

Analyzing Trends in School District Expenditures

**Budget 101: A Public Workshop for the Board of
Education and Board of School Estimate of South
Orange-Maplewood and members of the community**

August 20, 2003

Presented by the Board of Education Finance & Facilities Committee

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Errors in August 20 presentation that are corrected in this published version

1. **Errors in presentation:** There were three significant errors of labeling in the August 20, 2003 presentation. These have been corrected in this published version of the material. The three errors were:
 - There were graphs presented for the 1996-97 to 2002-03 timeseries of "Average" Salaries for teachers, support personnel and administrators. The numbers presented in all these graphs accurately reflect the numbers in the Comparative Spending Guides, but in all cases they represent the *median*, not the *average* salaries. The *average* salary figures are available from other sources, in particular the annual set of statistics produced by the New Jersey Education Association. The averages in fact reflect a similar statistical behavior to the medians -- they oscillate up and down from one year to another in patterns that vary widely from one district to another, rather than displaying a clear trend. See Note 6 below for additional comment on the Salary graphs.
 - The set of graphs representing *distribution of expenditures* depicted a number of major categories of expenditure which together totaled 100% (or 99+%) for each district. In the presentation, one of those categories was erroneously labeled, although the numbers presented accurately reflect the numbers drawn from Indicator 13 of the CSG. What was depicted as *Total Equipment Costs* in each of the "percentage distribution of expenditure graphs" should have been labeled *Total Extracurricular Activity Costs*. The Comparative Spending Guide excluded Equipment Costs from the Total Comparative Cost Per Pupil indicator and from the depiction of percentage distribution of expenditure within that Total Comparative Cost figure.
 - In the series of 4 graphs presented for Total Classroom Costs Per Pupil, only the first two were correct. The graphs for 6-Year CAGR and 3-Year CAGR were incorrect – the presentation inadvertently incorporated the 6-Year CAGR and 3-Year CAGR graphs for Total Administrative Costs Per Pupil (members of the audience caught this error, since the graphs were captioned as Total Administrative Costs Per Pupil).
2. **Errors in data:** For *Indicator 19 only* (the Ratio of Faculty to Administrative Personnel), the Comparative Spending Guide itself *appears to contain discrepancies* between the Web-published version and the underlying DBF/XLS files from which we downloaded data. These discrepancies have not been reconciled as of 9/3/03 and the data in this indicator should be considered slightly suspect (some values are off by up to .5, e.g., 15.1 vs. 15.6 faculty/administrator).

Disclaimer

- This presentation was prepared by the Finance and Facilities Committee of the South Orange-Maplewood Board of Education, in response to a request from individual members of the Board of School Estimate at its March, 2003 meeting, and as authorized by a charge to the F&FC from the Board of Education in June 2003.
- The contents of this presentation are the responsibility of the Finance and Facilities Committee. More particularly, any specific views expressed herein are not necessarily the views of the entire Board or the Committee, but should be attributed to Mr. Latz and Mr. Campbell, the direct authors of this presentation. No one should impute any view contained herein to the Board of Education as a whole.
- This presentation is intended for educational purposes only and does not represent a Committee proposal to the Board of Education or a Board of Education proposal to the Board of School Estimate.

References

- Data for this presentation is drawn primarily from the N.J. Department of Education Comparative Spending Guide reports published in 1999, 2000, 2001, 2002 and 2003, which contain data for the following school years:
 - 1996-97
 - 1997-98
 - 1999-00
 - 2000-01
 - 2001-02
 - 2002-03
- Budget data for each of those years reflects the final audited budget, with the exception of 2002-03, which reflects the adjusted budget.

***Note well* the following approach used for all data taken from the Comparative Spending Guides:**

- For the 1997-98 year, the state reported all indicators two ways: ***including*** the state's Teacher's Pension and Annuity Fund (TPAF) payments, and ***excluding*** those payments. Since all other years exclude TPAF contributions, all data extracted and represented in this study uses the 1997-98 data which excludes TPAF. Note that school district budgets as adopted also exclude TPAF although the presentation of revenues and expenditures in the subsequent annual audit includes TPAF (recording the contribution from the state as revenue and the payment by the district to the TPAF as an expenditure, resulting in a wash).
- The state provides data on its website bundled in Comparative Spending Guides released in 1999, 2000, 2001, 2002 and 2003. Each of those guides contains multiple years of data. The 2003 Guide, for example, contains unaudited 2002-03 budget data, as well as the 2001-02 and 2000-01 fully audited data. The data contained in the Guides thus overlaps – the 2002 Guide also contains data on 2001-02 and 2000-01, with the important difference that the latest year in the 2002 Guide (the 2001-02 year) is ***unaudited***. There are thus for some districts significant discrepancies between the figures for a given year contained in the sequence of Guides. This study always uses the ***latest, fully audited*** figures available. The only year for which fully audited figures were not available was of course 2002-03. Data for each of the indicated years was taken from the indicated Guide: 1996-97 (1999 Guide); 1997-98 (2000 Guide); 1998-99 (2001 Guide); 1999-00 (2002 Guide); 2000-01 (2003 Guide); 2001-02 (2003 Guide); 2002-03 (2003 Guide).

Explanation of Data Presentation

- A selected set of districts and averages were used as a comparison group. The set of districts included all K-12 districts in District Factor Groups “FG”, “GH”, “I” and “J”, with enrollments greater than 3500+.
- A District Factor Group (“DFG”) is the State’s measure of a district’s general educational level and socio-economic status. DFGs (with one small exception) **play no role in aid allocation**. Rather, DFGs are used by the State to allow for test score comparison among like districts (see <http://www.state.nj.us/njded/schools/achievement/dfg.htm>)
- Averages were calculated for the set of selected districts from each DFG separately, and for the entire set of selected districts. The Comparative Spending Guide also computes and provides a State Average for all districts K-12 (of any enrollment size) which is depicted as well. It is typically higher, reflecting the high spending in the Abbott districts.

Explanation of Data Presentation (continued)

- There were four graphs generated for most indicators in the Comparative Spending Guide:
 - a line graph showing the trend of spending per pupil from the 1996-97 year to 2002-03; only a few of the data series were displayed on these graphs for clarity's sake:
 - all of the DFG averages, including the 4-DFG combined average
 - the K-12 state average
 - our district, labeled SOMSD
 - West Orange, Millburn, Livingston and Montclair
 - a bar graph comparing 2002-03 expenditures of all districts in the sample set
 - a bar graph comparing the 6-year Compound Annual Growth Rate (CAGR) for all districts in the sample set
 - a bar graph comparing the 3-year CAGR for all districts in the sample
 - all graphs and the supporting data from which they were generated are available in Excel files on the Budget 101 web pages

Further explanation

The Compound Annual Growth Rate was calculated in the standard, accepted fashion, namely:

$$\text{6-Year CAGR} = (((0203\text{YEAR} / 9697\text{YEAR}) ^ {1/6}) - 1) * 100$$

(where " $\wedge 1/6$ " means 'take the sixth-root'; the 3-Year CAGR used 2000-01 as the base year rather than 1996-97, and of course took the 'third-root' rather than the 'sixth-root'). Thus , for our district's total comparative cost per pupil, the 6-Year CAGR is:

$$((($9464 / 7634) ^ (1/6)) - 1) * 100 = 3.64629\%$$

Explanation of Data Presentation (continued)

- Some categories of spending are not included in the state's Comparative Spending depiction. This is fully documented on the Department of Education website. Their outlook is that these categories of spending vary too erratically from district to district and would overshadow a meaningful comparison:
 - out-of-district tuition (primarily for special education students)
 - transportation (all categories)
 - capital outlay (Fund 12)
 - legal judgments
- A presentation of cost trends in our district budget for these categories is included in this presentation, although not on a per pupil basis. Expenditure data in these categories for other districts is not presented.

Overview of Workshop Series

- July 23:
 - Some Building Blocks of An Effective Budget Process
 - Some Accounting Basics
 - Financial Reporting
 - The Accounting Basis and Measurement Focus
 - The Chart of Accounts and Expenditure Classification System
 - The Use of Separate Accounting Funds
 - Financial Accounting and Reporting in N.J. School Districts
 - The N.J. School District Chart of Accounts
 - A Walk-Through of A Few Financial Statements for the Fiscal Year Ended June 30, 2002 (from the CAFR)
 - A High-Level View of the Budget Process
 - Generally Accepted Indicators of Financial Condition
 - Uses and Limitations of School District Financial Statements
 - Key Concepts of Cost Analysis

Overview of Workshop Series (continued)

- August 20:
 - Brief recap of the 7/23 presentation
 - Understanding labor markets and wage costs in N.J. schools
 - Key concepts and cautions when using NJ state budget statistics
 - High-level, long-term national expenditure trends and cost drivers
 - Expenditure trends for our school district compared to select N.J. districts for the period 1996-97 to 2002-03
 - Distribution of expenditures to different categories of the budget and trends in such distribution for the 1996-03 period, compared to the selected set of N.J. districts
 - Basic explanation of state aid calculations
 - Explanation of the statutory growth limitation (the “cap”)
- To be scheduled:
 - How the tax impact is calculated.
 - Three-year projections
 - Detailed cost analyses for select budget categories
 - More ??

We are speaking to a variety of audiences with many different levels of understanding

- This series to be taped and aired on CNN. All materials (including Powerpoint presentations) to be posted on district website:
 - All materials from the July 23 workshop are on the website (<http://www.somds.k12.nj.us/finance/financehome.htm>)
 - The rebroadcast of the July 23 workshop has been delayed because the slides were illegible on the tape; video editing to incorporate legible copies is proceeding slowly
- Key highlights from series to be *repackaged for appropriate delivery* to various audiences through multiple vehicles both before and during budget process (e.g., a set of Frequently Asked Questions (FAQs), newspaper columns, etc.)
- Will use a series of approaches to revisit same subject matter and add depth. No single sequence of concepts and topics will work for everyone
- BOE outreach to stakeholders to occur throughout.
- Your feedback and suggestions are welcome!

The July 23 presentation contained a long list of questions

- Several of the questions were answered in whole or in part in the course of the July 23 presentation
- Several more will be addressed tonight
- The remainder will be addressed in future workshops, assuming we get approval to prepare more workshops
- A Frequently-Asked-Questions document, incorporating succinct answers to the full set of questions (with embedded links and references to the presentations and supporting material) is in preparation and will be posted on the website
- If you don't see your questions answered in that FAQ, let us know and we'll add it and answer it.

Key Messages from the July 23 workshop

- It is possible for non-experts to read and understand district financial statements
- Key stakeholders in the budget process must make the effort to become conversant with district financial statements and the Budget 101 materials in order to become fully informed participants in the budget process
- Our financial statements reflect all financial activity of the district; nothing is hidden or left out
- Our financial practices and accounting system conform to GAAP, in strict accordance with N.J. statute and regulation
- The Chart of Accounts by which we classify/record all expenditures is precisely defined by N.J. regulations (conforming to USDOE NCES)
- The Fund/Program/Function/Object scheme in the Chart of Accounts implements a “line-item” budget
- Despite the detail they contain, line-item budgets create an “Instructional Blob” which makes it difficult for the public to understand the allocation of resources and causes of cost increases over time

The Instructional Blob Makes It Difficult To Reason About . . .

- How and why a budget has grown
- The impact of proposed changes in program delivery and/or resource allocation
- What services are being delivered to which students at what cost and to what effect

Decomposing and Understanding the Budget Requires Rigorous Cost Analysis

- Well-considered and carefully targeted cost analyses are critical to administrative budget planning
- Such cost analyses are also important in demonstrating to the Board and the public that the administration has engaged in due diligence in looking for efficiencies while formulating its budget recommendation to the Board
- If done well, a portfolio of well-designed cost analyses can enable effective administration of a school district and enable student success
- If done poorly or cavalierly, cost analysis work can lead to ill-founded conclusions and cripple effective budgeting and the educational ends it is supposed to serve

A Note of Caution

- We need to be circumspect about what conclusions we draw from data, or even what predispositions we are victim to . . .
- Tonight's presentation, looking at historical trends and comparative views, won't give us answers
- If we're lucky, it may help us ask the right questions to guide our work in more detailed analysis, leading to the three-year budget projections and a well-supported administrative budget recommendation

Understanding Labor Markets and Wage Costs in N.J. Schools

Understanding the “Cost Equation”

- Each line-item amount is a function of . . .

$$\text{Dollar Amount} = \text{Resource Quantity} \times \text{Resource Price}$$

- For classroom teachers, for example, the dollar amount on the salary line is a function of . . .

$$\text{Required number of classes} = \text{Student classes per day} \times \frac{\text{Number of students}}{\text{Average Class Size}}$$

$$\text{Teachers Required} = \frac{\text{Required Number of classes}}{\text{Classes per day in teacher workload}}$$

$$\text{Salary Cost} = \text{Teachers Required} \times \text{Average teacher salary}$$

Understanding Certificated Staff Salaries

- Each staff member's salary a function of:
 - the salary guide
 - the agreed policies by which staff are placed on the guide according to their years' certificated experience and their level of education
 - that staff member's experience and number of post-graduate credits
 - the average salary will change from year to year, dependent on:
 - negotiated increases in the rates of pay for steps on the salary guide
 - negotiated changes to the number of steps on the guide
 - movement of staff members up the guide as they accumulate another year's experience
 - changes in the workforce composition as some staff retire or leave, to be replaced by others with different levels of experience and thus different guide placement

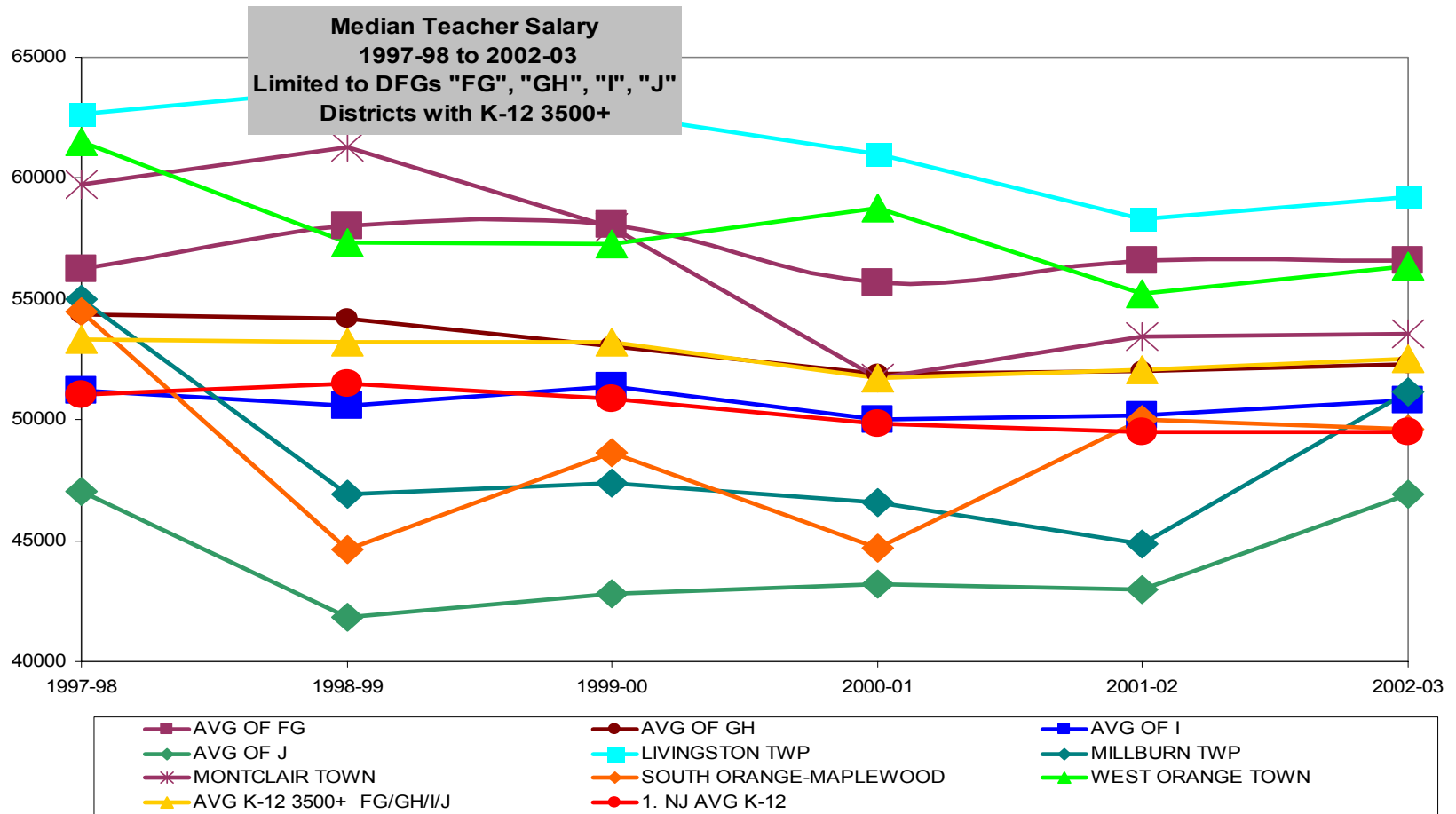
Changes in a budget line can thus result from any combination of . . .

- Negotiated increases in the rates on the salary guide or the number of steps on the salary guide
- Movement of staff up the salary guide
- Changes in the workforce composition
- Enrollment increases large enough to trigger hiring
- Changes in regulations which increase student minutes required per day and/or the experience level required to deliver programs/services
- Changes in average class size
- Negotiated changes in staff daily workload
- The sources of cost increases and savings may change dramatically from year to year

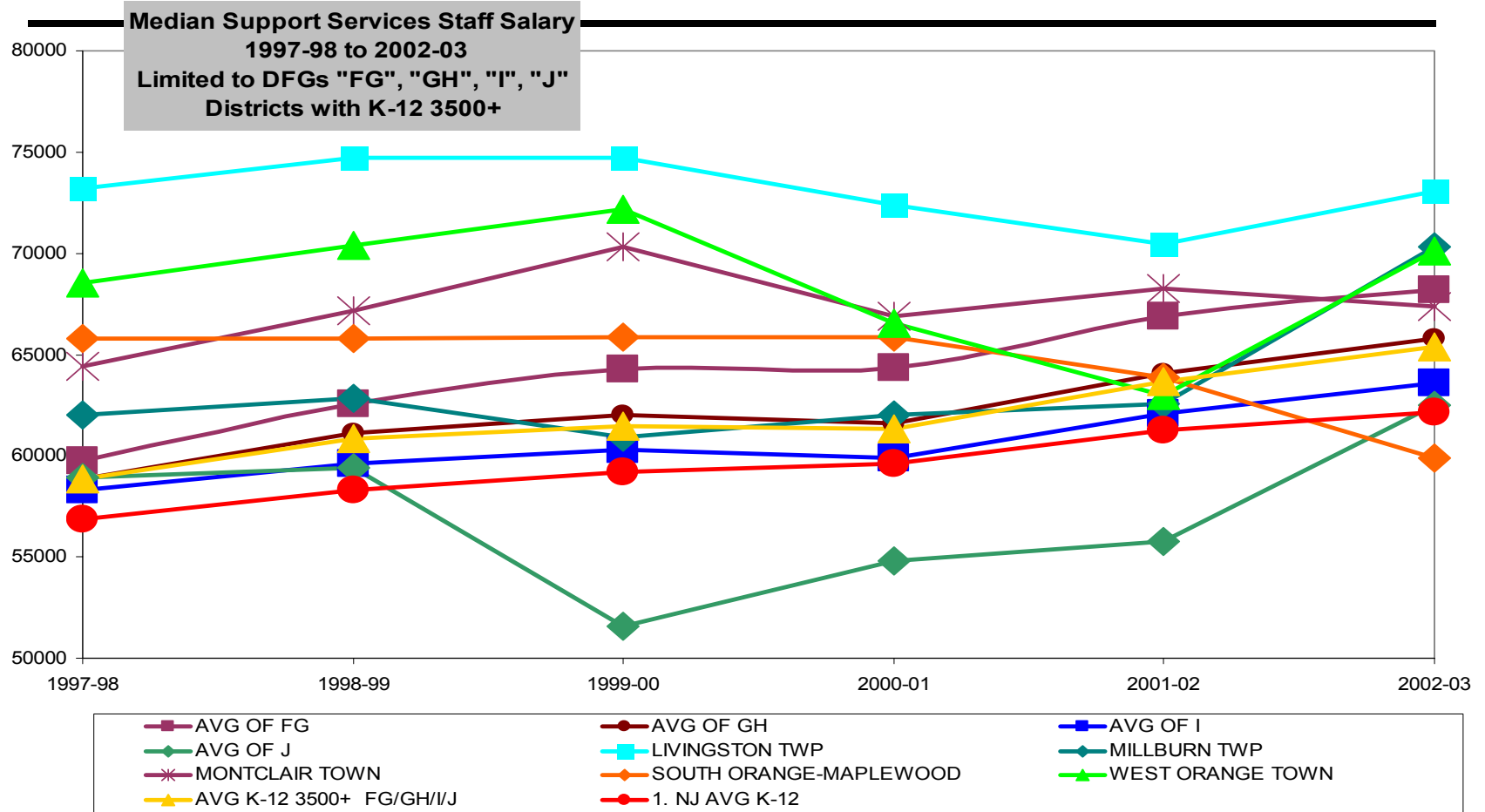
The Median and Average Salary (and cost of a workforce) is Highly Sensitive to the Composition of the Workforce

- A typical change to the workforce in the past period has been 40-50 employees per year (combination of retirements and resignations)
- Staff departing are typically at or near the top of the salary guide (and sometimes on higher guides (BA+30 credits or BA+60 credits))
- Replacement staff hired are typically closer to the bottom of the guide and often lack post-graduate credits
- The savings in salary costs from this sort of change in staff composition is referred to as “breakage”
- The breakage-per-person savings is sometimes as high as \$30,000
- Breakage is unpredictable and should not be directly budgeted
- This helps explain why most districts experience annual up-and-down swings in average teacher salary despite every-increasing salary guides

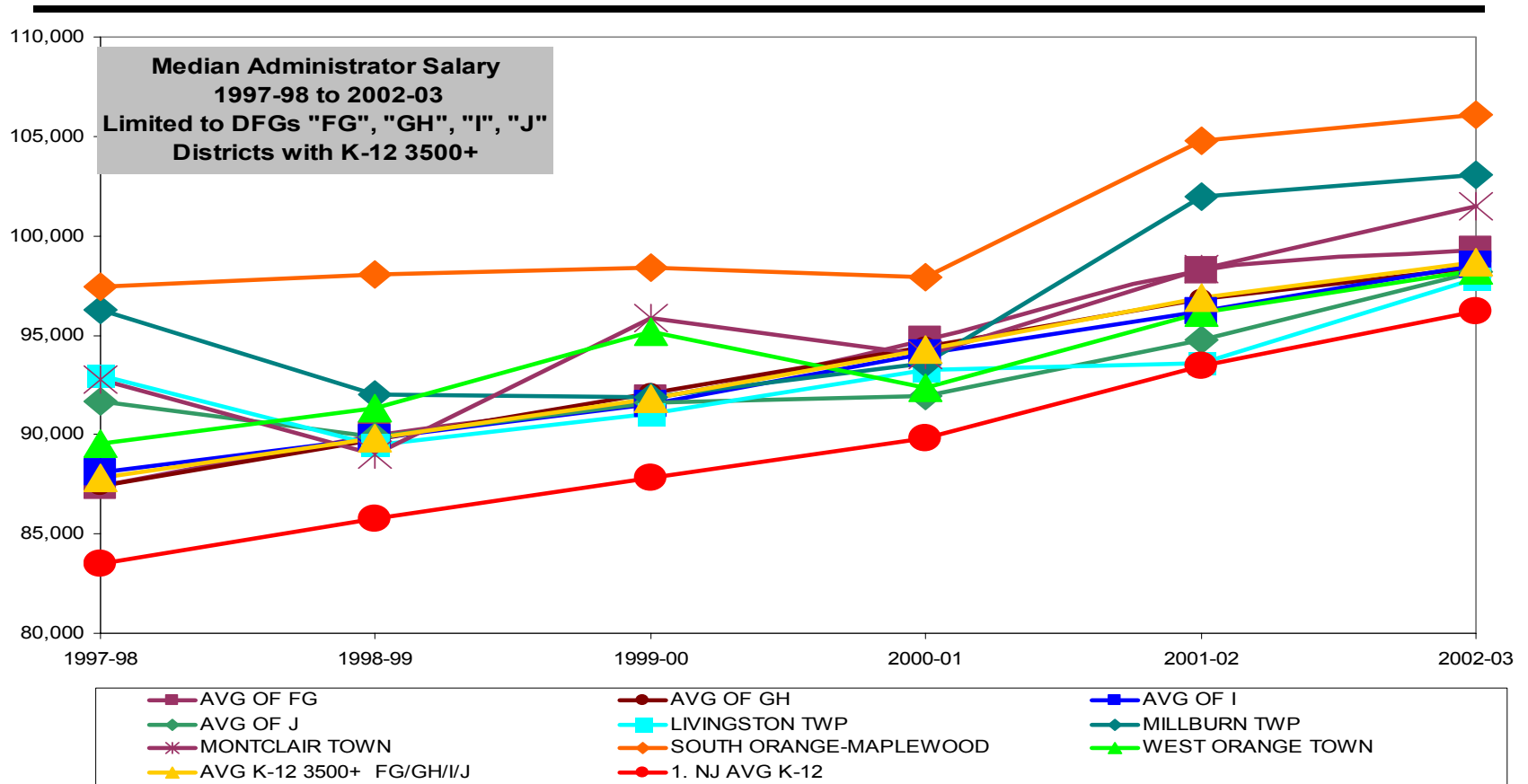
Median Teacher Salary 1997-98 to 2002-03 for selected districts with DFG and State Averages



Median Support Services Staff Salary 1997-98 to 2002-03 for selected districts with DFG and State Averages



Median Administrator Salary 1997-98 to 2002-03 for selected districts with DFG and State Averages



Compound Annual Growth Rate is not meaningful for the salary medians

- For the salary data, the notion of a Compound Annual Growth Rate is not meaningful, given the demonstrated behavior of average and/or median salaries to oscillate up and down from one year to another, displaying a high sensitivity to the changes in composition of the workforce and little correlation to the steady increase in the underlying salary guide rates in all districts.
- Compound Annual Growth Calculations were not performed for the median salary data just depicted.

Key Concepts and Cautions When Using N.J. State Budget Statistics

As background for understanding the N.J. Comparative
Spending Guide

The Basics

- Statistics never demonstrate causation, at most correlation within some range which might result from a causal relationship or from a common underlying cause
- An average is a *measure of central tendency*; to be meaningful, an average depends upon:
 - A normal distribution (a bell curve)
 - No more than a reasonable amount of dispersion from the “expected value”
 - The value “6” is the “average” of the following *very different sets* of three numbers; it has limited descriptive power for at least two of them:
 - {5, 6, 7} {3, 6, 9} {1, 6, 11} {1, 2, 15}
- The quality of the underlying data (and the combinations of it) are to some degree problematic

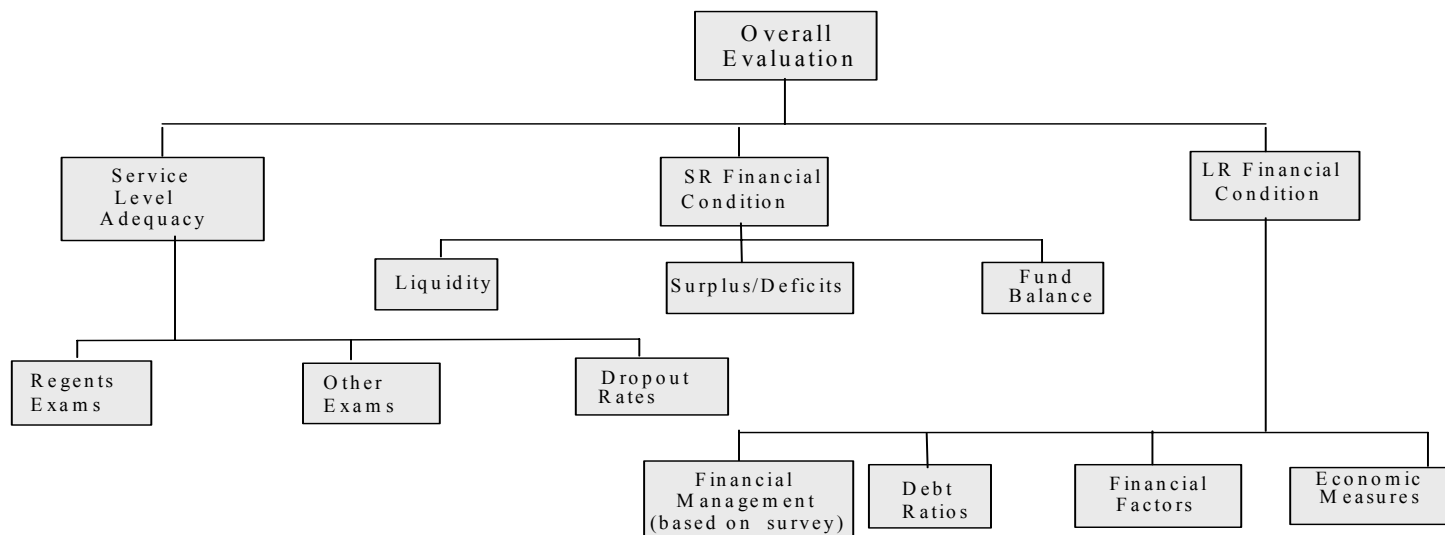
Best practices in statistical inference

- Don't try to examine precision (differences of degree), focus instead on differences of magnitude
- Use several different views to develop a “preponderance of the evidence” approach
- Be comfortable with statistical dissonance; perfect patterns or symmetry are actually a reason for suspicion
- Identical statistical patterns can result from dramatically different data (and hence different causes)
- At most, use the following data to form questions and very tentative hypotheses as the starting point for drill-down with cost analysis and other approaches

Brief Review of the Framework for Indicators of Financial Condition

On July 23, we talked about using a standard set of indicators of financial condition; William Duncombe proposes one such model for assessing the financial health of New York school districts

Figure 10-4: Framework for Measuring Financial Condition



(Duncombe, 2000, p. 49)

For high-level analysis of a district's financial condition, Mead* recommends the use of several sets of indicators

- Common size ratios
 - percentage change
 - percentage distribution
- Liquidity Ratios
- Solvency Ratios
- Leverage Ratios
- Coverage Ratios
- Ability-To-Pay Ratios (also called Fiscal Capacity Ratios)

* (Mead, 2000, Appendix C); also available as *"Assessing the Financial Condition of Public Schools: Some Tools of the Trade"* in *Selected Papers in School Finance 2000-2001*. [Online]. at http://nces.ed.gov/pubs2001/2001378_2.pdf

In tonight's presentation, we'll focus mostly on:

- What Duncombe refers to as long-term conditions (greater than a year)
- The common size ratios described by Mead:
 - percent change over time, compared with other school districts
 - percent distribution of expenditure across multiple expenditure categories
 - per-pupil expenditure, viewed both longitudinally and comparatively with other districts
 - staffing ratios, as a way to determine whether changes in spending per pupil reflect changes in resource levels or changes in cost of resources

Common Size Ratios: Percentage Change

- Purpose: Allow for comparison from one year to the next and from one school district to another
- **Percentage change** shows the magnitude of change in a particular item (e.g. % increase in insurance costs)

Pros	Cons
• Can be applied to all sorts of financial statement information • Provides a high-level indicator that helps analysts know where to drill down	• To the extent that the comparator spending is not reasonable, will mask problematic trends • Only a general indicator; can't infer a problem from a large percentage

Common Size Ratios: *Percentage Distribution*

- Purpose: Allow for comparison from one year to the next and from one school district to another
- ***Percentage Distribution*** shows the portion of the total represented by individual elements (e.g. percentage of budget devoted to Special Education costs)

Pros	Cons
• Can be applied to all sorts of financial statement information • Provides a high-level indicator that helps analysts know where to drill down	• To the extent that the comparator spending is not reasonable, will mask problematic trends • Only a general indicator; can't infer a problem from a large percentage

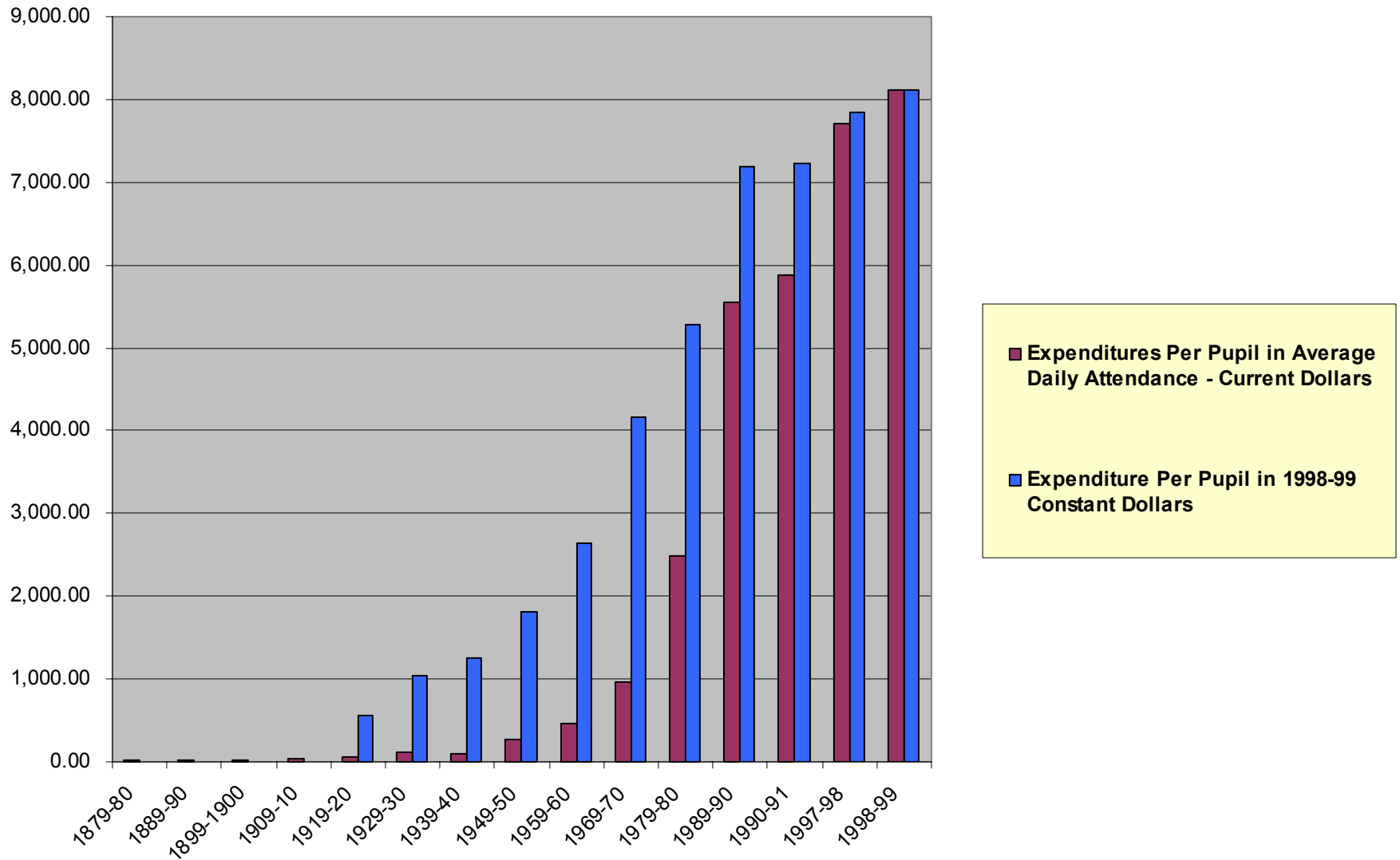
Long-Term National Expenditure Trends and Cost Drivers

As context for understanding
the current magnitude of our budget

Since 1950, there has been a four-fold increase in real terms in education spending

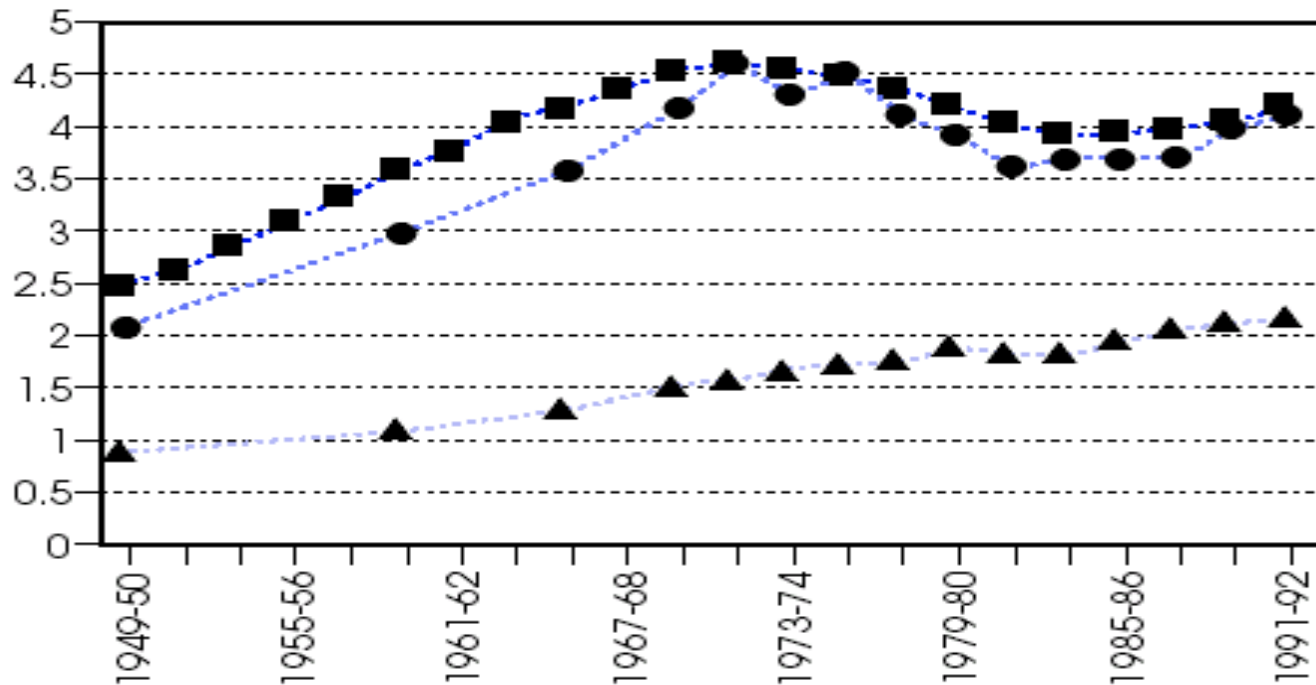
- Education finance experts study these longer-term trends as a means to understand what trends may be operative today
- Lacking detailed data on the composition of this dramatic rise in spending, experts seek to decompose the overall cost into components where there is more detailed data
- Guthrie, reflecting a consensus among mainstream education finance experts, cites a few key factors in this expenditure growth:
 - 86% inflation-adjusted increase in teachers' salaries between 1949-50 and 1971-72
 - the ratio of students to school employees has dropped by half since 1949-50
 - an expansion of the set of programs and services provided to students, in particular for students with extra needs
 - the drive for education finance equity for students in urban areas

Spending Per Student By Decade, in both Current and 1989-90 Constant Dollars.



Enrollment in Public Schools, Per-Capita Personal Income, and Education Spending as a Percentage of Gross Domestic Product (GDP), from 1949-50 to 1991-92

The percentage of the Gross Domestic Product devoted to education spending has closely tracked enrollment



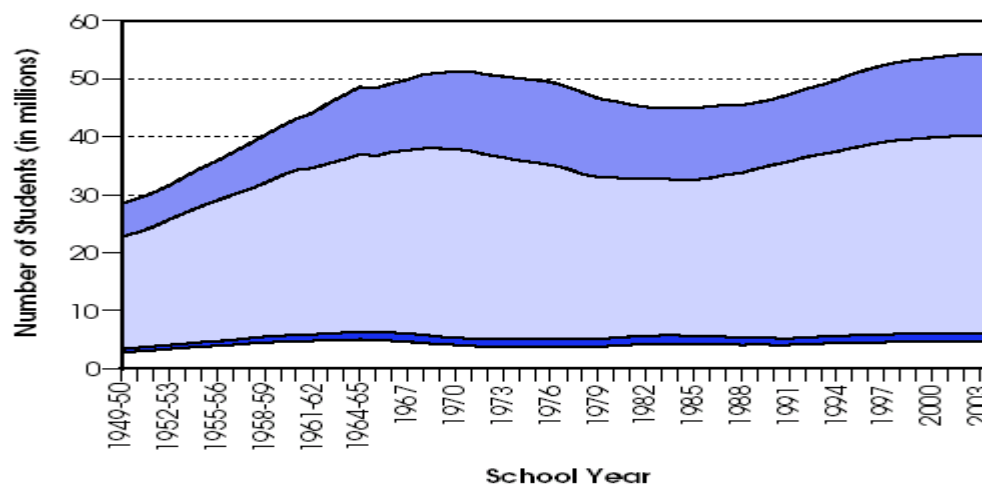
■ K-12 student enrollment, in ten millions
● Elementary and secondary school revenues as a percentage of GDP
▲ Per-capita personal income, in ten thousands of dollars

From (Guthrie, 1997)

Understanding the last 50 Years: enrollment

Figure 1

Enrollment in Public and Private Elementary and Secondary Schools, 1949-50 to 2004-05^a

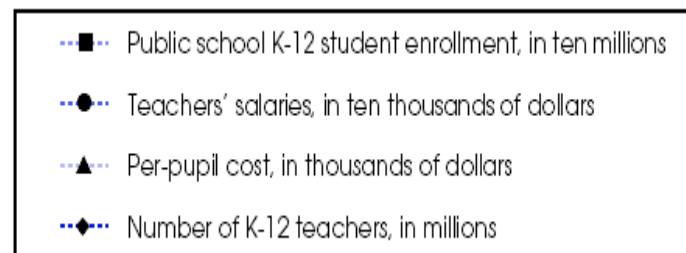
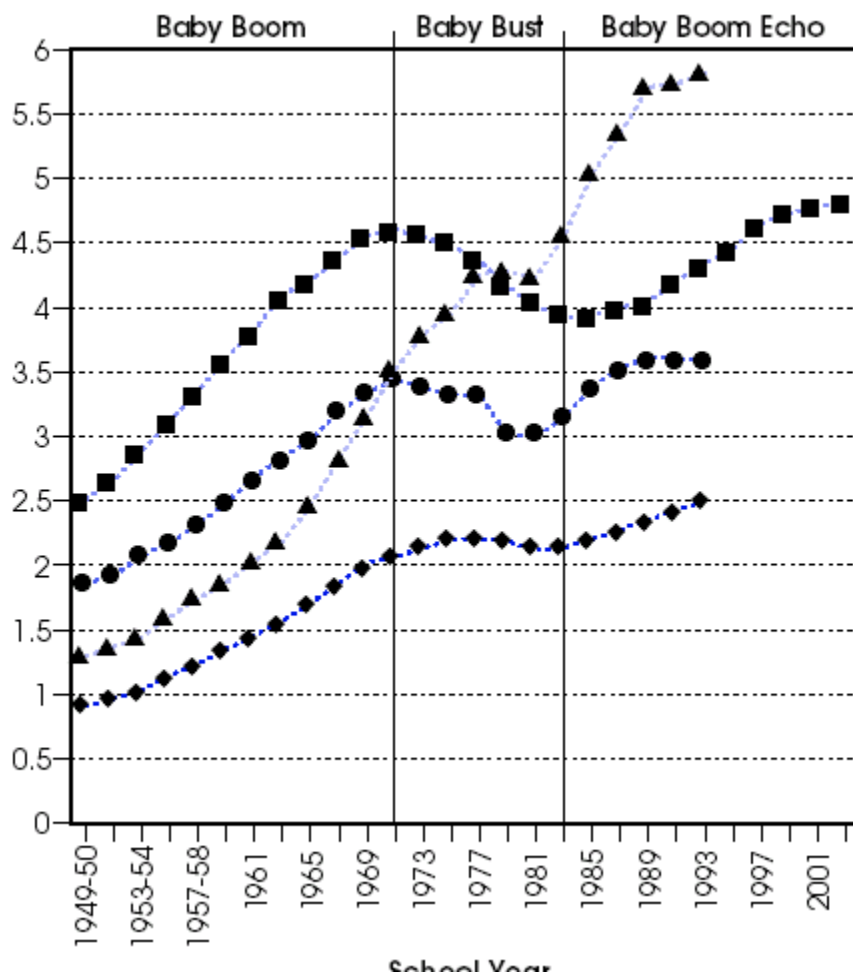


^a For the years 1965 through 2004 measures were taken for the fall of each year.

Source: For 1949-1950 to 1990: U.S. Department of Education, National Center for Education Statistics, *120 years of American education: A statistical portrait*. Washington, DC: U.S. Government Printing Office, 1993, p. 37. For 1991 and later years: U.S. Department of Education, National Center for Education Statistics, *Projections of education statistics to 2006*. Washington, DC: U.S. Government Printing Office, 1996, p. 8.

From (Guthrie, 1997)

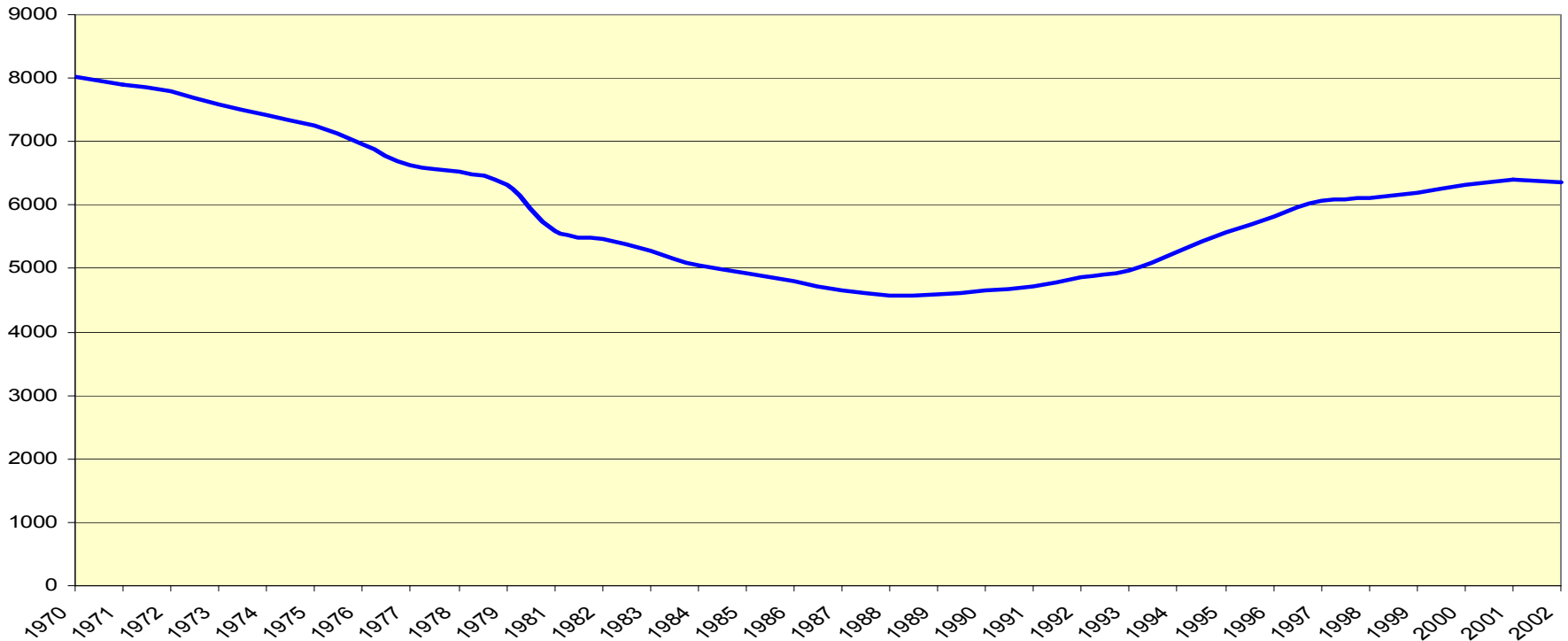
Enrollment, Number of Teachers, Teachers' Salaries, and Per-Pupil Costs 1949-50 to 1993-94, with Enrollment Projections to Fall 2003^a



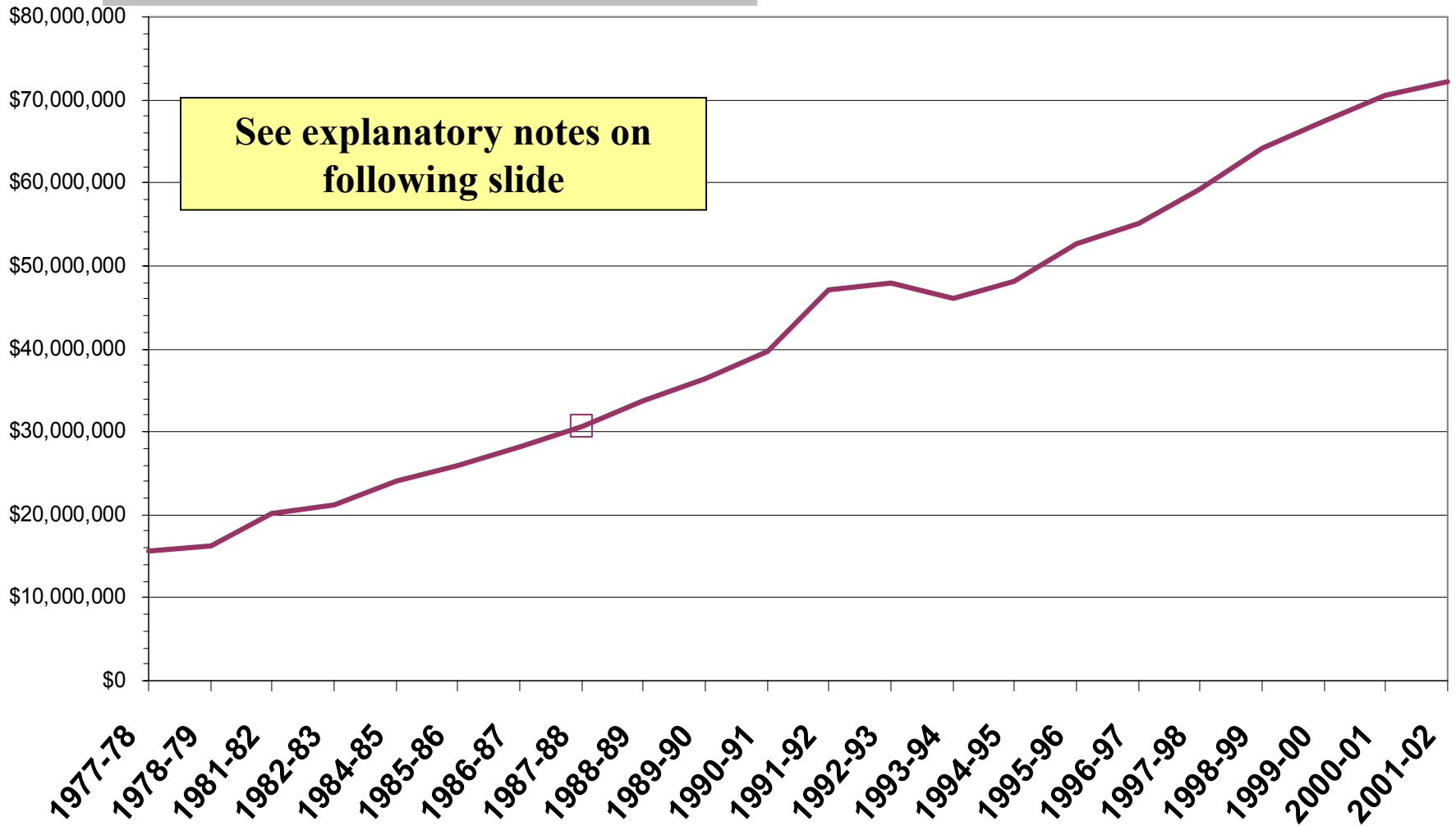
From (Guthrie, 1997)

Our district's enrollment and cost trends for a portion of this period mirror the national experience

SOMSD Enrollment 1970 to 2002 (Oct. 15 figures)

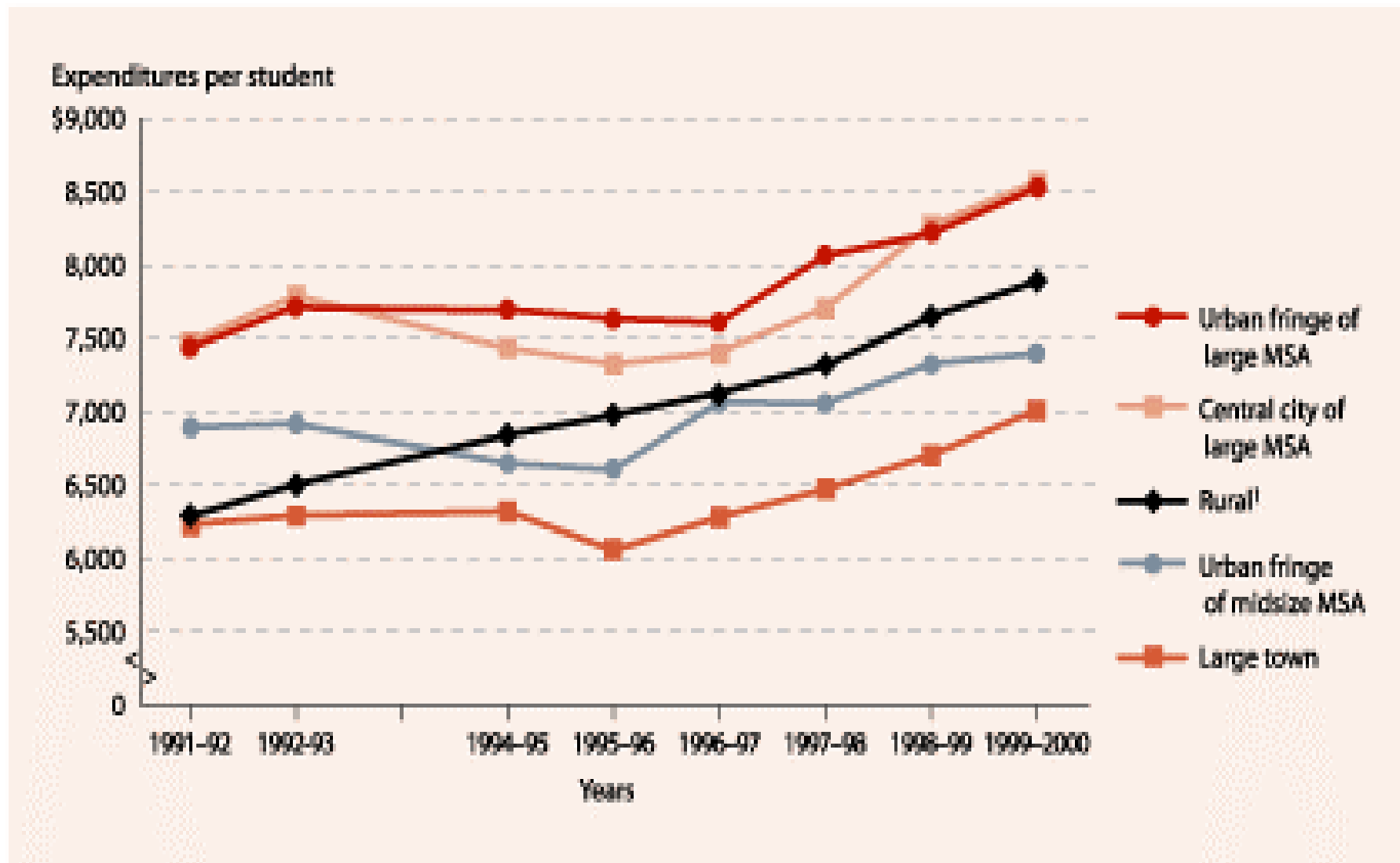


SOMSD Total Budget (All Funds) 1979-80 to 2001-02
(some years missing)

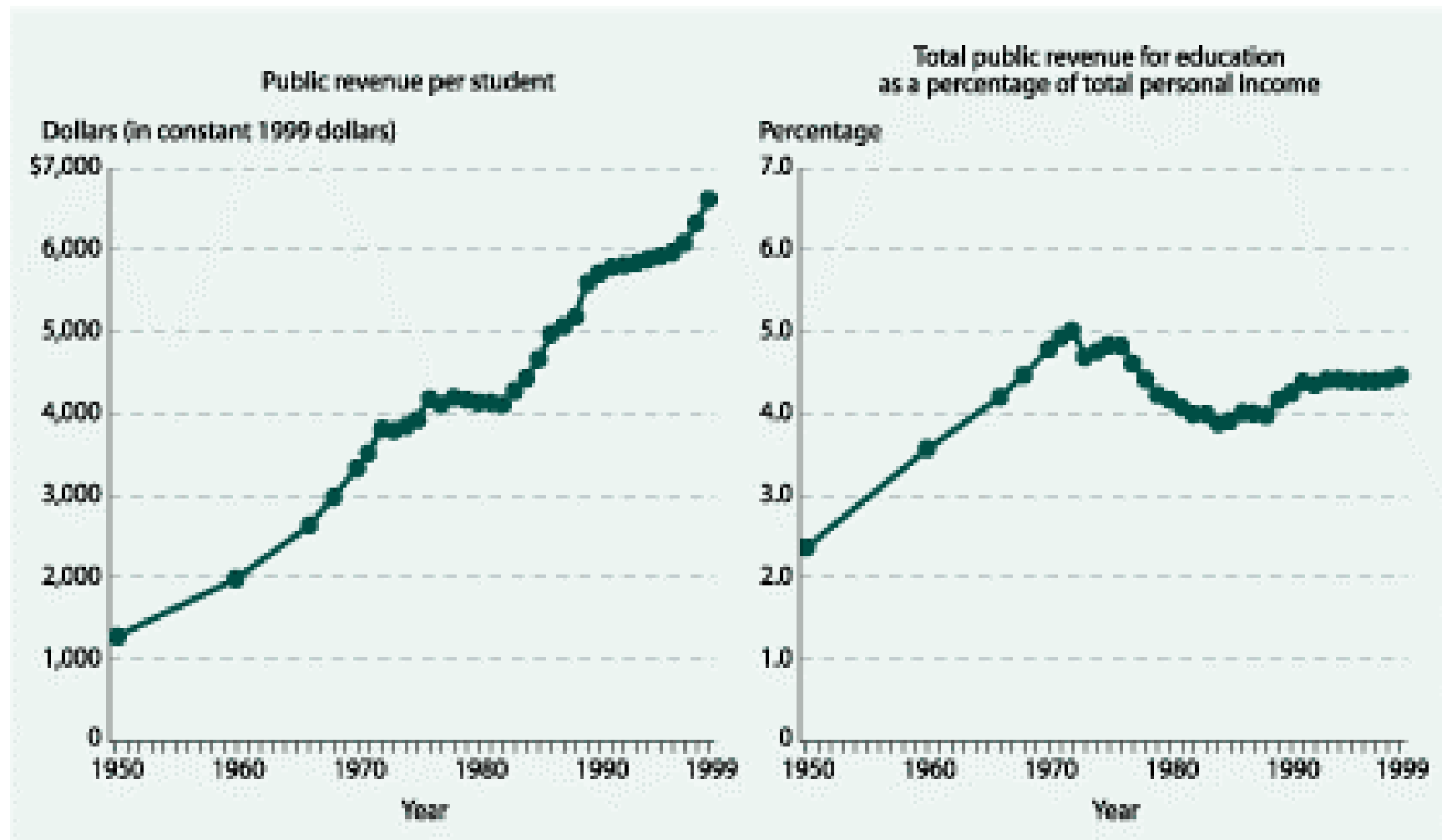


Notes to the preceding slide depicting district's 20-year expenditure trends

- On the preceding slide, expenditure data for each year represents the combined revenue of *all governmental fund types*, including the Special Revenue Fund and the Debt Service Fund. Two observations are in order:
 - Prior to 1993, N.J. school district budgets were not prepared according to GAAP, and comparisons between those years and years subsequent to 1992-93 may reveal some inconsistencies in accounting treatment.
 - The revenue totals depicted in this chart do not reconcile with the implied totals in the Comparative Spending Guide for our district. Remember, the Total Comparative Cost Per Pupil is based on Fund 10 (the General Fund) and certain categories of Fund 20 (the Special Revenue Fund), but excludes certain substantial expenditures in Fund 10, specifically Transportation, Out-of-District Tuition, Capital Outlay and Legal Judgments. Together, these exclusions total millions of dollars. The preceding chart not only *includes* all of those categories, but *also includes* all of Fund 20 and also Fund 40 (Debt Service).



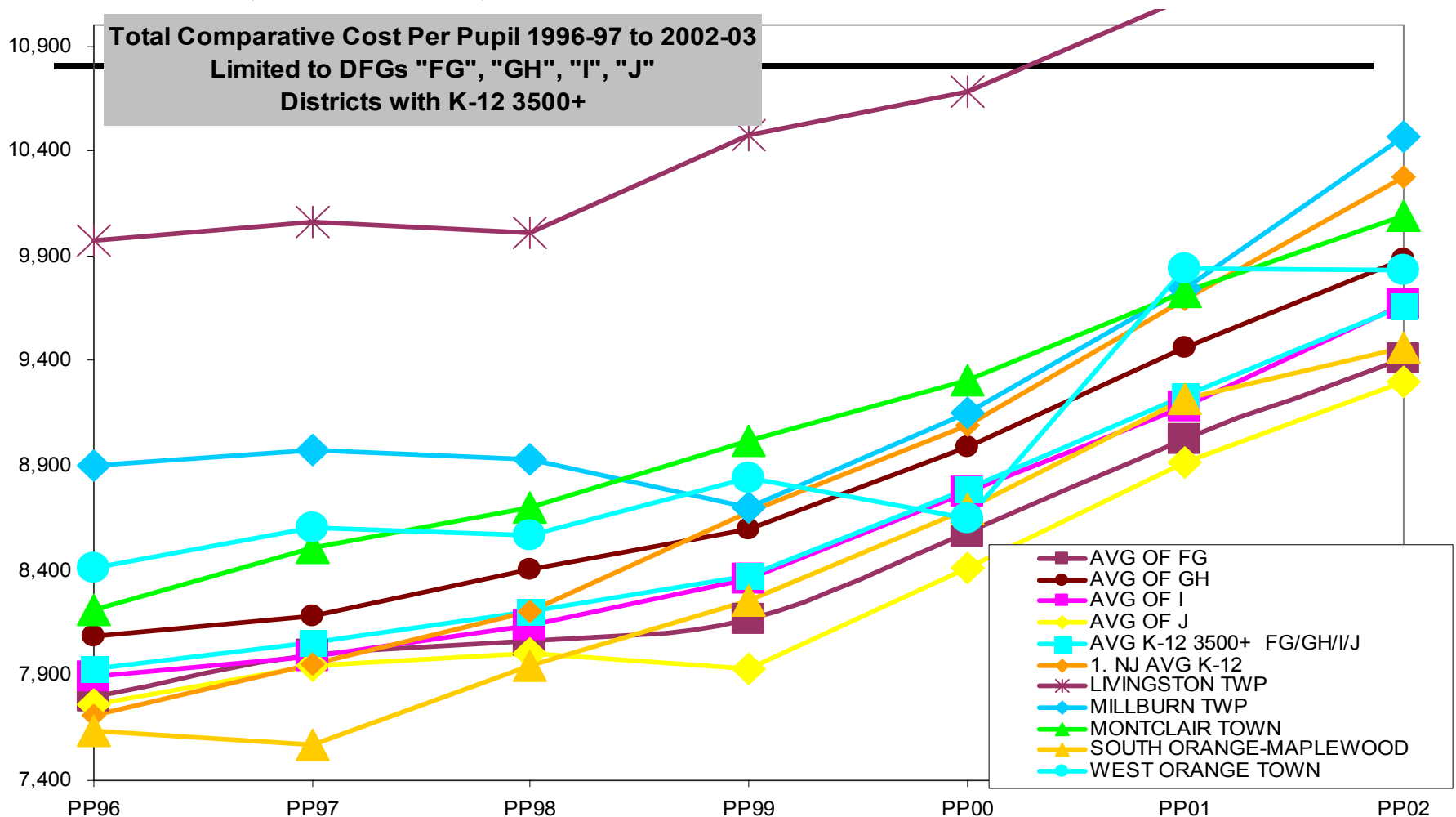
**Source: National Center for Education Statistics Education Finance Center,
The Condition of Education, Indicator 39-2003**



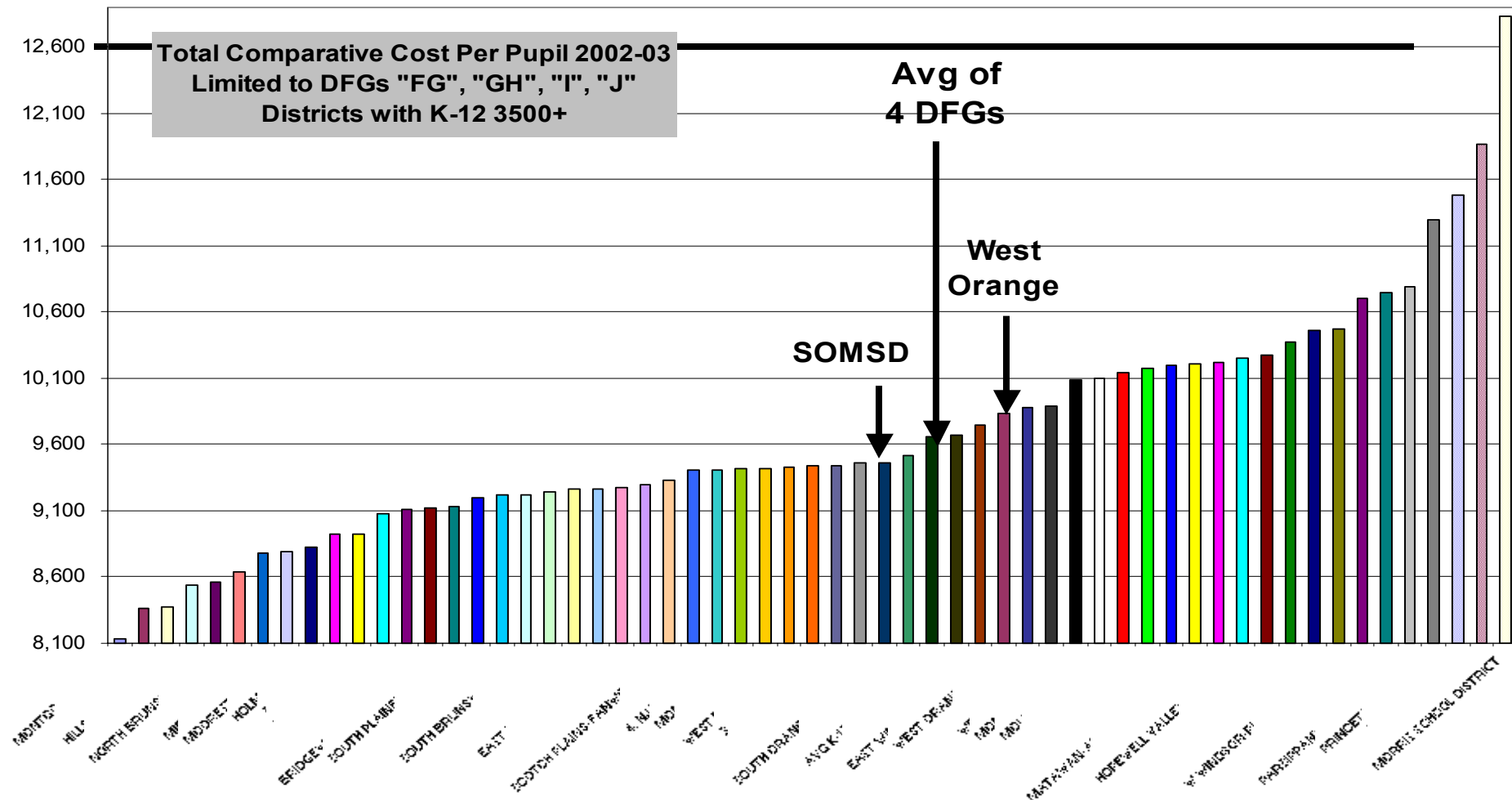
**Source: National Center for Education Statistics Education Finance Center,
The Condition of Education, Indicator 42-2002**

Expenditure trends for our school
district compared to select N.J.
districts for the period 1996-97 to
2002-03

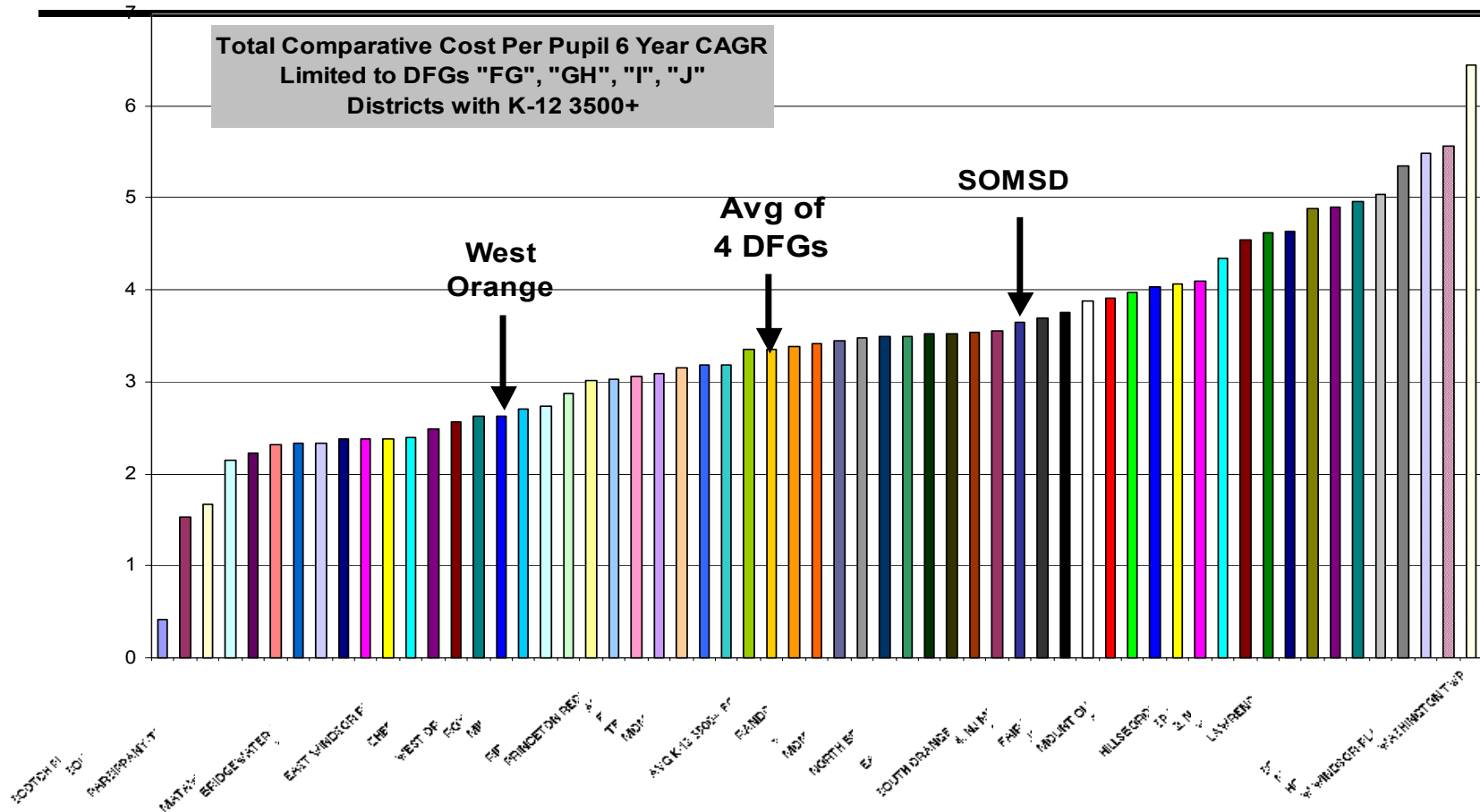
2002-03 SOMSD amount of \$9,464 represents increase of 24% since 1996-97, keeping pace with rate of increases over the same period for all NJ districts (\$10,138, +33%), K-12 districts (\$10,273, +33%) and the average of DFG "I" districts (\$9,669, +22%)



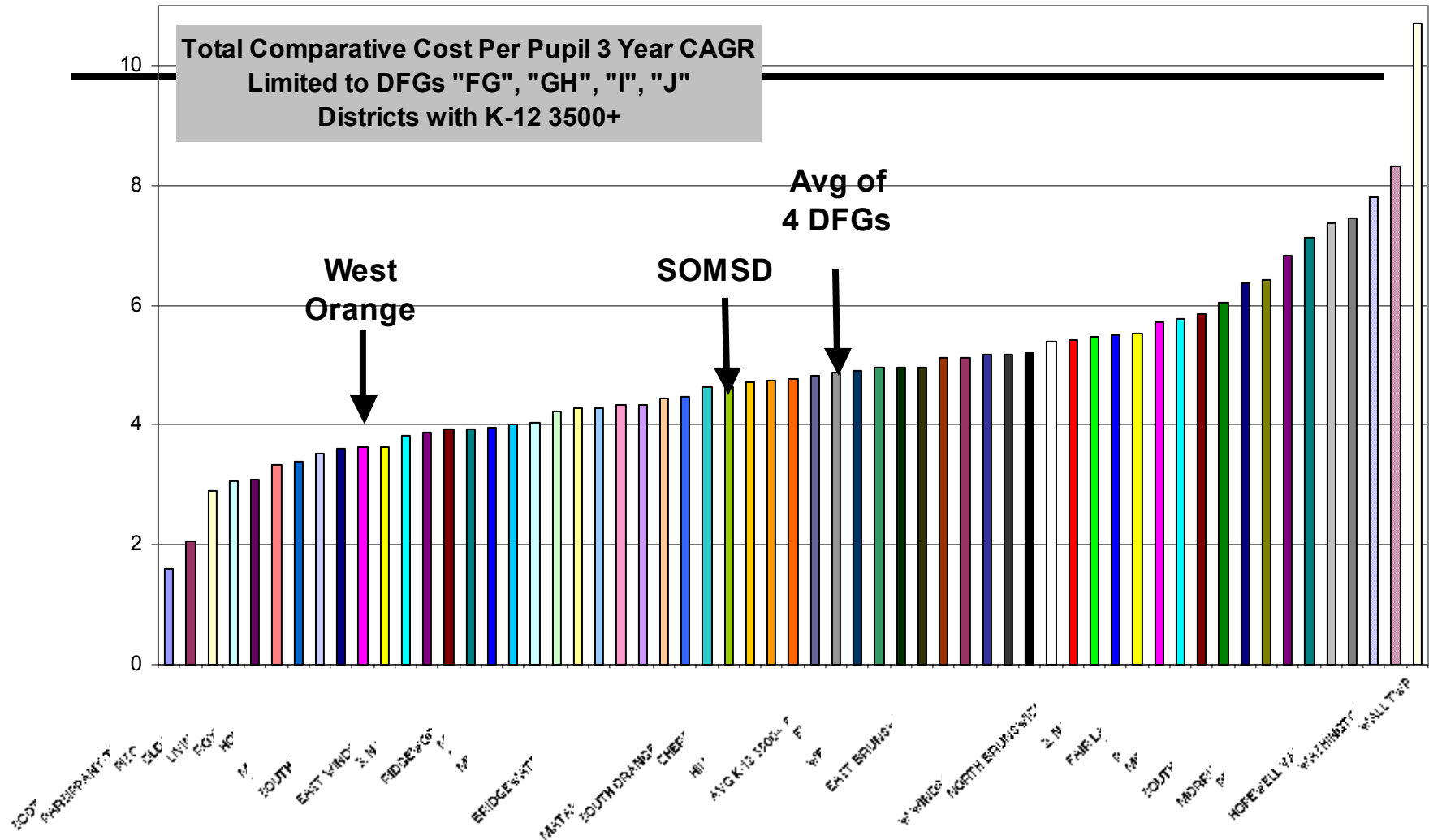
In comparison to other proximate DFGs, the DFG "I" average cost per pupil is slightly, but insignificantly, higher (range within 6%, or \$400). SOMSD trails other neighboring districts.



The CAGR expressing a year-over-year growth rate is 3.7% for SOMSD for the six-year period ending in 2003. This is in line with the 4-DFG average (+3.4%) and the state median of 3.7%



Within the last three years SOMSD cost per pupil has accelerated (+1.0 points to 4.6%). This is not unlike increases witnessed in other districts, and comparable to the 4-DFG average

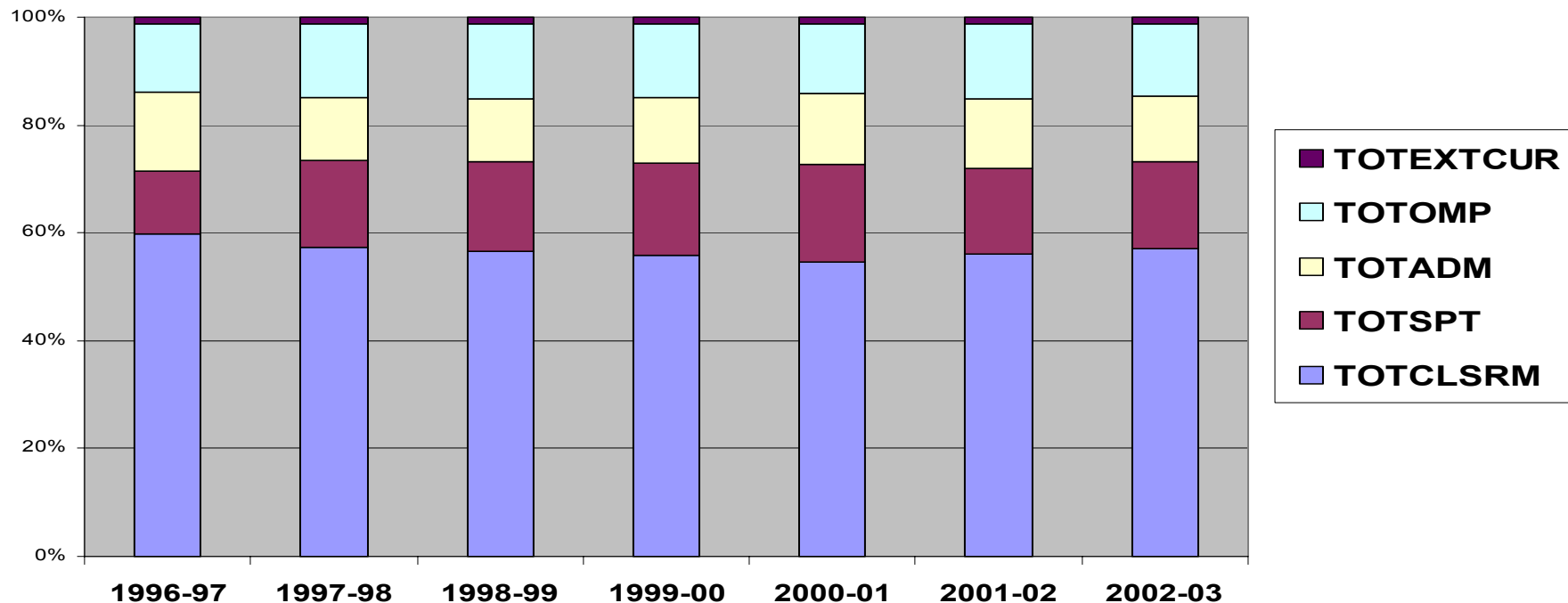


Trends in the Distribution of Expenditures to Major Categories of the Budget

SOMSD's major spending categories have remained relatively constant in recent years. The largest category, Classroom Costs Per Pupil, hovers between 57% and 60%

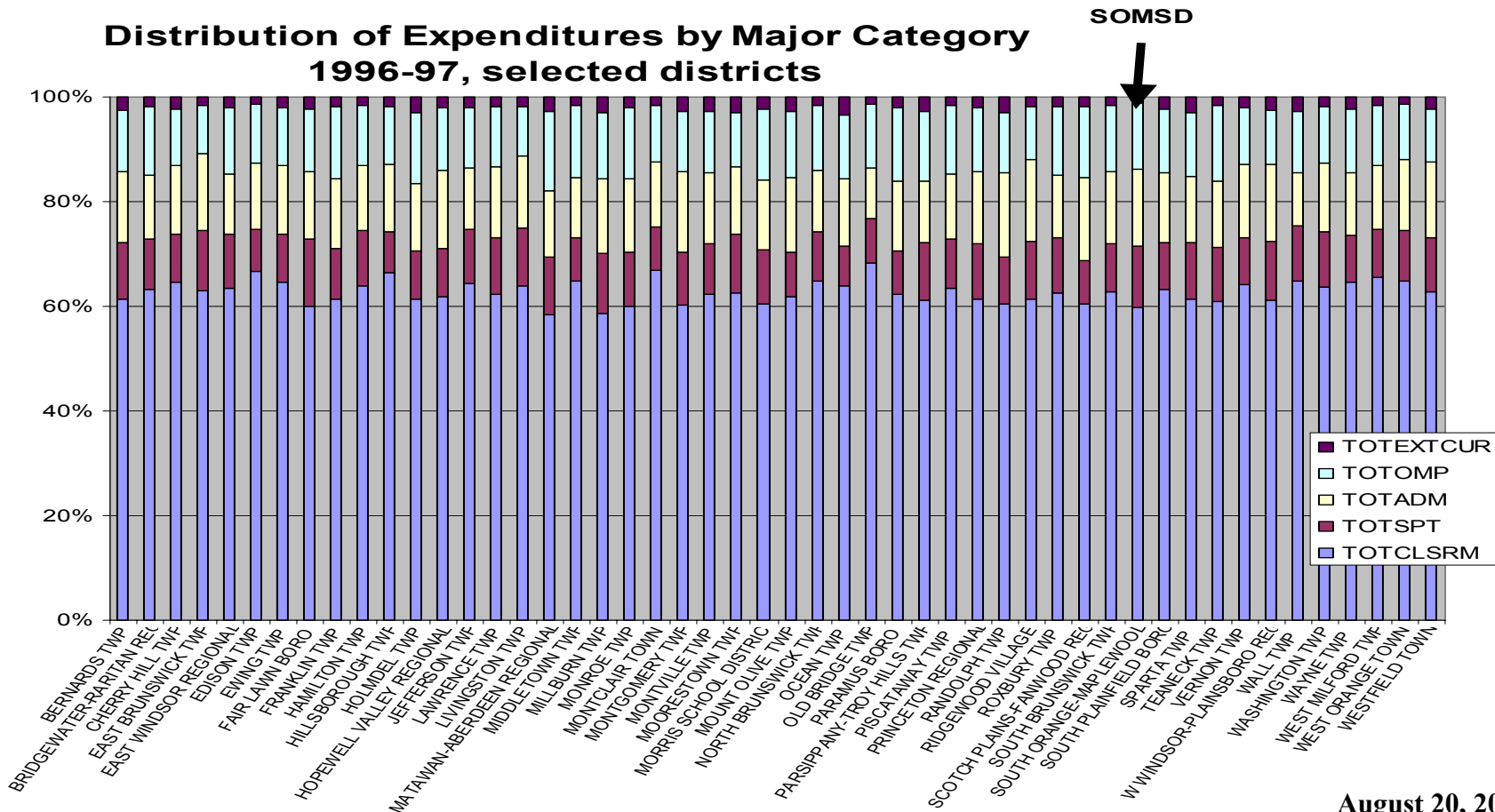
**South Orange-Maplewood School District Expenditure Distribution
by Major Category 1996-97 to 2002-03**

**(excluding Tuition, Transportation, Capital Outlay, Judgments and other
categories not included in Comparative Spending Guide Comparisons)**



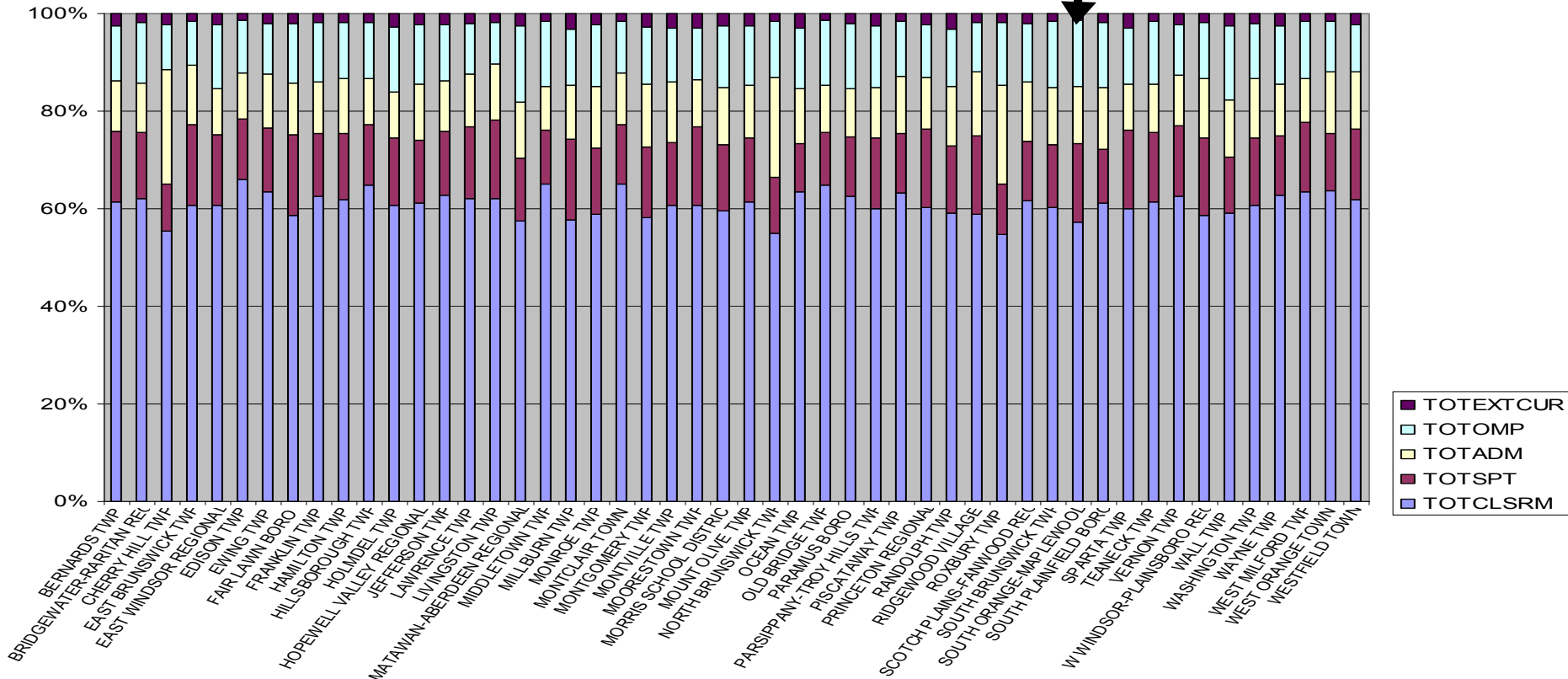
Generally, expenditure distribution is similar across the majority of districts, reflecting the impact of state mandates in standardizing the mix of programs and services

**Distribution of Expenditures by Major Category
1996-97, selected districts**

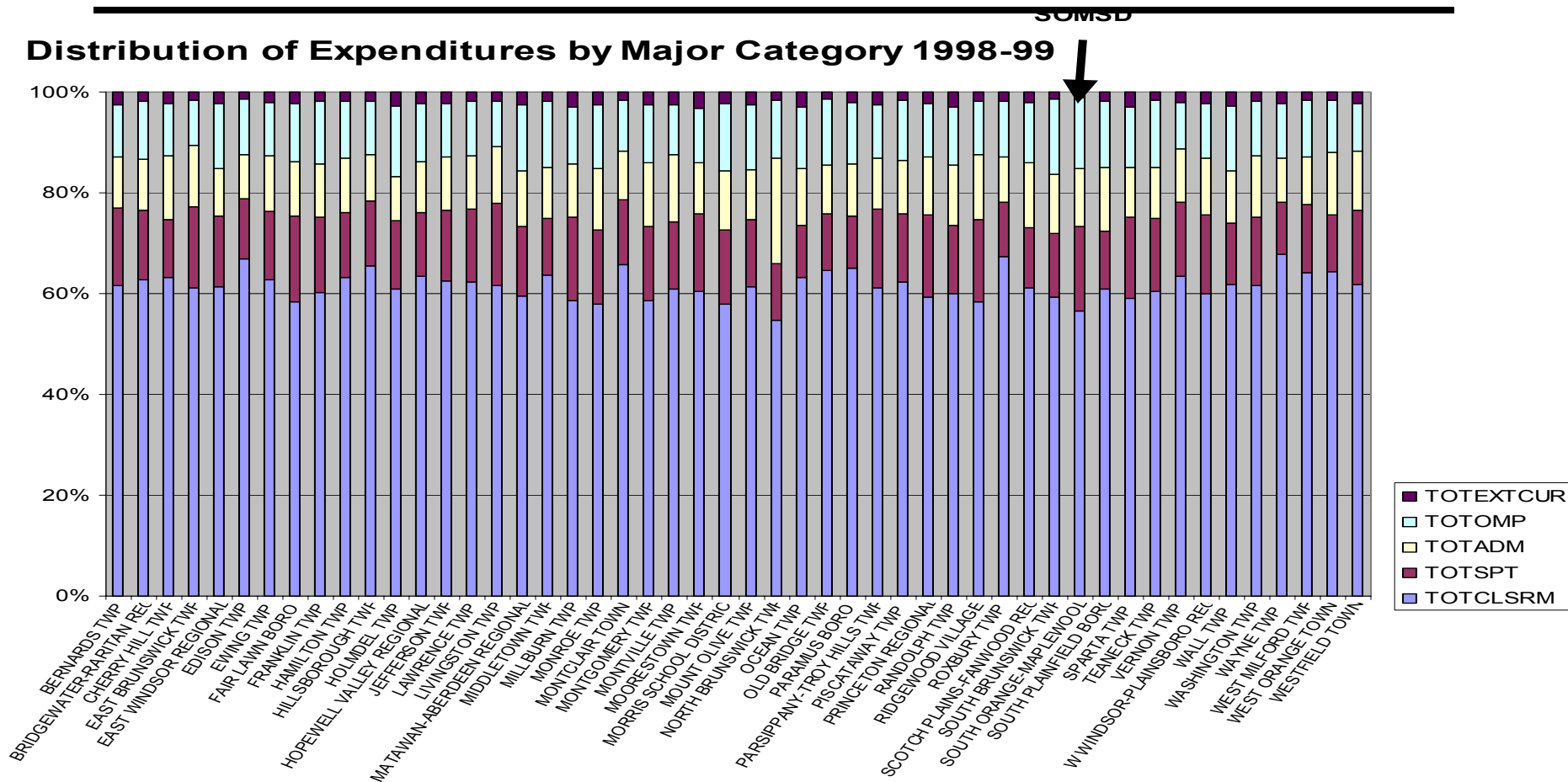


1997-98

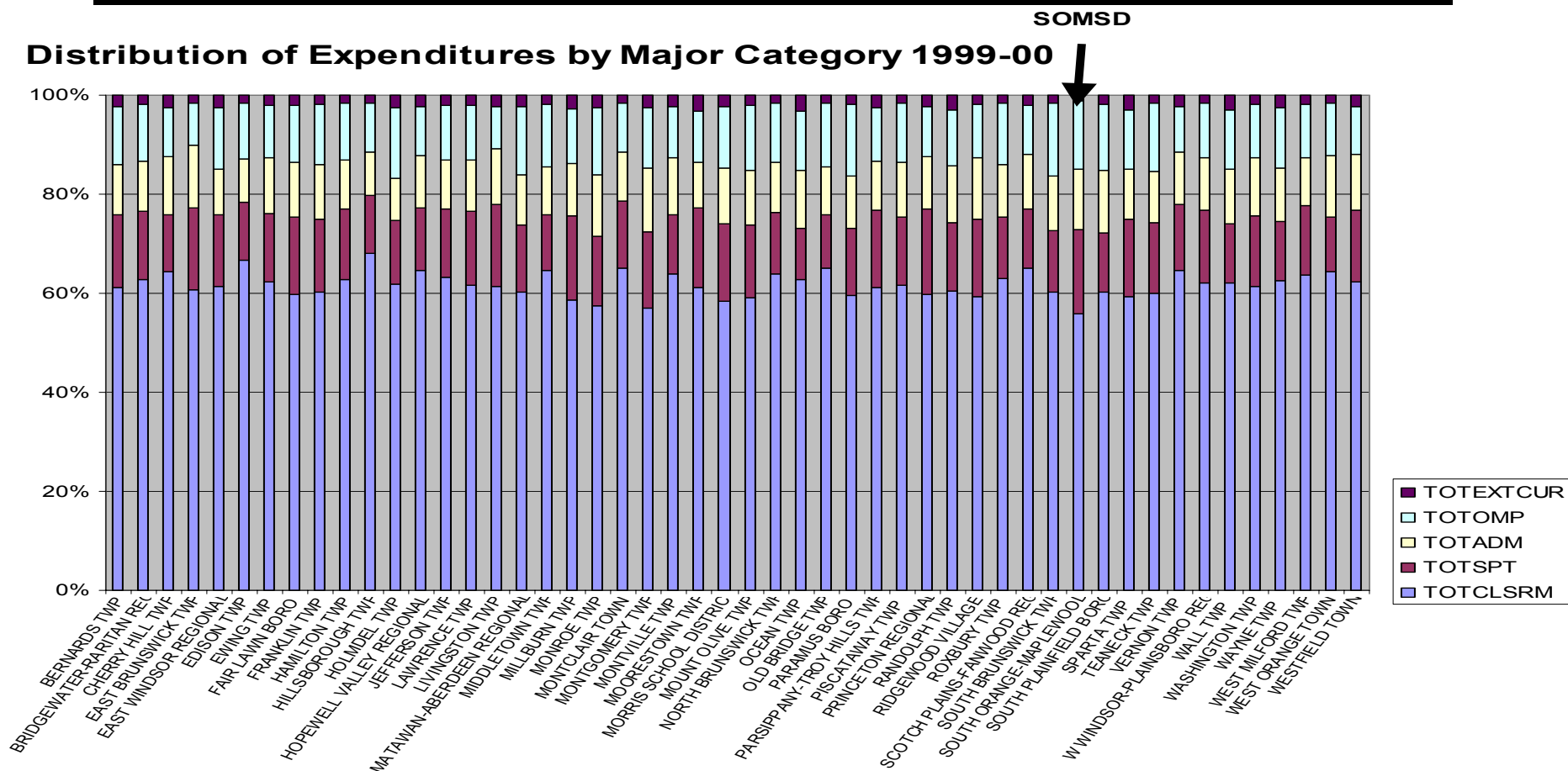
Distribution of Expenditures by Major Category 1997-98



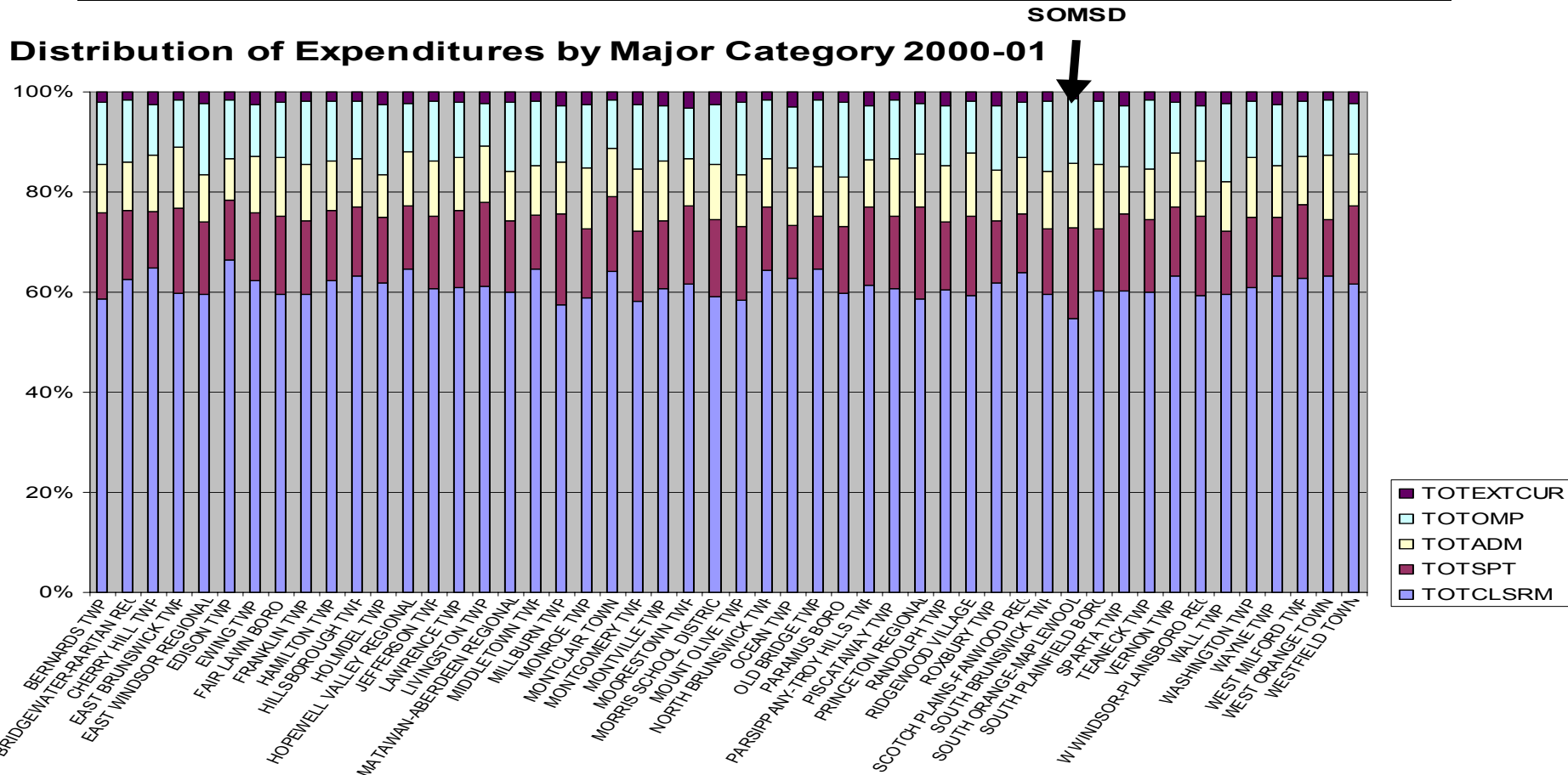
1998-99



1999-2000

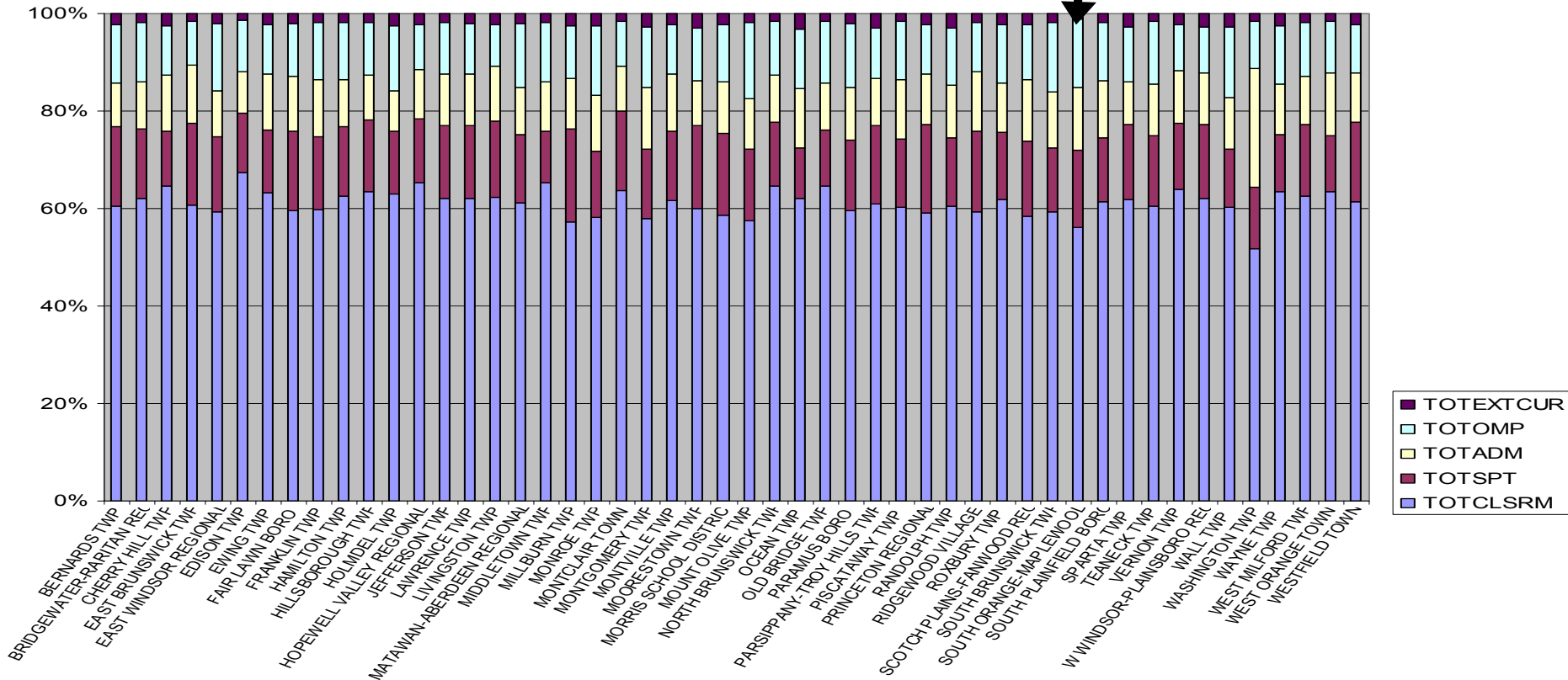


2000-01



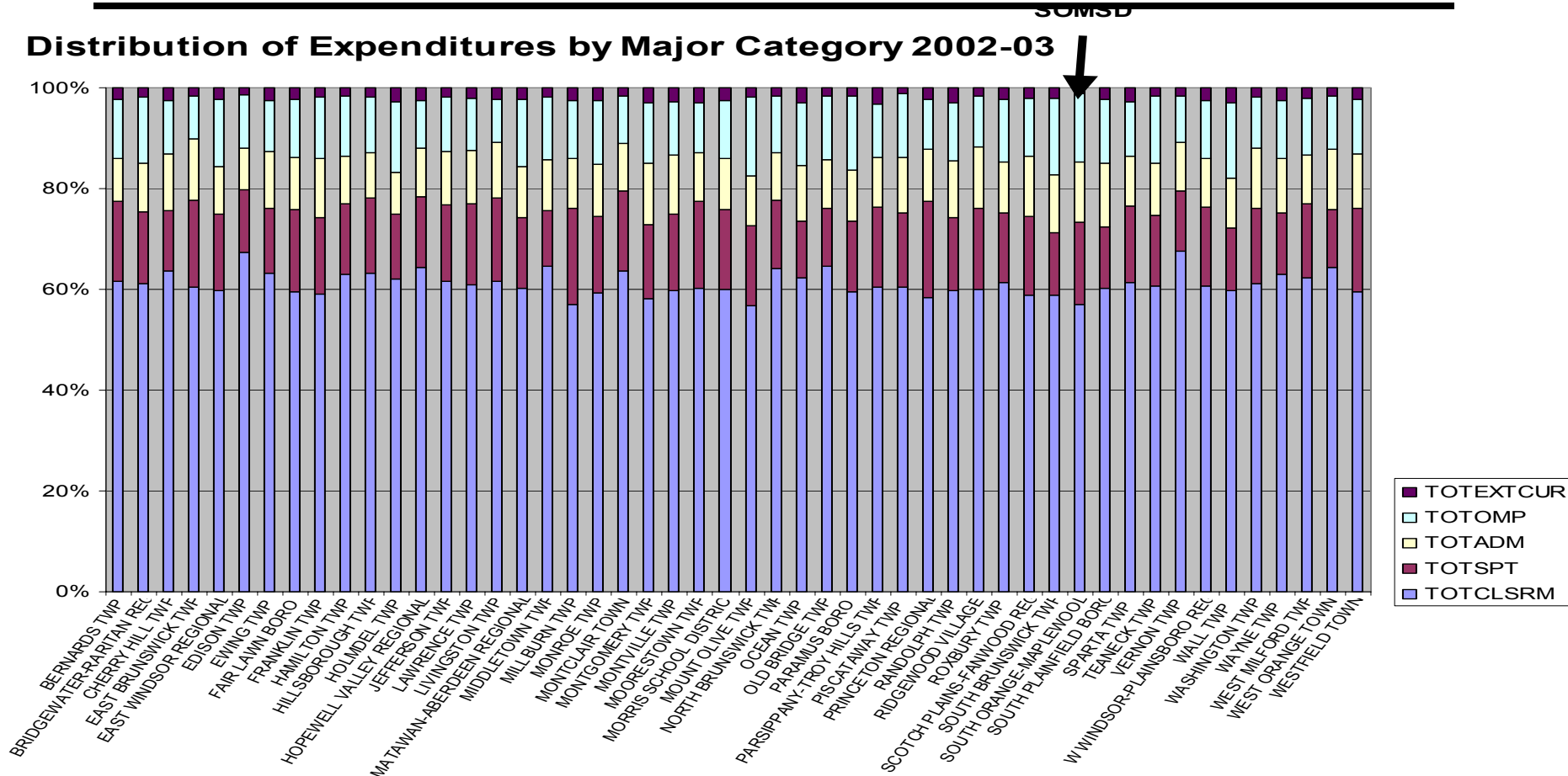
2001-02

Distribution of Expenditures by Major Category 2001-02



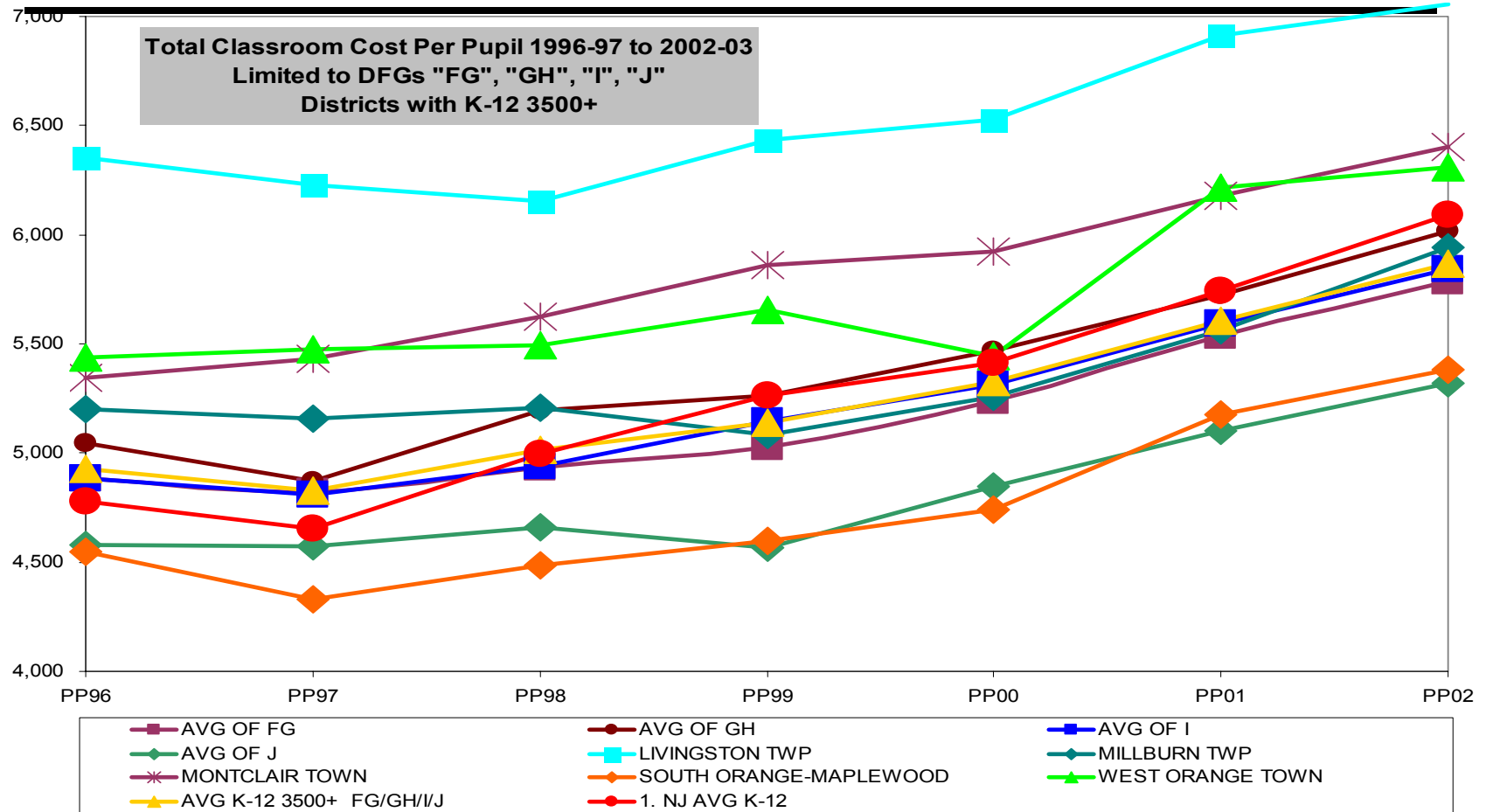
The similarity between districts has not changed over time from 1996-97 to 2002-03. Categories include: Classroom (57%), Special Services (16%), Administration (12%), Operations/Maintenance (14%) and Equipment (1%). Extracurricular activities represent a negligible fraction of a percent.

Distribution of Expenditures by Major Category 2002-03

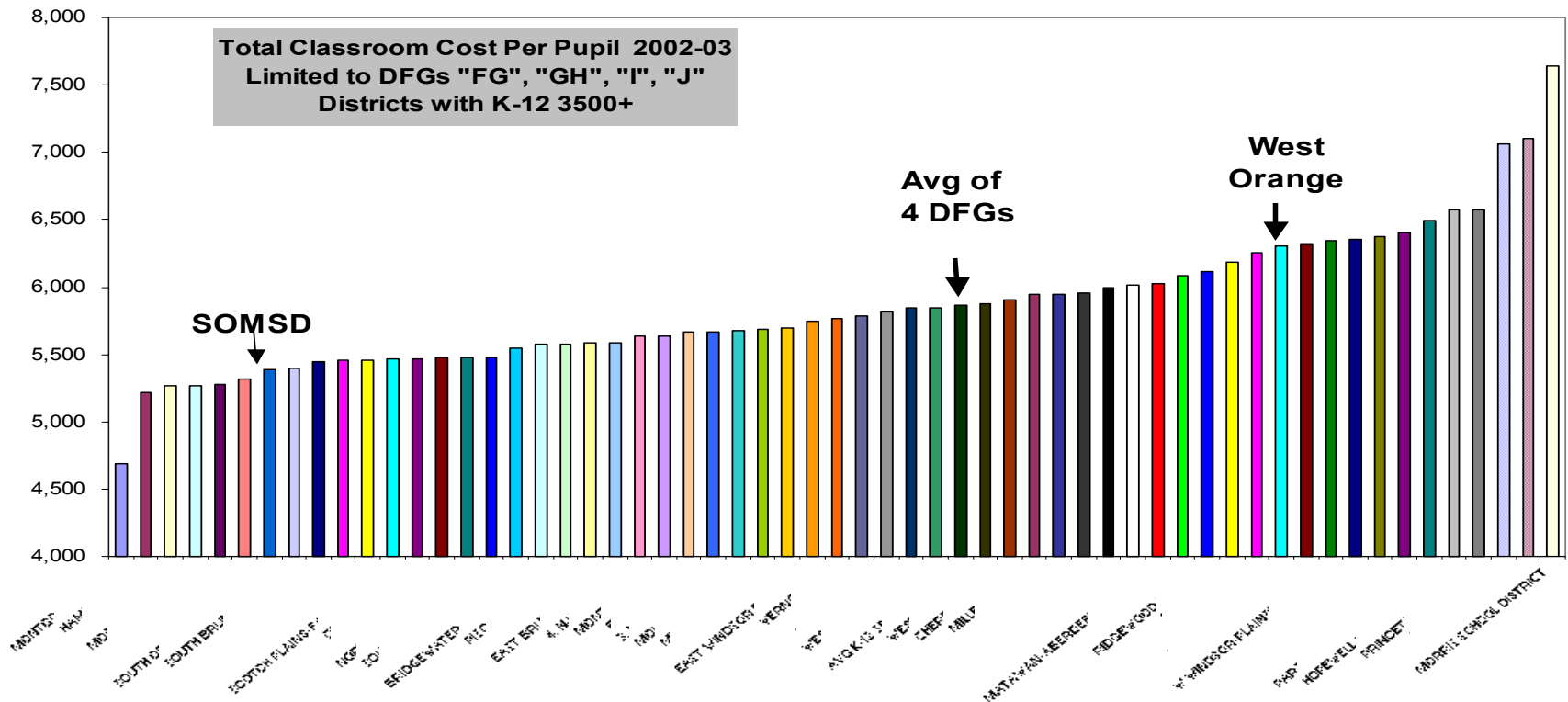


Expenditure Trends for Individual Components of the Comparative Cost per Pupil

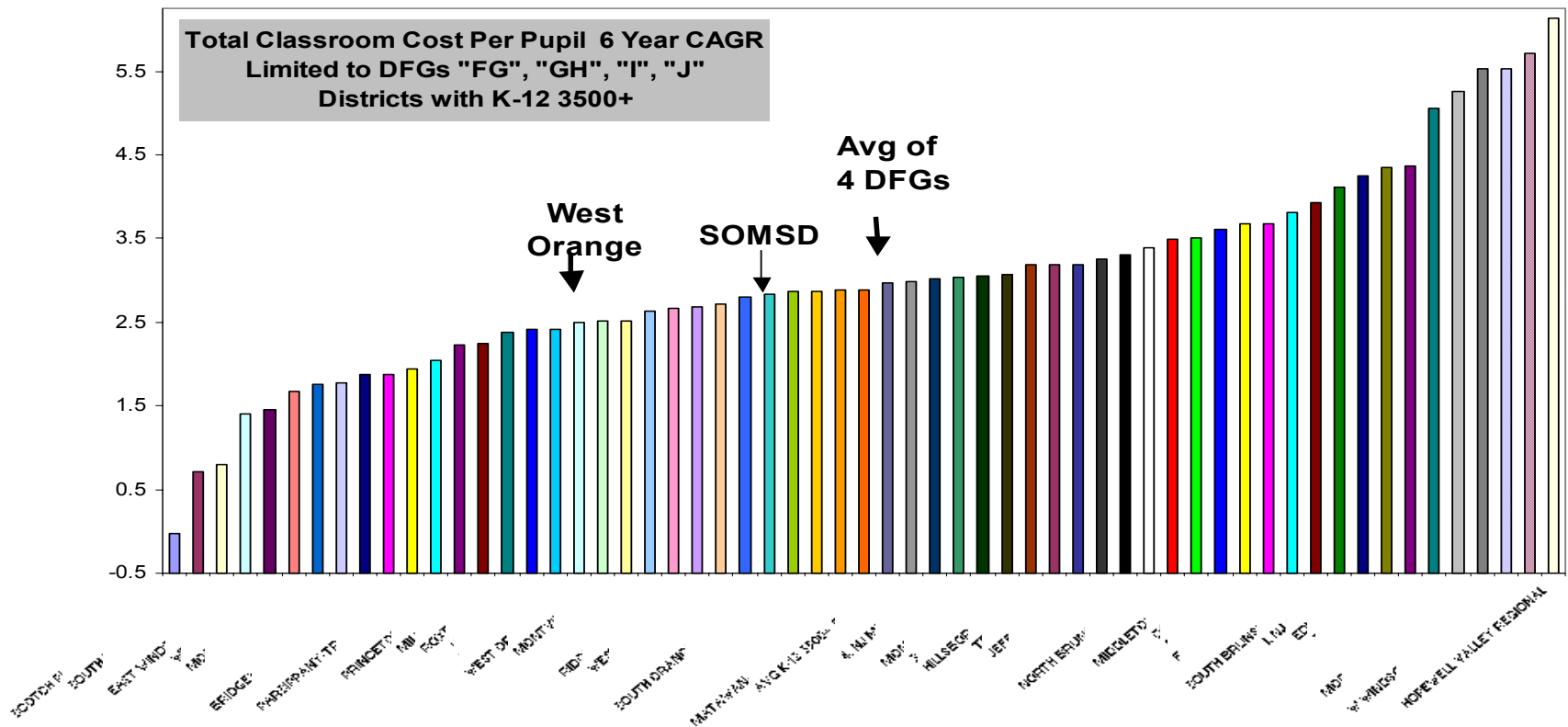
SOMSD direct classroom instructional costs per pupil (\$5,382) have increased 18% since 1996-97 and account for nearly 60% of total spending. Again, this is consistent with the averages of comparable DFGs and state averages.



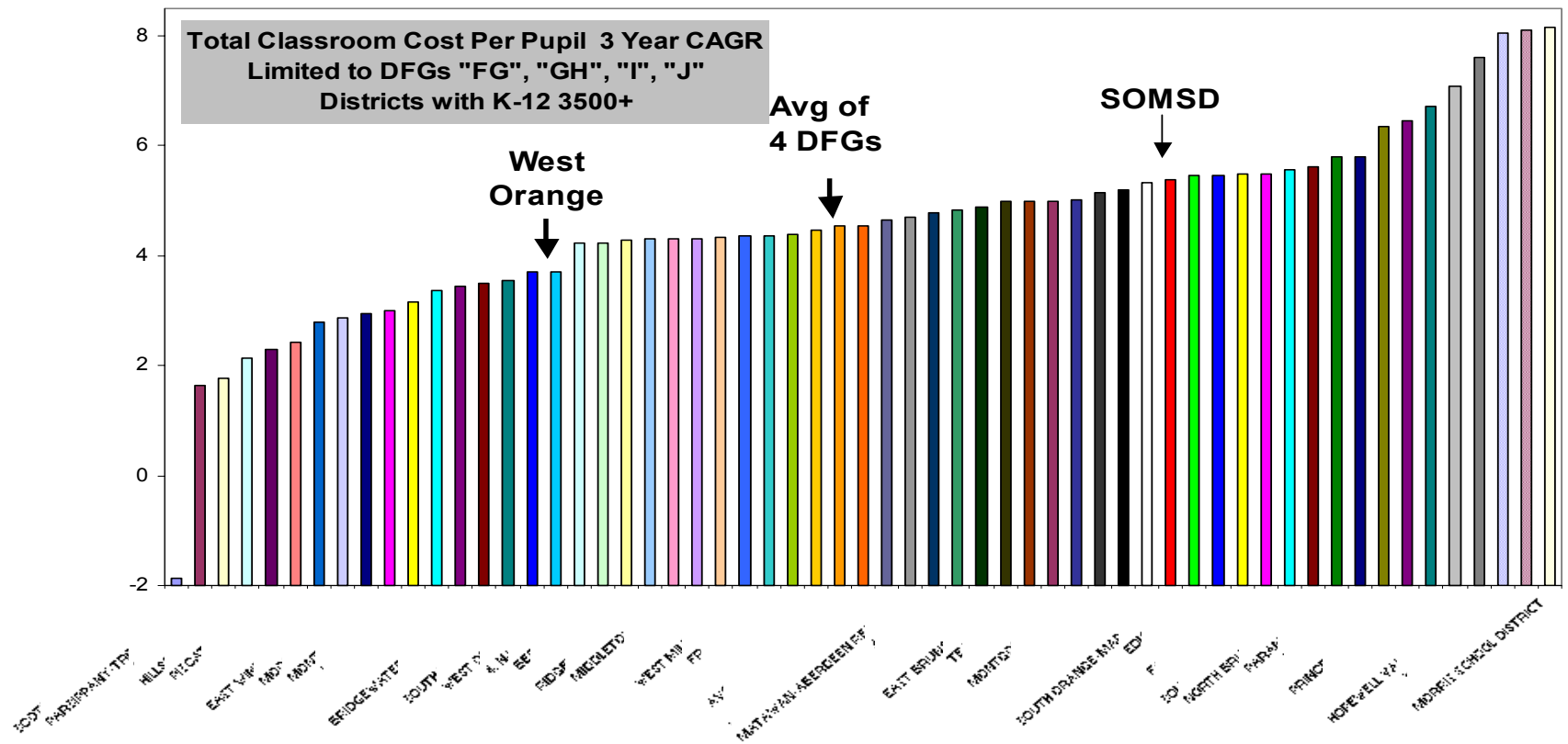
For the recent year, SOMSD classroom costs are only marginally lower than the 4-DFG average. Given that staffing ratios have remained relatively comparable and constant throughout this period, this probably reflects a lower average salary resulting from a workforce with a lower average years of service



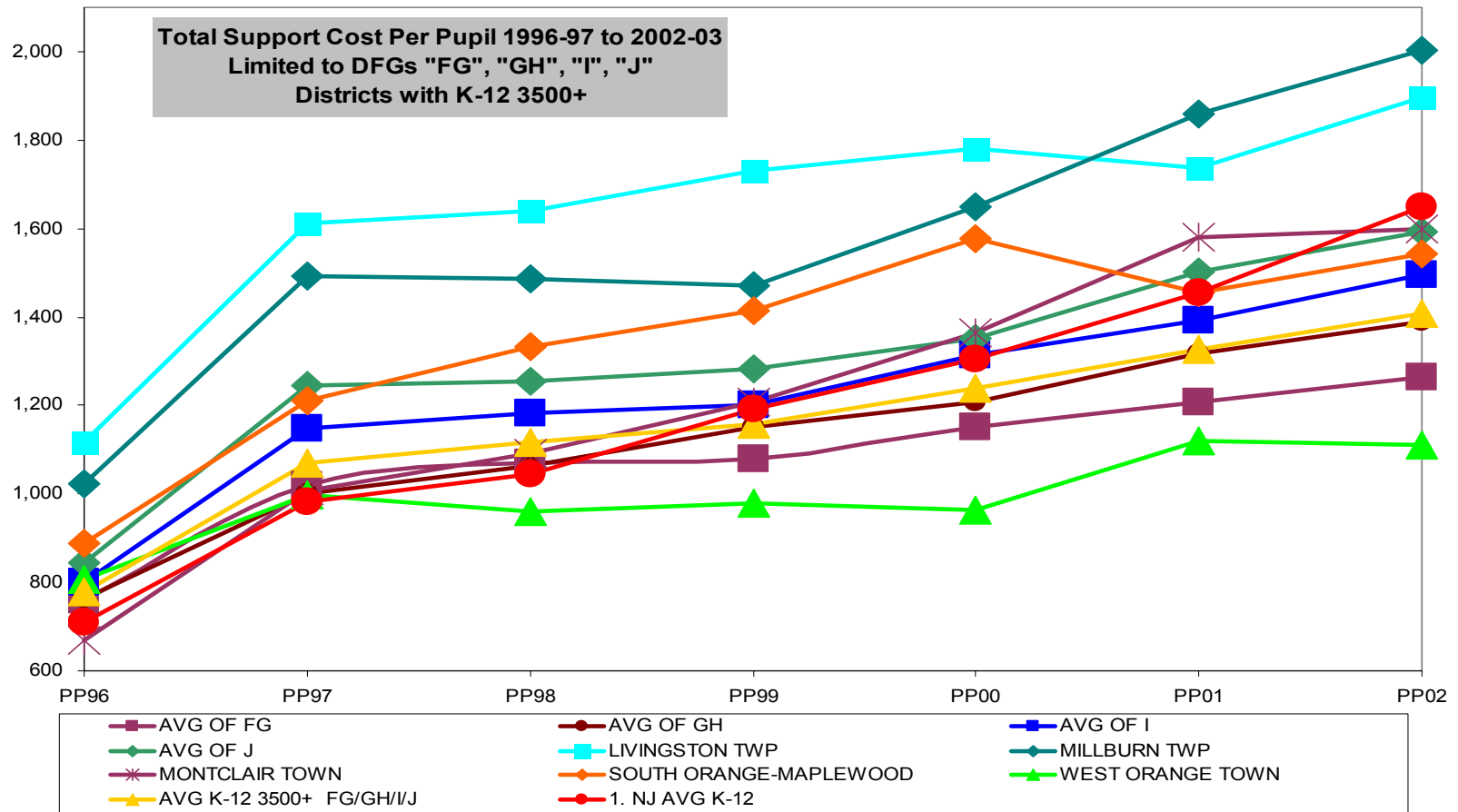
The SOMSD CAGR of 2.84% for classroom cost per pupil is in line with the various averages



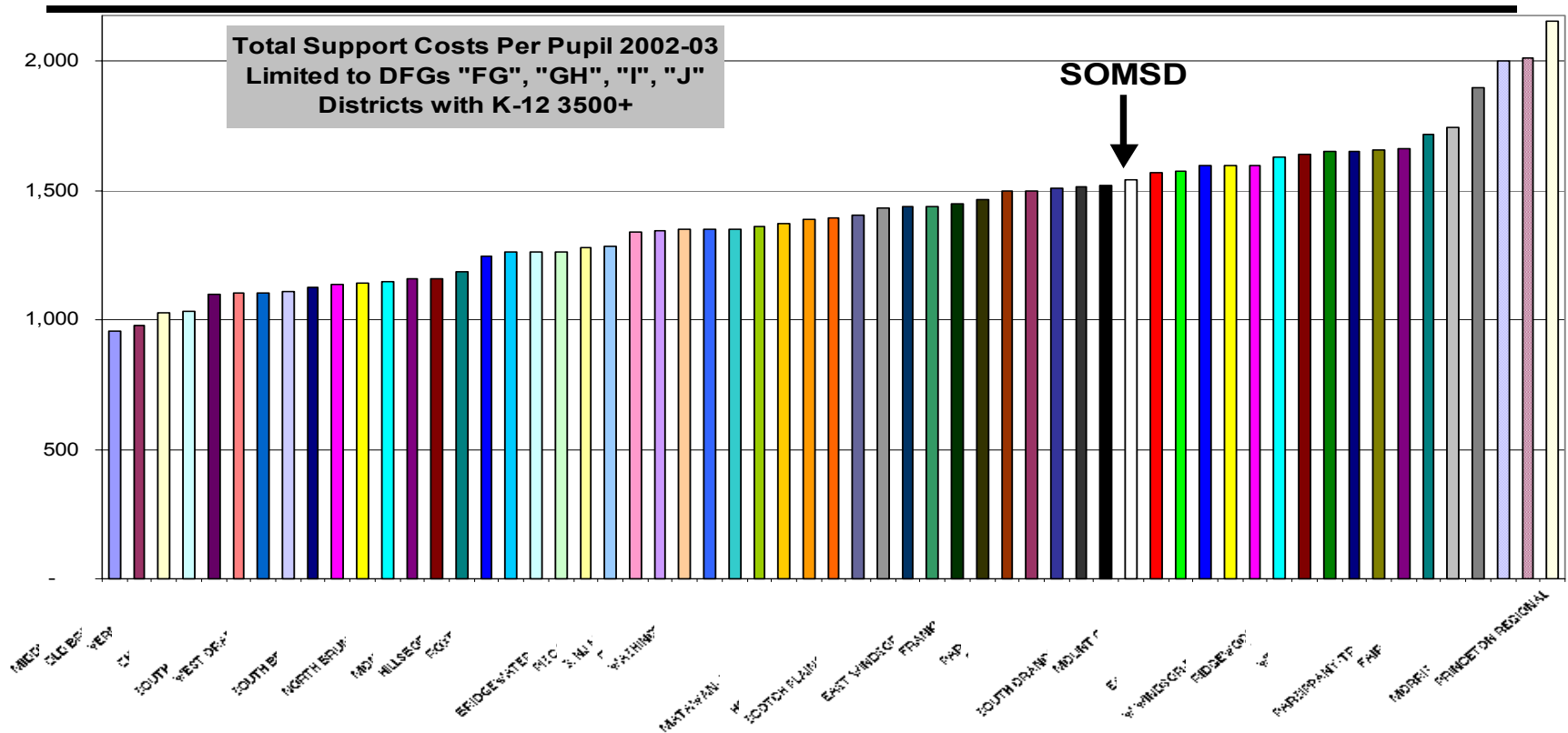
In the most recent 3-year period, SOMSD's classroom cost per pupil CAGR position relative to the 4-DFG average shifts, reflecting an increase in the CAGR to 5.38%



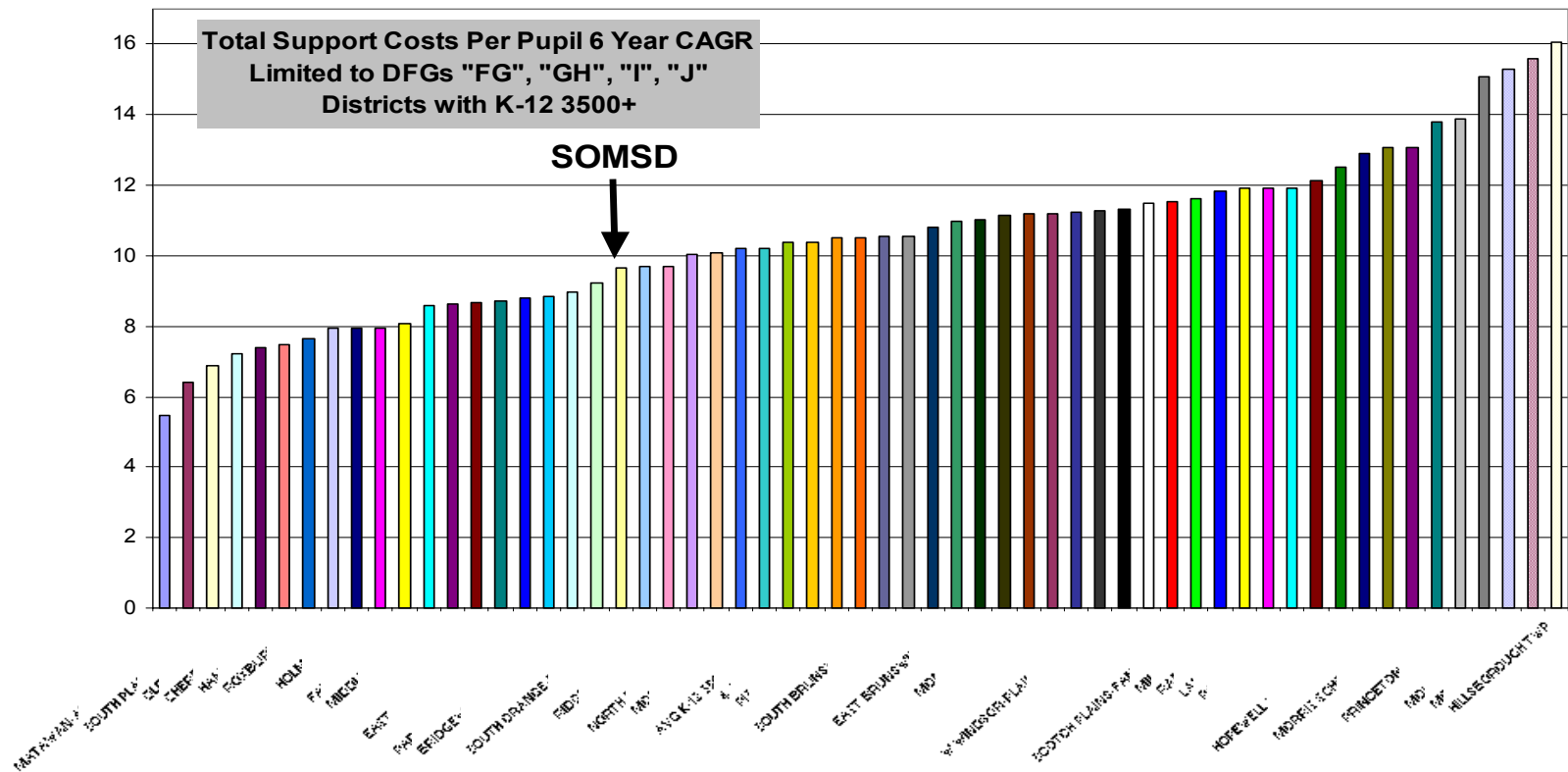
SOMSD Support Staff Costs Per Pupil have increased 74%



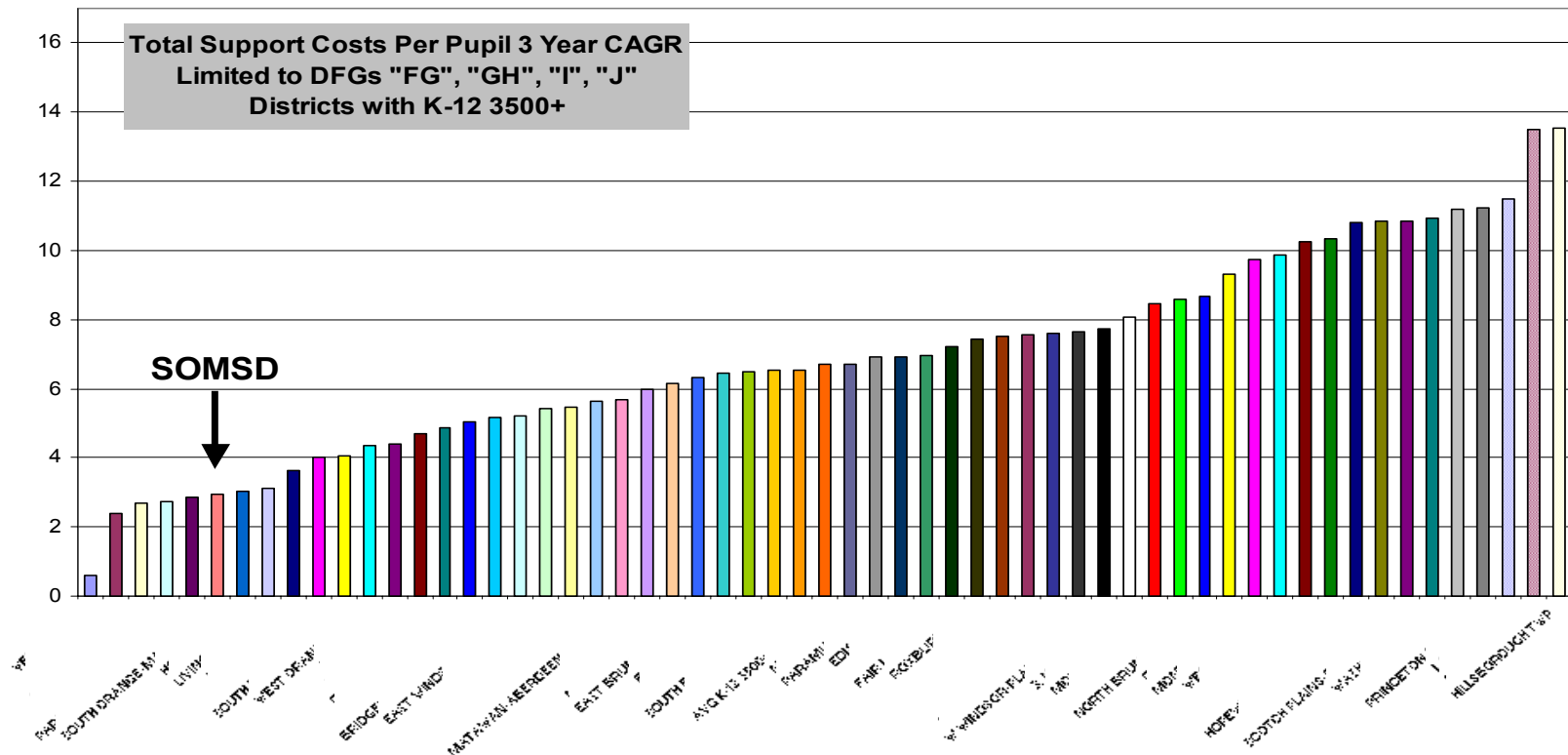
By 2002-03, SOMSD Support Staff Costs Per Pupil rank near the upper end of the range of selected districts



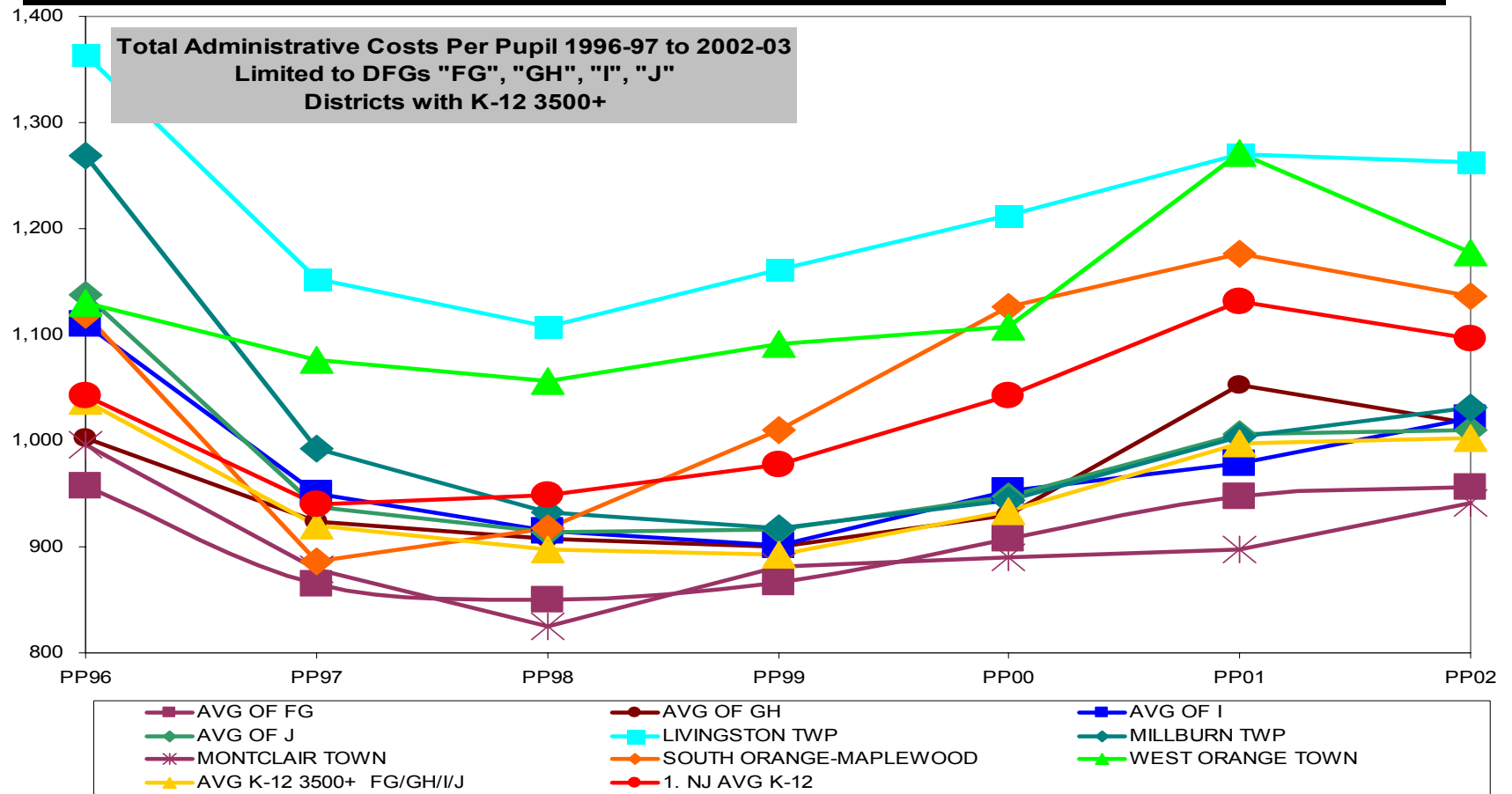
This growth resulted from a 6-year CAGR of 9.6%



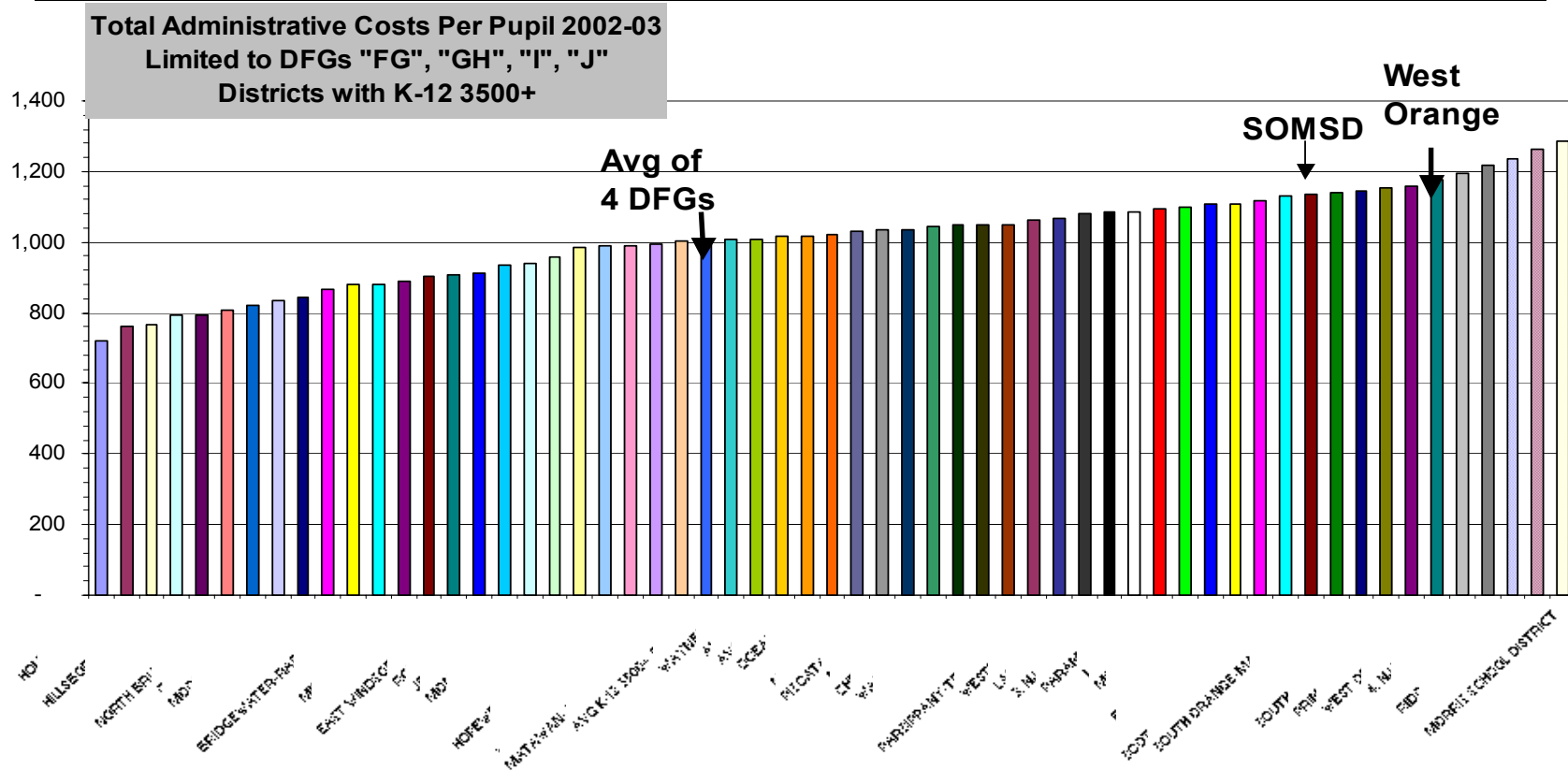
When examined for the most recent three years, the CAGR for this category has slowed to 3%, among the lowest rates in the selected set of districts



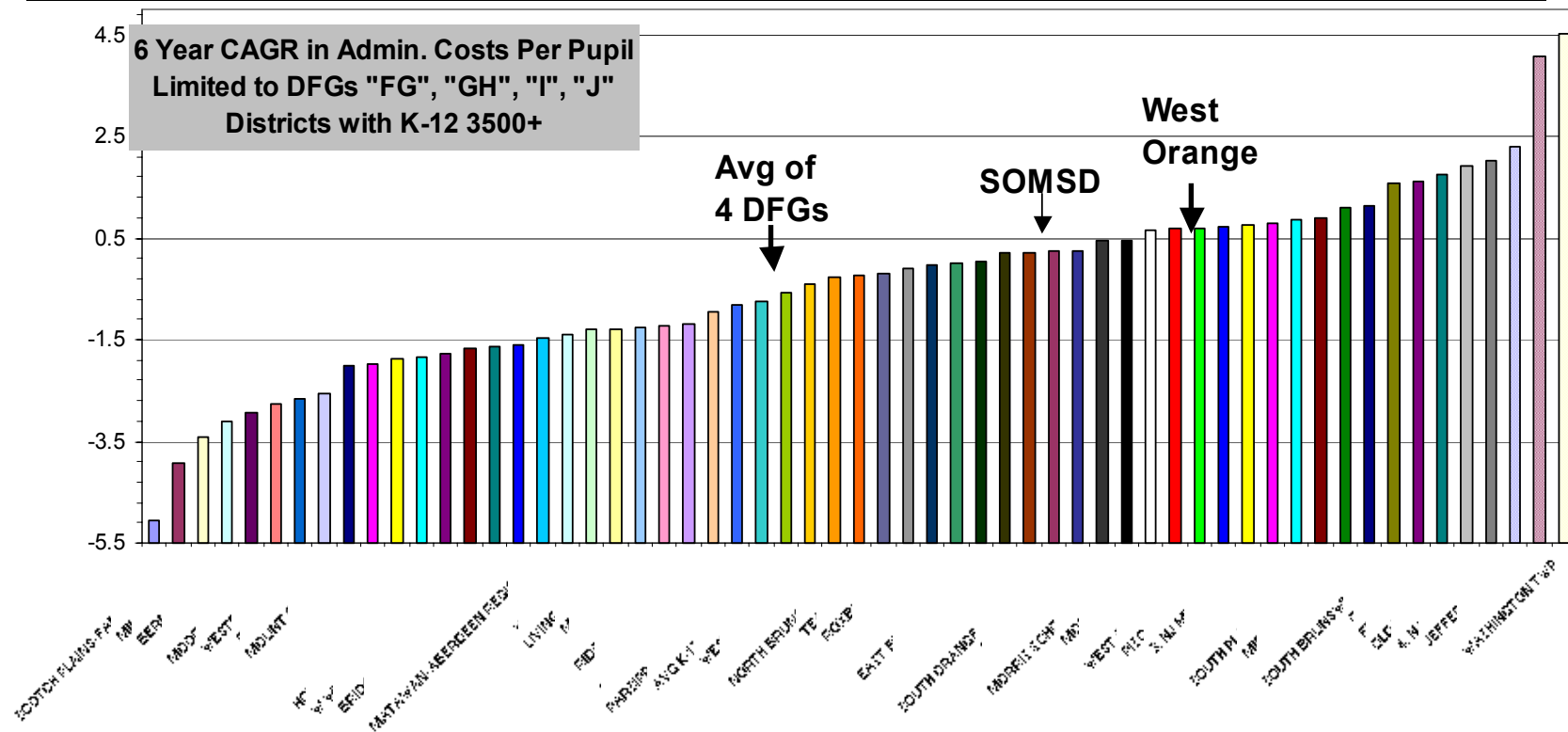
After a decline in the late 1990s, SOMSD administrative costs per pupil have risen steadily and are slightly ahead of the 4-DFG group average



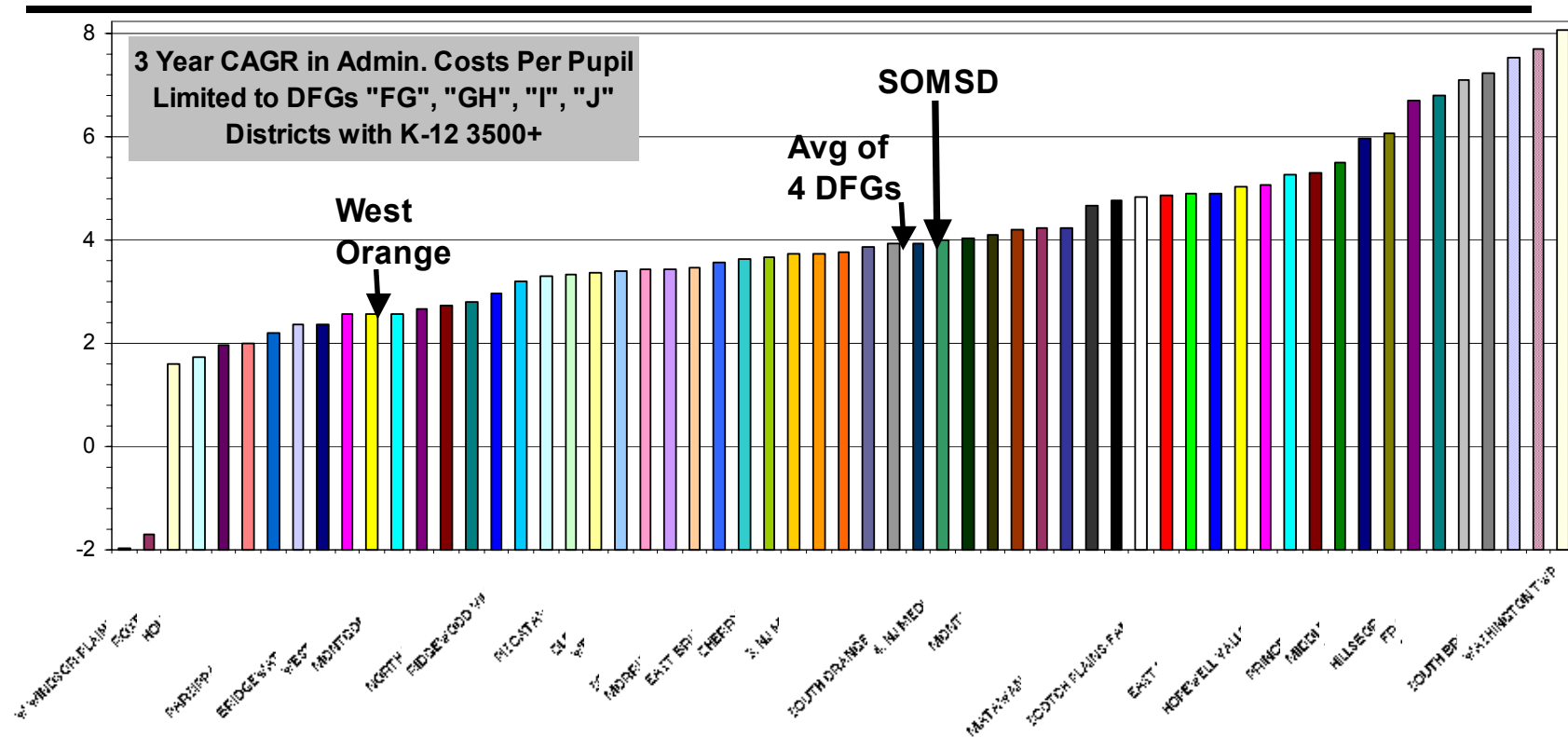
At \$1,136, SOMSD Administrative Costs Per Pupil now slightly exceed the 4-DFG group average by 13%



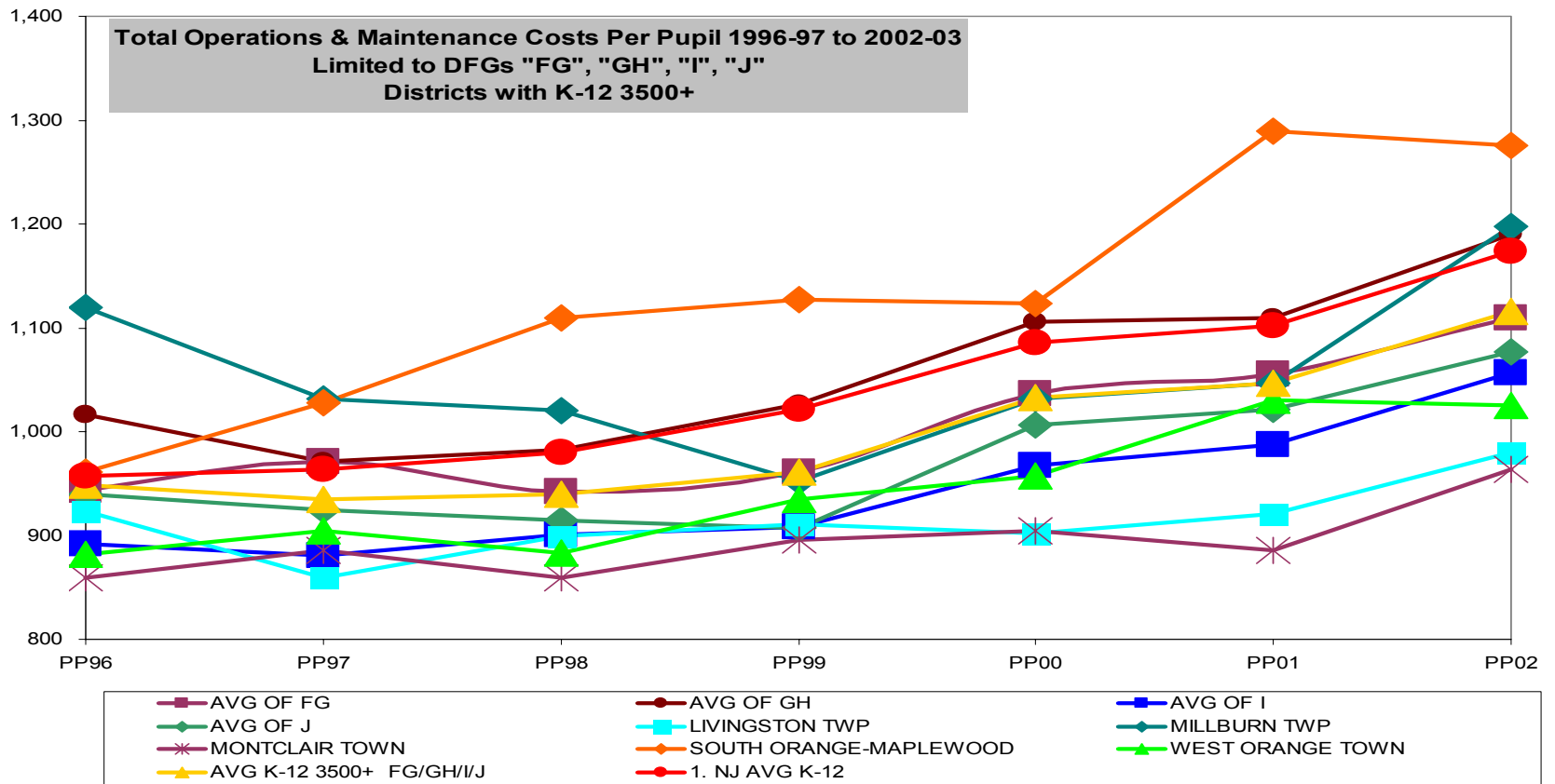
The 4-DFG average of Administrative Costs Per Pupil has declined somewhat; the 6-Year CAGR was relatively flat (+.3%)



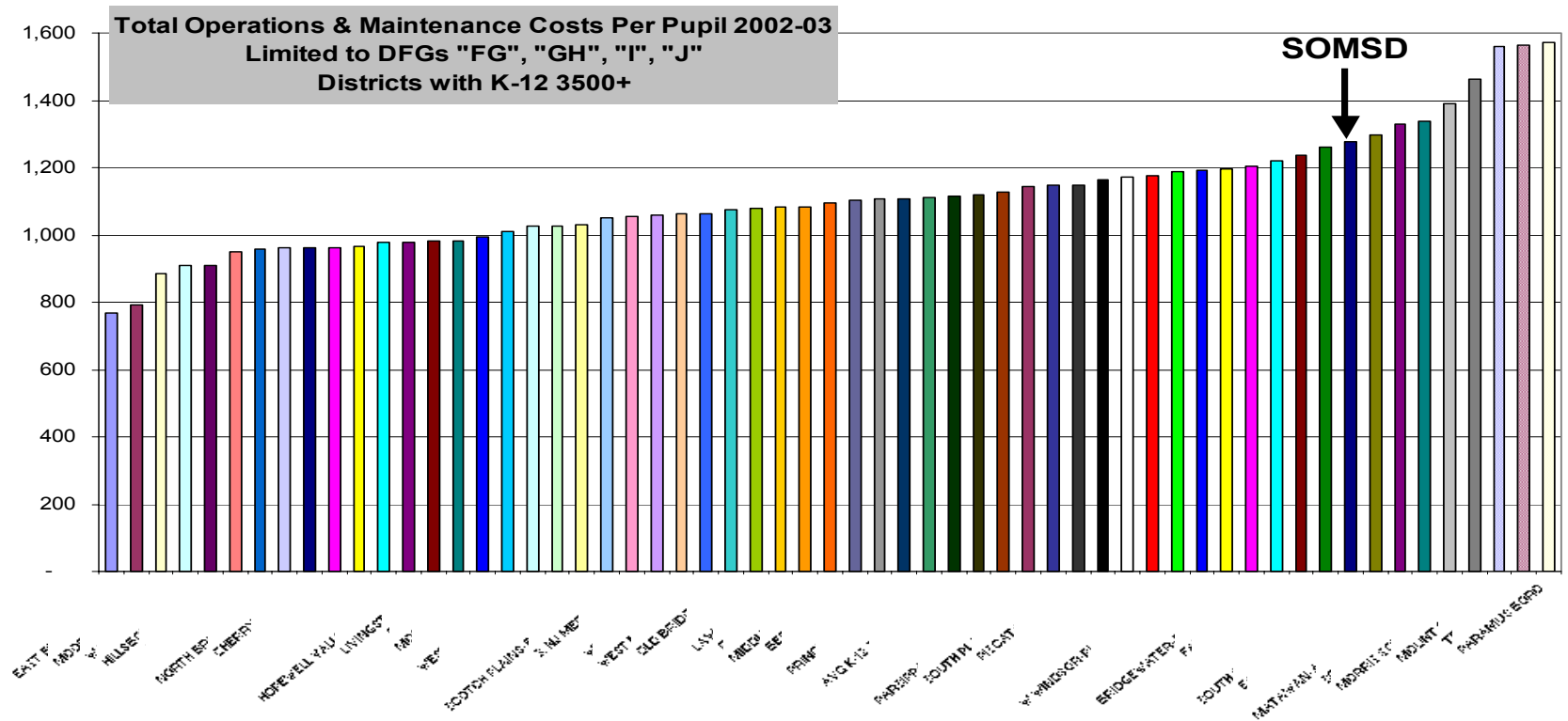
SOMSD Administrative Costs Per Pupil resumed an upward trend (+4%) over the recent three-year period in line with comparable DFG group averages



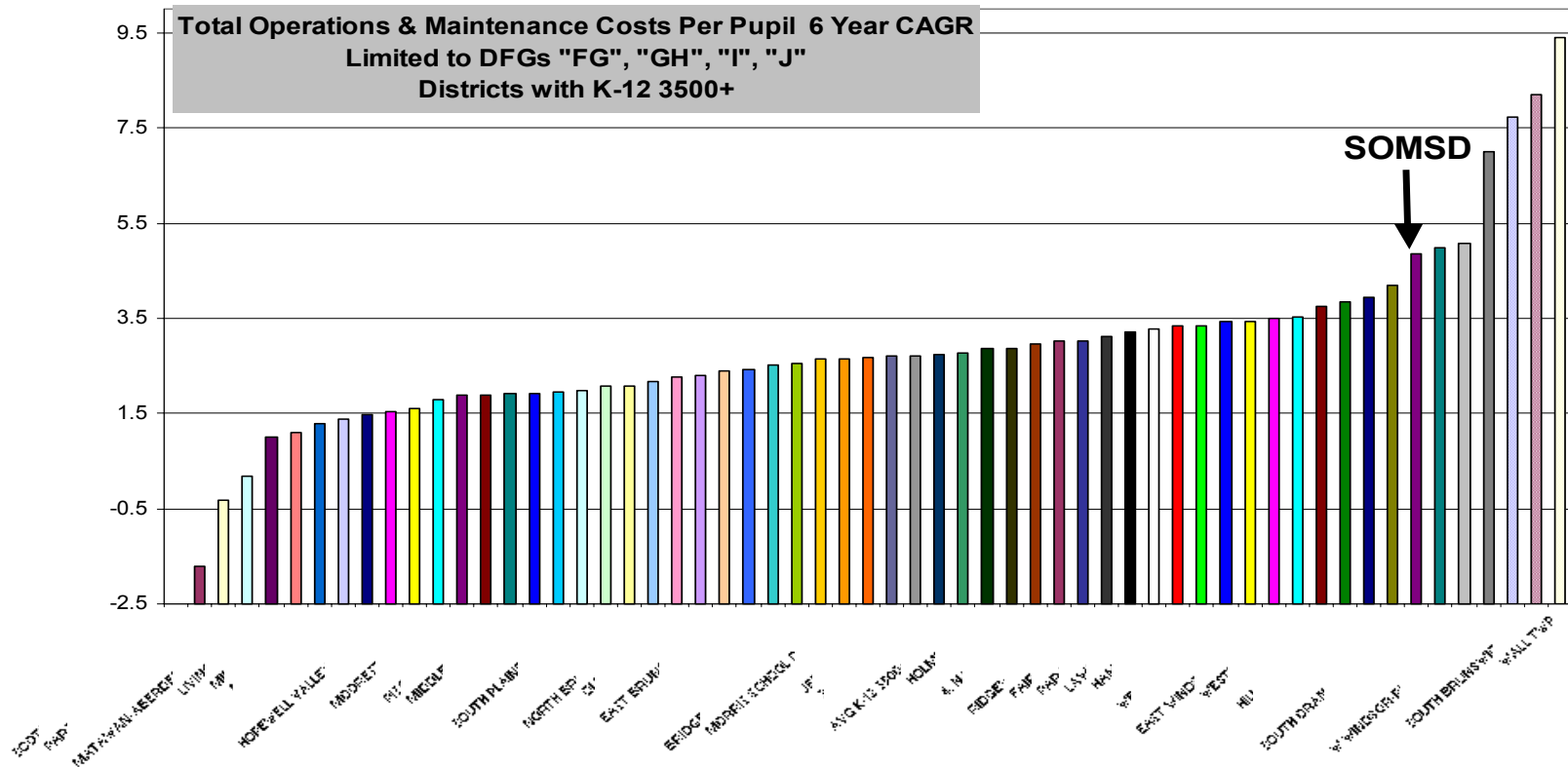
Total SOMSD Operations and Maintenance Costs Per Pupil have increased steadily to \$1,276 per pupil (a 6-year CAGR of 5%)



At \$1,276, SOMSD spending per pupil on this category is 14% higher than the 4-DFG average



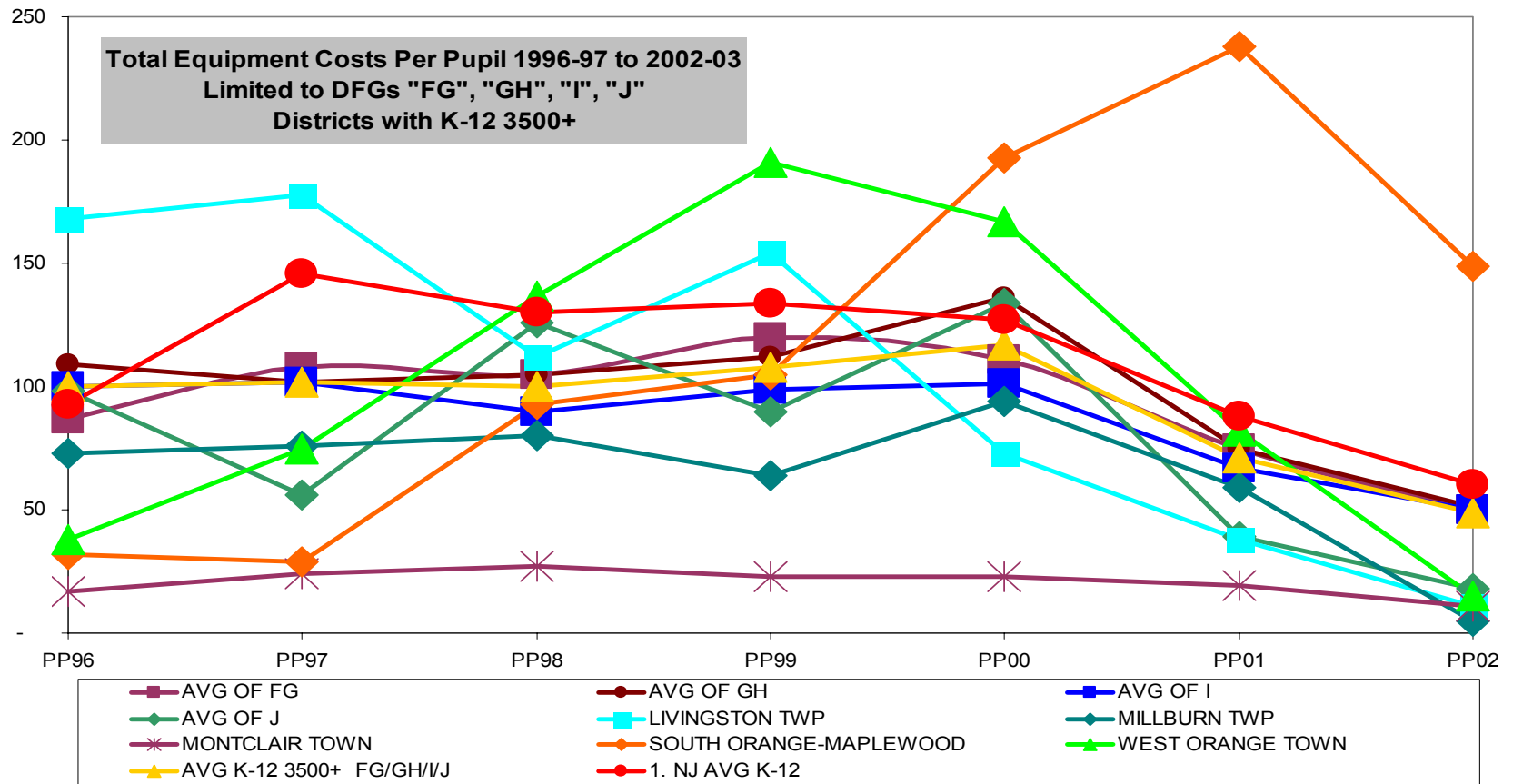
The 6-Year CAGR for Operations and Maintenance



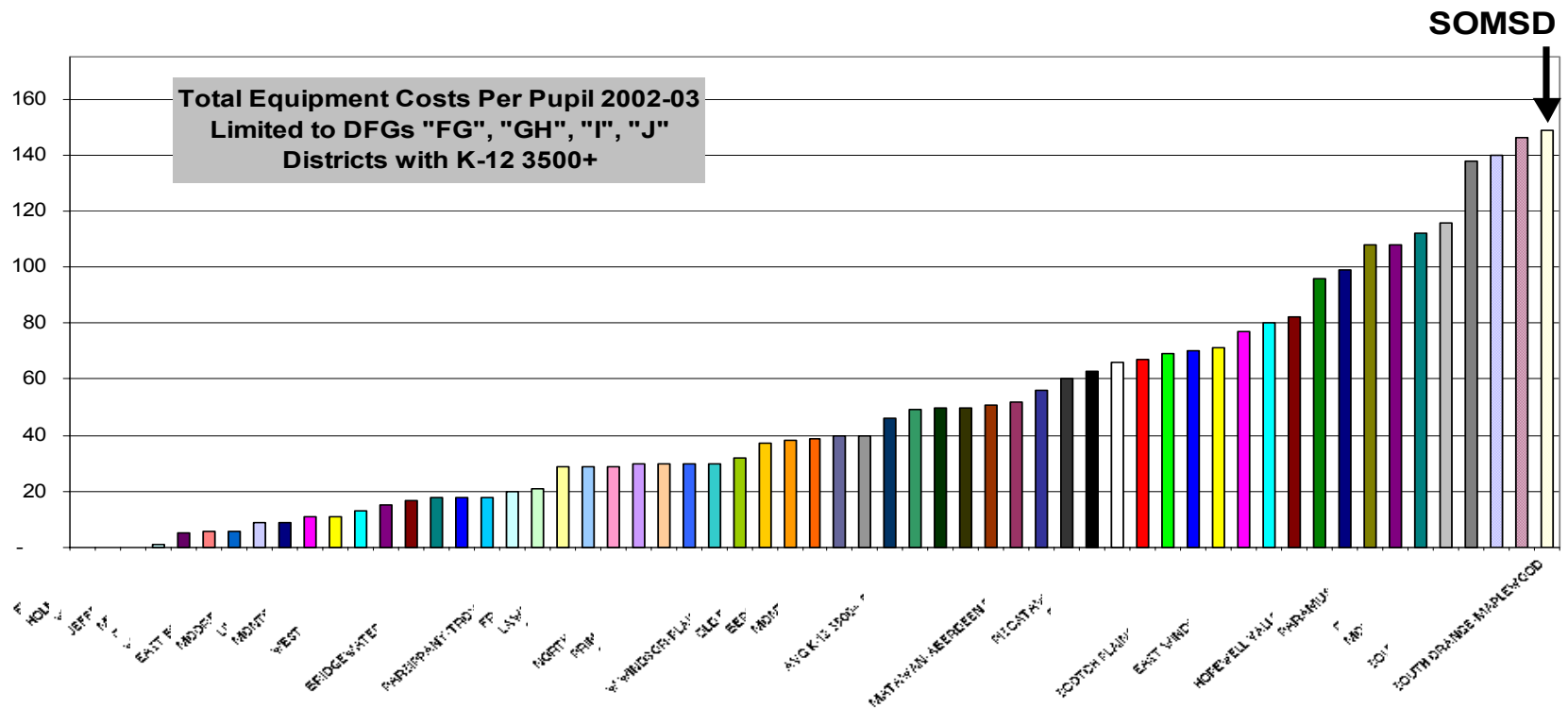
Budget 101: South Orange Maplewood School District



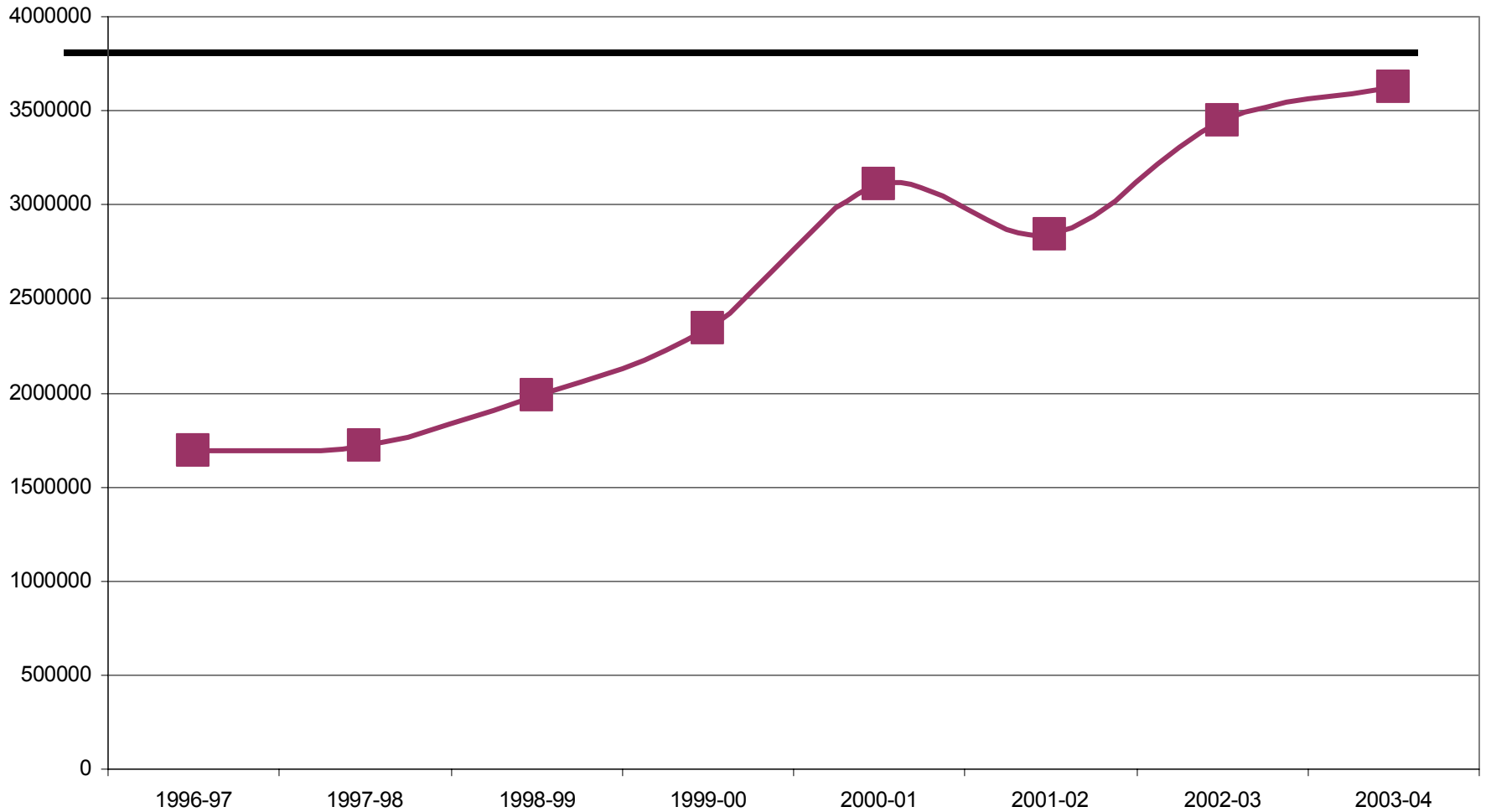
Total Equipment Costs Per Pupil of \$149 have increased 29% since 1996-97, versus a 4-DFG decline of 11% over the same period.



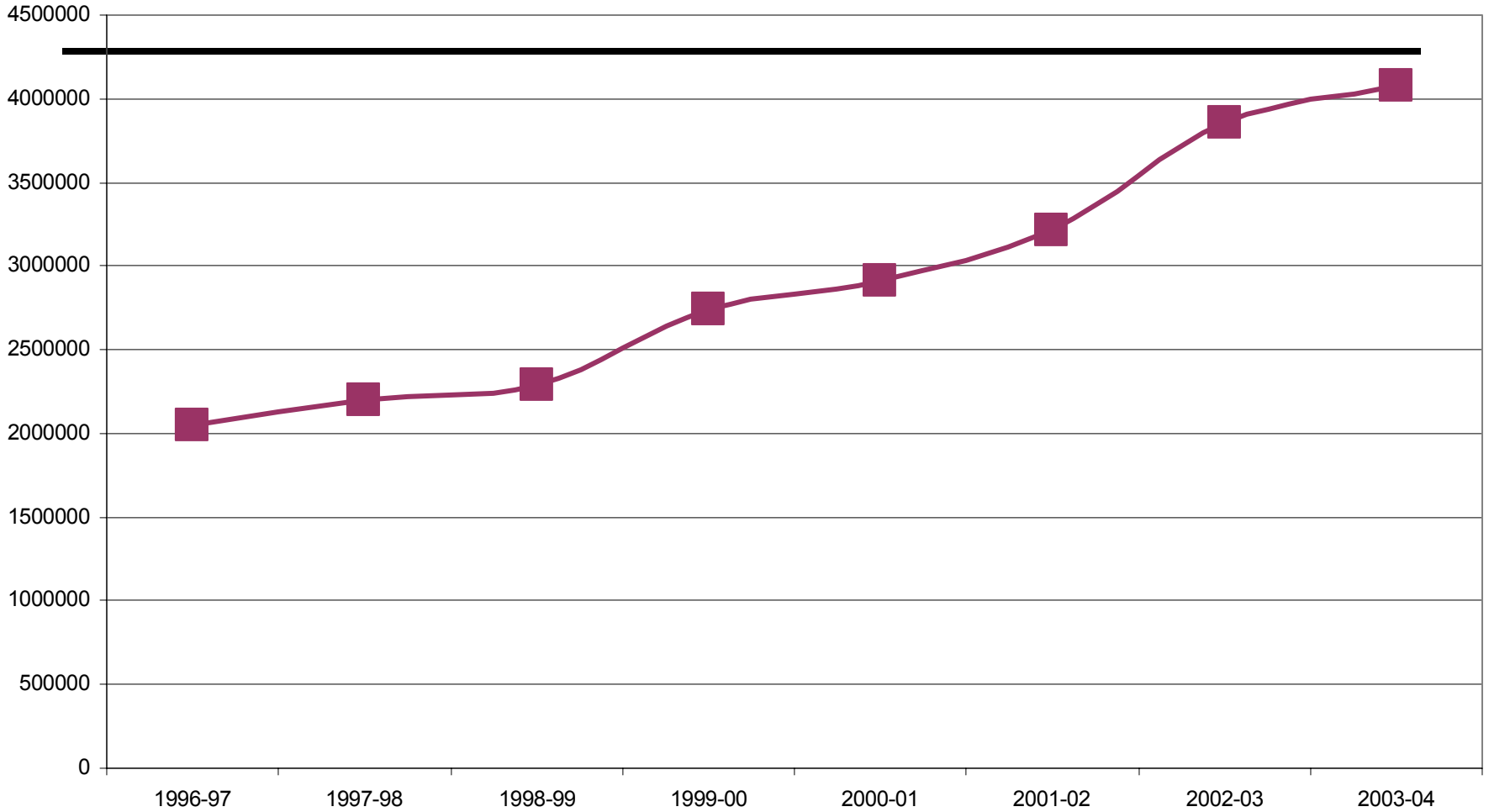
At \$149 per pupil, SOMSD's Equipment Cost is the highest among the selected set of districts. This may reflect some difference in expenditure classification.



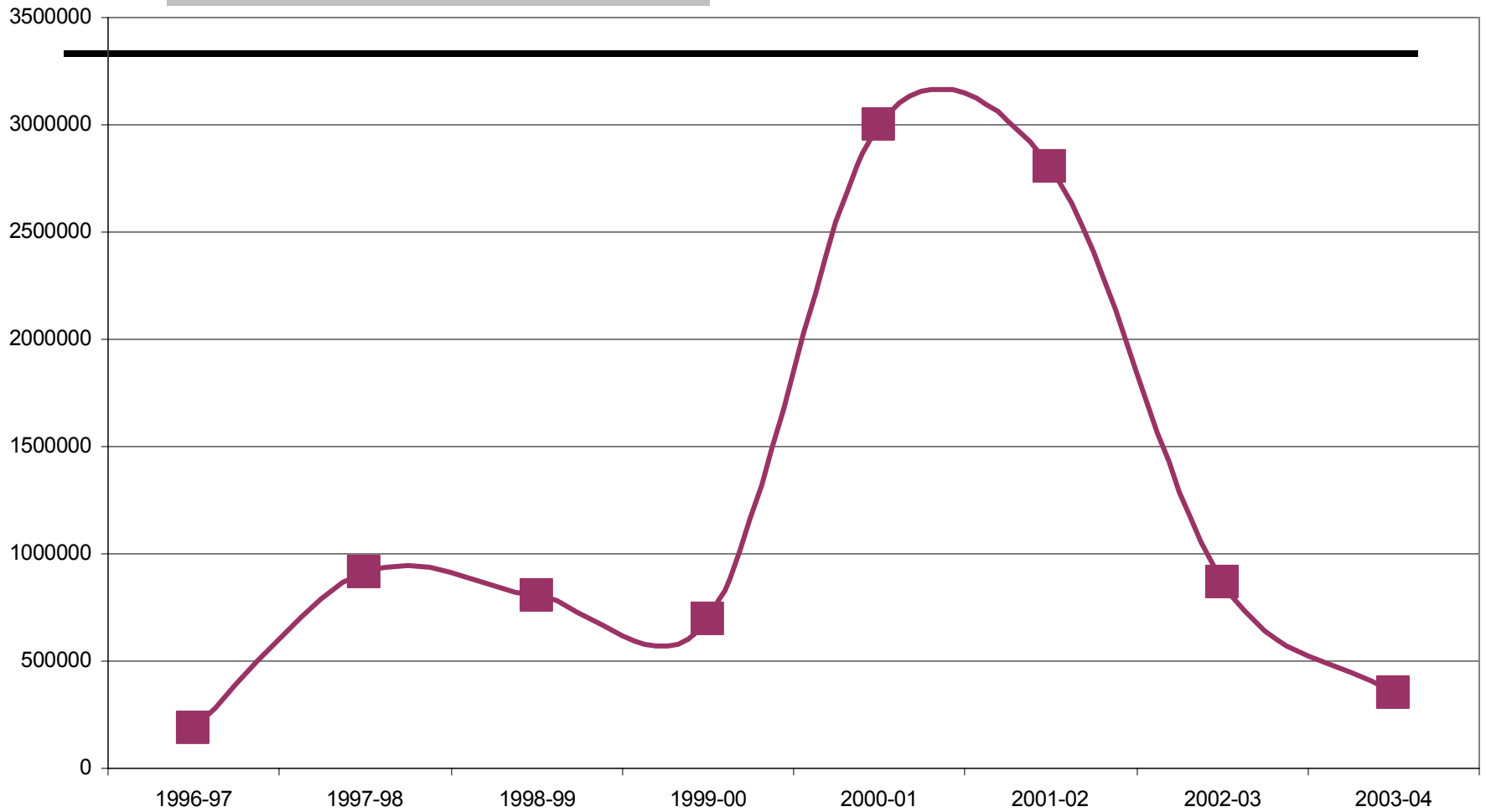
SOMSD Transportation Costs 1996-97 to 2002-03



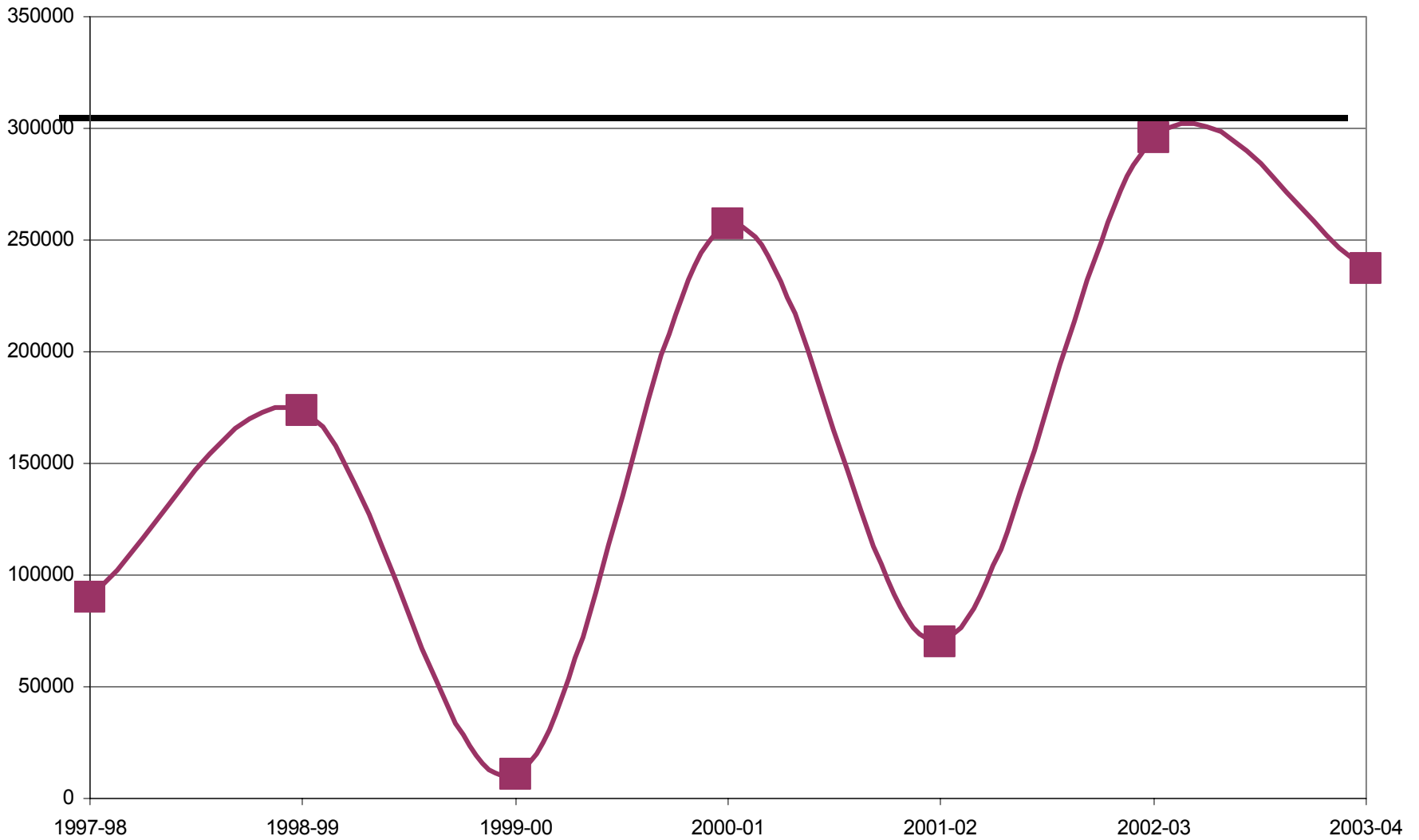
**Total Out-of-District Tuition 1996-97 to 2003-04
for SOMSD**



**SOMSD Capital OutlayI 1996-97 to 2002-03
(Fund 12)**

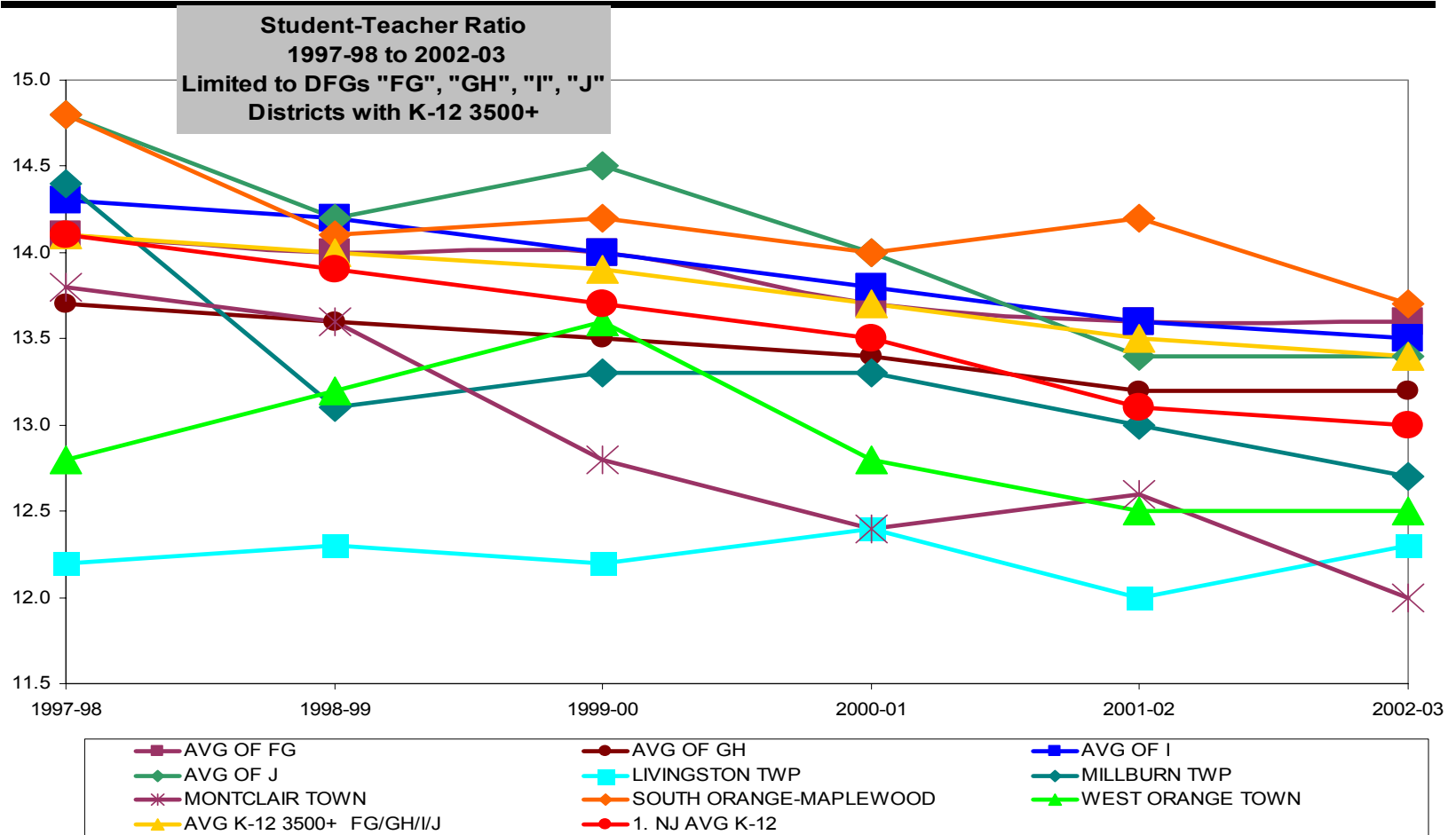


Judgments against the district 1997-98 to 200

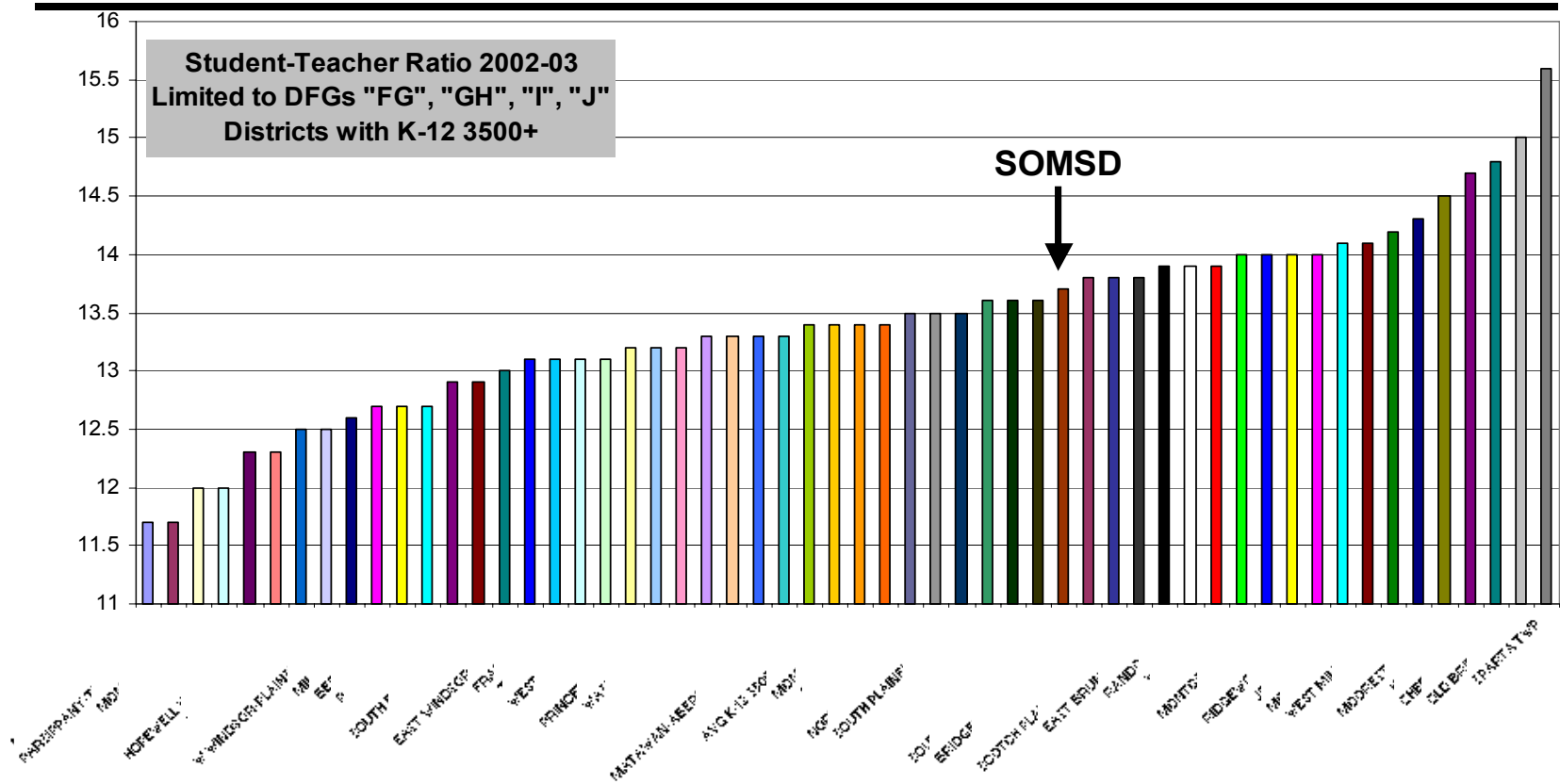


Staffing Ratios

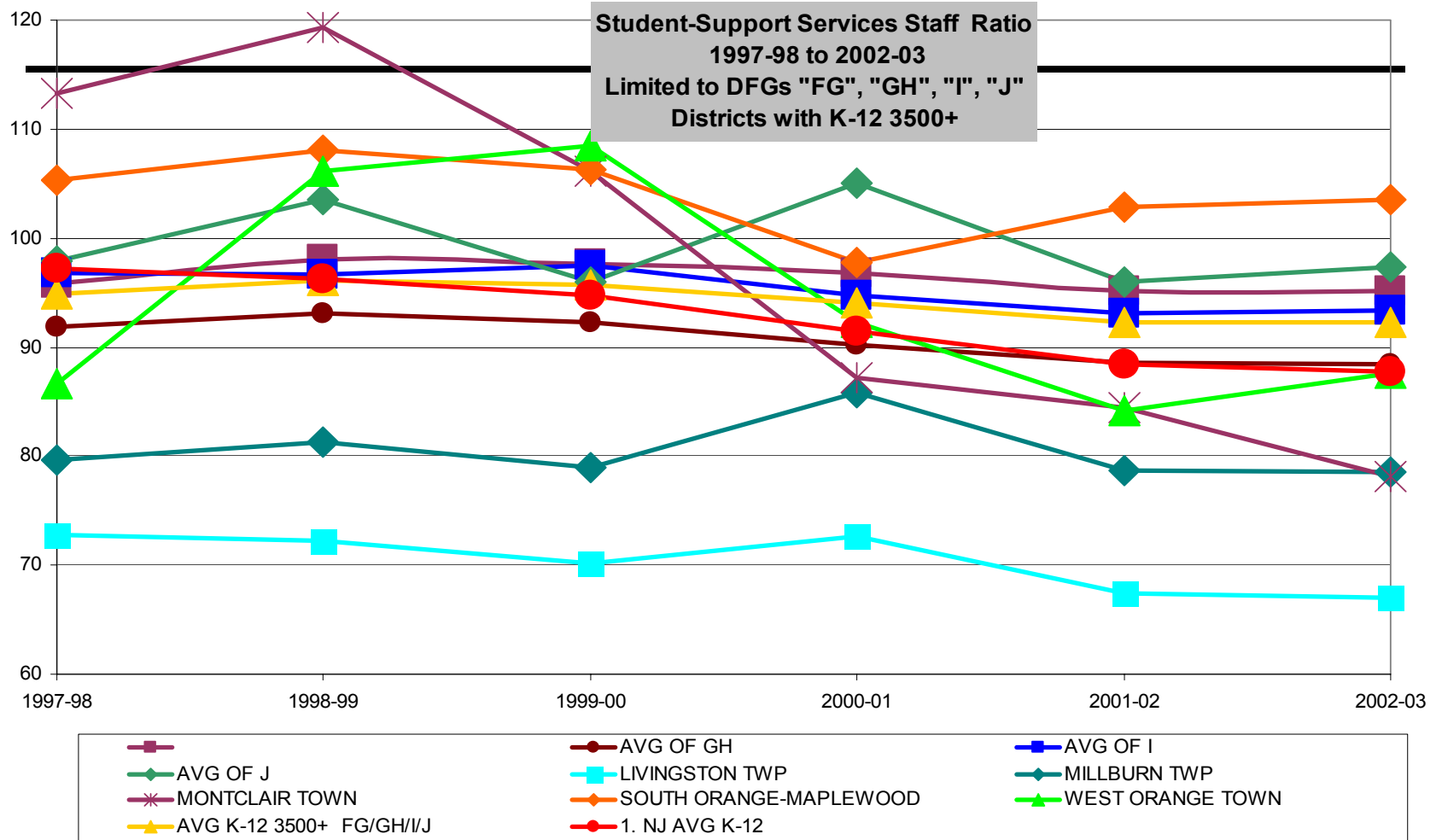
The SOMSD student-teacher ratio has dropped from 14.8 in 1997 to 13.7. This ratio is in line with the 4-DFG average (13.4).



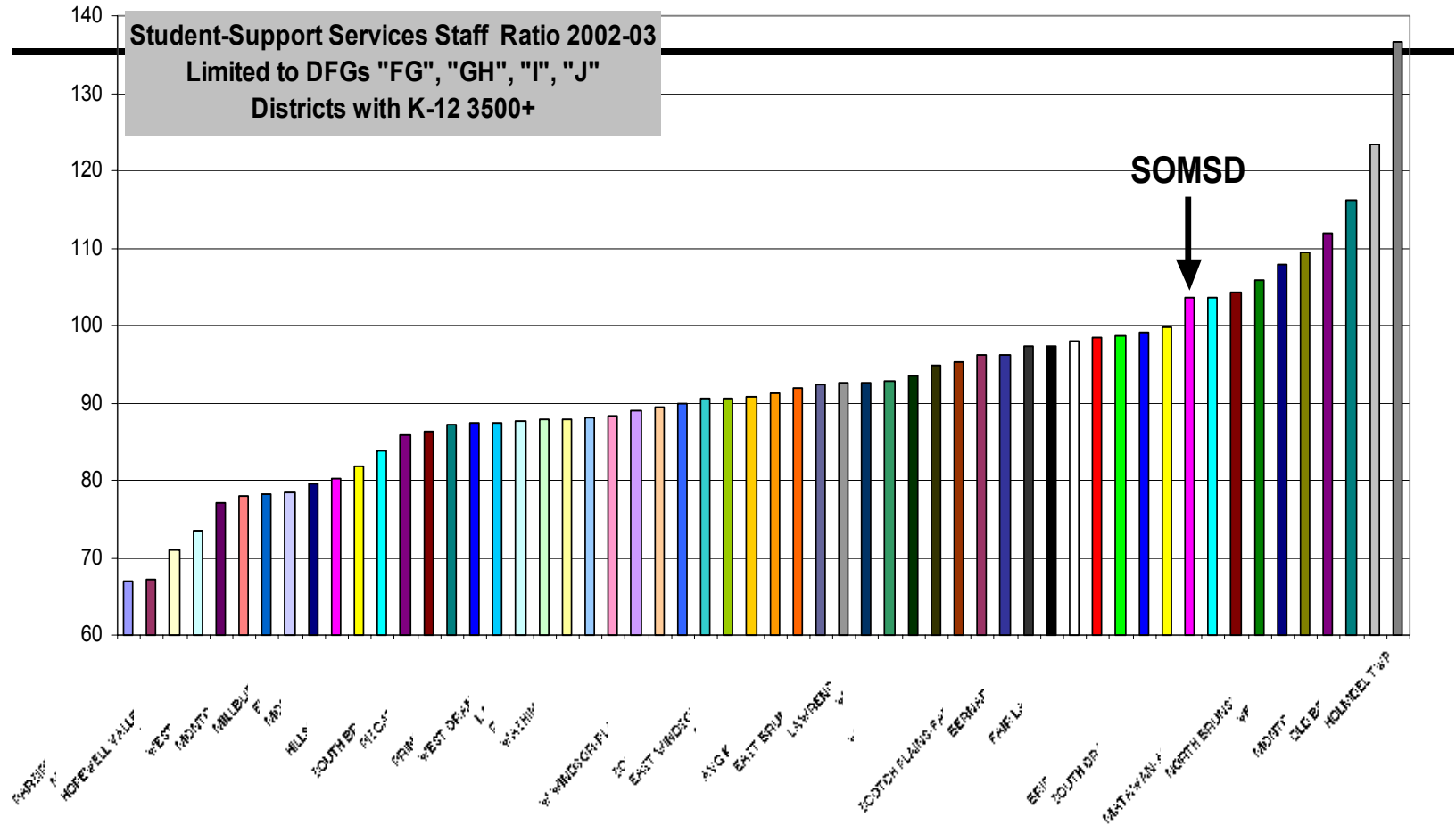
The student-teacher ratio is markedly similar among the vast majority of districts in our selected set



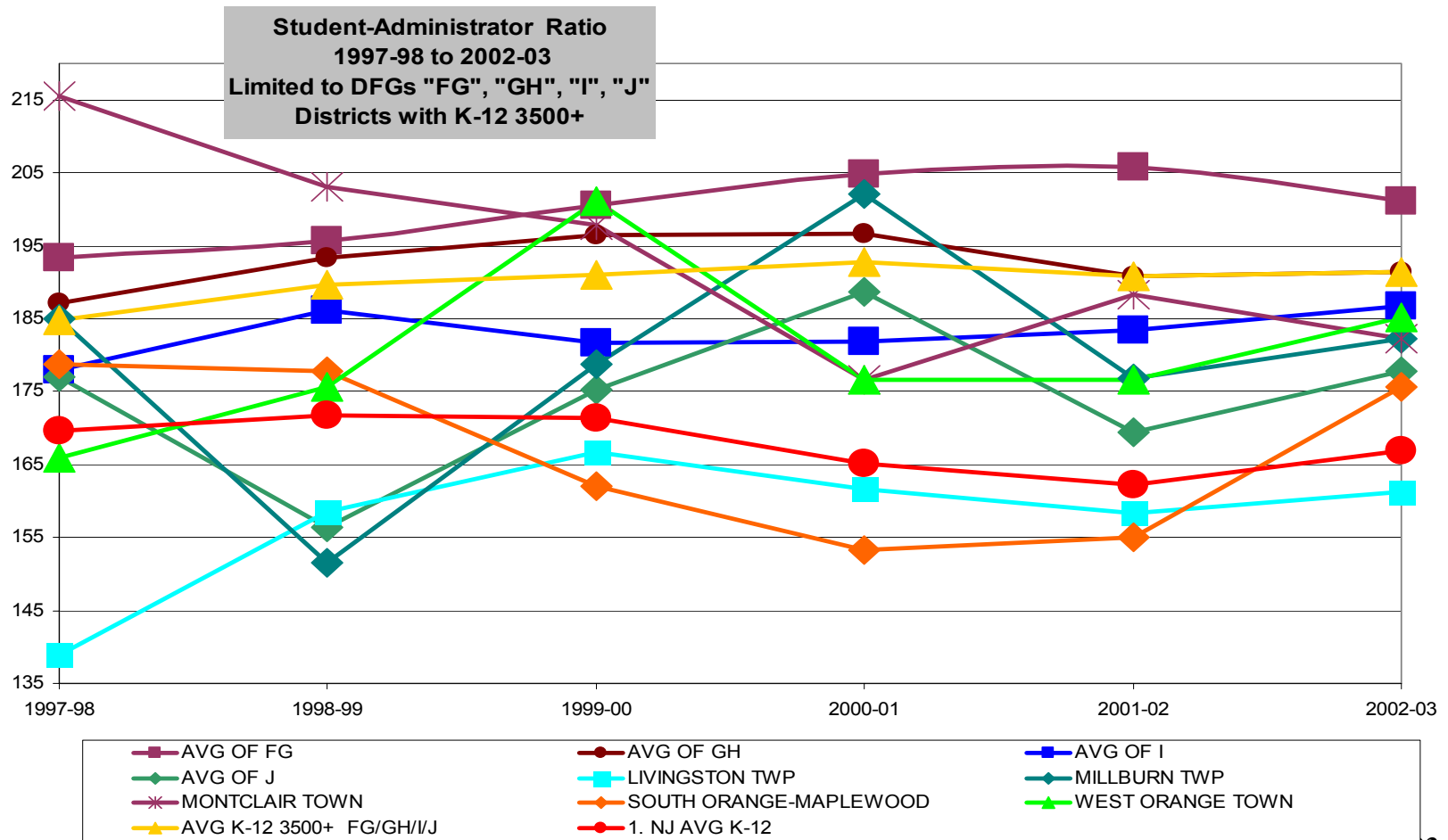
The Student to Support Staff Ratio has remained fairly constant in recent years.



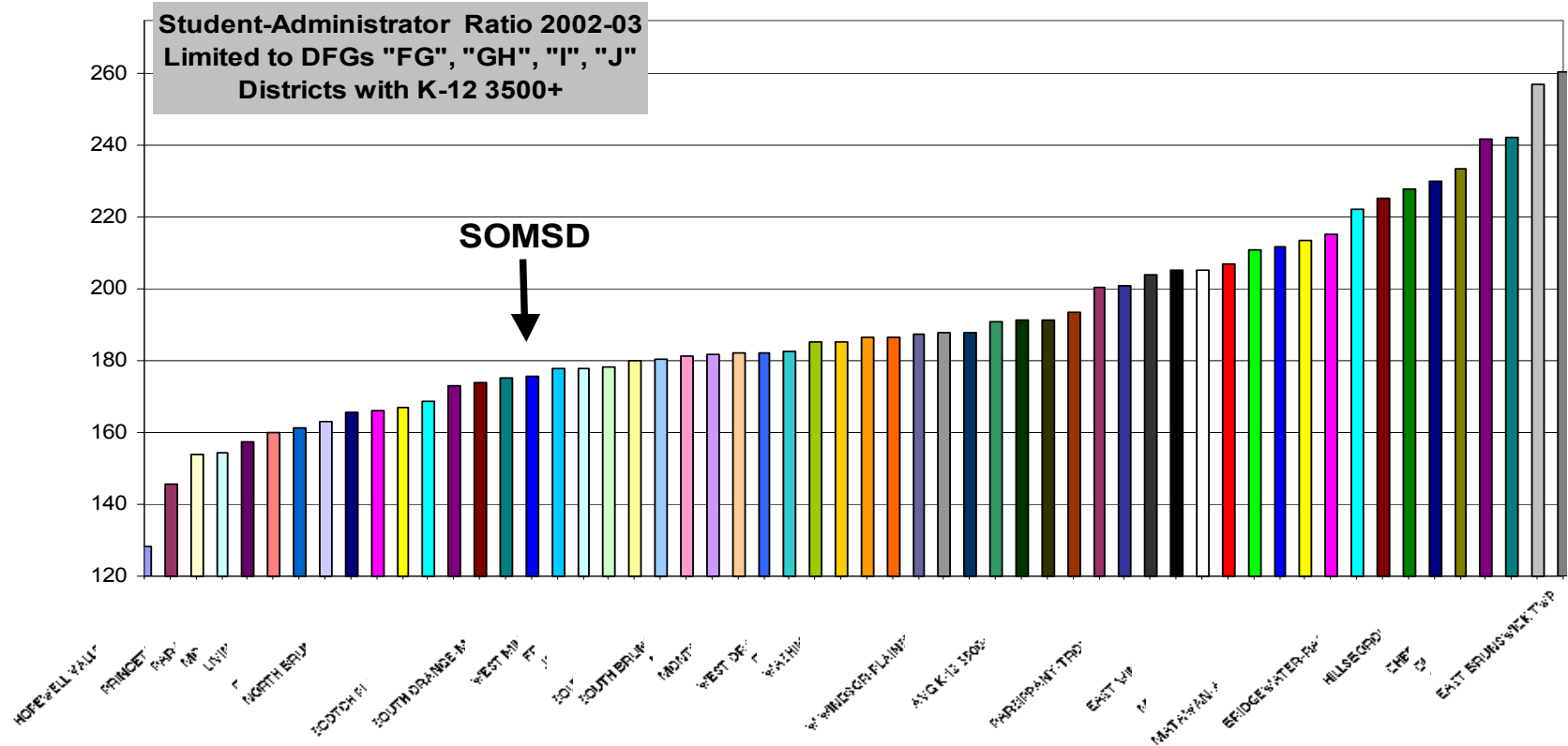
SOMSD has a higher ratio (103.5) of Students to Support Staff than many other districts



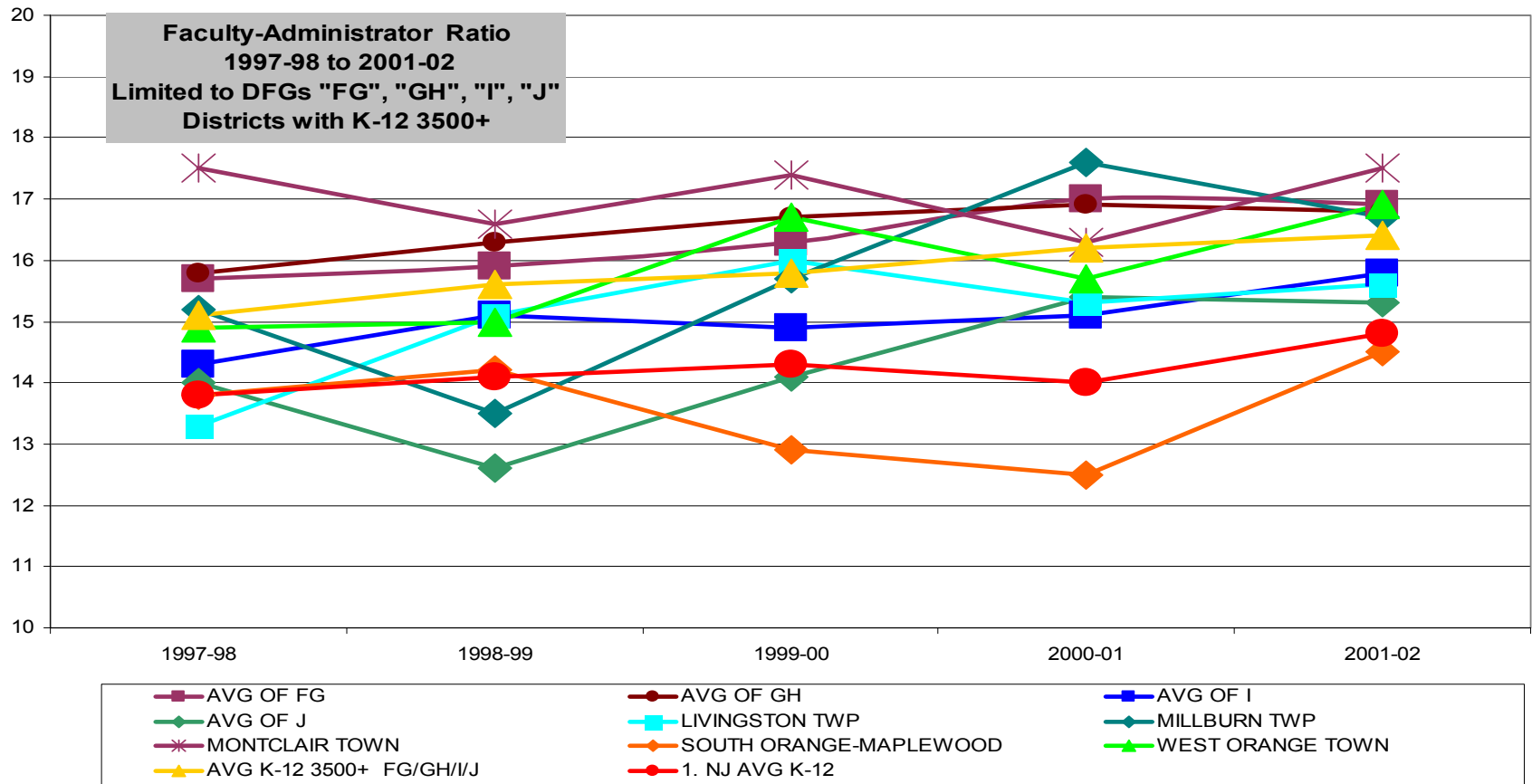
While SOMSD's Student-Administrator ratio is below the 4-DFG average, the gap has narrowed considerably in the last year



The ratio is still, however, below the 4-DFG average of 191. This is an area for further examination, but there may be sound reasons for this



The ratio of Faculty to Administrators has increased over the years to 14.5, up from 13.8 in 1996-97. The 4-DFG average is 16.4 (+1.3 vs. 1996-97)



Introductory Material on Budget Caps and State Aid Allocations

It's important to distinguish three separate drivers of budget planning

- What we need to spend
 - Based on judgment of educational need, cost of resources, judgment and understanding of level and mix of resources necessary to be effective in meeting the projected needs
 - Also driven by enrollment
- What we're “permitted” to spend (the “*Statutory Growth Limitation*”, also known as the “*CAP*”)
- What we're capable of spending as a community, also referred to as our “*fiscal capacity*” .What a majority of the Board of Education recommends and then the Board of School Estimate fixes as the school property tax rate.

Some Budget Terminology

- Spending Growth Limitation (“SGL” or the “cap”): the annual rate of growth permitted in the net budget from one year to the next
- Statutory Spending Growth Limitation Adjustments (“SGLAs”) are changes in:
 - Enrollment
 - Certain capital outlays
 - Non-remote pupil transportation
 - Special education costs in excess of \$40,000 per pupil
 - Certain county tuitions
 - Total building square footage

Budget Terminology (continued)

- Net T&E Budget: General Fund + part of Special Revenue Fund
- Maximum Net T&E Permitted Budget (“MNPB”)
$$\text{MNPB} = \text{Last year's Net Budget} + \text{SGL} + \text{SGLAs}$$

MNPB = *“how much we’re permitted to spend”*

- Separate Proposal or Special Question is the amount of spending, proposed, if any, over the Net T&E Budget
- Net Budget: Net T&E budget + separate proposal, if any

Maximum Net T&E Budget Permitted = Previous year's budget revenue + growth allowance

- The formula is established in CEIFA, the current education finance statute adopted in Dec. 1996
- The formula used the 1996-97 year revenue as the baseline for calculating the 1997-98 statutory growth limitation
- The revenue in each year's adopted budget becomes the baseline for the subsequent year's SGL calculation
- Statutory Growth Limitation Adjustments are allowed for various exigencies, including enrollment growth; these SGLAs act to increase the SGL (the CAP)

Maximum Net T&E (continued):

- Calculated by the state and provided to the district with its state aid figures during budget season
- Defines how much a district is permitted to spend (irrespective of how much the district thinks it needs to spend or is able to spend)
- Unrelated to the aid a district receives or to its actual costs
- Also defines the minimum that districts are allowed to spend, thus establishing a spending floor for educational adequacy
- Districts wishing to spend above Max. Net T&E may adopt a Separate Proposal (subject to approval by voters or BOSE)

Our state aid has remained *relatively stagnant* in current dollar terms *since 1987 - \$5.3 million*

- Our aid has thus declined dramatically in constant-dollar (inflation-adjusted) terms
- Our aid has declined dramatically as a proportion of our district revenue from roughly 21% of the total in 1987 to approximately 7% today
- This has occurred in a period when we've seen expenditure per pupil rise
- The district also experienced a 39% increase in enrollment from 1988 to 2002 (4,577 to 6,364)
- The General Fund has increased by 108% in this same period, from \$30,538,014 in the 1988-89 year to \$63,763,866 in 2001-02
- This is the explanation why local taxes seem to go up so much faster than the rise in district expenditure

Budget growth, state aid and local share, 1993-2003

To be provided

State aid is calculated primarily according to formulae contained in the statute or formulae inserted into annual state budgets

- District Factor Group assignments DO NOT play any role in determining state aid entitlement with a few exceptions. For our district, the only operative difference is the exclusion of DFG “I” and “J” districts from entitlement to Property Tax Reduction Aid, which is capped at \$300,000 per district. Several legislative bills have attempted to remove the “I”/”J” exclusion, while increasing the \$300,000 cap.
- Core Curriculum Standards Aid is the portion of aid money that is dispensed according to a wealth-based formula.
- All other aid is driven based on overall enrollment or enrollment of some specific identifiable group (e.g., Special Education, Limited English Proficiency students, etc.)

State Aid (2001-02 used for illustration)

- Unrestricted
 - Core Curriculum Standards Aid \$ 0
 - Stabilization Aid \$ 140,000
- Categorical
 - Special Education \$3,267,559
 - Transportation Aid 869,323
 - Bilingual Education & other 138,992
- Restricted
 - Instructional Supplement 281,547
 - Demonstrably Effective Program Aid 152,972
 - Distance Learning Network Aid 282,918
 - State entitlements & Federal programs 1,327,185

Core Curriculum Standards Aid

- Formula in CEIFA (inherited from QEA) uses both property wealth and income wealth to determine a local district's 'ability to pay' and the amount of CCS aid to which it's entitled
- CCS aid is determined strictly by formula – no favoritism involved
- A district's property wealth per pupil and income wealth per pupil relative to other districts in the state determines whether it will receive CCS aid.
- Our district's property wealth per pupil is about at the state average, but income wealth per pupil is above the state average, making us look wealthier than we are relative to our actual property tax base
- Use of income wealth in formula is not mandated by the Court, but was included by Florio to win support for QEA from other parts of the state
- Were property wealth per pupil the sole basis for determining a district's ability to pay, our CCS aid entitlement would be several million dollars higher

Future Topics

- Outlook for reform of state aid formulae in CEIFA
- Further discussion of the distinction between mandatory and discretionary programs (why are some programs repeatedly candidates for budget cuts?)
- What distinguishes T&E from non-T&E expenses
- Fiscal capacity of South Orange and Maplewood
- Case studies in past cost analyses
- And, in a more formal setting, at a formal public meeting of the Board of Education:
 - presentation of three-year budget forecasts
 - presentation and discussion of the budget calendar and proposed budget process

Acknowledgements

- Special thanks to the following individuals for recent or past input and insight that helped shape this presentation:
 - Karla Milanette, SOMSD Business Administrator
 - Members of the Finance & Facilities Committee Latz, Frazer and Campbell
 - Shelley Riecke and Brian O’Leary, former Finance Committee chairs
 - Richard Rosenberg, former Deputy Superintendent and now Deputy Commissioner of Education for Finance
 - Ernest Reock, Professor Emeritus of the Blaustein School, Rutgers University

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