

Report: November 21, 2010

To: Elementary Schools Facilities Task Force

From: Operating Costs and Financial Efficiency Committee

This report is intended to only analyze operating costs and identify inefficiencies that may exist now and in the future. We realize that costs are not the only factor to consider, but given the current economic environment, they are extremely important to understand as the Task Force discusses what is both best and possible for our community.

Cost to operate elementary schools:

Initially we looked at the cost of operating each elementary school, including teacher (certified staff), support, and administrative salaries, as well as costs of utilities, maintenance, and supplies. Although the capital outlay for school buildings is a legitimate cost of providing public education, we have left consideration of this to the larger task force. The capital outlay budget is managed from a district wide perspective and the allocation to a particular building can be confusing. For instance, comparing the cost of new construction to a 50 year old building with 1960 costs discriminates against the new facility. Likewise, if the costs of the old building were translated into 2010 dollars, then the capital outlays associated with deferred maintenance would discriminate against the older schools. In addition, there are future capital outlays that are needed and are being identified by the committee reviewing the current facility inventory.

Once we got the firm pupil count as of September 20, 2010, we were able to review the per school costs based on estimates for 2010-2011 with the elementary population being grades K-5.

Payroll is approximately 95% of the operating costs of the elementary schools. From our review, during the last few years of the budgeting process, the non-wage expenses for all elementary schools have already been scrutinized and do not represent a significant opportunity for further efficiency.

We reviewed both actual and average costs by position and expense item. In the end, we decided to use the average, rather than actual costs, so we would not discriminate against those schools with more experienced staffs. Also, we separated those costs associated with special funding sources (ESL, etc.) because those expenses follow the child to the school they attend. We observed that in some instances, these funding sources may help fill teacher gaps and bolster the pupil teacher ratio, however overall they are not a significant efficiency opportunity.

Once we identified the cost to operate each existing school, we divided the total cost by the number of pupils to show the average cost per pupil at each school. The range was \$3,616 per pupil at a school with greater than 500 students to \$5,886 per pupil at a school with enrollment less than 200. This variation was consistent across the district.

In addition, we reviewed a model of schools that illustrated the cost per pupil in one, two, three, four, and five section schools. Admittedly, there are currently no five section schools in Lawrence, however, we wanted to understand and compare how the cost per pupil changed with various sized schools. In this model, the cost per pupil was:

One section	\$5,259
Two sections	\$4,199
Three sections	\$3,882
Four sections	\$3,616
Five sections	\$3,437

Conclusion: Larger schools are more cost effective than smaller schools.

Our next task was to determine what most affected this cost variation.

Classroom efficiency:

We reviewed how class size affects teacher staffing and the associated costs. The district has established a 25 to 1 pupil teacher ratio. When individual schools have too many students in a class, enough to cause the hiring of another teacher to split the class, that represents a cost that would have been avoided had the extra students attended another school which had class sizes that could have absorbed the students without adding personnel.

School populations fluctuate over time, frequently resulting in smaller school populations. This inefficiency could be addressed with changing attendance boundaries or consolidating schools. We looked at the capacity of the schools both individually and in the aggregate. Some schools do better than others, but that may vary from one year to another, making it virtually impossible to avoid frequent boundary changes. We also recognized that larger schools may have an easier time “right sizing” classes than smaller schools, but that may not always be the case.

Finally, we looked at the efficiency for the entire district of elementary schools for 2010-2011, where there are 15 schools with students in K-6 and 224 elementary teachers for 5,185 students. With a 25 to 1 pupil teacher ratio, that many students at 100% would

require 207 teachers. This difference of 17 teachers, using average cost per teacher of \$53,024, would offer a \$ 901,408 savings, or 7.7% of the total expense for teachers

Conclusion: Given that 100% capacity is an impractical and/or an impossible goal, the district currently is doing a very good job of allocating the teachers. However, the district could save approximately \$110,000 annually for each percentage point increase.

Specials expenses:

The number of sections in a particular school had some efficiency considerations related to specials (art, music, and physical education). The ratio of specials to classes served suggests that one provider can serve up to 21 sections. If the school has fewer sections, then the provider must travel between schools, costing the district for travel and time lost from direct service to students. Although we did not identify an actual cost to schools with less than 21 sections, we considered it to be more efficient the closer we get to that guideline. With a K-5 configuration, the schools sections are as follows:

One section	6 classes
Two sections	12 classes
Three sections	18 classes
Four sections	24 classes

Conclusion: Three sections schools or larger are a more efficient use of the specials resources than one and two section schools.

Administrative expenses:

Every school has a principal, a media librarian, a head custodian and a secretary/administrative assistant, which are eliminated when two schools are consolidated. Although there are some other personnel expenses that increase with larger elementary schools, i.e. assistant secretary, assistant custodian, and a library assistant, as well as savings related to utilities and maintenance, the average cost per student is lower in the larger schools compared to the smaller ones.

We looked at both actual average expenses by building for 2010-2011, as well as a model created to compare schools with varying numbers of section. The model had the advantage of showing us potential savings with larger schools that currently do not exist in our district. The model illustrates that a two section school, assuming 100% classroom capacity is \$ 4,199 per student, compared to \$5,259 per student in a one

section school. If two one section schools were consolidated into a two section school, the annual savings would be \$279,607.

Incidentally, the cost per student at three and four section schools is \$3,882 and \$3,616 respectively, indicating additional savings, but at a decreasing rate. Also, these numbers assume average costs for personnel, so actual savings would vary according to which schools were actually consolidated.

Conclusion: Since the cost of teacher and services increase with the number of pupils, the cost per pupil variation relates primarily to the cost of the principal, the media librarian, the school secretary and the custodian. Therefore, considering the consolidation of smaller schools represents the greatest opportunity for cost savings than either classroom capacity or non-wage expenses. Also, there may be some financial benefit with increasing the efficiency of the class sizes as related to the 25-1 guideline, but significant savings may require adjusting the school boundaries.

Additionally, streamlining the enrollment to get more schools closer to 100% capacity, without being over, would be another way to determine schools that would be likely candidates for consolidation. New students to a school could be directed to schools with lower enrollments for that grade to help even out the enrollment.