

# **Indiana's School Funding Formula Impact Study for 2003**

This report was prepared for the  
Indiana School Finance Issues Group

January 2004

Center for Evaluation and Education Policy  
(Formerly The Indiana Education Policy Center)



INDIANA UNIVERSITY  
SCHOOL OF EDUCATION



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This report was prepared for the  
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By

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The views in this paper are the authors' and do not  
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3. All types of school corporations experienced an increase in minority student enrollment between 1993 and 2003, while non-minority enrollment declined in some corporations.
4. The percent of students receiving free lunch increased about 18.5 percent during the decade, with the largest percent increase occurring in Suburban corporations.

### **Revenue per-Pupil**

1. Between 1993 and 2003 regular revenue rose, in inflation-adjusted dollars, from \$3,562 per-pupil, to \$4,313, a 21 percent increase.
2. Compared to the previous year, regular revenue per-pupil increased 1.34 percent in 2003.
3. During the decade regular revenue increased most for Rural corporations, followed by Town and Urban corporations. The increase for Suburban corporations was noticeably lower.
4. The minimum guarantee calculation provided the largest dollar amount for the majority of corporations in 2004. The equalization features of the foundation formula were not activated for the majority of corporations.

### **Property Tax Rates**

1. Between 1993 and 2002, the variability in tax rates among the 292 school corporations declined.
2. After a slight increase in 2003 due to property reassessment, variability in tax rates is projected to continue declining during the 2004-05 biennium.
3. Low tax rate school corporations experienced the largest increase in tax rates between 1993 and 2002.

### **Reward-for-Effort**

1. Differences in reward-for-effort decreased steadily from 1993 to 2002.
2. After a slight increase in 2003, differences are projected to continue to diminish in the 2004-05 biennium.

3. The correlation between a school corporation's property wealth per-pupil and regular revenue per-pupil was moderate at the beginning of the decade (1993) but now approaches zero.



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## Instructional Revenue per-Pupil

A broader indicator of revenue used in this report is *instructional revenue per-pupil*, which is the sum of a school corporation's revenue from:

- Regular revenue,
- State special education grant,
- State vocational grant,
- State PRIME TIME grant,
- State growing schools grant,
- State honors diploma grant, and
- State remediation grant (2004-05),

divided by the school corporation's average daily membership. This definition excludes transportation, capital projects, debt service, and preschool handicapped fund revenues.

## Constant 1993 Dollars

This report adjusts revenue data for inflation using the U.S. government's implicit gross domestic product price deflator as published in the 2004 federal budget. The following table includes the annual inflation percentages used to adjust 1994-2005 revenue amounts into 1993 dollars<sup>1</sup>.

Table 1.1: Deflators

Actual		Estimated	
Year	Inflation Rate	Year	Inflation Rate
1994	2.2%	2003	1.27%
1995	2.2%	2004	1.46%
1996	2.0%	2005	1.53%
1997	2.0%		
1998	1.4%		
1999	1.3%		
2000	2.1%		
2001	2.3%		
2002	2.2%		

1. Retrieved November 2003 from <http://w3.access.gpo.gov/usbudget/fy2003/hist.html>

## State Share of Revenue

This indicator shows the percent of a school corporation's state and local revenue provided by state funding, including the Property Tax Replacement Credit and the Homestead Credit Deduction. In 2002-2005, the state share is reduced by the allowable transfers from the local Capital Projects and Transportation Funds into the General Fund. This definition excludes federal revenues.

## Horizontal Variability

These indicators describe the variability of regular revenue per-pupil across public school corporations in Indiana.

### Overall variability

The primary indicator of horizontal variability is simply the mean absolute deviation of regular revenue per-pupil. Overall variability is calculated as the sum of the absolute differences between each school corporation's regular revenue per-pupil (or tax rate) and the mean regular revenue per-pupil (or tax rate), divided by the total regular revenue per-pupil (or tax rate) times 100%. This provides a longitudinal measure of how far the average school corporation's revenue (or tax rate) deviates from the mean.

### Top-to-bottom variability

This is a narrower measure of horizontal variability that looks only at the extremes of the distribution. Top-to-bottom variability is calculated by (a) the percentage difference in average regular revenue per-pupil between school corporations in the top and bottom 10 percent, and (b) the percentage difference in average regular revenue per-pupil between the top and bottom 25 percent.

### Bottom-half-variability

An even more focused indicator of horizontal variability is bottom-half variability, which looks only at school corporations with regular revenue per-pupil that are below the median. Bottom half variability is calculated as the percentage difference in average regular revenue per-pupil between the fifth and

the bottom 10 percent, that is, the percentage that the average regular revenue per-pupil (or tax rate) of the fifth 10 percent of school corporations from the bottom (i.e., the 40th percentile to the median) exceeds the average regular revenue per-pupil of the bottom 10 percent of school corporations.

## Vertical Equity

These indicators describe the extent to which school corporations or students with different needs and circumstances receive different levels of regular revenue per-pupil funding. Vertical equity is calculated by (a) the percentage difference in average regular revenue per-pupil between minority and non-minority students, and (b) the percentage difference in average regular revenue per-pupil between poor and non-poor students.

To compute these indicators, each student in the state is assumed to receive the regular revenue per-pupil amount from his or her district. For the minority vs. non-minority indicator, the average regular revenue per-pupil received by school corporations for minority students and the average regular revenue per-pupil received by school corporations for non-minority students is calculated.

The regular revenue per-pupil received for minority students is summed and divided by the number of minority students in the state to generate a statewide average of regular revenue per minority pupil. The revenue received for non-minority students is summed and divided by the number of non-minority students in the state to generate a statewide average of regular revenue per non-minority pupil.

Vertical equity is said to be improving when the percentage difference between the average regular revenue per-pupil for minority and non-minority pupils is decreasing.

The calculation for poor vs. non-poor pupil follows the same process, but the percentage difference is calculated for the average regular revenue per-pupil for pupils eligible for free lunch and the average regular revenue per-pupil for pupils who are not eligible for free lunch.

## Property Tax Rate

This is the tax rate for General Fund dollars received by a school corporation from property taxes per \$100 of assessed valuation in the corporation. The average of this rate is reported. Recognizing that some property taxes are paid by the state through the Property Tax Replacement Credit, this report includes an average in which the maximum levy is reduced first by the PTRC in each corporation. The result is divided by the corporation's assessed valuation, divided by 100, to generate the rate, and then all the net rates are averaged.

All tax rates have been adjusted to account for the 2003 property reassessment.

## Reward-for-Effort

This indicator is calculated by dividing regular revenue per-pupil in a school corporation by its general fund property tax rate.

## Correlation of Revenue per-Pupil and Assessed Value per-Pupil

This is the Pearson correlation between school corporations' regular revenue per-pupil in a particular year and school corporations' assessed valuation per-pupil in that year. Correlation coefficient values range between -1 and +1. Values between zero and +1 indicate a positive relationship between assessed value and regular revenues per-pupil. Values between -1 and zero indicate an inverse relationship. Correlation coefficient values of zero indicate that no relationship exists.

## School Corporation Type

The Indiana Department of Education categorizes the 292 school corporations as urban, suburban, town, or rural:

- The 27 urban school corporations are in the central city region of a U.S. Census Bureau Standard Metropolitan Statistical Area (SMSA).
- The 43 suburban school corporations are within an SMSA but not in the central city region.

- The 98 town school corporations are not within an SMSA but are in an area with a population of 2,500 or more.
- The 124 rural school corporations are not within an SMSA and are in an area with a population of less than 2,500.

# Average Daily Membership

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*Finding:* The percent change in average daily membership for all corporations increased steadily across the decade, with a slight dip only in 2001. Disaggregation by school corporation type shows suburban corporations gained more students than town or rural corporations, while average daily membership decreased in urban corporations.

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The Indiana school funding formula is responsive to changes in enrollment, specifically attendance data recorded as the “average daily membership” (ADM). The ADM for Indiana’s 292 school corporations in 1993 was 927,838, and increased by 37,217 students, to a total of 965,055 in 2003. Table 2.1 presents the ADM counts, percent change, and average annual change for the decade.

Table 2.1: Changes in Average Daily Membership for 1993 and 2003

Category & Number	1993	2003	Percent Change	Average Annual Change
All Corporations (n = 292)	927,838	965,055	4.01%	0.39%
Urban (n = 27)	319,969	300,684	-6.03%	-0.62%
Suburban (n = 43)	185,240	227,555	22.84%	2.08%
Town (n = 98)	229,368	240,438	4.83%	0.47%
Rural (n = 124)	193,262	196,378	1.61%	0.16%

Figure 2.1 displays the percent change in the ADM, using 1993 as the base year. The average annual increase in ADM from 1993 to 2003 was 0.39 percent, and the ADM is projected to increase to 977,655 by 2005.

Figure 2.1: Percent Change in Average Daily Membership 1993-2005.

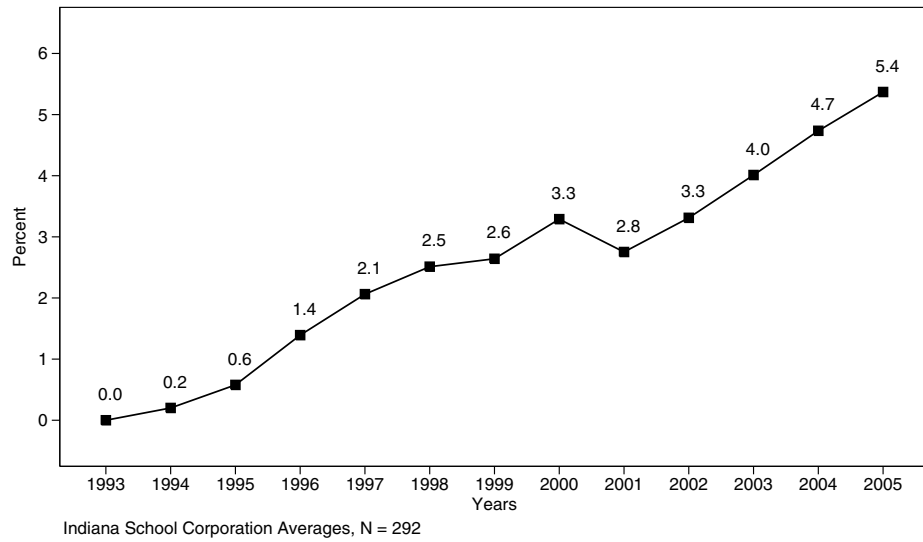


Figure 2.2 shows the percent change, to the nearest integer, in ADM for each of the four types of corporations. Rural corporations experienced the least change in ADM during the decade, as indicated by the 1.6 percent change in 2003. Town corporations exhibited moderate growth, with a percent change of 4.7 in 2003. The growth in town corporations is similar to the overall growth for the state. Suburban corporations show the largest percent change during the decade, rising to 22.8 percent in 2003. ADM declined in urban corporations, with a -6.2 percent change in 2003.



The bottom line in Figure 2.3, the “Mean Percent Minority Students,” is produced by calculating first the percent of minority students in each corporation and then calculating the mean of the minority percent for all 292 corporations. In 1993, the mean percent of minority students in a corporation was 4.7 percent and rose to 8.3 percent in 2003.

Figure 2.3: Minority Percent in Average Daily Membership 1993-2005.

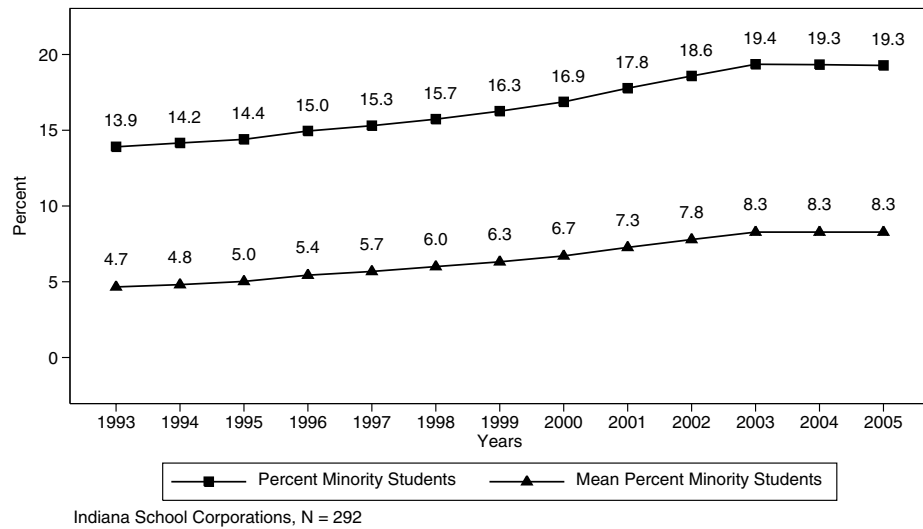
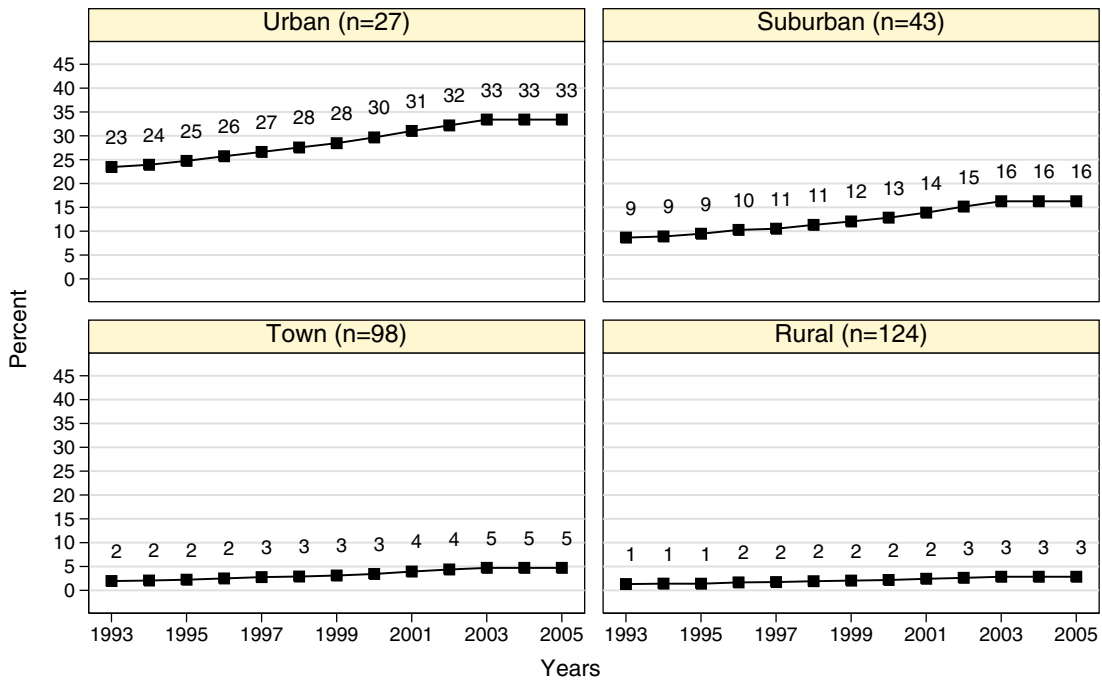


Figure 2.4 displays, to the nearest integer, the mean percent of minority students for each school corporation type. Urban corporations have the largest mean percent of minority students. In 1993 this mean percent was 23, increasing 10 percentage points to a mean of 33 percent in 2003. Suburban corporations show the next largest mean percent of minority students. In 1993 the mean percent for Suburban corporations was 9 percent which was less than half of the mean for Urbans. By the end of the decade the mean percent for Suburbans grew by 7 points to 16 percent, which is half the mean percent for Urbans. The mean percent of minority students in Town and Rural corporations was 2 and 1 percent respectively, and increased by the end of the decade to 5 and 3 percent respectively.

Figure 2.4: Minority Mean Percent in Average Daily Membership by School Corporation Type 1993-2005.



Graphs by School Corporation Type

### Changes in Minority and Non-Minority Groups

Table 2.2 provides a breakdown of the change in ADM from 1993 to 2003 for the minority race/ethnicity group, including the minority ADM counts, percent change for the decade, and the difference in the actual number of students between the beginning and end of the decade. The minority group includes all pupils *not* counted as white.

The minority ADM for Indiana’s 292 school corporations in 1993 was 129,037 and increased by 57,759 minority students to a total of 186,796 in 2003. This is 55.2 percent larger than the increase for all students (37,217) during the same time period.

Table 2.2: Changes in Minority Average Daily Membership for 1993 and 2003

Category & Number	1993	2003	Change	Difference 2003 - 1993
All Corporations (n = 292)	129,037	186,796	44.76%	57,759
Urban (n = 27)	100,307	119,836	19.47%	19,529
Suburban (n = 43)	20,964	47,402	126.11%	26,438
Town (n = 98)	4,953	13,123	164.93%	8,170
Rural (n = 124)	2,813	6,434	128.74%	3,621

Table 2.3 presents the *non-minority* ADM counts, percent change for the decade, and the difference in actual number of students. The non-minority group includes only students counted as white. The non-minority ADM for Indiana's 292 school corporations in 1993 was 798,802 and declined by 20,543 students to 778,259 in 2003.

Table 2.3: Changes in Non-Minority Average Daily Membership for 1993 and 2003

Category & Number	1993	2003	Change	Difference 2003 - 1993
All Corporations (n = 292)	798,802	778,259	- 2.57%	- 20,543
Urban (n = 27)	219,662	180,848	- 17.67%	- 38,814
Suburban (n = 43)	164,276	180,153	9.66%	15,877
Town (n = 98)	224,449	227,315	1.27%	2,866
Rural (n = 124)	190,449	189,944	-0.26%	- 505

For the 292 Indiana school corporations minority pupils increased 44.76 percent during the decade while the non-minority group decreased 2.57 percent. Town corporations showed the largest percent increase in minorities (164.93 percent) along with a 1.27 percent increase in the non-minority group. Likewise, Rural corporations showed a 128.74 percent increase in the minority group and a very small decrease (0.26 percent) in the non-minority group.

The minority percent increase (126.11 percent) for Suburban corporations was nearly as large as the Rural corporations, but the non-minority group also increased 9.66 percent in Suburban corporations, the largest increase among the four types of school corporations.

Urban corporations experienced the least amount of change for the minority group, which increased 19.47 percent. However, the decrease in the non-minority group, 17.67 percent, was larger than in any of the other three types of school corporations.

Figure 2.5 shows the percent change from 1993 to 2003 — based on summing the minority and non-minority counts across 292 Indiana school corporations and then dividing each by the total ADM for the 292 corporations.

Figure 2.5: Percent Change in Minority and Non-Minority Average Daily Membership 1993-2005.

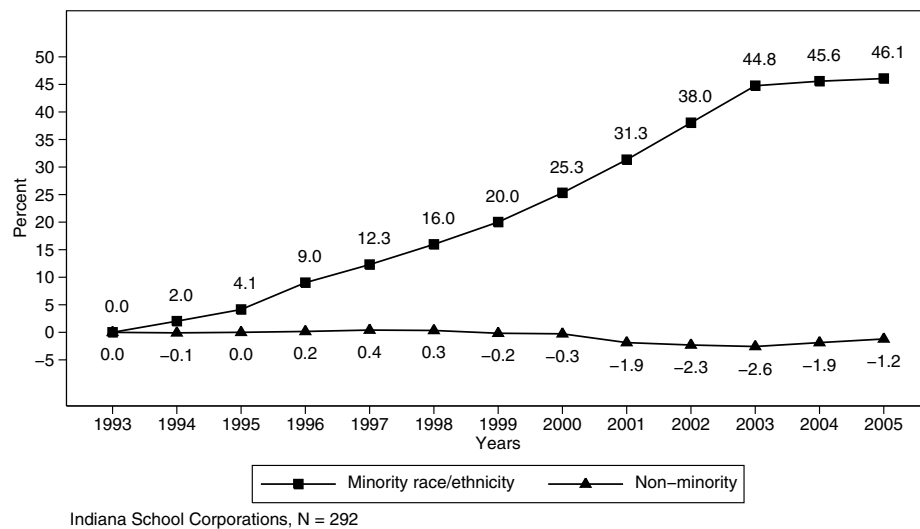
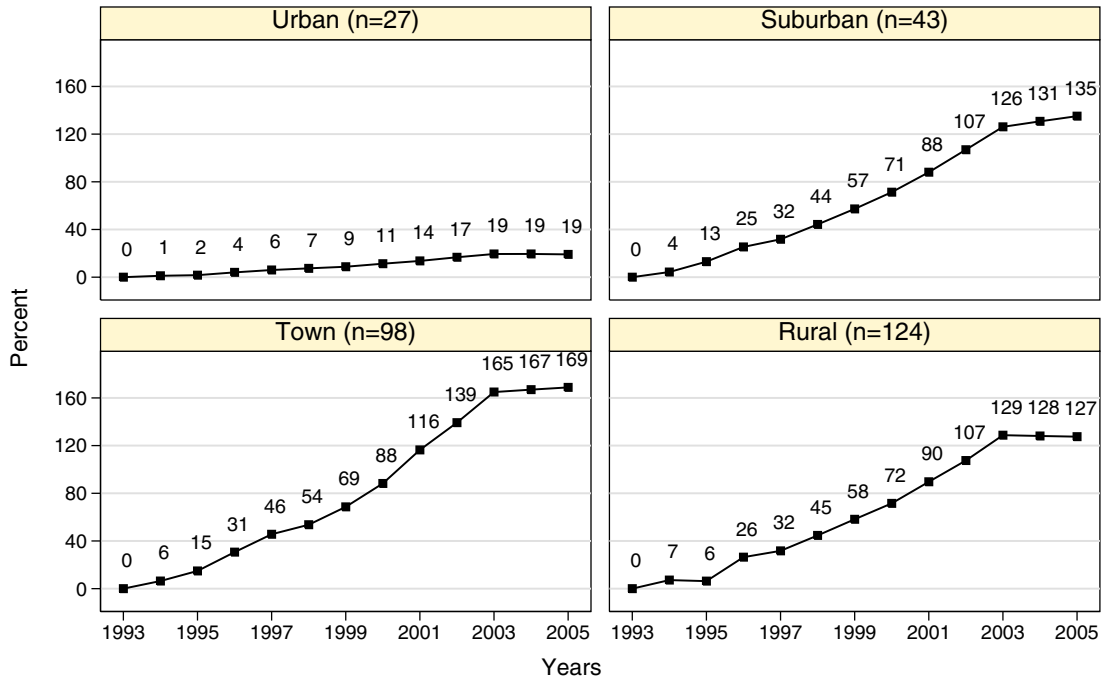


Figure 2.6 displays the percent change for each type of school corporation. Urban corporations show the smallest percent change, approximately 19.5 percent across the 1993-2003 decade. Suburban and Rural corporations experienced a considerably greater percent change during the same period, approximately 126.1 and 128.7 percent respectively. Town corporations, at 164.5 percent, show the largest percent change.

Figure 2.6: Percent Change in Minority Average Daily Membership by School Corporation Type 1993-2005.



Graphs by School Corporation Type

Finally, note that the preceding percents are based on treating, first the state, and then each of the four types of school corporations, as the unit of analysis. Sometimes individuals may be more concerned with their own corporation and present percentages that are markedly different from those that appear above. When each corporation is used as the unit of analysis and change in the mean percent of minority students is calculated, the changes appear to be much larger due to the variability of minorities in corporations and/or across different years within the same corporation. To illustrate, Table 2.4 contains descriptive statistics for the mean percent change in 2003 with 1993 as the base year.

Table 2.4: Minority Mean Percent Change in 2003

Category & Number	Mean Pct Change	Standard Deviation	Minimum Pct Change	Maximum Pct Change	Number of Students
All Corporations (n = 292)	250.00	455.62	-87.80	3,844.25	
Urban (n = 27)	71.89	95.77	-26.13	435.66	1,365
Suburban (n = 43)	218.13	264.09	-87.80	1,237.18	1,106
Town (n = 98)	333.35	584.22	-24.31	3,844.25	37
Rural (n = 124)	233.43	426.21	-76.85	3,593.59	71

The mean percent change values are much larger but as the rightmost column indicates, even a very large percent change can result from a small change in the number of students.

## Free Lunch Average Daily Membership

The free lunch ADM for Indiana's 292 school corporations in 1993 was 205,720 and increased by 38,021 students receiving free lunch to a total of 243,741 in 2003. This also means very little change has occurred during the same period in the number of students who do not rely on the free lunch program.

Table 2.5 presents the ADM free lunch counts, percent change, and the difference in number of students between the beginning and end of the decade.

Table 2.5: Changes in Free Lunch Average Daily Membership for 1993 and 2003.

Category & Number	1993	2003	Change	Difference 2003 - 1993
All Corporations (n = 292)	205,720	243,741	18.48%	38,021
Urban (n = 27)	115,023	126,959	10.38%	11,936
Suburban (n = 43)	22,882	37,599	64.32%	14,717
Town (n = 98)	37,880	46,318	20.77%	8,438
Rural (n = 124)	29,935	32,865	9.79%	2,930

The average annual increase during the decade in students receiving free lunch is 1.71 percent, and the number of students receiving free lunch is projected to increase to 244,806 by 2005.

Figure 2.9 displays the mean percent change (base is 1993) in free lunch ADM. The percent change for each corporation was calculated first and then the mean for all corporations was calculated.

Figure 2.7: Free Lunch, Mean Percent Change in Average Daily Membership 1993-2005.

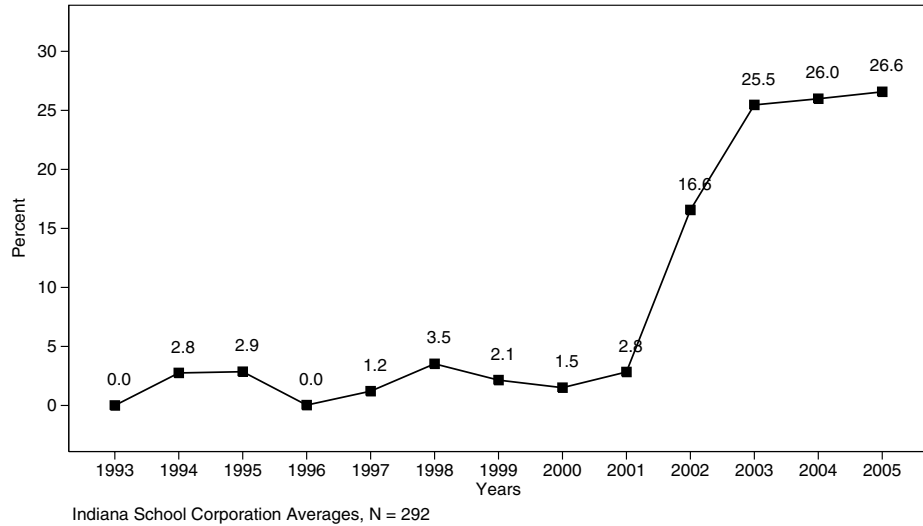
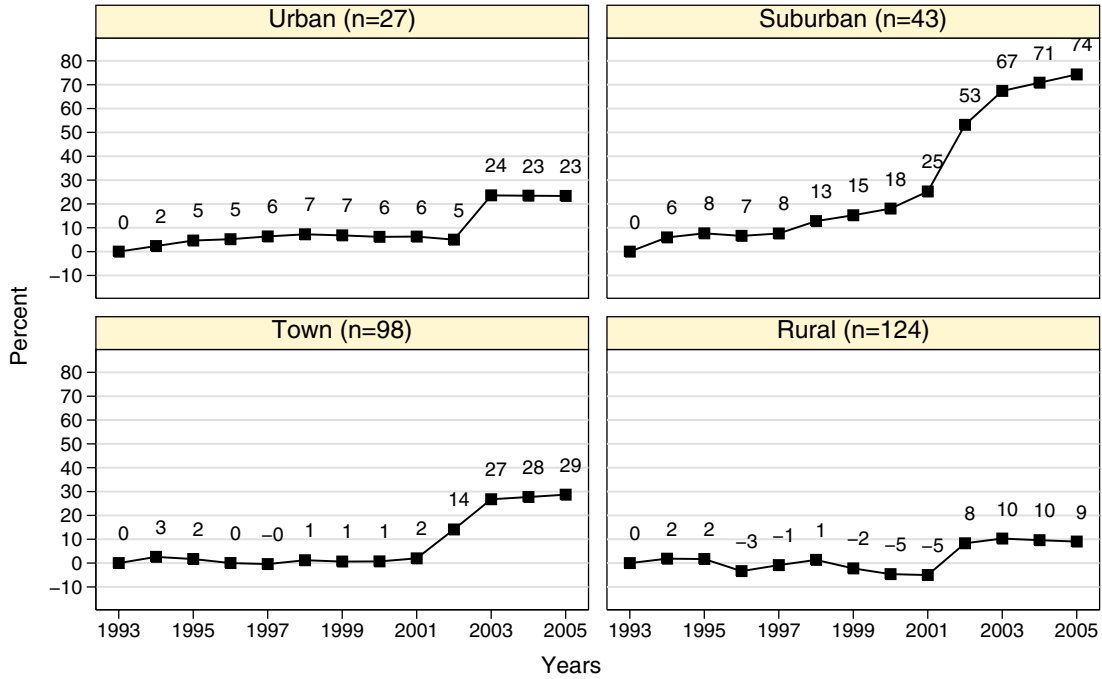


Figure 2.10 shows the mean percent change in free lunch ADM for each of the four types of school corporations. Urban and Rural corporations experienced the smallest increase in free lunches during the decade, with free lunches increasing, on average, 10.38 percent in Urban corporations during the decade, and 9.79 in Rural corporations.

Figure 2.8: Free Lunch, Percent Change in Average Daily Membership by School Corporation Type 1993-2005.



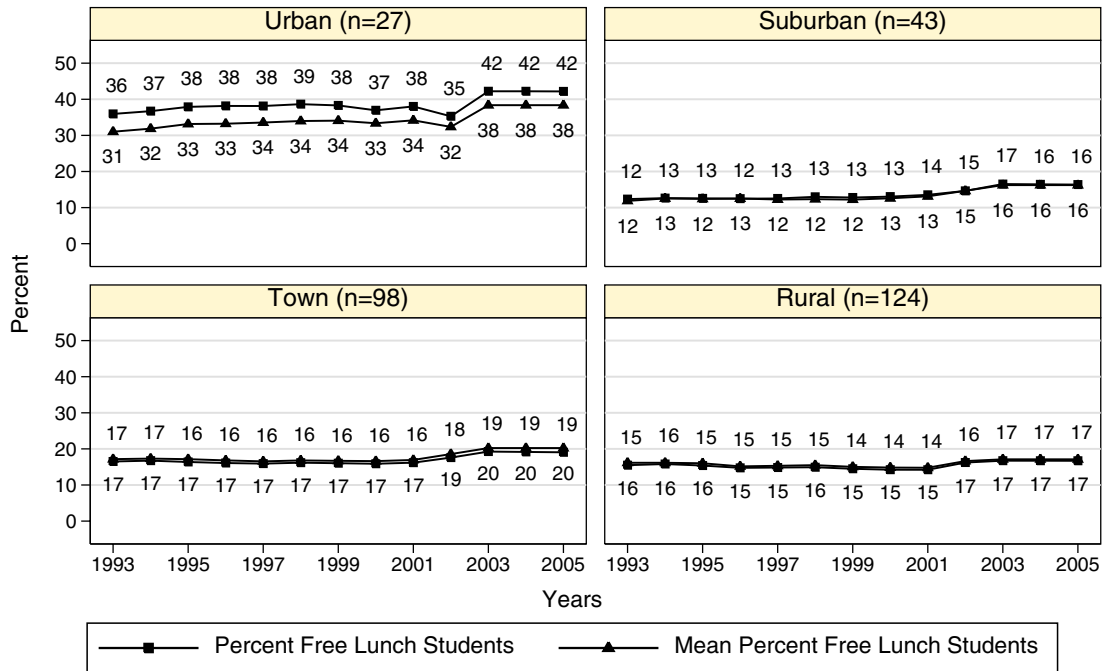
Graphs by School Corporation Type

Town corporations exhibited a somewhat larger increase in free lunches during the decade, with a 20.8 percent increase. This increase is only a few points larger than the overall statewide increase in free lunches. Suburban corporations show the largest increase in mean percent change, which is 64.3 percent.

Figure 2.11 shows the number of students receiving free lunch as a percent of all students. The top line, “Percent Free Lunch Students,” is the sum of all free lunch students in Indiana’s 292 school corporations divided by the sum of ADM for the corresponding year. The lower line, “Mean Percent Free Lunch Students,” uses the corporation as the unit of analysis. The percent of free lunch students is calculated for each corporation and then the mean is calculated across all 292 Indiana school corporations.



Figure 2.10: Free Lunch Percent in Average Daily Membership by School Corporation Type 1993-2005.



Graphs by School Corporation Type

## Chapter 3



### Revenue per-Pupil

This chapter examines changes in regular revenue per-pupil, instructional revenue per-pupil, and the state share of revenue. Due to recent changes in the calculation of these indicators some results may differ from previous versions of this report. Changes in calculation of these indicators include:

- The At-Risk distribution was added to regular revenue for 1993 to 2003. Previously, it was part of instructional revenue.
- Corporations were permitted to transfer dollars up to a specified maximum from certain local funds to the General Fund in 2002 and 2003.
- Maximum permitted transfers in 2004 and 2005 from utility and insurance and supplemental utilities and insurance (both part of the Capital Projects fund) to the General Fund are included.
- State payments to enable reduction in local amount paid into the Teacher Retirement Fund are included for 2004 and 2005.
- Values for the Property Tax Replacement Credit were, in previous reports, percentages. In this report PTRC<sup>1</sup> values were supplied by LSA.
- The amount of the Homestead Credit Deduction was not identified in previous reports.

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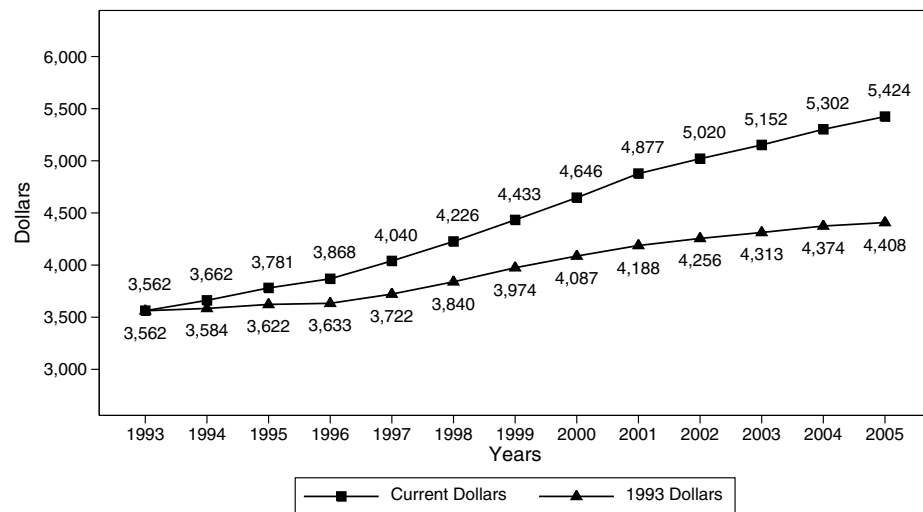
1. In this report values for the PTRC are estimated by standard Legislative Services Agency (LSA) procedures; previously, values for the PTRC were calculated by subtracting a percent from the local levy (20 percent for 1993-2002; 68 percent for later years) and adding this amount to the state portion.

## Regular Revenue per-Pupil

*Finding:* Regular revenue per-pupil,<sup>2</sup> in inflation-adjusted dollars, is predicted to increase each year of the 2004-05 biennium. The percent increase for the 2004-05 biennium is about three-quarters of the increase that occurred in the previous biennium.

Figure 3.1 displays the average regular revenue per-pupil for the 292 traditional Indiana school corporations. Note that dollar amounts include the At-Risk distribution and thus are larger than in previous reports.

Figure 3.1 Regular Revenue per-Pupil in Current and Constant 1993 Dollars 1993-2005.



Indiana School Corporation Averages (N = 292)

2. Regular revenue per-pupil = (State base tuition support + Local maximum general fund property tax levy + Local vehicle and financial institution taxes + At-Risk distribution) divided by Average Daily Membership. For 2002 and 2003, this also includes the maximum allowable amount that could be transferred from the Capital Projects, Debt Service, Transportation, and School Bus Replacement funds. For 2004 and 2005, it includes the maximum allowable transfer amount from the Capital Projects fund for utility and insurance costs, plus funds generated by the Teacher Retirement Fund reduction.

## Trends in Regular Revenue per-Pupil by Biennium

During the 2004-05 biennium, the regular revenue per-pupil should increase \$272 in current dollars, from \$5,152 in 2003 to \$5,424 in 2005. When corrected for inflation, the regular revenue per-pupil would still increase 2.2 percent over the biennium, or an average annual increase of 1.1 percent. This compares to an average annual increase of 1.48 percent for the preceding biennium and an annual average increase of 1.79 percent for the entire 12-year period. The percent change, for all 292 corporations, and the average annual change for each biennium since 1993 is displayed in Table 3.1.

Table 3.1: Changes in Regular Revenue per-Pupil by Bienniums 1993 to 2005, Constant 1993 Dollars.

	1994-95	1996-97	1998-99	2000-01	2002-03	2004-05
<b>292 Indiana School Corporations</b>						
Percent change	1.69%	2.75%	6.78%	5.37%	2.98%	2.20%
Average annual change	0.84%	1.36%	3.34%	2.65%	1.48%	1.10%

Figures 3.2 and 3.3 show the average regular revenue per-pupil for urban, suburban, town and rural corporations separately, in current and constant 1993 dollars. Figure 3.2 depicts the 2.35 percent increase in regular revenue per-pupil that is projected to occur in the 2004-05 biennium for the 27 urban corporations, and the 0.59 percent decrease for the 43 suburban corporations.

Figure 3.2 Regular Revenue per-Pupil for Urban and Suburban Corporations for 1993 to 2005, Constant 1993 Dollars.

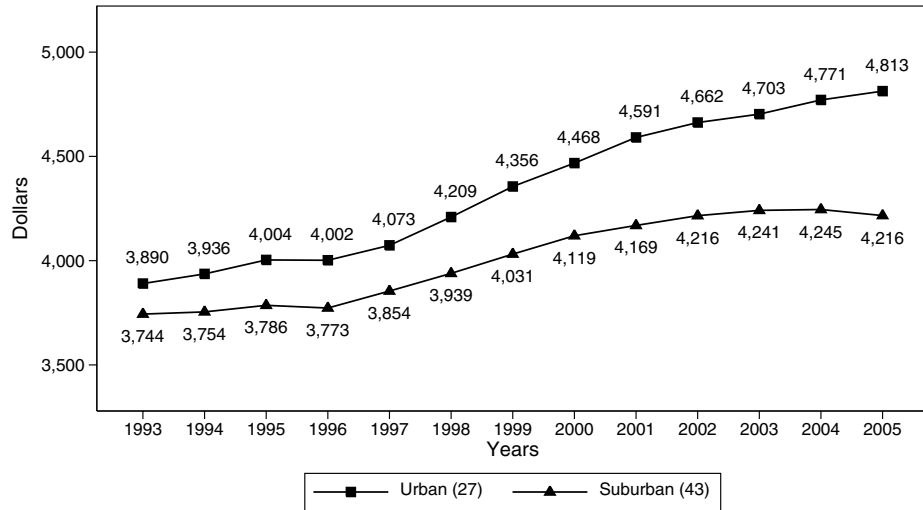


Figure 3.3 shows that average regular revenue per-pupil is projected to increase 1.53 percent for the 98 town corporations, and that the 124 rural corporations are projected to experience the largest percent increase during the biennium — 3.64 percent.

Figure 3.3 Regular Revenue per-Pupil for Town and Rural Corporations for 1993 to 2005, Constant 1993 Dollars.

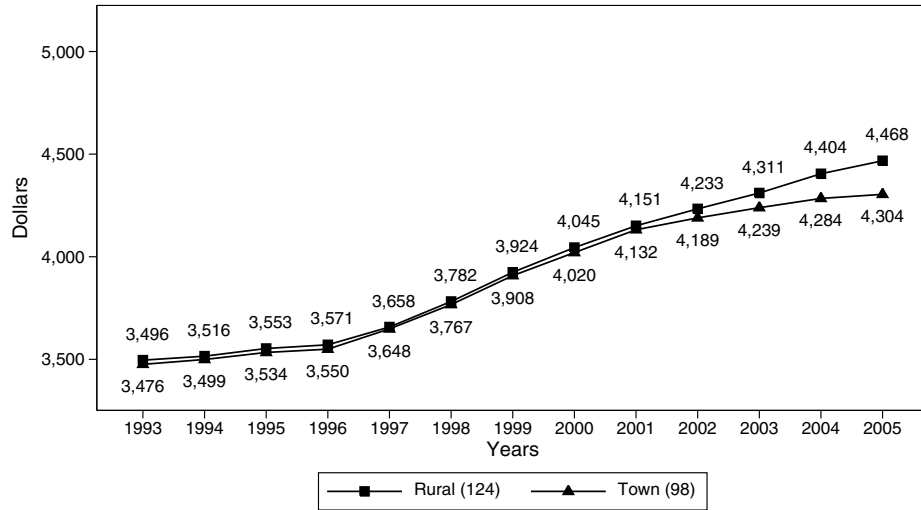


Table 3.2 lists the percent change across bienniums in average regular revenue per-pupil for each school corporation type, and Table 3.3 lists the average annual change.

Table 3.2: Percent Change in Regular Revenue per-Pupil by Corporation Type, within Bienniums 1993 to 2005, Constant 1993 Dollars.

	1994-95	1996-97	1998-99	2000-01	2002-03	2004-05
<b>Indiana School Corporations</b>						
Urban	2.91%	1.75%	6.93%	5.40%	2.44%	2.35%
Suburban	1.12%	1.81%	4.60%	3.41%	1.73%	-0.59%
Town	1.66%	3.25%	7.11%	5.72%	2.60%	1.53%
Rural	1.62%	2.95%	7.29%	5.78%	3.85%	3.64%

Table 3.3: Average Annual Changes in Regular Revenue per-Pupil by Corporation Type, within Bienniums 1993 to 2005, Constant 1993 Dollars.

	1994-95	1996-97	1998-99	2000-01	2002-03	2004-05
<b>Indiana School Corporations</b>						
Urban	1.45%	0.87%	3.41%	2.67%	1.21%	1.17%
Suburbans	0.56%	0.90%	2.27%	1.69%	0.86%	-0.29%
Town	0.83%	1.61%	3.50%	2.82%	1.29%	0.76%
Rural	0.81%	1.46%	3.58%	2.85%	1.91%	1.81%

### At-Risk Distribution

In the 2004-05 biennium, funds generated by the Complexity Index<sup>3,4</sup> — the successor to the At-Risk Index<sup>5</sup> — are an integral part of the calculations that generate the target revenue for each corporation. In previous years the target revenue did not include the At-Risk distribution; instead, the At-Risk distribution was reported separately and was one of the components of the instructional revenue indicator.

What is the impact of including the At-Risk distribution as part of regular revenue per-pupil? To facilitate comparisons with previous years, the regular revenue per-pupil values in this report have been re-calculated and now include the At-Risk distribution for years 1993-2003. Although the At-Risk Index was not published until 1995, the IDOE website<sup>6</sup> lists At-Risk distribution amounts for 1993 to 2003.

Table 3.4 shows, for selected years, the average number of dollars the At-Risk distribution adds to the average regular revenue per-pupil and Table 3.5 expresses the difference as a percentage. For all 292 corporations, the dollar amounts range from \$9 to \$38, with more variability evident within the school

3. Bull, Barry & Michael, Robert S. (2003). *A preliminary examination of Indiana's Complexity Index*. Bloomington, IN: Indiana Education Policy Center.

4. Reed, Suellen. (2003). *Digest of public school finance in Indiana*. Indianapolis: Indiana Department of Education.

5. Vesper, Nick. (1995). *Options for Indiana's At-Risk Index*. Bloomington, IN: Indiana Education Policy Center.

6. <http://dew4.doe.state.in.us/htbin/sas1.sh>

corporation demographic types. The inclusion of the At-Risk distribution in regular revenue per-pupil increases that amount, at most, 1.78 percent for urban corporations in 2003, and least for suburban corporations (0.51percent).

Table 3.4: Dollar Impact of Adding At-Risk Grant to Regular Revenue per-Pupil 1993 to 2003 (Selected Years), Constant 1993 Dollars.

	1993	1995	1997	1999	2001	2003
<b>292 Indiana School Corporations</b>	\$19	\$9	\$30	\$31	\$33	\$38
Urban	\$26	\$34	\$64	\$71	\$76	\$82
Suburban	\$15	\$4	\$16	\$16	\$17	\$21
Town	\$20	\$10	\$33	\$34	\$36	\$41
Rural	\$18	\$4	\$25	\$25	\$27	\$32

Table 3.5: Percent Impact of Adding At-Risk Grant to Regular Revenue per-Pupil 1993 to 2003 (Selected Years), Constant 1993 Dollars.

	1993	1995	1997	1999	2001	2003
<b>292 Indiana School Corporations</b>	0.53	0.24	0.81	0.78	0.80	0.89
Urban	0.67	0.85	1.60	1.64	1.69	1.78
Suburban	0.40	0.11	0.41	0.39	0.41	0.51
Town	0.57	0.29	0.91	0.87	0.89	0.99
Rural	0.52	0.12	0.68	0.64	0.65	0.74

## Impact of Various Transfer Funds

Due to declining revenues in 2002, The General Assembly reduced the amount of base tuition support provided by the state and permitted school corporations to transfer equivalent amounts from other local funds. Transfers originate in different local funds, depending on the particular years.

**2002 — 03 Biennium.** In these two years the General Assembly permitted school corporations to “transfer” an amount equivalent to the reduction in base revenue support into their General Fund from the following local funds: Capital Projects, Debt Service, Transportation, and School Bus Replacement.

Strictly speaking, corporations were permitted to pay expenditures billable to the General Fund with dollars designated as belonging to the local funds listed in the preceding sentence. While dollars were not actually transferred first into the General Fund, this produces the same effect as if the funds were actually transferred from the Capital Projects fund to the General Fund. We shall use the term “transfer” as a short hand reference to the actual procedure.

**2004 — 05 Biennium.** School corporations were permitted to transfer funds from utility and insurance and supplemental utility and insurance funds into their General Fund. Additionally, local contributions to the Teacher Retirement Fund were reduced as a result of increased state payments.

The sources of funds used to supplement the General Fund and the years in which dollars could be used from other local sources are displayed in Table 3.6.

Table 3.6: Sources of General Fund Supplements in 2002 to 2005.

Source Fund	2002-03 Biennium	2004-05 Biennium
Capital Projects	X	
Debt Service	X	
Transportation	X	
School Bus Replacement	X	
Capital Projects (utility and insurance costs only)		X
Capital Projects (supplemental utility and insurance costs only)		X
Reduction in local contribution to Teacher Retirement Fund		X

Table 3.7 shows the difference, in constant 1993 dollars, between the average regular revenue per-pupil without, and with, transfers. For example, in 2002 the average regular revenue per-pupil is increased by \$47 due to the transfers. Table 3.8 expresses these amounts as percents.

Table 3.7: Dollar Impact of Adding Transfers to Average Regular Revenue per-Pupil 2002 to 2005, Constant 1993 Dollars.

	2002	2003	2004	2005
<b>292 Indiana School Corporations</b>	\$47	\$46	\$72	\$117
Urban	\$47	\$47	\$75	\$125
Suburban	\$56	\$54	\$72	\$115
Town	\$47	\$46	\$69	\$113
Rural	\$44	\$44	\$73	\$119

Table 3.8: Percent Impact of Adding Transfers to Average Regular Revenue per-Pupil 2002 to 2005, Constant 1993 Dollars.

	2002	2003	2004	2005
<b>292 Indiana School Corporations</b>	1.12%	1.09%	1.67%	2.73%
Urban	1.03%	1.00%	1.60%	2.67%
Suburban	1.35%	1.30%	1.74%	2.80%
Town	1.13%	1.10%	1.65%	2.71%
Rural	1.05%	1.02%	1.69%	2.74%

The impact of the Property Tax Replacement Credit and the Homestead Credit Deduction are examined in the section titled “State Share of Revenue.”

## Instructional Revenue per-Pupil

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*Finding:* Indiana has increased total instructional revenue per-pupil<sup>7</sup>, in inflation-adjusted dollars, every year between 1993 and 2005. The percentage increase for the 2004-05 biennium is about 5 percent less than that for the 2002-03 biennium.

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### Instructional Revenue in 2004-05 Biennium

In 1993, school corporations in Indiana received an average of \$3,861 in instructional revenue per-pupil. The funding formula increases inflation-adjusted, instructional revenue per-pupil every year between 1993 and 2005. In 2004, inflation-adjusted instructional revenue per-pupil is expected to increase \$87 to an inflation-adjusted \$4,902. In 2005, inflation-adjusted instructional revenue per-pupil is projected to increase \$58, and traditional school corporations will receive an average of \$4,960 per-pupil in constant 1993 dollars.

Table 3.9 shows the percent of instructional revenue that is derived from regular revenue. In 1993 regular revenue per-pupil was 92.2 percent of instructional revenue and declines yearly to a projected 88.9 percent in 2005.

Table 3.9: Regular Revenue per-Pupil as Percent of Instructional Revenue per-Pupil 1993 to 2005 (Selected Years).

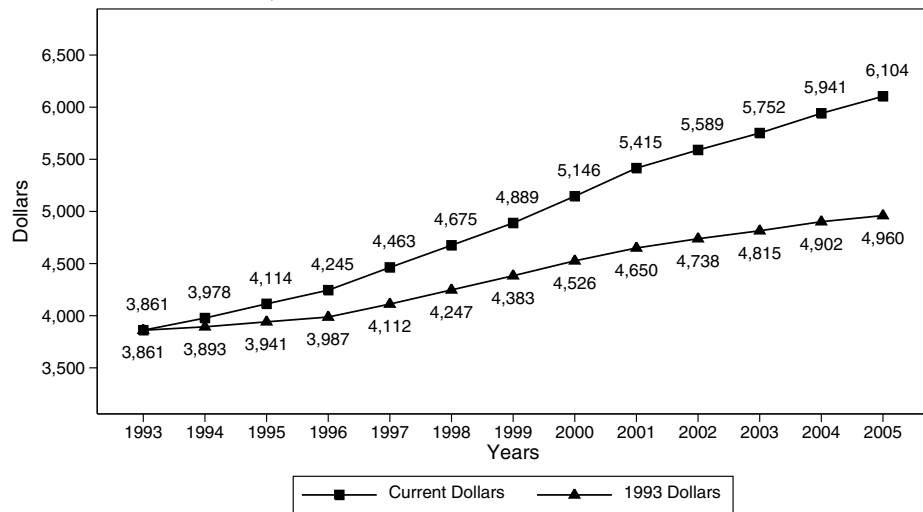
1993	1995	1997	1999	2001	2002	2003	2004	2005
92.2%	91.9%	90.5%	90.7%	90.1%	89.8%	89.6%	89.2%	88.9%

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7. For 1993-2003, instructional revenue per student = (Regular revenue + State special education distribution + State vocational education distribution + State PRIME TIME distribution + State growing schools grant + State honors diploma grant) divided by Average Daily Membership. For 2004 and 2005, the remediation distribution is included.

Figure 3.4 displays average instructional dollars per-pupil for the 292 traditional school corporations. During the 2004-05 biennium, the instructional revenue per-pupil is expected to increase \$411 in current dollars, from \$5,752 in 2003 to \$6,104 in 2005. When adjusted for inflation, this is an increase of 3.02 percent, and an average annual increase of 1.5 percent. This compares to an average annual increase of 1.76 percent for the preceding biennium and an average annual increase of 2.11 percent for the entire 12-year period.

Figure 3.4 Instructional Revenue per-Pupil in Current and Constant 1993 Dollars, 1993-2005.



Indiana School Corporation Averages (N = 292)

Figures 3.5 and 3.6 show the average instructional revenue per-pupil for urban, suburban, town, and rural corporations separately, in constant 1993 dollars. Figure 3.5 depicts the 1.52 percent increase in instructional revenue per-pupil that is projected to occur in the 2004-05 biennium for the 27 urban corporations and the 0.15 percent increase for the 43 suburban corporations.

Figure 3.5 Instructional Revenue per-Pupil for Urban and Suburban Corporations 1993 to 2005, Constant 1993 Dollars.

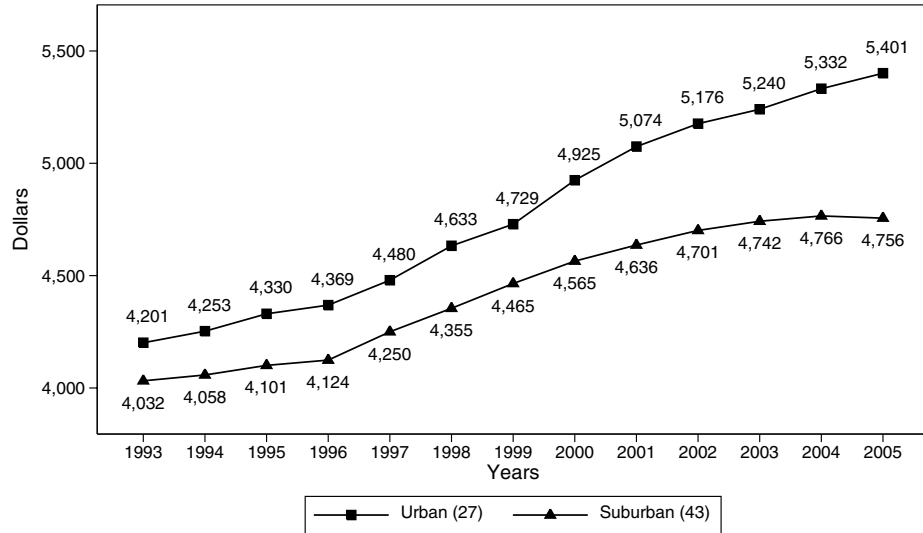
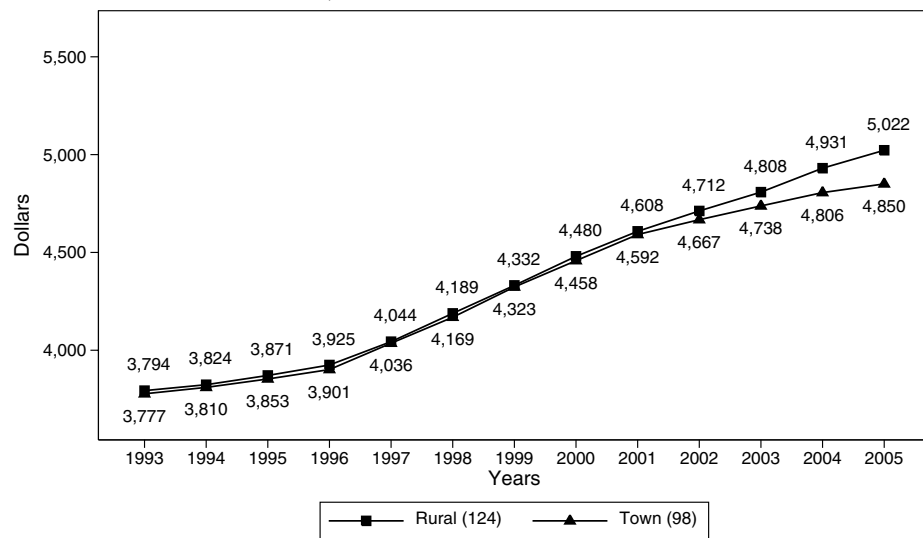


Figure 3.6 shows that average instructional revenue per-pupil is projected to increase 1.18 percent for the 98 town corporations, and that the 124 rural corporations would see the largest percent increase during the biennium (2.2 percent).

Figure 3.6 Instructional Revenue per-Pupil for Rural and Town Corporations 1993 to 2005, Constant 1993 Dollars.



## State Share of Revenue

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*Finding:* The share of public school revenues provided by the state remained fairly constant from 1993-2002, but the state share increased dramatically in 2003, due to an increase in the PTRC. The state share is projected to decline slightly over the 2004-05 biennium.

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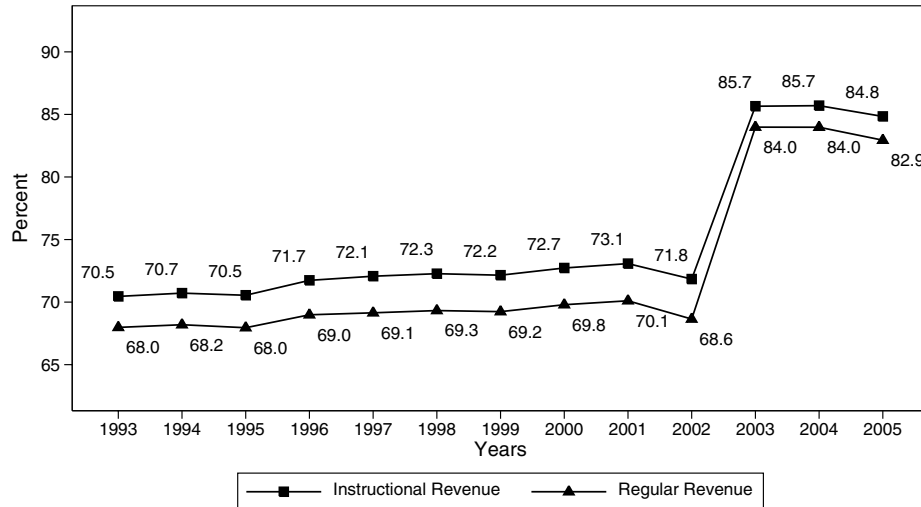
Figure 3.7 shows the state provided 68 percent of regular revenue in 1993 and 70.5 percent of instructional revenue.<sup>8</sup> By 2001 the state share of regular revenue grew to 70.1 percent, a 0.38 percent average annual increase based on percentages, and a 2.44 percent average annual increase based on the actual dollars. The state share of instructional revenue grew to 73.1 percent by 2001 which is a 0.45 percent average annual increase based on state share percentages, and a 2.82 percent average annual increase based on the dollars.

After a slight decrease in 2002, the state share of regular revenue increased to 84 percent. The state share of instructional revenue increased 13.9 percentage points during the same period to 85.7 percent.

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8. In previous reports the Homestead Credit Deduction (HCD) was undifferentiated and contributed to the local share. Values for the HCD were supplied by the LSA and in this report subtracted from the local share and added to the state share. The values supplied for 2002 are also used for 2003-2005.

Figure 3.7 State Share of Revenue 1993 to 2005.



Indiana School Corporations (N = 292)

### State Share in the 2004-05 Biennium

During the 2004-05 biennium, the state share, of regular and instructional revenue, is expected to decrease by approximately 1 percent.

### State Share by School Corporation Type

Figure 3.8 shows the state share of regular revenue for Urban and Suburban corporations while Figure 3.9 shows the state share for Town and Rural corporations. The state share of regular revenue for Town and Rural corporations approximates the percentages for all corporations as displayed in Figure 3.7. From 1993 to 2000, the state share for Urbans is a few points lower than for all corporations, and from 2001-2005 the state share for Urban school corporations is equal to or larger than the state share for all corporations. Suburban corporations consistently receive the smallest state share of regular revenue.

Figure 3.8 State Share of Regular Revenue for Urban and Suburban School Corporations 1993 to 2005.

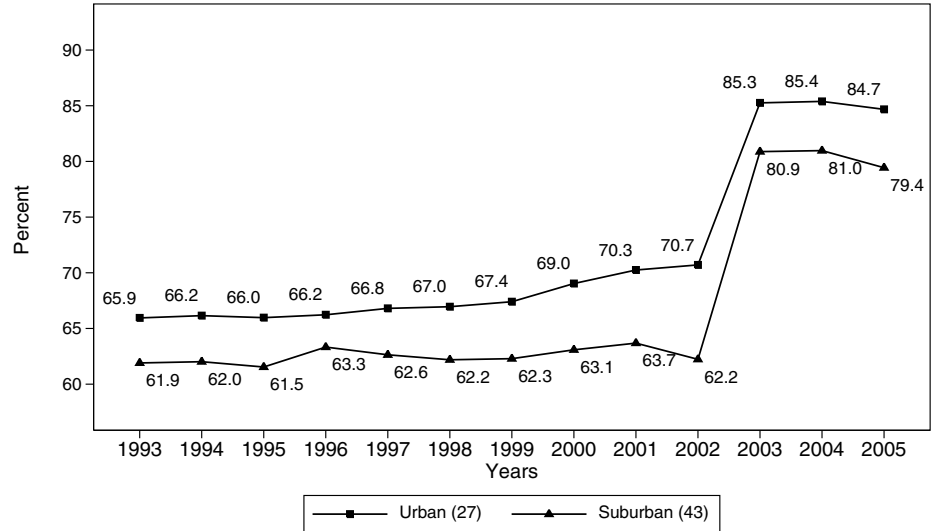
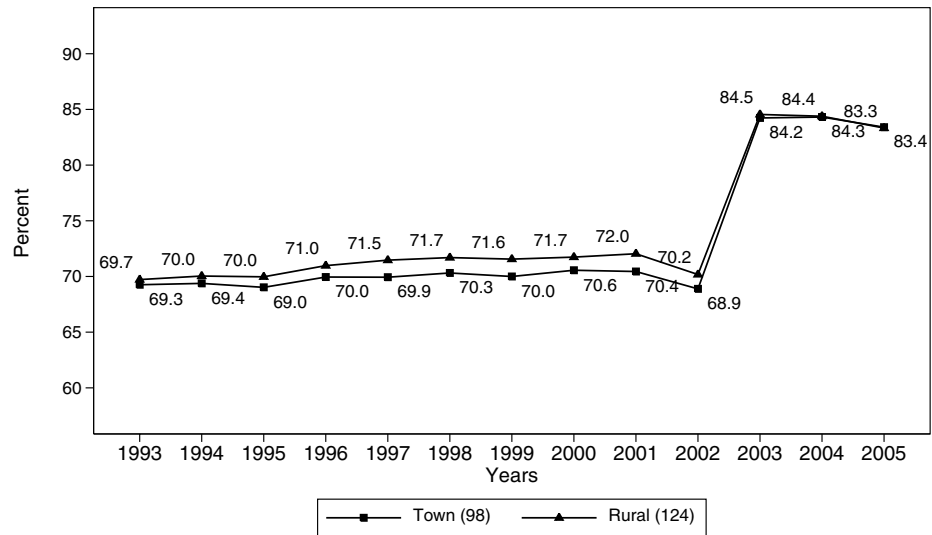


Figure 3.9 State Share of Regular Revenue for Town and Rural School Corporations 1993 to 2005.



## Impact of Homestead Credit Deduction on State Share

The top line of Figure 3.10 shows the state share of regular revenue and includes the Homestead Credit Deduction. This line is the same as the bottom line of Figure 3.7, while the bottom line of Figure 3.10 shows the slightly lower state share of regular revenue when the Homestead Credit Deduction is counted as part of the local share.

Figure 3.10 State Share of Regular Revenue with and without Homestead Credit in the State Share 1993 to 2005.

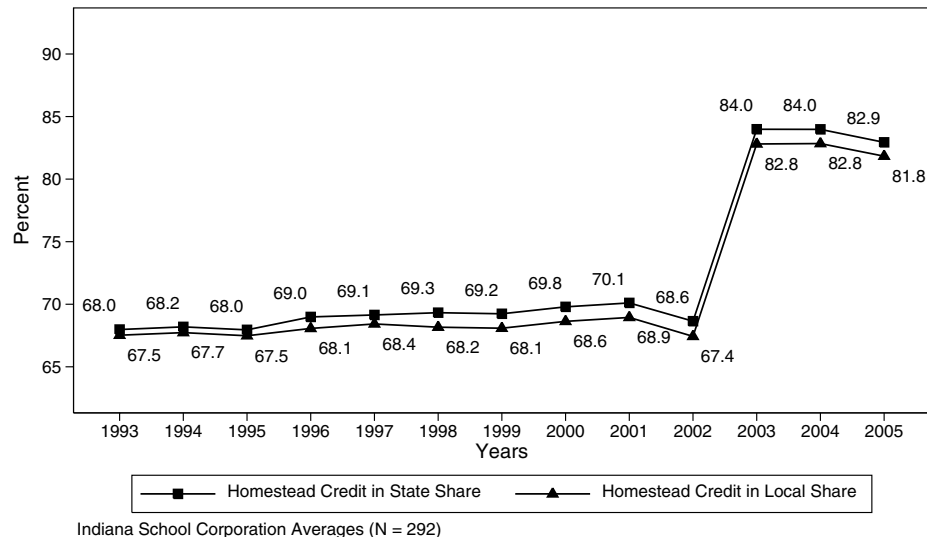


Table 3.10 shows the dollar amounts for the state share of regular revenue per-pupil with the Homestead Credit Deduction included in the state share (first row) and when it is included as part of the local share (second row). The value of the HCD for 2002 is used for subsequent years. Overall, including the HCD in

Table 3.10: State Share of Regular Revenue with and without Homestead Credit Deduction 1993 to 2005 (Selected Years), Constant 1993 dollars.

	1993	1995	1997	1999	2001	2003	2005
With Homestead Credit	\$2,422	\$2,462	\$2,574	\$2,752	\$2,936	\$3,622	\$3,656
Without Homestead Credit	\$2,405	\$2,444	\$2,547	\$2,706	\$2,887	\$3,571	\$3,607
Difference	\$17	\$18	\$27	\$46	\$49	\$51	\$49
Percent Difference	0.67%	0.74%	1.06%	1.69%	1.68%	1.42%	1.35%

the state share of regular revenue increases the state share from 0.67 percent to 1.80 percent depending upon the particular year. Table 3.11 shows the same information for instructional revenue. Because the instructional revenue indicator also contains state funds for categorical programs, the increase of state share for instructional revenue varies from 0.60 percent to 1.54 percent across years.

Table 3.11: State Share of Instructional Revenue with and without Homestead Credit Deduction 1993 to 2005 (Selected Years), Constant 1993 dollars.

	1993	1995	1997	1999	2001	2003	2005
With Homestead Credit	\$2,720	\$2,781	\$2,963	\$3,163	\$3,398	\$4,124	\$4,208
Without Homestead Credit	\$2,704	\$2,763	\$2,937	\$3,117	\$3,349	\$4,074	\$4,160
Difference	\$16	\$18	\$27	\$46	\$49	\$51	\$49
Percent Difference	0.60%	0.63%	0.91%	1.48%	1.45%	1.24%	1.17%

## Horizontal Variability

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*Finding:* In the 2004-05 biennium, regular revenue per-pupil across the 292 traditional school corporations is predicted to show increasing variability.

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Four indicators of horizontal variability are used in this section. The *Average revenue difference from the overall mean* is least sensitive to extreme values in the distribution, for it is merely the mean of the absolute differences between the mean of 292 school corporations and the mean for each of the individual 292 school corporations. The *average revenue difference between the top and bottom quartiles* is more sensitive in that it shows the percent difference between the quarter of school corporations with the highest regular revenue per-pupil, and the quarter of school corporations with the lowest. The *average revenue difference between the top and bottom deciles* is the indicator most sensitive to extremes, for it shows the difference between the top decile of the distribution and the bottom decile. The *average revenue difference between fifth and bottom deciles* provides additional information about variability in the lower half of the distribution.

For all indicators, a decrease across years reflects an improvement in horizontal variability. Before examining these indicators, we look at the impact of including the at-risk distribution in regular revenue per-pupil on horizontal variability.

### Impact of At-Risk Dollars on Horizontal Variability

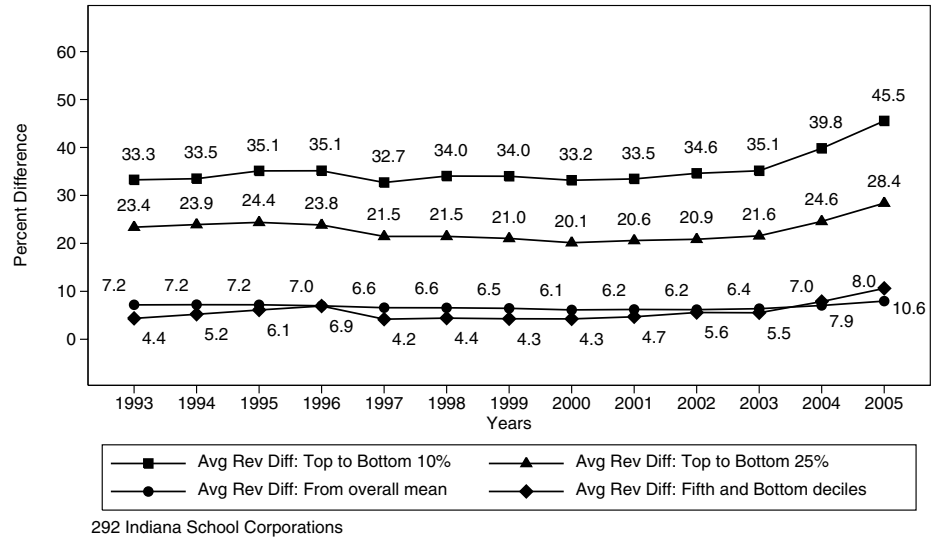
Table 3.12 summarizes the impact on horizontal variability of including the at-risk dollars in regular revenue per-pupil. For each of the four indicators, inclusion of the at-risk dollars in 2003 as part of regular revenue per-pupil increases slightly the percent difference between the groups compared. Because the at-risk dollars are added also for each of the other years (1993-2003), the change in the overall shape of each horizontal indicator in Figure 3.11 is virtually indistinguishable from the indicators when the at-risk dollars are excluded from regular revenue per-pupil. (Note: Figure 3.11 includes at-risk dollars).

Table 3.12: Horizontal Variability Indicators with and without At-Risk Distribution included in Regular Revenue per-Pupil 2003 and 2005.

	2003	2005	Change	Percent Change
<b>From Overall Mean</b>				
At-Risk excluded	6.1%	8%	1.9%	31.4%
At-Risk included in Reg. Ed. Rev.	6.4%	8%	1.6%	25.0%
<b>Top-to-Bottom Deciles</b>				
At-Risk excluded	33.4%	45.5%	12.1%	36.2%
At-Risk included in Reg. Ed. Rev.	35.1%	45.5%	10.4%	29.6%
<b>Top-to-Bottom Quartiles</b>				
At-Risk excluded	20.2%	28.4%	8.2%	40.6%
At-Risk included in Reg. Ed. Rev.	21.6%	28.4%	6.8%	31.5%
<b>Bottom-Half Equity</b>				
At-Risk excluded	4.9%	10.6%	5.7%	116.3%
At-Risk included in Reg. Ed. Rev.	5.5%	10.6%	5.1%	92.7%

With at-risk dollars included, the slightly larger difference between the groups compared in 2003 has the impact of reducing slightly the slope of the line between 2003 and 2005 because the starting point is higher. Examination of the “percent change” column shows that the degree of horizontal variability degeneration is reduced. For example, the average revenue difference between top-to-bottom deciles in 2003 when at-risk dollars are excluded is 33.4 percent, and when at-risk dollars are included this difference increases to 35.1 percent. The difference in 2005 (45.5 percent) remains unchanged because the complexity index in used that year instead of the at-risk index. The percentage points difference between 2003 and 2005 is 12.1 when at-risk dollars are excluded and 10.4 when included, suggesting the slope of the line between the 2003 and 2005 will be less steep. The percent change drops from 36.2 percent when at-risk dollars are excluded to 29.6 percent when included.

Figure 3.11 Variations in Regular Revenue per-Pupil for 292 Indiana School Corporations 1993 to 2005.



### Horizontal Variability in the 2004-05 Biennium

Each of the indicators in Figure 3.11 suggests horizontal variability is projected to increase in the 2004-05 biennium.

*Average revenue difference from overall mean.* In 2003, the average difference between the per-pupil revenue for the 292 corporations and the regular revenue per-pupil mean was 6.4 percent. By 2005 the average difference from the overall mean is projected to increase to 8 percent, indicating that horizontal variability is likely to increase.

*Average revenue difference between top and bottom deciles.* Comparing 2003 to 2005, the average revenue difference between the top and bottom deciles is expected to increase by 10.4 percentage points, from 35.1 percent in 2003 to 45.5 percent in 2005, a change of 29.6 percent. This projected change indicates horizontal variability is increasing.

*Average revenue difference between the top and bottom quartiles* is projected to increase by 6.8 percentage points, from 21.6 percent in 2003 to 28.4 percent in 2005, a change of 31.5 percent.

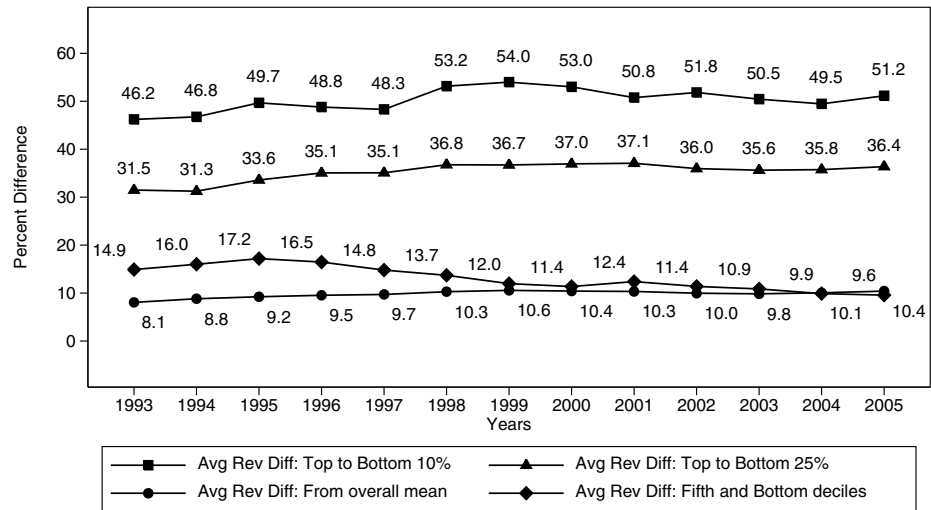
*Fifth & bottom deciles.* The difference is 5.5 percent in 2003 and projected to increase to 10.6 percent in 2005. This expected increase of 5.1 percentage points is a change of 92.7 percent. In sum, all indicators suggest horizontal variability is likely to increase during the biennium.

## Horizontal Variability by School Corporation Type

Do the different types of school corporations exhibit a similar degree of horizontal variability?

All four horizontal indicators are displayed separately for each of the school corporation types. Figure 3.12 shows the indicators for Urban school corporations only; Figure 3.13, indicators for Suburban school corporations only; Figure 3.14, Town school corporations; and Figure 3.15, Rural school corporations.

Figure 3.12 Variations in Regular Revenue per-Pupil for Urban School Corporations 1993 to 2005.



Indiana Urban School Corporations, (N = 27)

Figure 3.13 Variations in Regular Revenue per-Pupil for Suburban School Corporations 1993 to 2005.

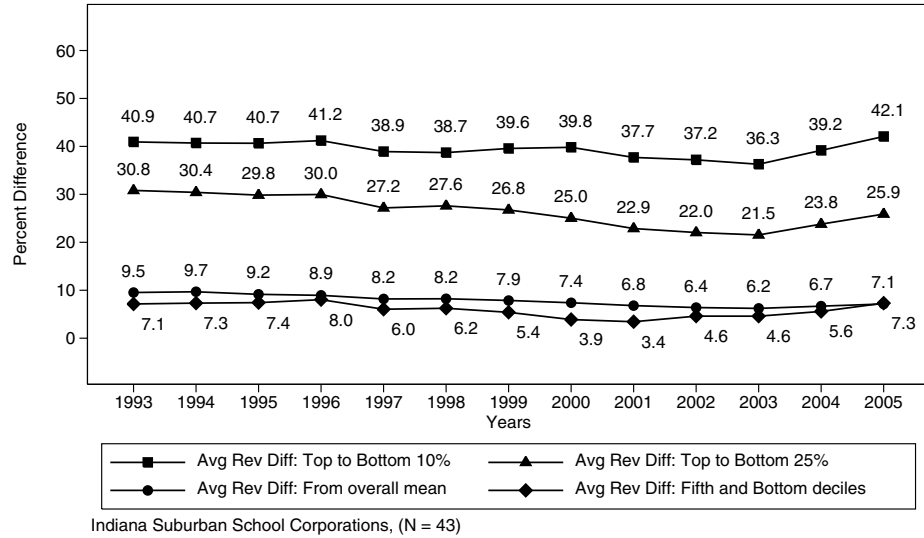


Figure 3.14 Variations in Regular Revenue per-Pupil for Town School Corporations 1993 to 2005.

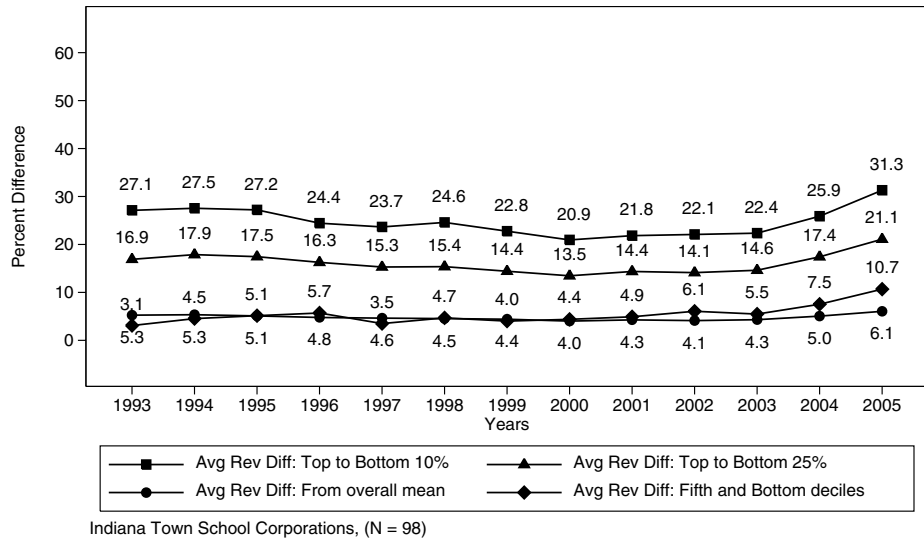
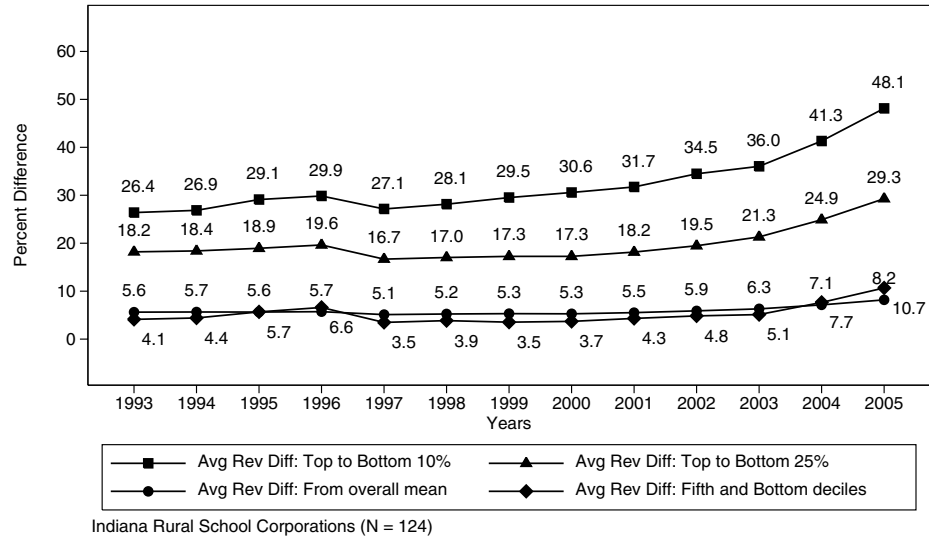


Figure 3.15 Variations in Regular Revenue per-Pupil for Rural School Corporations 1993 to 2005.



The increase in horizontal variability is most evident in the top-to-bottom decile indicator in Figure 3.11; i.e., the slope of the line for the years 2003 to 2005 appears to be steeper for this indicator than for any of the other three.

Visual inspection of the graphs for each type of school corporation suggests the slope of the top-to-bottom deciles indicator is steepest in Rural school corporations, followed by Town and Suburban school corporations. This indicator is almost flat for Urban school corporations. Considered together, these graphs suggest that variability in regular revenue per-pupil in top to bottom deciles in Urban school corporations contributes little to the overall increase in horizontal variability.

Table 3.13 shows the percentage points of change for each indicator between 2003 and 2005, for each type of school corporation. Positive values indicate increasing horizontal variability while negative values indicate decreasing horizontal variability. Values close to zero indicate little change.

Table 3.13: Percentage Point Changes for Four Indicators of Horizontal Variability, 2003 Compared to 2005.

	Top-to-Bottom Decile	Top-to-Bottom Quartile	Fifth to Bottom Decile	From Overall Mean
<b>292 Indiana School Corporations</b>	10.4	6.8	5.1	1.6
Urban (n=27)	0.7	0.8	- 1.3	0.6
Suburban (n=43)	5.8	4.4	2.7	0.9
Town (n=98)	8.9	6.5	5.2	1.8
Rural (n=124)	12.1	8.0	1.9	5.6

Table 3.14 shows the number of different types of school corporations in the top and bottom deciles, the number of corporations whose funds were generated by the minimum guarantee, the mean of regular revenue per-pupil, the standard deviation, and the coefficient of variation.

Table 3.14: Characteristics of Top and Bottom Deciles, School Corporation Types in 2004.

	Count	Min Guar Count	Mean	St. Dev.	CV
<b>Top Decile</b>					
Urban	10	10	\$6,568	\$599	.0912
Suburban	3	2	\$6,847	\$872	.1273
Town	4	4	\$6,294	\$262	.0416
Rural	12	11	\$6,778	\$1,181	.1742
<b>Bottom Decile</b>					
Urban	1	1	\$4,791		
Suburban	11	8	\$4,749	\$50	.0105
Town	10	5	\$4,740	\$55	.0115
Rural	8	8	\$4,771	\$35	.0073

Regardless of school corporation type the target revenue<sup>9</sup> for most corporations in 2004 was generated by the minimum guarantee formula, with the exception of Town school corporations in the bottom decile.

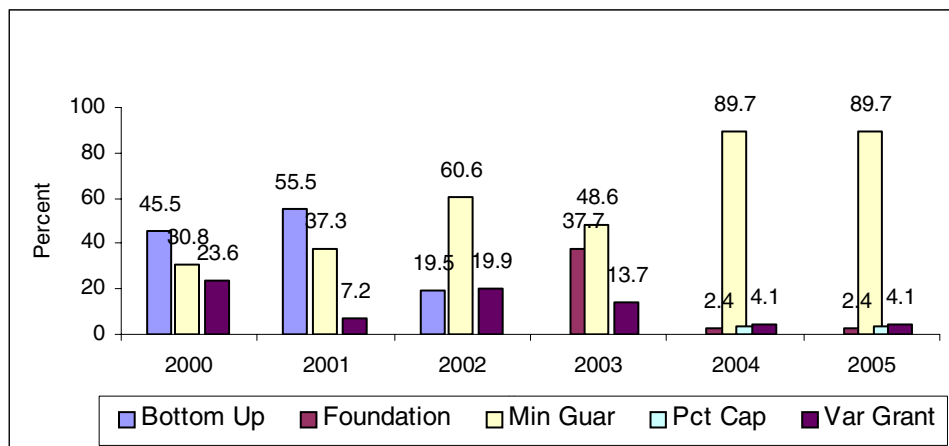
## Why is Horizontal Variability Increasing?

The minimum guarantee preserves the degree of horizontal variability that was present in the target revenue received by corporations in the previous year(s) and, if ADM is currently changing, may increase horizontal variability. In contrast, the foundation formula, which is responsive to changes in ADM, reduces horizontal variability across years, if the amount generated by the foundation formula is used as the target revenue.

One possible reason for the observed increase in horizontal variability is that the target revenue for an increasing percent of corporations is generated by the minimum guarantee rather than the other types of formulas.

Figure 3.16 shows that in 2000, the bottom-up calculation yielded the largest amount for 45.5 percent of corporations, the minimum guarantee produced the target revenue for about 31 percent of corporations, while the variable grant calculation generated the target revenue for about 24 percent of the corporations.

Figure 3.16 Target Revenue: Percent of School Corporations Receiving Each Type 2000 to 2005.



9. "Target Revenue: A calculation . . . made to determine the . . . revenue per pupil for each individual school corporation and charter school." from Reed, Suellen (2003). *Digest of Public School Finance in Indiana: 2003-2005 Biennium*. Indianapolis: Indiana Department of Education. (p. 25).

In 2001, percent of corporations for whom the variable grant calculation produced the maximum value decreased dramatically to 7.2 percent, while the bottom-up calculation produced the target revenue for 55.5 percent of corporations and the minimum guarantee produced the maximum for 37.3 percent.

In 2002 the minimum guarantee calculation produced the target revenue for 60.6 percent of corporations while both the bottom-up and variable grant calculations each yielded the maximum value for nearly 20 percent of corporations.

In 2003 the largest percentage of corporations (48.6) are minimum guarantee corporations, 37.7 are foundation corporations and 13.7 are variable grant. The projections for 2004-05 show that nearly 90 percent of corporations will have the minimum guarantee while all the other formulas for calculating the target revenue account for only a few percent of corporations. We can summarize the overall statewide figures by noting that more variability in grant type existed in 2003 and prior years than in 2004 and 2005.

A similar pattern also emerges when we examine the type of formula calculation that generates the target revenue in the top and bottom deciles, as displayed in Table 3.15.

Table 3.15: Type of Calculation that Produced Largest Revenue in Top and Bottom Deciles for 2003 to 2005.

	2003		2004		2005	
	Count	Pct	Count	Pct	Count	Pct
<b>Top Decile (n = 29)</b>						
% Cap	0		2	6.9%	1	3.5%
Foundation	1	3.5%	0		0	
Variable Grant	0		0		0	
Minimum Guarantee	28	96.5%	27	93.1%	28	96.5%
<b>Bottom Decile (n = 30)</b>						
% Cap	0		4	13.3%	3	10%
Foundation	21	70%	0		3	10%
Variable Grant	9	30%	4	13.3%	3	10%
Minimum Guarantee	0		22	73.3%	21	70%

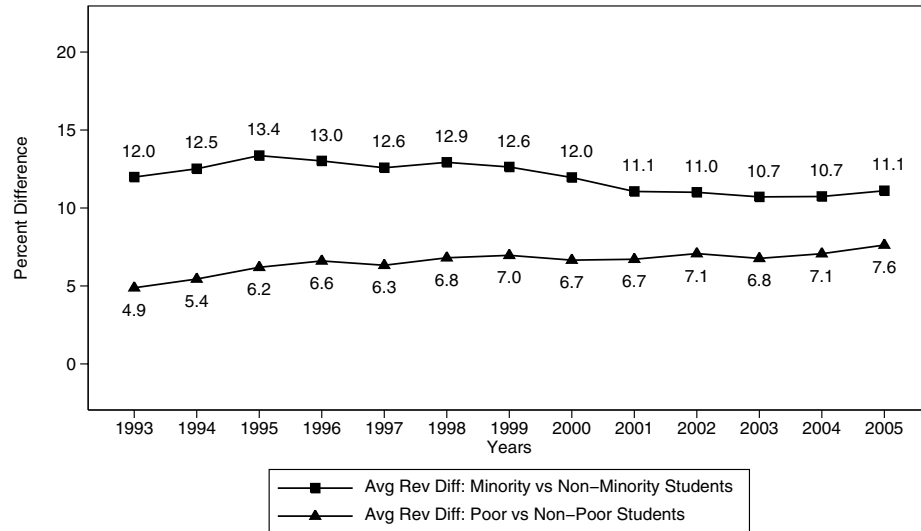
In the top decile, the minimum guarantee dominates, accounting for 96.5 percent of the corporations in 2003 and 2005, and 93.1 percent in 2004. In the bottom decile the foundation formula produced the largest amount for 70 percent of corporations in 2003 but the minimum guarantee produced the largest amount for 70 percent or more of the corporations in 2004 and 2005.

Just as we noted when considering the formula mix for all 292 corporations, here too, various formulas are used in 2003 but by 2004 the minimum guarantee dominates in both the top and bottom deciles, thereby preserving any variability inherent in the previous year(s) funding.

Further, because the minimum guarantee is based on the total amount a corporation received previously and ignores changes in ADM, a declining enrollment corporation can receive a larger total amount that is divided by fewer pupils, resulting a larger per-pupil amount. The indicators of horizontally variability are based on regular revenue per-pupil and are sensitive to differential changes in ADM across corporations, which may account for the observed increase in horizontal variability.



Figure 3.17 Regular Revenue per-Pupil: Differences between Groups of Students in 292 Indiana School Corporations 1993 to 2005.



### Impact of At-Risk Dollars

Table 3.16 summarizes the change in the percent differences between groups with at-risk dollars included in regular revenue per-pupil. For the minority vs. non-minority comparison, addition of the at-risk dollars increases the difference from 0.18 percent in 1993 to 1.23 percent in 1999. For the poor vs. non-poor comparison, at-risk dollars add, at most, 0.98 percent in 2002.

Vertical equity is either unchanged or decreases slightly in 2004-2005. The at-risk index is not involved in the calculations for these years. The declining improvement in 2005 may result from the large percent of minimum guarantee corporations.

Table 3.16: Regular Revenue per-Pupil: Average Revenue Differences between Groups of Students 1993 to 2005 (Selected Years), with and without At-Risk Dollars.

	1993	1995	1997	1999	2001	2003	2005
<b>Minority vs. Non-Minority</b>							
At-Risk included	12.0%	13.4%	12.6%	12.6%	11.1%	10.7%	11.1%
At-Risk excluded	11.8%	12.6%	11.4%	11.4%	9.9%	9.8%	11.1%
Difference	.18%	.76%	1.18%	1.23%	1.16%	.91%	0%
Percent Difference	1.5%	6.1%	10.4%	10.8%	11.7%	9.3%	.04%
<b>Poor vs. Non-Poor</b>							
At-Risk included	4.9%	6.2%	6.3%	7.0%	6.4%	6.8%	7.6%
At-Risk excluded	4.7%	5.7%	5.5%	5.9%	5.9%	6.8%	8.6%
Difference	.18%	.50%	.83%	.87%	.81%	-0.03%	-1%
Percent Difference	3.9%	8.7%	15.0%	18.8%	13.8%	-0.5%	-11.4%

Figures 3.18 to 3.21 display these two vertical equity indicators separately for each school corporation type. Urban corporations (Figure 3.18) exhibit the largest degree of vertical equity and shows sustained improvement. Suburban corporations (Figure 3.19) exhibited modest vertical equity for the minority vs. non-minority indicator in the early 1990's and a steady decline through 2003. The poor vs. non-poor indicator shows non-poor students actually receiving more funds in 1993 than did poor students. In subsequent years this indicator shows small but steady improvement.

Figure 3.18 Regular Revenue per-Pupil: Differences between Groups of Students in Urban Corporations 1993 to 2005.

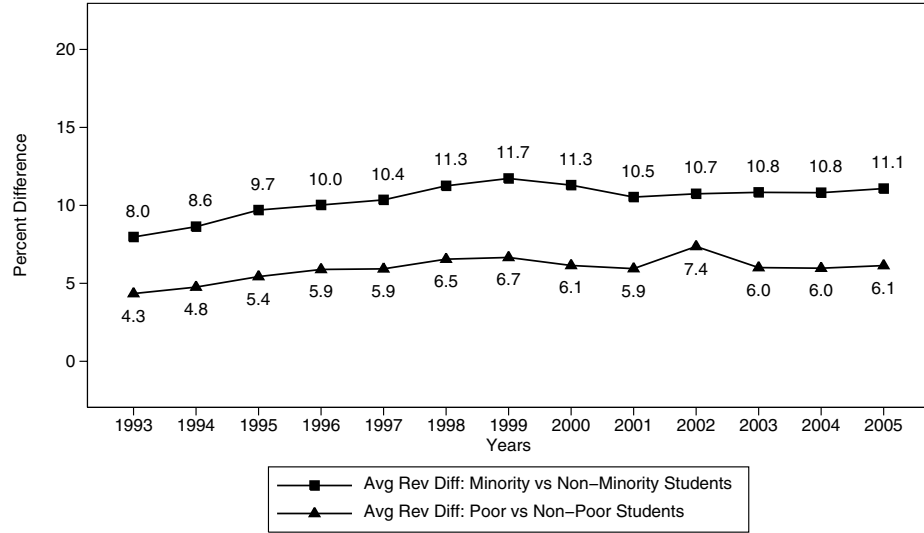
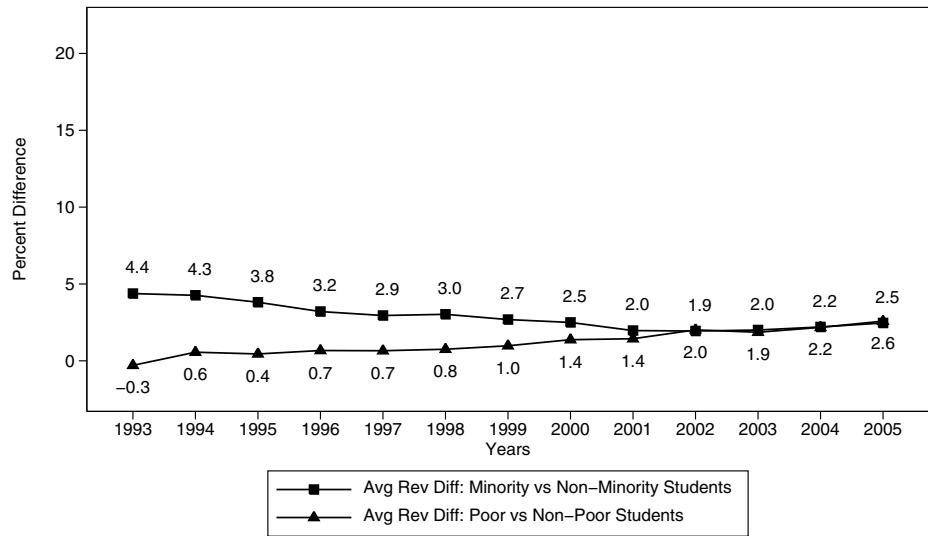


Figure 3.19 Regular Revenue per-Pupil: Differences between Groups of Students in Suburban Corporations 1993 to 2005.



For Town corporations (Figure 3.20) both indicators show slight improvement over the 12 year period, despite deterioration in the poor vs. non-poor indicator for 2000-01. Rural corporations (Figure 3.21) show slight but steady

improvement in the poor vs. non-poor indicator. The degree of variability in the minority vs. non-minority indicator renders a tentative judgment of improvement.

Figure 3.20 Regular Revenue per-Pupil: Differences between Groups of Students in Town Corporations 1993 to 2005.

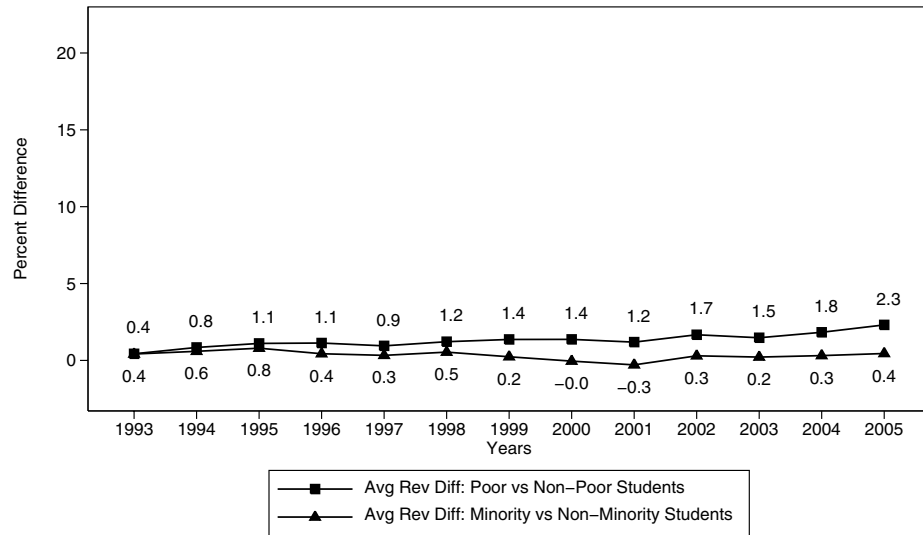
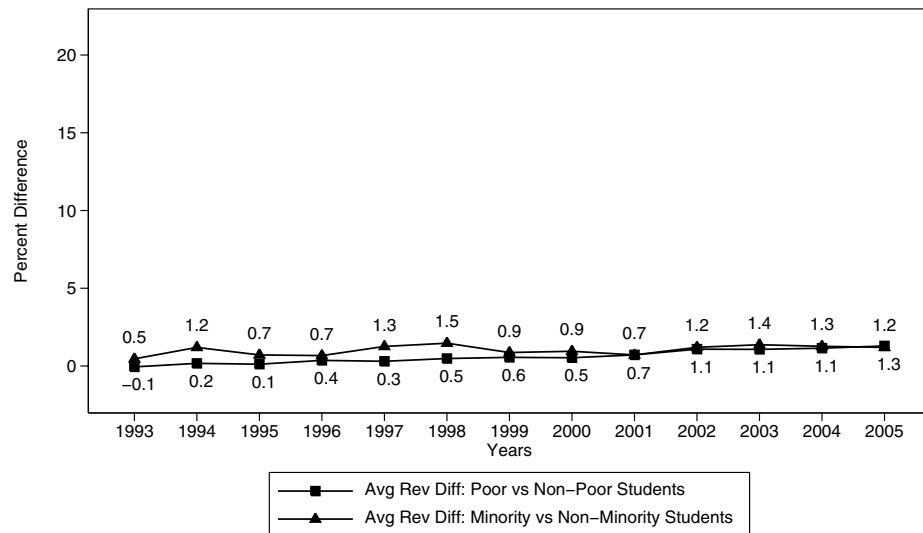


Figure 3.21 Regular Revenue per-Pupil: Differences between Groups of Students in Rural Corporations 1993 to 2005.





### Property Tax Rates

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*Finding:* From 1993 to 2003, Indiana succeeded in decreasing the variability in property tax rates across the 292 Indiana school corporations. Variability increases slightly in 2003 due to property reassessment, but is projected to decrease in the 2004-05 biennium.

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Reassessment of property values has occurred twice since 1993. The first reassessment occurred in 1996, the second began in 2002. Prior to this time property values in Indiana were taxed at one-third of market value. Reassessment of property values changes tax rates but does not necessarily change the amount of local revenue that is raised. Thus, pre- and post-reassessment rates must be adjusted, or else changes in rates due to reassessment may lead to the incorrect inference that more revenue is also raised.

The first row in Table 4.1 lists the raw tax rates from 1993 to 2005. The second row shows the rates reduced by a third for the years 1993-2001. The third row contains the rates adjusted on the basis of the 2003 reassessment of property values, and the last row reflects the application of the Property Tax Replacement Credit.

Figure 4.1 displays the raw rates for 1993-2005 (upper line), along with the same rates reduced by a third, for the years 1993-2001 (lower line). In 2002 rates were no longer set at one-third of market value and thus the two lines converge.

Table 4.1: Average General Fund Tax Rates for 292 Indiana School Corporations 1993 to 2005.

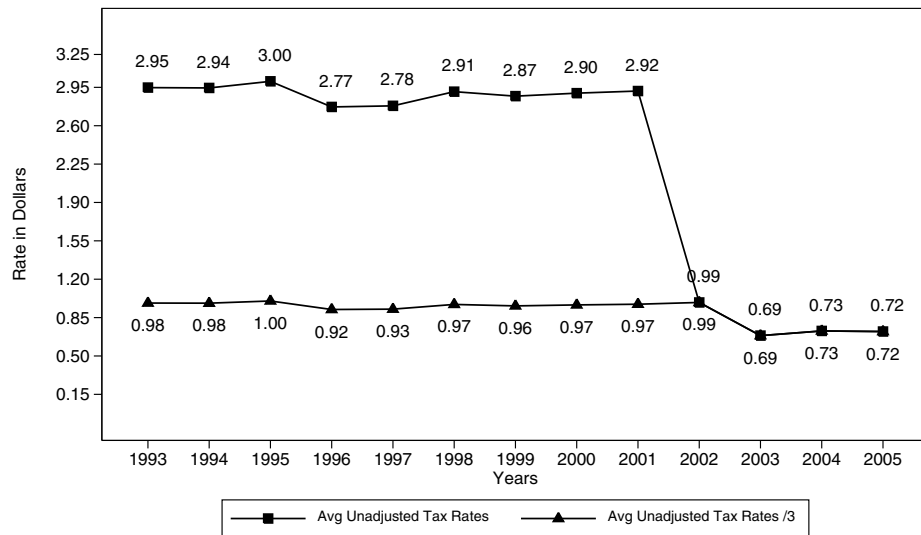
Category	1993	1994	1995	1996	1997	1998	1999
1 Raw Rate	\$2.9478	\$2.9446	\$3.0010	\$2.7715	\$2.7841	\$2.9107	\$2.8699
2 Raw Rate divided by 3	\$0.9826	\$0.9815	\$1.0017	\$0.9238	\$0.9271	\$0.9702	\$0.9566
3 Adjusted	\$0.6371	\$0.6369	\$0.6497	\$0.6648	\$0.6688	\$0.6978	\$0.6884
4 Adjusted & PTRC	\$0.5089	\$0.5101	\$0.5250	\$0.5358	\$0.5410	\$0.5646	\$0.5563

Category	2000	2001	2002 <sup>a</sup>	2003	2004	2005
1 Raw Rate	\$2.8971	\$2.9166	\$0.9881	\$0.6856	\$0.7283	\$0.7228
2 Raw Rate divided by 3	\$0.9657	\$0.9722	\$0.9881	\$0.6857	\$0.7283	\$0.7228
3 Adjusted	\$0.6952	\$0.7000	\$0.7117	\$0.7181	\$0.7629	\$0.7566
4 Adjusted & PTRC	\$0.5605	\$0.5656	\$0.5750	\$0.2495	\$0.2641	\$0.2609

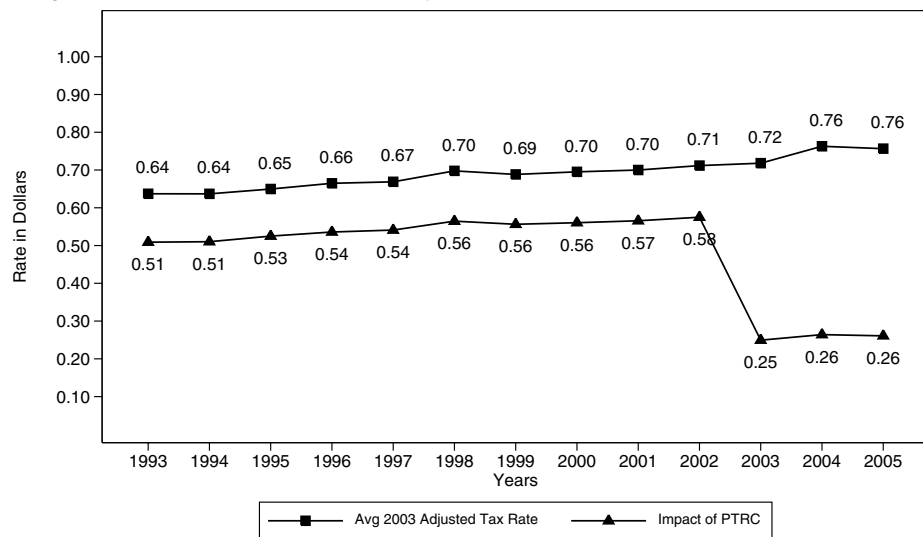
a. Raw rates no longer divided by three.

Figure 4.1 General Fund Property Tax Rates, Unadjusted 1993 to 2005.



In 1993, school corporations in Indiana levied general fund property tax rates that averaged \$0.64 per \$100 of reassessed property value (AV).<sup>1</sup> The upper line in Figure 4.2 shows the effect of adjusting tax rates in terms of the 2003 reassessment, compared to the lower line of Figure 4.1. The adjusted, average General Fund property tax rate (Figure 4.2) increased 7 cents during the decade and is projected to increase an additional 5 cents by 2005.

Figure 4.2 General Fund Property Tax Rates, Adjusted 1993 to 2005.



The lower line in Figure 4.2 reflects the impact of the PTRC. In 1993 the inclusion of the PTRC lowers the General Fund property tax rate about 13 cents, or 20 percent, to an adjusted, average of 51 cents per \$100 of reassessed property value and rises 7 cents by 2002 to an adjusted, average of 58 cents per \$100 of reassessed property value. In 2003 the PTRC reduces the adjusted, average General Fund tax rate by about 47 cents to 25 cents per \$100 of reassessed property value, or a reduction of about 66 percent. In effect, this is the actual maximum rate, in 2003 adjusted terms, at which local property is taxed for the General Fund.

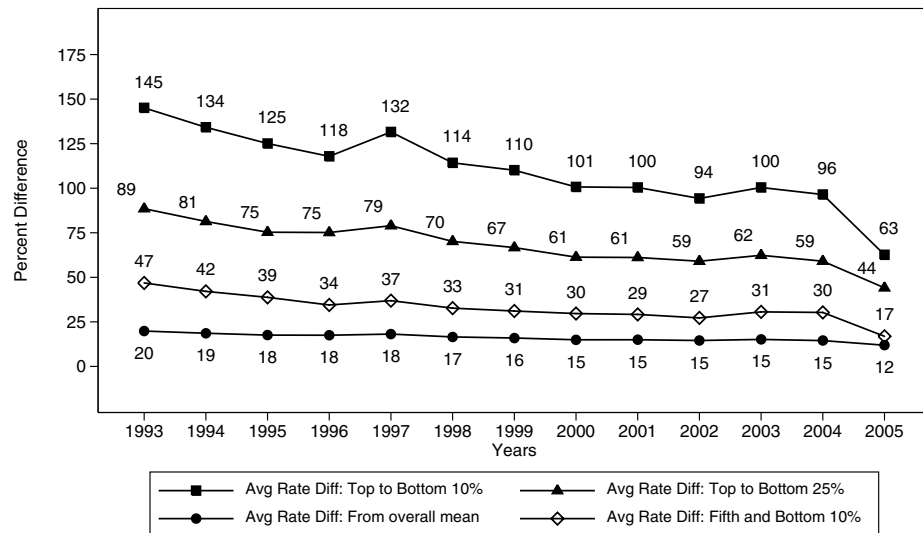
1. All real property in Indiana was reassessed in 1996 and is being reassessed currently. The actual annual general fund property tax rates per \$100 of assessed valuation in 1999, 2000, 2001, 2002, and 2003 were \$2.87, \$2.90, \$2.91, \$0.99, and \$0.69 respectively. In order to compare property tax rates over time, this report adjusts pre-2002 tax rates based on 2003 assessed valuations.

Figure 4.3 displays four indicators of horizontal variability based on tax rates adjusted for the 2003 property reassessment. In 1993 the average General Fund property tax rate paid in an Indiana school corporation was 20 percentage points away from the mean tax rate for all 292 Indiana school corporations. By 2003 this difference decreased to 15 percent and is projected to drop an additional three points to 12 percent in 2005.

In 1993, tax payers in school corporations with adjusted General Fund tax rates sufficiently high to place their corporation in the top 10 percent based on tax rates (mean = \$0.9978), paid more than double the tax rates paid by tax payers in school corporations that were in the bottom 10 percent (mean = \$0.4073). The average rate difference between the top and bottom deciles shows an overall decline from 1993 onward, dropping 51 points by 2002, increasing slightly in 2003 and projected to decline an additional 31 points by 2005, to an average rate difference of 63 percent between the top and bottom deciles. This indicator is the most sensitive of the four indicators to extreme values and the general decline suggests that extremely high and extremely low tax rates are moving slowing toward the mean.

The remaining two indicators, average rate difference between the top and bottom quartiles and the average rate difference between the fifth and bottom percentiles, also reflect decreasing horizontal variability.

Figure 4.3 General Fund Tax Rate, Adjusted. Differences Across 292 Indiana School Corporations 1993 to 2005.



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*Finding:* While the General Fund tax rate decreased dramatically in 2003 for all school corporations, low rate corporations are projected to experience the greatest increase in rates during the 2004-05 biennium.

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To rectify the taxpayer inequity charged in *Lake Central vs. State of Indiana*, the post-1993 formula increased dramatically the tax rates in low rate school corporations in order to bring their General Fund property tax rates close to those in the other corporations in the state.

The post-1993 system of school funding increased General Fund property tax rates for low rate corporations by 24 percent (based on rates adjusted for the 2003 reassessment) from 1993 to 2002, but limited tax increases in other school corporations to an average of approximately 10 percent over the nine-year period (Figure 4.4).

Figure 4.4 General Fund Tax Rate: Average Increases from 1993-2002 by Quartile for 292 Indiana School Corporations.

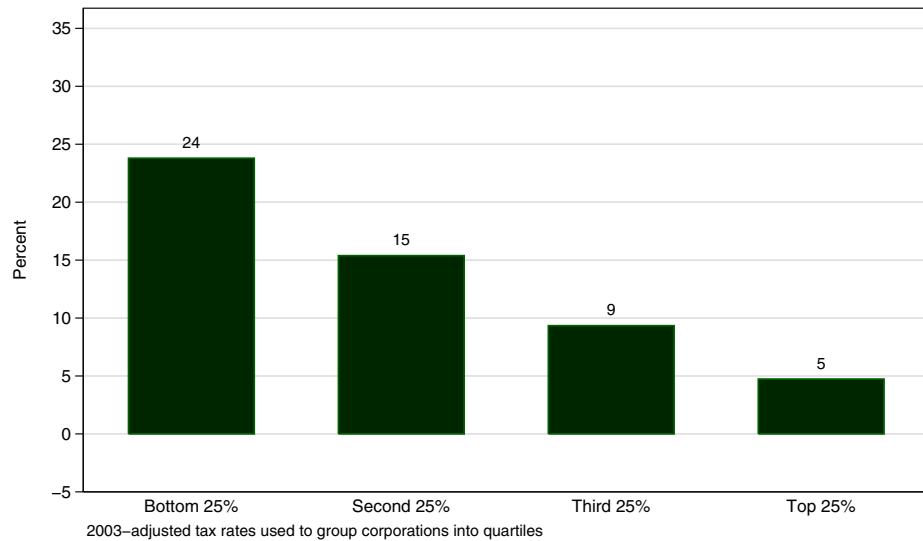


Figure 4.5 shows the effect of the increasing the property tax replacement credit in 2003 from 20 percent to approximately 68 percent. The General Fund property

tax rate for the low rate corporations decreases by 42 percent while the average reduction for the other corporations is 37 percent.

Figure 4.5 General Fund Tax Rate: Average Increases from 2002-2003 by Quartile for 292 Indiana School Corporations.

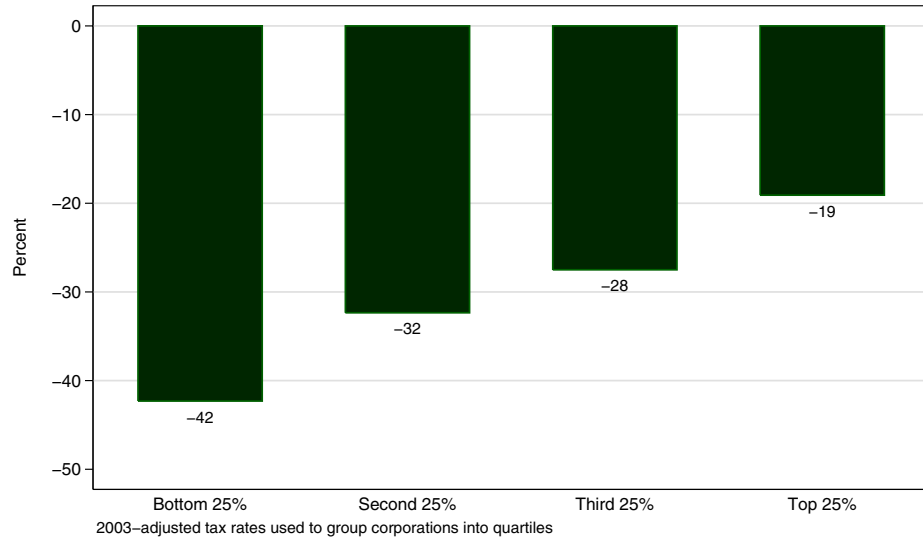


Figure 4.6 displays the adjusted, average General Fund tax rate increases from 2003 to 2005 by quartile. The property tax rates for low rate corporations are projected to increase by 15 percent while the rates in the other corporations are expected to increase, on average, about three percent.

Figure 4.7 shows the actual and projected changes from 1993 to 2005 in General Fund tax rates by quartile. During this period rates in the low rate corporations decreased 18 percent while the overall average decrease in the other corporations is one percentage point more.

Figure 4.6 General Fund Tax Rate: Average Increases for 2004-2005 Biennium by Quartile for 292 Indiana School Corporations.

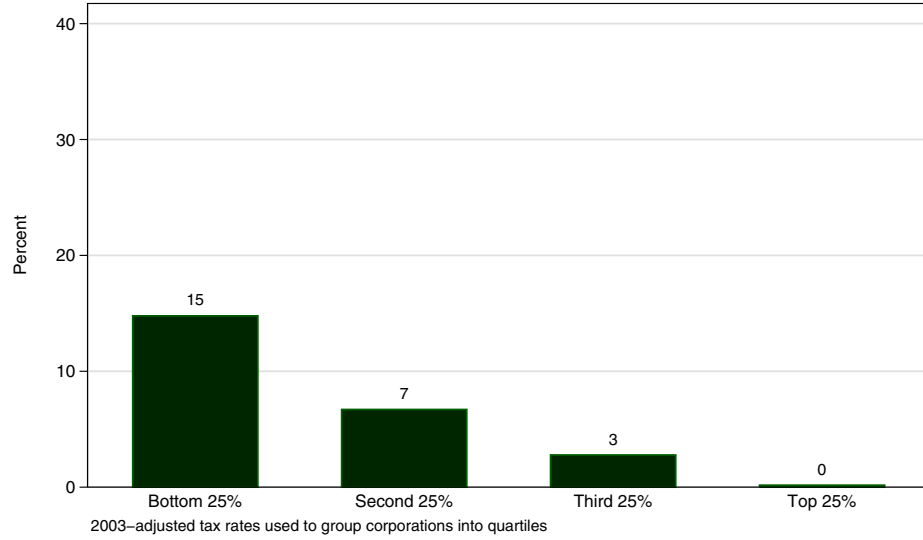
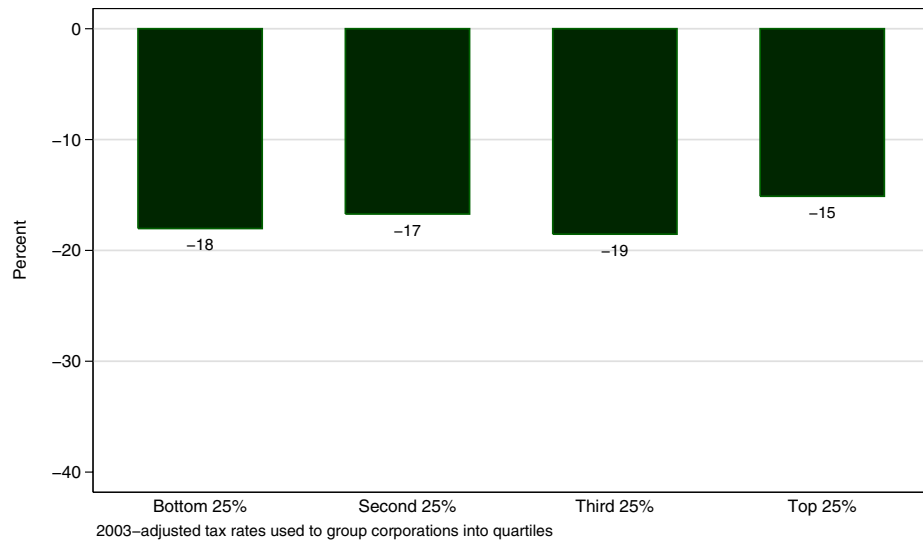


Figure 4.7 General Fund Tax Rate: Average Decreases from 1993-2005 by Quartile for 292 Indiana School Corporations.







### Reward for Effort



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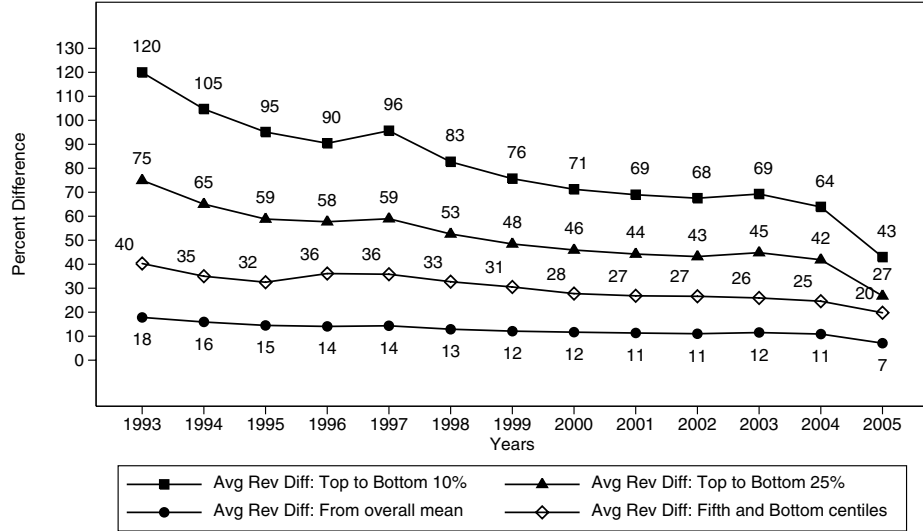
*Finding:* Between 1993 and 2002, the Indiana school funding formula reduced dramatically the differences across school corporations in the revenue they receive per-pupil for their General Fund property tax effort. The reassessment in 2003 produced a slight disruption in this trend, but the reward-for-effort equity is projected to be restored by 2005.

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One goal of Indiana's finance reform of 1993 was to increase the connection between General Fund tax rates and education revenues per-pupil. This is captured in the variations in reward-for-effort across corporations, in that a stronger relationship between tax rates and revenues will lead to a reduction in variations in these ratios. Reward-for-effort is calculated as the regular revenue per-pupil divided by the 2003-adjusted General Fund tax rate.

The lower line in Figure 5.1 shows that in 1993, on average, the revenue per dollar of General Fund property tax rate received by the 292 Indiana school corporations was 18 percentage points away from the mean statewide average revenue per dollar of tax rate. By 2002 the average difference between the revenue per dollar of tax rate paid in the 292 corporations and the mean reward-for-effort rate dropped by 7 percentage points to 11 percent. After a one point increase in 2003, due to property reassessment, reward-for-effort differences are projected to continue to decline.

Figure 5.1 Reward for Effort Differences: 292 Indiana School Corporations 1993 to 2005.



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*Finding:* By 2003, Indiana succeeded in eliminating the effect of a school corporation's property wealth on its operating revenue per-pupil, and this result is projected to remain virtually unchanged in 2004-05.

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*Lake Central vs. State of Indiana* charged that the previous system of school finance allowed property-rich school corporations to generate more per-pupil revenue than property-poor school corporations. In 1993, the difference in property values was the most important single factor in explaining why some school corporations had access to more per-pupil revenue than did other school corporations. By 2003 the differences in property values have virtually no correlation with a school corporation's regular revenue per-pupil (Figure 5.2). This result is expected to remain virtually unchanged in the 2004-05 biennium.

Figure 5.2 Correlation of Regular Revenue per-Pupil with Assessed Valuation per-Pupil, 292 Indiana School Corporations 1993 to 2005.

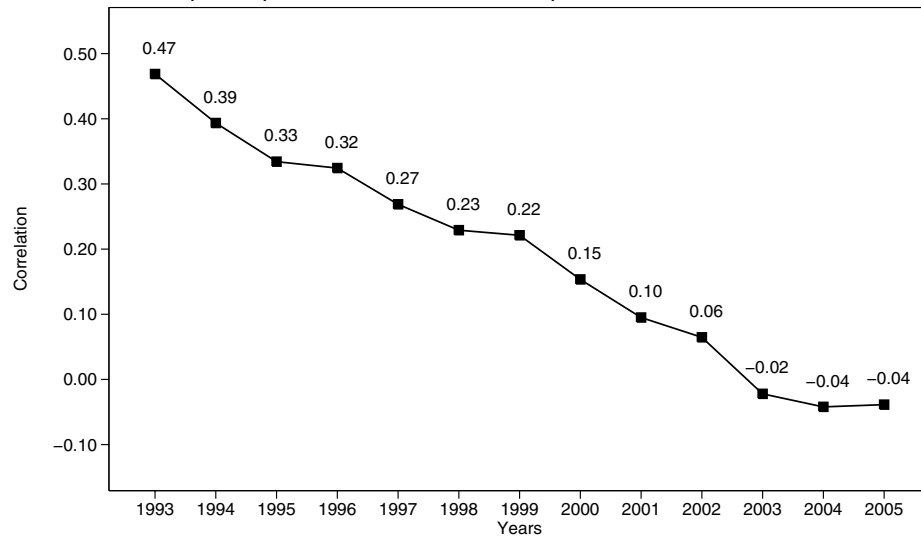
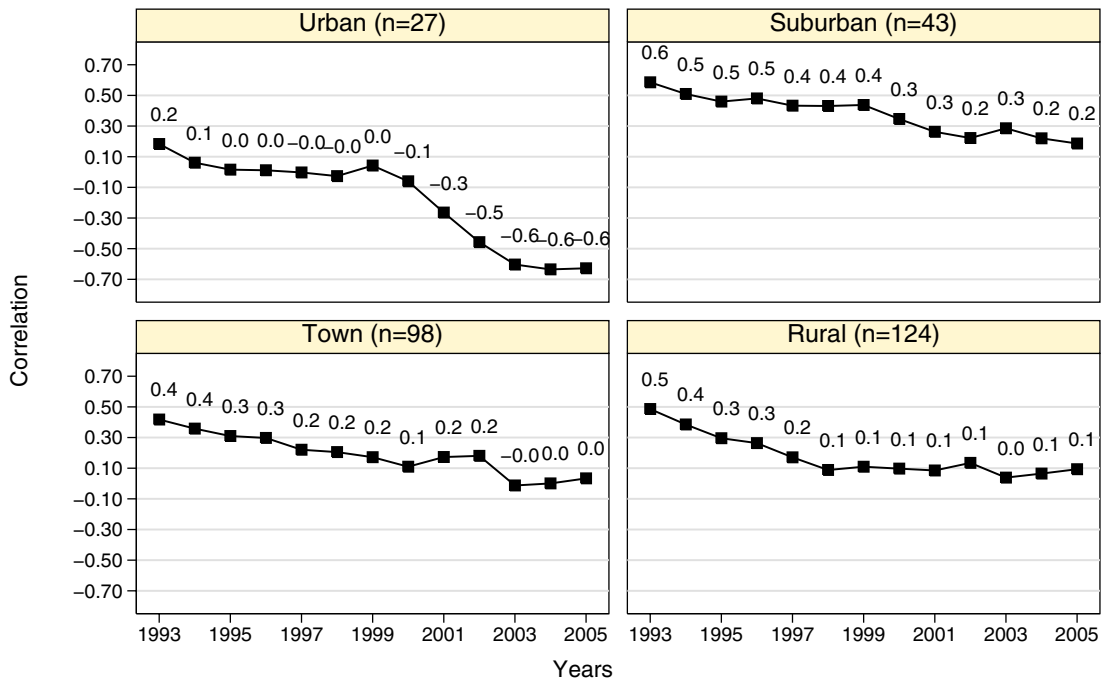


Figure 5.3 displays the correlation between regular revenue per-pupil with assessed valuation per-pupil for each school corporation type. For Urban corporations, virtually no correlation existed between 1993 and 2000, and in the years following an inverse relationship is evident. That is, Urban corporations with lower assessed valuation per-pupil tend to receive higher regular revenue per-pupil. Suburban and Rural corporations exhibited moderately strong, positive correlations in the beginning of the decade but no relationship is projected to exist by 2005. Town corporations showed a moderate relationship in 1993 but again no relationship is expected by 2005.

Figure 5.3 Correlation of Regular Revenue per-Pupil with Assessed Valuation per-Pupil by School Corporation Type 1993 to 2005.



Graphs by School Corporation Type

## Summary

The post-1993 school funding formula was developed to achieve eight specific goals. These are listed in Table 6.1 along with a rating of the progress toward these goals.

Table 6.1: Summary of Progress Towards Goals for the School Funding Formula 1993 to 2005.

Goal	Progress
1. Increase funding per-pupil.	Steady
2. Increase the state's share of school revenue.	Steady
3. Make funding per-pupil more dependent on school corporation complexity (i.e., provide higher funding to school corporations with more disadvantaged students)	Mixed
4. Break the traditional dependence of funding per-pupil on property wealth per-pupil.	Achieved
5. Make General Fund property tax rates more dependent on regular revenue per-pupil.	Steady
6. Reduce variability in funding per-pupil across school corporations.	Mixed
7. Limit increases in property taxes.	Steady
8. Reduce variability in property tax rates across school corporations.	Steady

*Goal 1.* Regular revenue per-pupil increased 21 percent from 1993 to 2003 as shown in Figure 3.1 (page 22). This, along with the changes in regular revenue per-

pupil listed in Table 3.1 (page 28) suggests steady progress has been made toward achieving Goal 1, and this progress is expected to continue in the 2004-05 biennium.

*Goal 2.* Figure 3.7 (page 34) indicates state share of regular revenue in 1993 was 68 percent and increased to 84 percent in 2003. Although the projected state share declines slightly in 2004-05, overall state share has clearly increased from 1993 to 2005.

*Goal 3.* Figure 3.17 (page 49) shows a steadily increasing trend since 1993 of more regular revenue per-pupil received by free lunch students (as opposed to non-free lunch students), indicating progress towards Goal 3. However, progress toward this goal is slight and somewhat mixed because the trend since 1993 for more regular revenue per-pupil for minority students (vs. non-minority students) is declining.

*Goal 4.* Figure 5.2 (page 63) shows the correlation between regular revenue per-pupil and assessed valuation per-pupil. The downward slope of the line indicates a definite weakening of the moderate correlation that existed in 1993. By 2003 no correlation existed, and the projections for 2004-05 indicate virtually no change. This is clear evidence that Goal 4 has been achieved.

*Goal 5.* General Fund property tax rates have become more dependent on regular revenue per-pupil as seen in Figure 5.1 (page 62).

*Goal 6.* Figure 3.11 (page 40) indicates that funding per-pupil across school corporations became slightly more equal from 1993 to 2002. The projections for 2004-05 suggest, however, that progress in earlier years toward Goal 6 is likely to be reversed. Due to declining state revenues, the formula that generates the largest amount for the majority of corporations is the minimum guarantee, not the foundation formula. The foundation formula generates, across several years, funding that trends in the direction of equalizing per-pupil funding across school corporations. In contrast, the minimum guarantee preserves existing inequalities.

*Goal 7.* Progress toward limiting increases in General Fund property tax rates, is demonstrated by the 2003-adjusted tax rates displayed in Figure 4.2 (page 55).

*Goal 8.* Figure 4.3 (page 56) suggests progress toward Goal 8, equalizing General Fund property tax rates across school corporations, will continue in the 2004-05 biennium.