meet the needs of the stakeholders by helping to enhance the learning outcomes of the students. The mission statement of Apollo High School, listing the main priorities, reads, “We are committed to preparing all studentsWe shall accomplish this through academic excellence in all subject areas, while fostering positive growth in social/emotional behaviors and attitudes” (Apollo High School, 2008a, para. 5). Data collected from the best practices of schools indicates that a preschool program and classes of approximately fifteen students until grade three with one teacher and an assistant, and about twenty-five students per class in other grades are a wise educational investment in the future of the students (Odden & Picus, 2004). Data-driven decision-making processes are essential in school budget planning and in the planning of an effective curriculum.

Apollo High School may benefit from best school practices based on empirical research. Qualified tutors for students with special needs and outreach programs, in-school teacher training with approximately \$2000 per teacher for professional development, and \$125,000 for educational technology purchases in schools with a student population of five hundred may have a significant positive impact on overall learning outcomes (Odden & Picus, 2004). Best practices provide a solid, basic framework for school resource allocation decisions. Continuous investment in information technology needs to be integrated into the school budget and curriculum planning (Antolovic, 2001). The ongoing implementation of educational technology in schools in Kentucky is a high budgetary priority (Kentucky Department of Education, n.d.a). Investments in technology and related training are wise investments in the future of schools, teachers, and students.

Investing substantially in the lower grades, tutoring programs, and professional development is essential for the improvement of future, overall learning outcomes (Stover, 2003). However, no method of choosing budgetary priorities and of deciding on an adequate level of spending will be perfect in all circumstances. The budgetary needs of schools in the same education system may vary greatly and change rapidly, but investment in early education programs seems to be the most cost-effective strategy for improving overall, long-term levels of academic achievement in an education system (Levin, 2008). Educational budget planning and funding is subject to constantly changing factors, but a base spending level per child needs to be maintained, and special budgetary considerations must be made for low-income students, students with disabilities, and students learning English as a second language to promote the overall quality and average learning outcomes of schools, education systems, and societies. Some schools, as a result of restructuring and changing the allocation of existing resources, are able to significantly improve the efficiency of programs and the overall learning outcomes (Rayburn, 2004). Establishing budgetary priorities at Apollo High School is useful for improving the

use of existing resources to meet student needs.

Public schools require adequate financial support directly from the state (Crawford, 2004). Schools must carefully balance stated educational goals with spending priorities. A policy statement at the top of the homepage of Apollo High School reads, "The primary vision of Apollo is to promote a sense of community among its students that will encourage, guide and support each student in his or her quest for success" (Apollo High School, 2008b, para. 1). Apollo High School strives to meet the needs of each individual student through the equitable distribution of school resources.

Educational technology plays an important role in all school districts in Kentucky and at Apollo High School. Educational reforms have led to improved standards, larger school revenues, fairer distribution of revenues, new curricula and creative approaches (Rayburn, 2004). Equitable funding systems connected to specific educational goals may be the key to the improvement of the efficiency of schools and the overall quality of learning.

The Kentucky Department of Education (n.d.a) issued a five year "Education Technology Master Plan" in 2007 to guide the funding and implementation of technology in schools to improve the performance of all students (para. 3). Apollo High School shares the same goals and standards as the state master plan. The Kentucky Department of Education (n.d.a) lists the goals in the comprehensive educational, technological, and financial plan of the state of Kentucky as: (1) High student performance, (2) A strong and supportive environment in each school for every child, and (3) High-quality teaching and administration (para. 4). The Kentucky Department of Education (n.d.b) states, "The priorities and initiatives contained in the Master Plan reflect an aggressive approach to enhance teaching and learning through the creative application of technology" (para. 3). The effective implementation and adequate funding of educational technology plays a central role in the curriculum of Apollo High School. The Kentucky Department of Education (n.d.b) asserts that the state master plan acknowledges the importance of "substantial new funds" from the state to support major investments in education technology, including new high-speed information networks (para. 4). School funding, educational technology and practices are closely coordinated at the state, district, and school level in Kentucky.

The members of a school budget committee need to be representative of the main stakeholders (Chabotar, 1995). Legal and ethical guidelines help to ensure that school resources are not wasted or used only for the benefit of a small but influential minority of school and community members. Accountability requires high ethical and legal standards and can be improved by the involvement of all stakeholders to some degree in an open and transparent fiscal reporting process. The fiscal reporting system of the school effectively communicates accountability to the stakeholders of the educational institution, generating a wealth of meaningful data to communicate clearly to a broad audience.

Conclusion

The funding formula used by the Apollo High School in Owensboro, Kentucky helps the school to effectively allocate resources to provide sufficient levels of funding for program priorities. The budget addresses the issues of adequacy and equity in

educational funding. Budgetary decisions are based on accurate data collected regularly from several different sources. Alternative funding structures serve to provide funds for necessary items and resources beyond the scope of the budget. Best practices in the reallocation of resources can significantly improve the decision-making process when building a budget (Roza & Swartz, 2007). The school budget allocates resources to improve learning outcomes and to meet the needs of the stakeholders.

References

- Antolovic, L. G. (2001, Fall). Budget. *New Directions for Higher Education*, 115(1), 61. Retrieved February 18, 2015, from Academic Search Premier database.
- Apollo High School. (2008a). *Rules and policies*. Retrieved February 19, 2015, from <http://www.ahs.dcps.org/eaglenet08/admin/policy/home.htm>
- Apollo High School. (2008b). *School information*. Retrieved February 18, 2015, from <http://www.ahs.dcps.org/eaglenet08/admin/school-info.htm>
- Arsen, D. & Ni, Y. (2012). Is administration leaner in charter schools? Resource allocation in charter and traditional public schools. *Education Policy Analysis Archives*, 20(31). Retrieved May 7, 2016, from EBSCOhost database.
- Chabotar, K. J. (1995, September/October). Managing participative budgeting in higher education. *Change*, 27(5), 21. Retrieved February 17, 2015 from EBSCOhost database.
- Crawford, C. H. (2004, Fall). The critical issue of financing schools. *Delta Kappa Gamma Bulletin*, 71(1), 22-26. Retrieved February 17, 2015, from Academic Search Premier database.
- Ho, H., & Chen, P. (2011). Revamping the funding formula for special education programs in Taiwan. *Asia Pacific Education Review*, 12(1), 143-148. Retrieved June 28, 2016, from ProQuest database.
- Jackson, C. K., Rucker, C. J. & Persico, C. (2015). Boosting educational attainment and adult earnings; does school spending matter after all? *Education Next*. 15(4), 68. Retrieved June 5, 2016 from GALE database.
- Kentucky Department of Education. (n.d.a). *Technology*. Retrieved February 16, 2015, from <http://www.education.ky.gov/KDE/Administrative+Resources/Technology/>
- Kentucky Department of Education. (n.d.b). *The 2007 - 2012 education technology master plan*. Retrieved February 17, 2015, from <http://www.education.ky.gov/KDE/Administrative+Resources/Technology/Master+Plan/>
- Kentucky Department of Education. (2007a, April). *Testing & reporting*. Retrieved February 16, 2015, from <http://www.kde.state.ky.us/KDE/Administrative+Resources/Testing+and+Reporting+/default.htm>
- Kentucky Department of Education. (2007b, September). *Kentucky's NAEP scores continue to show gains*. Retrieved February 15, 2015, from <http://www.kde.state.ky.us/KDE/homePageRepository/News+Room/Press+Release+and+and+Advisory+Archives/2007+Press+Releases+and+Advisories/07-077.htm>

Kentucky Department of Education. (2007c, October). *2007 CATS briefing packet*. Retrieved February 16, 2015, from <http://www.kde.state.ky.us/KDE/Administrative/Testing+and+Reporting/Reports/CATS+Briefing+Packets/2007+CATS+Briefing+Packet.htm>

Levacic, R. (1993). Assessing the impact of formula funding on schools. *Oxford Review of Education*, 19(4), 435. Retrieved June 26, 2016, from EBSCOhost database.

Levin, B. (2008). Fix the flawed funding formula! *Phi Delta Kappan*, 89(9), 697-698. Retrieved June 28, 2016, from ProQuest database.

Odden, A. R., & Picus, L. O. (2004). *School finance: A policy perspective* (3rd ed.). New York: McGraw Hill. Rayburn, L. (2004, February). Equal education? *The World & I*, 19(2), 273. Retrieved February 17, 2015, from ProQuest database.

Roza, M. (2009). Breaking down school budgets. *Education Next*, 9(3). Retrieved June 28, 2016, from ProQuest database.

Roza, M., & Swartz, C. (2007). School spending profiles: A framework to enlighten resource allocation decisions. *Public Budgeting and Finance*, 27(1), 69-85. Retrieved May 21, 2016, from EBSCOhost database.

Stover, D. (2003). Stretching the incredible shrinking school budget. *The Education Digest*, 69(1), 59-62. Retrieved June 20, 2016, from ProQuest database.

Tarricone, P. (1996, July). Energy conference explores the link between indoor comfort & productivity. *Facilities Design & Management*, 15(7), 22. Retrieved February 18, 2015, from ProQuest database.

Toutkoushian, R. K., & Michael, R. S. (2008). The impacts of school funding formula modifications on equity, fiscal neutrality, and adequacy. *Journal of Education Finance*, 33(4), 352-380. Retrieved June 26, 2016, from EBSCOhost database.

Wong, K. K. (2013). The design of the Rhode Island school funding formula: Developing new strategies on equity and accountability. *Peabody Journal of Education*, 88(1), 37. Retrieved June 26, 2016, from EBSCOhost database.