

MEMORANDUM

From: Alan Schwartz, MCCPTA, Area 3 Vice-President

To: MCCPTA Executive Board

Date: 5 November 2002

Subj: Analysis of MCPS Enrollment and Projection History

Ref: Superintendent's Recommended Capital Budget's for FY98 through FY04

1. Published MCPS enrollment and projection data has been analyzed from the past decade. The specific purpose is to evaluate the degree with which enrollment projections have forecast reality.
2. Table 1 is the data used for the analysis. Predicted enrollment values were read from charts in each year's published CIP. Actual enrollment values are taken from the FY04 CIP, Appendix A-3.
3. Figure 1 shows the MCPS enrollment history over the last 15 years. Overlaid on the data is a line representing a linear curve-fit of the data. It is seen that the growth has been extremely consistent over this time period and that this rate of growth is approximately 3000 students per year.
4. Figure 2 shows a summary of projections for FY98 and FY00-FY04 (FY99 was not available) overlaid with the actual enrollment values. (This data is plotted based on the calendar year at the beginning of the school year. E.g. FY04 corresponds to the year 2002.)
5. For every year studied, the future enrollment rate is predicted to decline significantly with respect to the immediate previous historical trend. In every case, reality has disproved the predicted decline in enrollment rate. For example, in 1996 (FY98 CIP), the six-year enrollment projection called for an increase of 10,000 students. In fact, MCPS enrollment has increased by 16,600 students during that time. The change in enrollment exceeded the predicted change by 66%. This is a difference of 6,600 students.
6. Another perspective on this same data is shown in Figure 3. Here, the rate of change in enrollment is shown in comparison to the rate of change predicted by MCPS (averaged over the 6-year CIP length). In order to smooth out short-term fluctuations in the change in the actual rate, data is plotted for moving averages based on 2-year and 4-year periods. (In other words, for a given year, the rate is calculated based on an average of the previous two years and the future two years for the 4-year moving average.) For the MCPS enrollment projection, the predicted enrollment change over the time span of the CIP is averaged (i.e. enrollment at six years in the future minus current enrollment divided by 6).
7. Over the period of time of this study, MCPS has consistently predicted enrollment increase rates between 500 and 1500 students per year. The reality during this period is that MCPS enrollment has been growing at a rate of between 2600 and 3000 students per year. On average, over this period, the MCPS projections for the rate of change of enrollment have been approximately 50% low.

8. The following conclusions can be drawn from this analysis:
 - a. MCPS enrollment has exhibited an extremely consistent growth rate of approximately 3000 students per year for the last 15 years.
 - b. For the last seven years, MCPS has consistently been predicting that the future rate of enrollment growth would decline significantly with respect to past history. These predictions have all been proven wrong.
 - c. The actual rate of change of enrollment has consistently been approximately two times the rate of change projected by MCPS.
9. Each year's CIP represents the MCPS plan to address facility needs as a result of changes in enrollment over a 6-year period. It is imperative that the plan be based on realistic projections for future enrollment growth. Analysis of MCPS published data clearly demonstrates that the 6-year enrollment growth projections in recent years have all been substantially low (approximately 50% of actual enrollment growth).

Table 1 – Actual enrollment and MCPS enrollment projections

Year	Enrollment Actuals (/1000)	Enrollment Projection FY04 (/1000)	Enrollment Projection FY03 (/1000)	Enrollment Projection FY02 (/1000)	Enrollment Projection FY01 (/1000)	Enrollment Projection FY00 (/1000)	Enrollment Projection FY98 (/1000)
1987	96.3						
1988	98.5						
1989	100.3						
1990	103.7						
1991	107.3						
1992	110						
1993	113.4						
1994	117.1						
1995	120.3						
1996	122.9						122.9
1997	125						125.8
1998	128.6					128.6	127.6
1999	131.3				131.3	131	129.5
2000	134.3			134.3	135	133	131
2001	137.4		137.4	136.5	136.5	135	132
2002	139.5	139.5	139	137.5	138	135.5	132.9
2003		141	139.5	138.5	139	136.3	
2004		142	140	139.5	140		
2005		143	140.5	140	140.5		
2006		143.5	140.6	140.5			
2007		144.5	140.8				
2008		144.8					
Ave. for 6-yr Prediction		883	567	1033	1533	1283	1667

Figure 1 – MCPS enrollment history

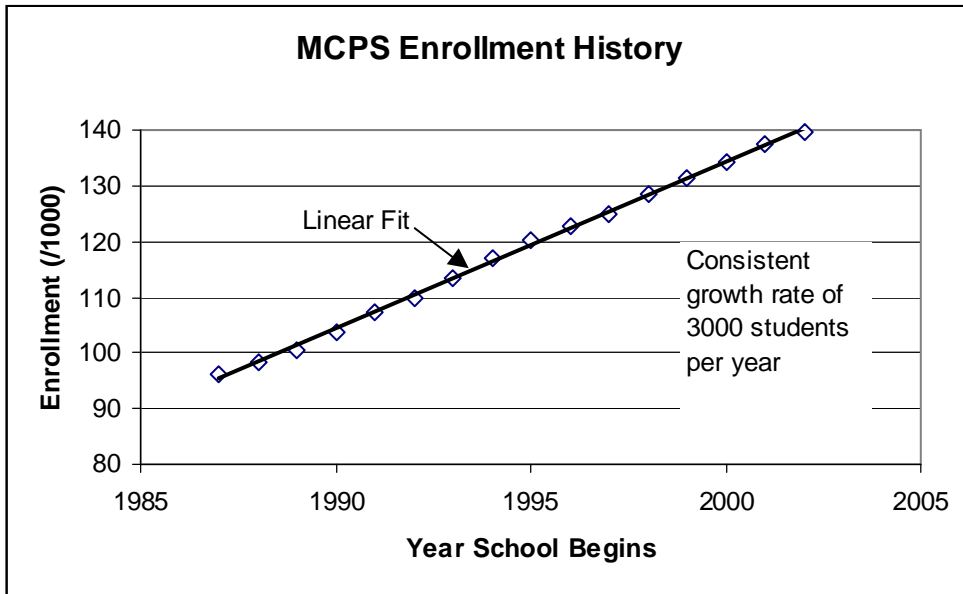


Figure 2 – MCPS enrollment projections compared with actual enrollment

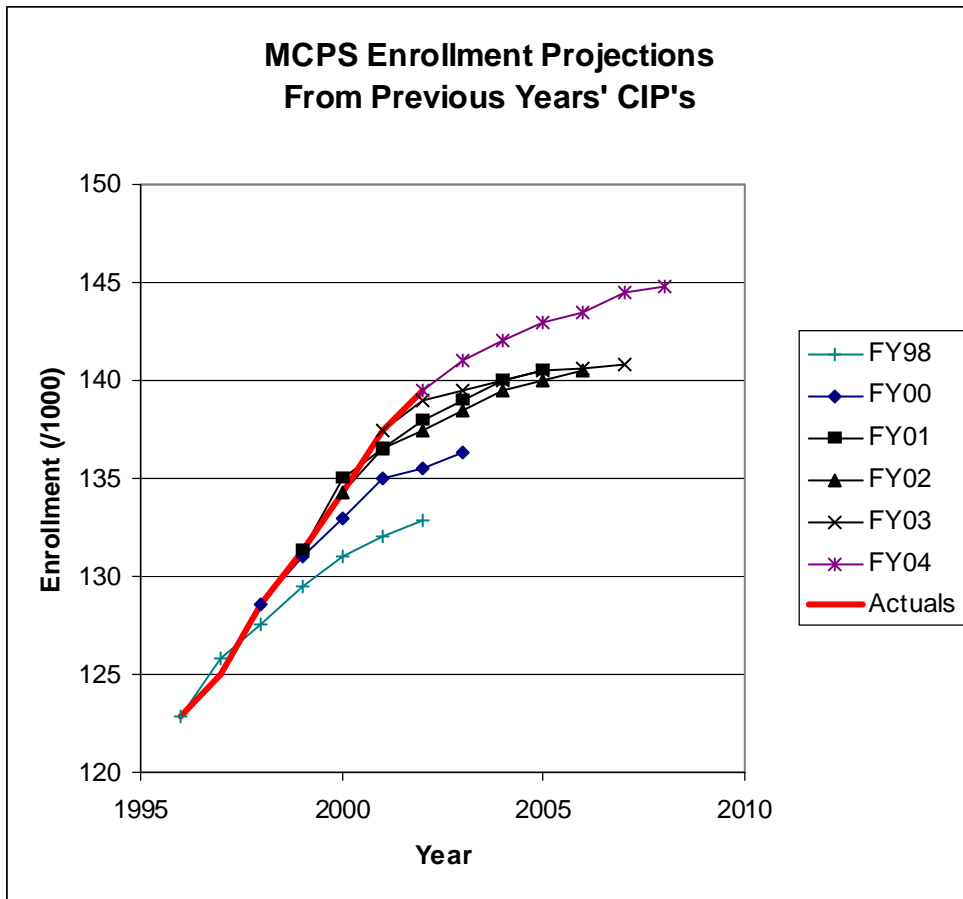


Figure 3 – MCPS 15-year history of enrollment rate

