

Findings on Foundation Program 2007-2009: House

March 30, 2007

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Key Changes in Target Revenue:

- Per-pupil foundation level changes to \$4750 (in 2008) and \$4765 (in 2009)
- If $CI > 1.25$ and $ADM < 1700$, per-pupil foundation level is \$5000 in 2008 and 2009
- Adjustments to “variable grant” based on enrollment or revenue growth
- CI includes only % free and reduced lunch
- Weight for free or reduced lunch is \$2800/\$4750 in 2008, \$2850/\$4765 in 2009

Impacts of Proposed Changes in School Funding in Indiana

1. Higher growth in per-pupil funding
2. Large shift in source of target revenue for school corporations
 - 9 out of 10 would be in “transition up” to foundation grant
3. State share of funding would decline
4. Notable progress towards both vertical and horizontal equity in school funding



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Data Source & Variables

1. Data obtained from Legislative Services Agency, 07 Feb 26.
2. Variables:
 1. State Regular (sa08ssr, sa09ssr)
 2. Maximum General Fund Levy (sa08mxlb, sa09mxlb)
 3. Additional Levy (addlvy08, addlvy09)
 4. Vehicle & Financial Institution Tax (autbnk08, autbnk09)
 5. Complexity Index (arfac08, arfac09)
 6. Assessed valuation (sa08av, sa09av)
 7. Special Education distribution (sa08ssh, sa09ssh)
 8. Vocational Education distribution (sa08ssv, sa09ssv)
 9. Prime Time distribution (sa08ssp, sa09ssp)
 10. Academic diploma distribution (sa08sso, sa09sso)
 11. Outside provision: Capital fund (cpf08, cpf09)
 12. Outside provision: Remediation (remed08, remed09)
 13. Outside provision: Free textbooks (fxt08, fxt09)
 14. Outside provision: Limited English Proficiency (lep08, lep09)
 15. Revenue Source: (grtyp08, grtyp09)
 16. Revenue Source 2: (grtyp082, grtyp092)
 17. Tax Type (txtyp08, txtyp09)

Source of Target Revenue for 292 Indiana School Corporations, 2005 – 2009

	Foundation Grant	Variable Grant / -1% ADM	Minimum Guarantee	In Transition
2005	15%	7%	78%	0%
2006	15%	27%	0%	40%+ 19%-
2007	26%	28%	0%	39%+ 7%-
2008	2%	4%	na	91%+ 3%-
2009	4%	6%	na	87%+ 3%-

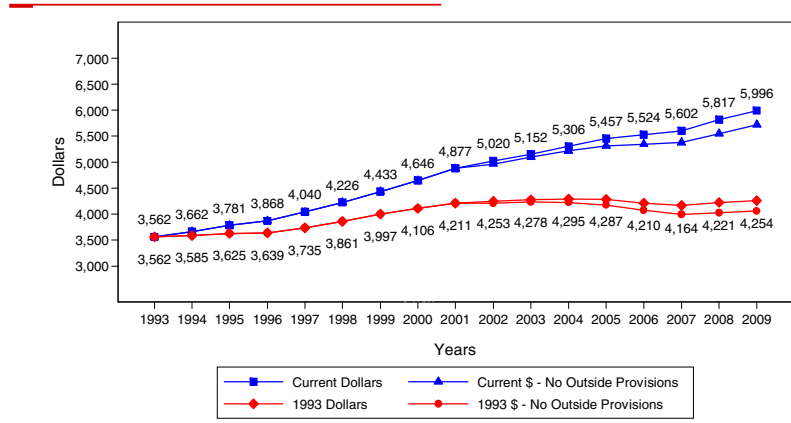
Outside Provisions for 2008-09

1. Additional remediation funds.
2. Additional Capital Projects Fund Transfer (3.5% per year increase in authority to cover property insurance and utility costs from Capital Projects Fund.)
3. Addition of Limited English Proficiency grant.
4. Additional free textbook relief.

Trend in Target Revenue per Pupil

With and Without Outside Provisions

Target Revenue per Pupil. Current dollars (top line) and 1993 dollars. 1993-2009.



Indiana School Corporation Averages (N = 292)



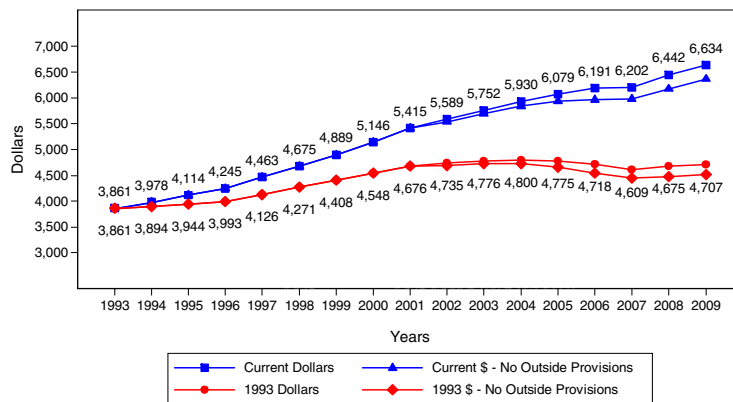
$$\text{Target Revenue 08} = (\text{sa08mxlb} + \text{addlvy08} + \text{autbnk08} + \text{sa08ssr}) / \text{sa08adm} \\ \{\text{cpf08} + \text{remed08} + \text{fxt08} + \text{lep08}\}$$

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Trend in General Fund Revenue Per Pupil

With and Without Outside Provisions

General Fund Revenue per Pupil, current dollars and 1993 dollars, 1993 – 2009.



Indiana School Corporation Averages (N = 292)

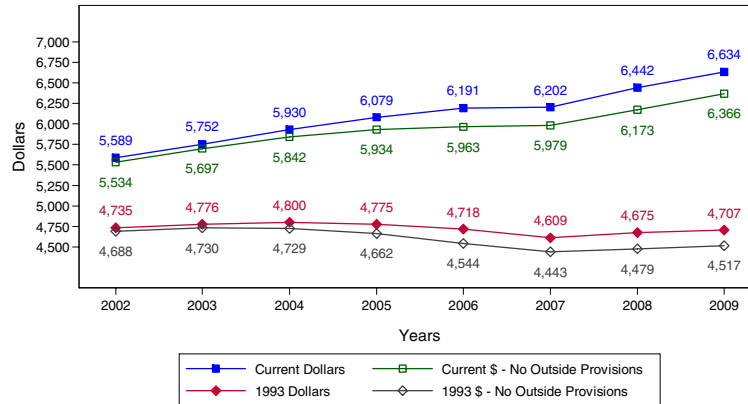


$$\text{GF Revenue 08} = (\text{Target Revenue 08} + \text{sa08ssh} + \text{sa08ssv} + \text{sa08ssp} + \text{sa08sso}) / \text{sa08adm} \\ \{\text{cpf08} + \text{remed08} + \text{fxt08} + \text{lep08}\}$$

Trend in General Fund Revenue Per Pupil

Outside Provisions vs. No Outside Provisions

General Fund Revenue per Pupil, current dollars and 1993 dollars, 2002 – 2009.



Indiana School Corporation Averages (N = 292)

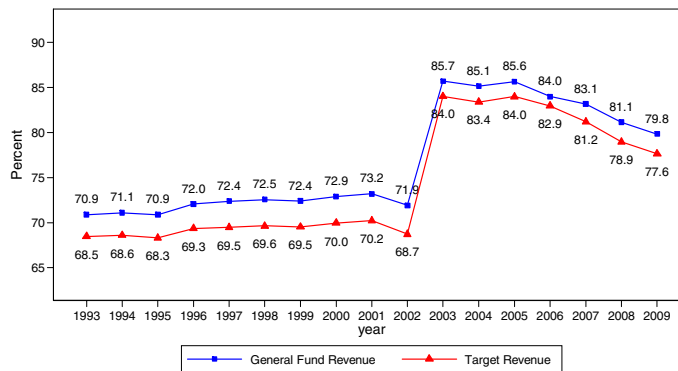


Outside provisions increase revenue per pupil 4.36% in 2008 and 4.21% in 2009.

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State Share of Educational Revenues

State Share of Revenue, 1993 to 2009. Includes outside provisions.



292 Indiana School Corporations



Key Point: Continued reduction in share of state funding in 2008 and 2009.

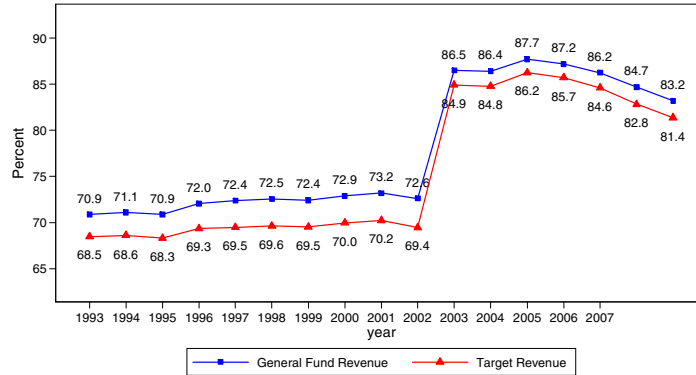
Note: State share includes PTRC.

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State Share of Educational Revenues

No Outside Provisions

State Share of Revenue, 1993 to 2009.



292 Indiana School Corporations

Removing outside provisions increases state share of funding (TR increase is about 4.9% each year; GF share increases about 4.3% for '08 and 4.4% for '09).



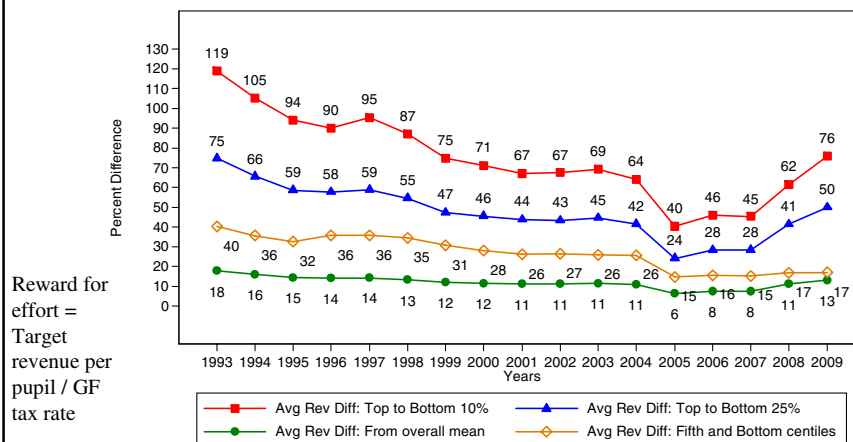
State share of funding still declines in 2008-09

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Reward for Effort: 1993 to 2009

With Outside Provisions

Reward for Effort Differences: 292 Indiana School Corporations 1993 to 2009.



Reward for effort = Target revenue per pupil / GF tax rate



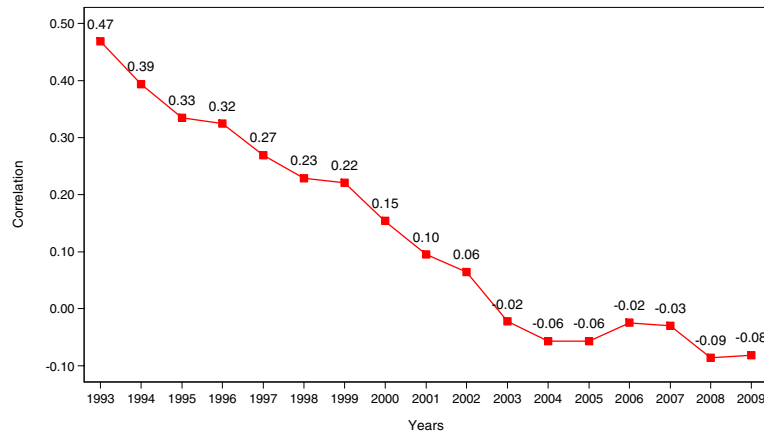
Improvement in reward for effort deteriorates due to larger revenue increases for top school corporations.

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Dependence of Revenue on AV

With Outside Provisions

Correlation of Target Revenue per-Pupil with Assessed Valuation per-Pupil, 292 Indiana School Corporations 1993 to 2009.



No linear relationship between property values and financial resources used for public K-12 education



Results not affected by outside provisions

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Vertical Equity Indicators

1. Correlations of PP revenues with each component of Complexity Index
2. Correlation of PP revenues with overall index
3. Percent of variation in PP revenues explained by Complexity Index
4. Partial effects of CI components on PP revenues

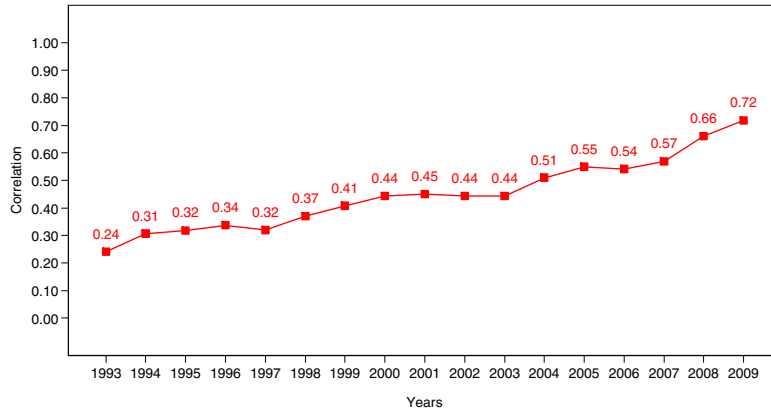
Note: Changes in CI factors would affect the measures of horizontal and vertical equity, relative to previous years



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Vertical Equity Indicators: Complexity Index

Correlation between target revenue per-Pupil and At-Risk Index (1993-2003) or Complexity Index (2004-2009), Indiana Public School Corporations, 1993 to 2009.



292 Indiana School Corporations

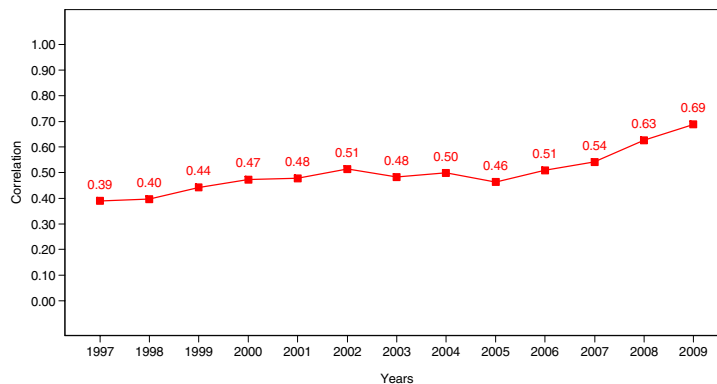
Substantial increase in the correlation suggests an improvement in vertical equity



Similar trend with and w/o outside provisions, General Fund revenue or target revenue

Vertical Equity: Free or Reduced Lunch

Correlation: Target Revenue per Pupil and Percent of Pupils on Free & Reduced Lunch, Indiana Public School Corporations, 1993 to 2009.



Free & Reduced Lunch data not on IDOE web prior to 1997

Notable increase in the correlation suggests an improvement in vertical equity



Similar findings with and w/o outside provisions, General Fund per pupil or target revenue per pupil

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Vertical Equity Indicators: Effect¹ of CI Component on per Pupil Funding

<i>Dependent Variable</i>	<i>Outside Provisions</i>	<i>Effect of % Free+ Reduced Lunch 2008</i>	<i>Effect of % Free+ Reduced Lunch 2009</i>	<i>Ratio: Coefficient to Weight 2008</i> (58.95 = 2800/4750)	<i>Ratio: Coefficient to Weight 2009</i> (59.81 = 2850/4765)
General Fund revenue per pupil	Yes	26.93	31.32	45.68%	52.37%
General Fund revenue per pupil	No	24.55	28.11	41.65%	47.00%
Target revenue per pupil	Yes	27.13	32.42	46.02%	54.20%
Target revenue per pupil	No	24.61	29.65	41.75%	49.57%

All coefficients ***p<.01 ¹Coefficients show how changes in each factor affect per-pupil revenues.

Vertical Equity Indicators: Partial Effects¹ of CI Components (NOP)

<i>CI Component</i>	<i>Partial Effect in 1993</i>	<i>Partial Effect in 2003</i>	<i>Partial Effect in 2005</i>	<i>Partial Effect in 2007</i>
% No High School	- 12.51***	- 3.35	+ 3.06	+ 3.21
% 1-Parent Families	+18.33***	- 1.80	+ 9.14*	+ 7.80*
% Poverty	+ 2.56	+28.25***	+26.63***	+25.94***
% Free Lunch	+10.01***	+ 9.51**	+ 8.04**	+ 8.51***
% LEP	+25.05**	+ 4.36	- 8.29	- 6.92

¹Partial effects show how changes in each factor affect GENERAL FUND per-pupil revenues (no outside provisions) holding other factors constant.

***p<.01, **p<.05, *p<.10.

Note: Effect of Free Lunch on per-pupil revenues would be notably higher under House budget

Horizontal Equity Indicator

Coefficient of variation (CV) of the error term

- Based on variance in PP revenues not explained by Complexity Index ($1-R^2$)
- Standard error divided by average PP revenues
- As CV decreases, horizontal equity is said to improve (less unexplained variation)
- HE measures may be worse than in prior years due to four factors being removed from the CI



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Horizontal Equity Indicators

Coefficient of Variation: Target revenue per-Pupil with Percentage on Free & Reduced Lunch, Indiana Public School Corporations, 1997-2009.

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
MSE	329.2	338.2	344.4	340.0	350.6	362.0	380.1	400.0	401.8	400.6	373.5	363.9	360.3
1 - R ²	84.8	84.3	80.5	77.6	77.2	77.6	79.2	81.7	78.6	74.2	70.8	60.7	52.6
CV	.088	.088	.086	.083	.083	.085	.089	.093	.094	.095	.090	.086	.085

$$CV = MSE / \text{mean}(\text{Target Revenue, inflation adj})$$

Decreases in MSE, (1-R²) and CV suggest improvements in horizontal equity



Results not affected by source of revenue or inclusion of outside provisions

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Summary

1. Faster growth in revenues per-pupil
2. Inclusion of outside provisions does not have a material impact on findings
3. Property taxes pay larger share of education costs
 - Still no relationship between AV and per-pupil revenues
4. Funding becomes more equitable – horizontal and vertical equity

