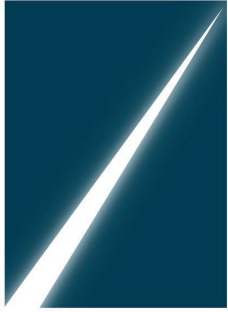


# Less local bang for more bucks: A review of facts and trends in Jefferson County Public Schools



A Bluegrass Institute Policy Point

By John Garen, Ph.D. • April 2024



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## Jefferson County Public Schools: A Review of Facts and Trends

John Garen\*

Board of Scholars, Bluegrass Institute for Public Policy Solutions

March 2024

### Summary

In 2022, per pupil funding for Jefferson County Public Schools (JCPS) was \$23,561. In 2021, it was \$19,280. In 2023, over 60% of JCPS students failed to attain proficiency on state testing in grades 4 and 8 reading and math. The trend in funding for JCPS has been almost continuously upward since 1990, after adjustment for inflation. JCPS teacher salaries have not keep pace with inflation in the past few years and school funding increases have far outstripped teacher raises. JCPS student scores on national tests have begun to fall after a decade of little improvement. White – Black student test-score differences remain as large as they ever were.

### **More specifically:**

- Total K-12 funding for JCPS in 2022 was \$23,561 per pupil and \$19,280 in 2021 (adjusted for inflation). These are higher than their corresponding figures for Kentucky as a whole by 36% in 2022 and 16% in 2021.
- Kentucky Summative Assessment (KSA) testing shows over 60% of JCPS students did not achieve “proficient” in 4<sup>th</sup> and 8<sup>th</sup> grade reading and math in 2023. The 2022 National Assessment of Educational Progress (NAEP) testing indicates over 70% failed to do so.
- For Black students, 2023 KSA testing shows that over 75% did not attain proficient or better. NAEP in 2022 indicates that over 85% failed to do so.
- Inflation-adjusted per pupil funding for JCPS rose from \$10,146 in 1990 to \$23,561 in 2022, a 132% increase. Some of this was due to an upsurge in funding in 2022, but from 1990 to 2021 funding rose by 90% (after inflation).
- NAEP tests scores for JCPS changed little from 2009 into the 2010s, then began to fall.
- The White – Black gap in NAEP scores for JCPS is at least as large in 2022 as in 2009.
- NAEP scores for JCPS tend to be somewhat lower than for Kentucky as whole, and especially so for low-income students.
- Scores for the ACT exam in JCPS rose slightly from 2008 to the mid-2010s, then fell. The White – Black score gap grew between 2008 and 2023.
- The productivity of funding in JCPS, defined as NAEP test-score performance per \$1,000 of per pupil funding, is over 20% lower for JCPS than for the state. Moreover, it parallels the state’s pattern of declining productivity over time.
- Inflation-adjusted teacher salaries for JCPS rose from 1990 to 2010, changed little during the 2010s, and fell substantially after 2020.
- Increases in per-pupil funding far outstrips increases in teacher pay from 1990 to 2022.

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**Some Recent Data**

Table 1 shows 2021-22 and 2020-21 per pupil funding<sup>1</sup>, adjusted for inflation<sup>2</sup>, by source. Values are shown for JCPS and for Kentucky as a whole. JCPS funding was over \$23,000 per pupil in 2022 and over \$19,000 in 2021. These funding levels were higher than the Kentucky statewide averages.

**Table 1: Inflation-Adjusted Per Pupil Funding, JCPS and Kentucky**

	2021-22 Per Pupil Funding		2020-21 Per Pupil Funding	
	<u>JCPS</u>	<u>Kentucky</u>	<u>JCPS</u>	<u>Kentucky</u>
Local	\$11,079	\$5,782	\$9,544	\$5,613
State	\$7,235	\$8,048	\$7,366	\$8,547
Federal	\$5,247	\$3,507	\$2,370	\$2,415
Total	\$23,561	\$17,337	\$19,280	\$16,575

Table 2 shows the percentages of students below proficient in grades 4 and 8 reading and math according to the 2023 Kentucky Summative Assessment (KSA) testing and the 2022 National Assessment of Educational Progress (NAEP) testing.<sup>3</sup>

The KSA indicates that over half of Kentucky students are not proficient for any of these tests. For JCPS the percentages are over 60%. The NAEP shows over 70% of JCPS students are not proficient; more than for Kentucky as a whole.

For Black students, the KSA shows that 77% or more are not proficient in JCPS. The NAEP indicates that at least 87% failed to attain proficiency. These are somewhat higher than the corresponding figures for the entire state.

**Table 2: Percentages of Below Proficient Students, KSA and NAEP Tests, JCPS and Kentucky**

	JCPS, 2023 KSA Test	Ky., 2023 KSA Test	JCPS, 2022 NAEP Test	Ky., 2022 NAEP Test
<u>All Students</u>				
Grade 4 reading	60%	52%	72%	69%
Grade 4 math	67%	58%	76%	67%
Grade 8 reading	67%	56%	74%	71%
Grade 8 math	76%	64%	83%	78%
<u>Black Students</u>				
Grade 4 reading	77%	74%	87%	85%
Grade 4 math	85%	80%	94%	91%
Grade 8 reading	80%	77%	88%	88%
Grade 8 math	89%	85%	96%	91%

## Overall Trends in K-12 Funding

Figure 1 shows the total of federal, state, and local K-12 funding per pupil, adjusted for inflation.<sup>4</sup> The values for both Jefferson County Public Schools (JCPS) and for Kentucky as a whole are shown. (For 1990 to 2003, one component of state-level funding was not reported for JCPS. These values are estimated based on state data to arrive at the JCPS funding figures for those years.<sup>5</sup>)

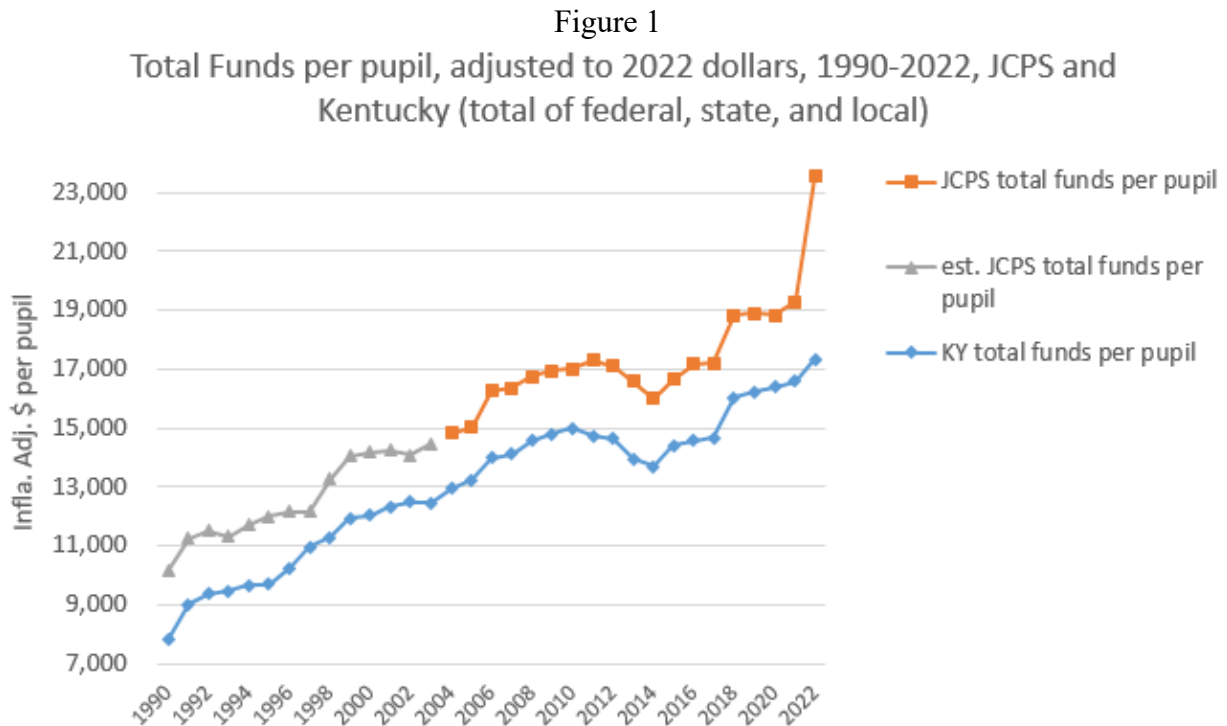
JCPS per-pupil funding rose from an estimated \$10,146 in 1990 to \$23,561 in 2022; i.e., 2.32 times more (after inflation) than in 1990, equivalent to a 132% rise. Per pupil funding rose nearly every year except for the years following the Great Recession.

In 2022, there was an unusually sharp upsurge in funding of 22.2% over 2021 levels. Examining funding only up to 2021 shows it was still 1.90 times higher than the level in 1990.

For selected sub-periods:

1990-2000: 39.8% increase	2000-2010: 19.8% increase
2010-2014: 5.8% decrease	2014-2022: 47.1% increase
2021-2022: 22.2% increase	

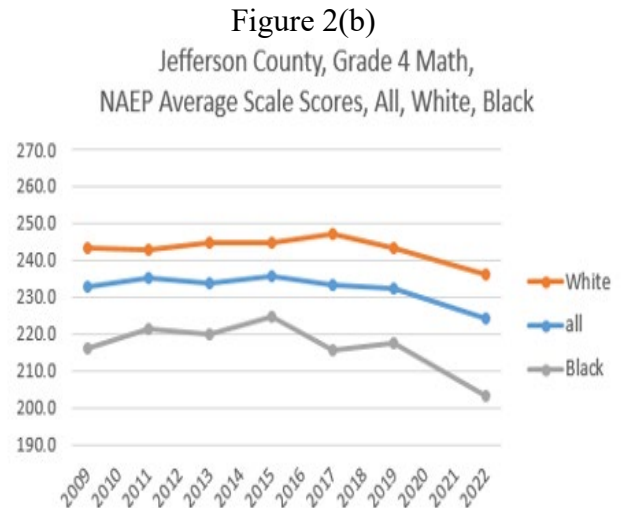
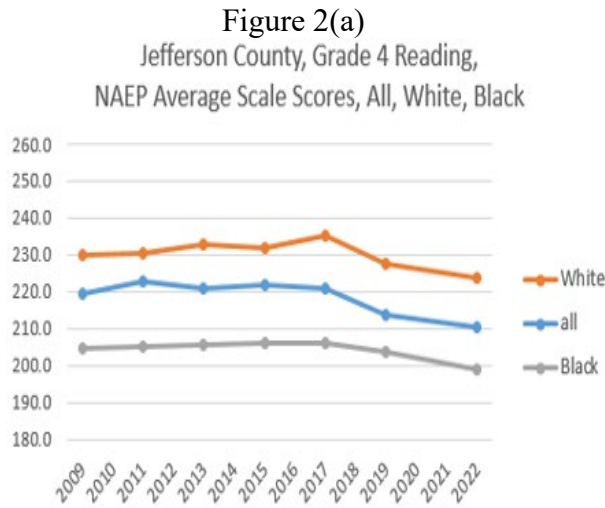
JCPS per-pupil funding averaged \$2,323 more than the state average from 1990 to 2022. In 2022, JCPS funding was \$6,224 more per pupil than the state average.



**NAEP Test Score Performance**

Figures 2(a) and 2(b) show NAEP grade 4 reading and math scores, available for JCPS since 2009.<sup>6</sup> Scores for all, White, and Black students are shown.

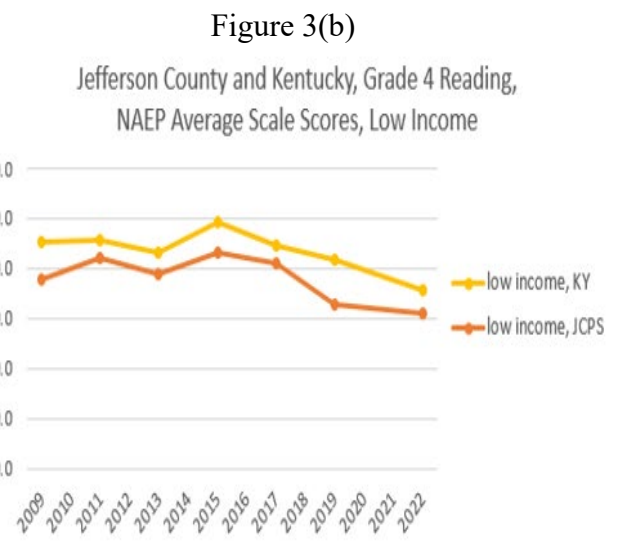
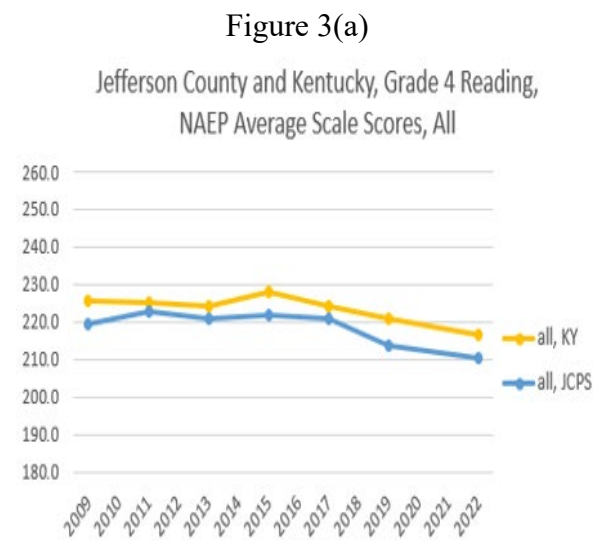
The pattern for both tests is similar. Scores for White students rose slightly after 2009, then fell. Scores for all students and for Black students were flat or slightly declining until 2019, then dropped more sharply. The White – Black gap in scores grew larger from 2009 to 2023. The pattern for grade 8 reading and math are the same and so are not shown.



**NAEP Test Scores: JCPS Relative to Kentucky**

Figure 3(a) shows NAEP Grade 4 reading scores for all JCPS students and all Kentucky students. JCPS scores are consistently below those for the state. Black and White student scores in JCPS show little differences from their counterparts in the entire state (charts not shown).

Figure 3(b) shows that low-income students in JCPS score persistently lower than low-income students throughout the state.<sup>7</sup> Patterns for grade 4 math, grade 8 reading, and grade 8 math are very similar to the above and so are not shown.



**ACT Test Performance**

Figure 4(a) shows JCPS’ ACT composite scores for all, White, and Black students.<sup>8</sup> Generally, scores rose slightly until 2017, then fell. The White – Black differential grew between 2012 and 2023.

Figure 4(b) compares JCPS scores to Kentucky scores; the latter are slightly higher.

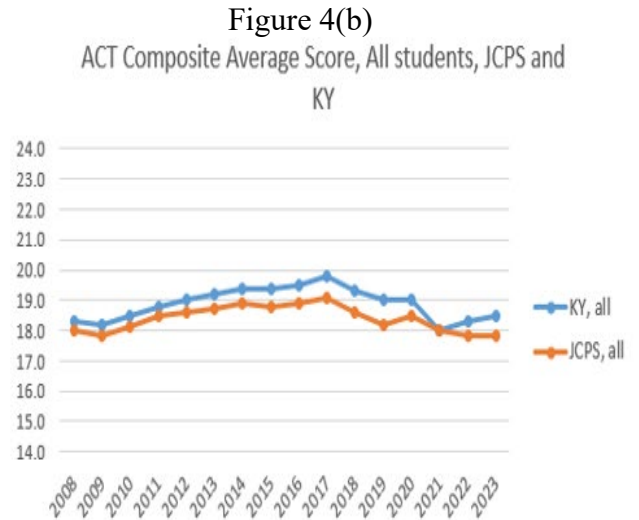
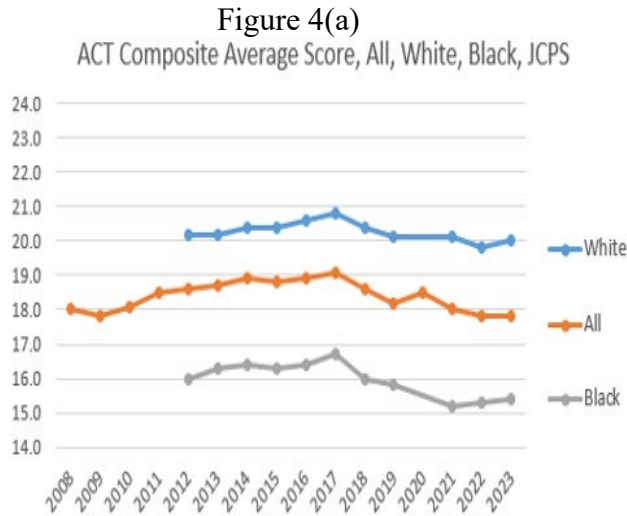
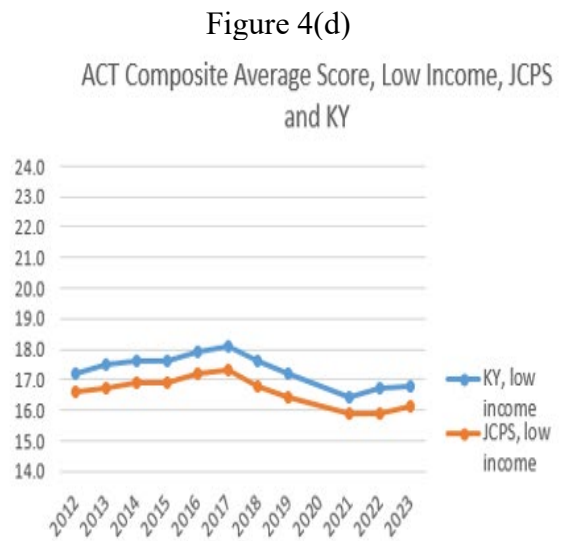
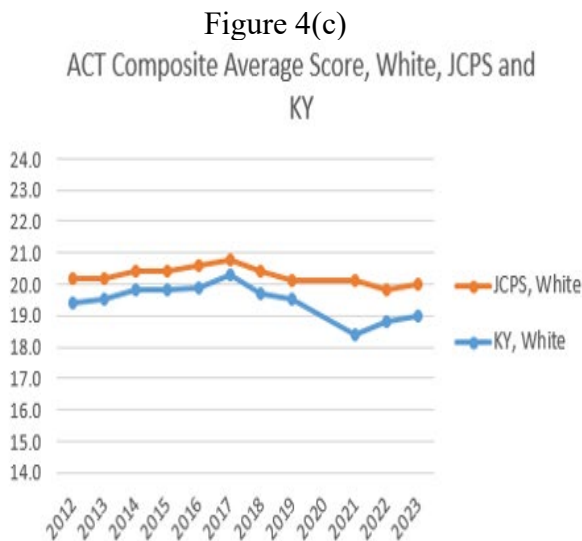


Figure 4(c) indicates that White students in JCPS score somewhat higher than White students in the entire state. Only minor differences for Black students in JCPS and the state were found and so are not shown. Figure 4(d) shows consistently lower scores for low-income students in JCPS than in the entire state.



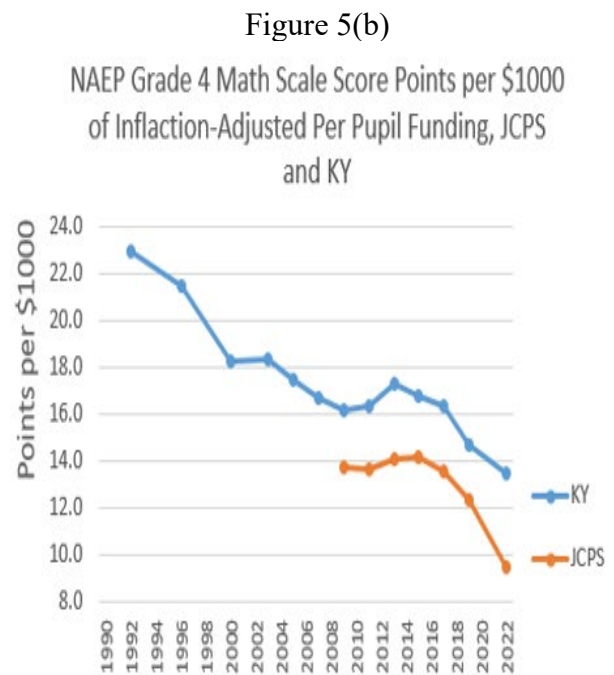
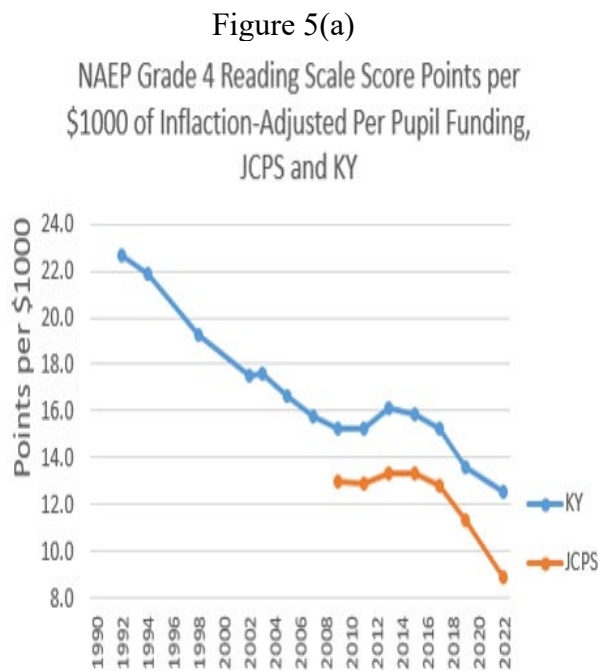


## **“Bang Per Buck:” Productivity of Funding in Producing Test Performance**

This section computes NAEP test score points per \$1,000 of per pupil funding, which translates to the productivity of funds in generating test score performance. Specifically, figures 5(a) and 5(b) show average NAEP Scale Score Points per \$1,000 of inflation-adjusted per pupil funding for grade 4 reading and math, respectively. For JCPS, only values since 2009 are available. For context, values of this measure are shown for Kentucky from the 1990s forward.

The pattern for Kentucky (discussed in more detail [here](#)) shows steps declines in productivity except for the few years after the Great Recession. Test score changes were modest and the fall in productivity is due almost entirely to increases in funding. The exception is right after the Great Recession when funding temporarily fell and test scores changed little.

For the years that data are available for JCPS, the pattern for JCPS mirrors that for Kentucky; an increase after the Great Recession followed by further decline, all mostly driven by changes in funding.



Productivity for JCPS is persistently below that of the state. JCPS productivity averaged 22% lower than Kentucky’s over this period. For 2022, it was 28% lower.

Data for grade 8 reading and math show nearly identical patterns and so are not shown.



## Classroom Teacher Salaries and Staffing<sup>9</sup>

Figure 6(a) shows inflation-adjusted teacher salaries for JCPS. They rose through the 1990s and 2000s, changed little during the 2010s, and fell substantially from 2020 to 2022. Figure 6(b) plots the ratio of pupils per teacher in JCPS schools from 2002 (the first year of data availability) through 2022. This ratio has cycled between 13.5 and 15.9 pupils per teacher.

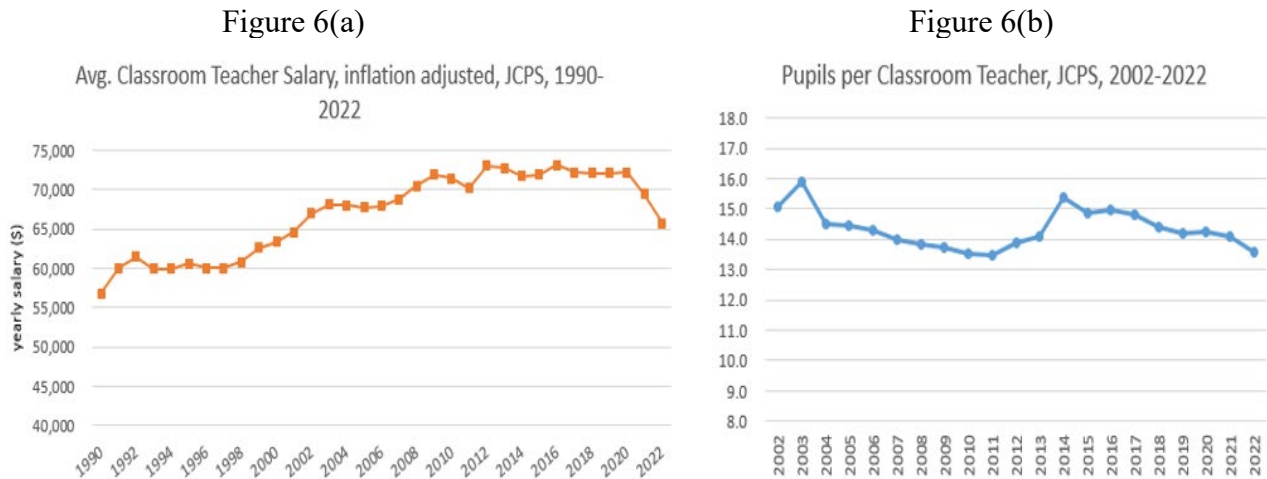
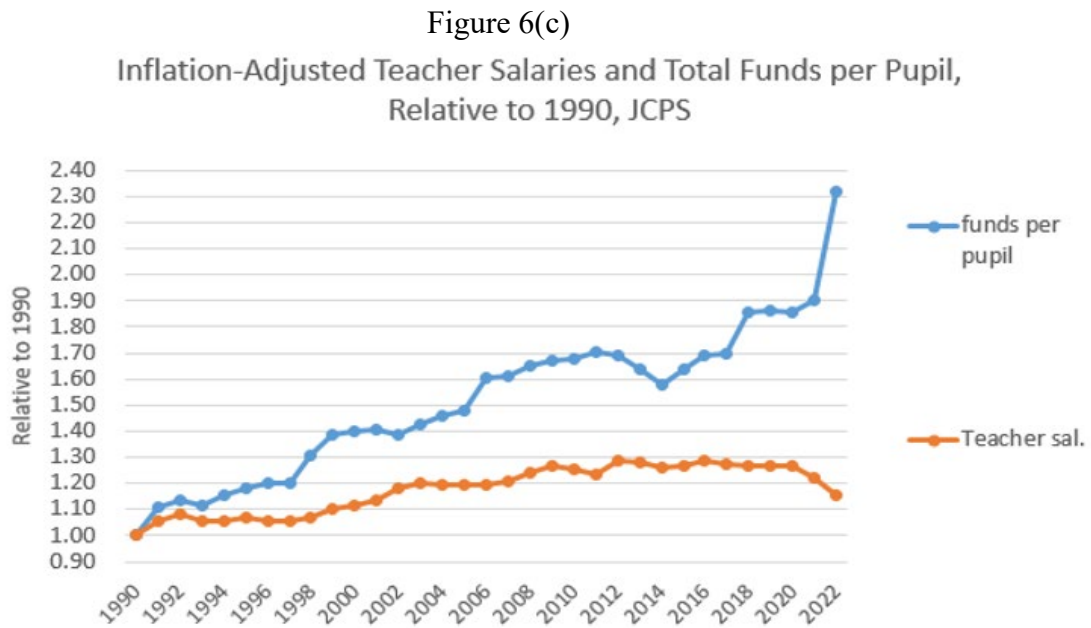


Figure 6(c) shows inflation-adjusted total funds per pupil and teacher salaries relative to their 1990 values for JCPS. Teacher salaries in 2022 were 1.16 times as high as in 1990 while funds per pupil were 2.32 times higher. (Putting aside from the upward surge in 2022 funding, funds per pupil in 2021 were 1.90 times as high as in 1990.)



## Notes

<sup>1</sup> Funding data are from [https://www.education.ky.gov/districts/FinRept/Pages/Fund%20Balances,%20Revenues%20and%20Expenditures,%20Chart%20of%20Accounts,%20Indirect%20Cost%20 Rates%20and%20Key%20Financial%20Indicators.aspx](https://www.education.ky.gov/districts/FinRept/Pages/Fund%20Balances,%20Revenues%20and%20Expenditures,%20Chart%20of%20Accounts,%20Indirect%20Cost%20Rates%20and%20Key%20Financial%20Indicators.aspx).

<sup>2</sup> Adjustment for inflation uses the Personal Consumption Expenditures Price Index, at <https://www.bea.gov/data/personal-consumption-expenditures-price-index>.

<sup>3</sup> KSA data are at <https://www.kyschoolreportcard.com/organization/20?year=2023>. The NAEP data source is <https://www.nationsreportcard.gov/ndecore/xplore/NDE>.

<sup>4</sup> See notes 1 and 2 for the data and inflation adjustment sources.

<sup>5</sup> In particular, state contributions “on behalf” of school districts for district employee benefits are not reported by districts for 1990 to 2003, but are available for the entire state. I find that, for the state, total funding relative to funding without the “on behalf” funding is nearly constant for 1990 to 2003 at 96.2% of the 2004 ratio. I use the JCPS 2004 ratio times 0.962 to estimate 1990 to 2003 funding values for the district.

<sup>6</sup> The NAEP data source is in note 3.

<sup>7</sup> The low-income designation is based on eligibility for the National School Lunch Program.

<sup>8</sup> These data are for Kentucky’s 11<sup>th</sup> grade ACT testing program and are different from high school graduate scores reported by ACT. Demographic breakdowns are available beginning in 2012. Participation in the ACT was reduced in the COVID years of 2020 and 2021. Data sources: <https://www.kyschoolreportcard.com/organization/20?year=2023>; <https://openhouse.education.ky.gov/Home/SRCData>; <https://www.education.ky.gov/OpenHouse/data/Pages/Supplemental-Data-Assessment-and-Accountability.aspx>.

<sup>9</sup> Data are from <https://www.education.ky.gov/districts/FinRept/Pages/School%20District%20Personnel%20Information.aspx>

## Data Appendix

### Funding, Salaries, Teachers, Attendance

Year	Inflation Adj. per pupil funds, JCPS	Inflation Adj. per pupil funds, KY	Inflation Adj. Avg. Teacher Salary, JCPS	Classroom Teachers, JCPS	JCPS Avg. Daily Attendance
1990	\$10,146	\$7,793	\$56,817		80,174
1991	\$11,244	\$9,001	\$60,058		80,215
1992	\$11,526	\$9,366	\$61,460		80,556
1993	\$11,307	\$9,462	\$59,909		82,310
1994	\$11,723	\$9,665	\$59,915		81,402
1995	\$12,003	\$9,688	\$60,615		80,569
1996	\$12,173	\$10,241	\$60,023		80,314
1997	\$12,153	\$10,963	\$60,073		80,552
1998	\$13,273	\$11,286	\$60,766		80,563
1999	\$14,048	\$11,935	\$62,603		80,949
2000	\$14,185	\$12,034	\$63,366		80,159
2001	\$14,251	\$12,318	\$64,591		80,378
2002	\$14,074	\$12,487	\$67,005	5374	81,116
2003	\$14,475	\$12,462	\$68,083	5133	81,665
2004	\$14,824	\$12,929	\$67,997	5656	82,020
2005	\$15,023	\$13,233	\$67,765	5705	82,406
2006	\$16,276	\$13,981	\$67,887	5773	82,611
2007	\$16,375	\$14,112	\$68,718	5963	83,334
2008	\$16,743	\$14,577	\$70,470	6048	83,662
2009	\$16,945	\$14,801	\$71,889	6135	84,330
2010	\$17,000	\$15,009	\$71,396	6263	84,862
2011	\$17,290	\$14,738	\$70,184	6351	85,656
2012	\$17,124	\$14,634	\$73,033	6197	85,914
2013	\$16,590	\$13,943	\$72,728	6388	89,898
2014	\$16,014	\$13,708	\$71,724	5864	90,188
2015	\$16,645	\$14,393	\$71,925	6088	90,407
2016	\$17,163	\$14,572	\$73,136	6015	90,054
2017	\$17,217	\$14,655	\$72,208	6077	89,904
2018	\$18,824	\$16,029	\$72,087	6139	88,253
2019	\$18,897	\$16,238	\$72,060	6155	87,499
2020	\$18,841	\$16,397	\$72,156	6138	87,499
2021	\$19,280	\$16,575	\$69,429	6219	87,499
2022	\$23,561	\$17,337	\$65,710	6200	84,323

National Assessment of Educational Progress, Average Scale Scores

<b>Gr. 4 Read.</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>
<b>Year</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>
2009	219.4	229.7	202.7	207.7	225.6	228.2	203.5	215.3
2010								
2011	222.8	230.5	208.0	212.0	225.1	226.3	210.2	215.6
2012								
2013	220.9	232.6	203.0	208.8	224.4	227.1	204.3	213.2
2014								
2015	221.9	231.6	208.0	213.3	228.1	230.7	212.2	219.1
2016								
2017	220.9	235.2	203.2	211.1	224.1	227.4	203.9	214.7
2018								
2019	213.7	227.7	195.8	203.0	220.9	225.2	199.0	211.8
2020								
2021								
2022	210.3	223.9	194.9	201.0	216.6	219.9	200.2	205.8

<b>Gr. 4 Math</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>
<b>Year</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>
2009	232.8	243.2	216.2	221.2	238.8	241.1	219.8	228.8
2010								
2011	235.2	242.9	221.2	226.3	240.8	242.5	225.2	232.3
2012								
2013	233.7	244.6	219.9	224.3	241.5	244.0	223.9	232.4
2014								
2015	235.7	244.6	224.6	229.4	241.7	243.8	226.3	233.8
2016								
2017	233.3	247.3	215.8	223.9	239.2	242.8	217.5	230.4
2018								
2019	232.4	243.4	217.6	222.1	239.3	242.3	223.0	230.4
2020								
2021								
2022	224.0	236.2	203.2	214.5	233.8	237.0	209.9	223.7

<b>Gr. 8 Read.</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>
<b>Year</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>
2009	258.5	266.8	244.5	248.1	266.9	268.7	249.0	256.8
2010								
2011	259.7	269.0	244.6	250.5	268.8	271.5	248.4	260.2
2012								
2013	260.6	271.1	243.3	248.6	269.6	272.4	247.0	258.0
2014								
2015	261.4	271.0	247.0	250.9	267.8	270.6	246.8	259.0
2016								
2017	260.6	273.5	244.8	249.2	265.1	267.6	246.4	255.7
2018								
2019	257.8	273.4	238.9	245.4	263.0	266.0	239.4	253.0
2020								
2021								
2022	253.5	266.0	237.8	244.8	258.5	261.6	238.9	248.8

National Assessment of Educational Progress (cont'd.)

<b>Gr. 8 Math</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>
<b>Year</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>
2009	271.1	283.8	252.2	257.4	279.3	281.8	257.7	267.8
2010								
2011	274.2	285.4	256.9	260.9	281.6	284.5	260.7	270.5
2012								
2013	273.5	284.7	256.6	260.6	280.6	283.4	260.2	268.2
2014								
2015	271.6	284.6	252.0	257.8	277.9	280.7	257.5	267.7
2016								
2017	270.8	284.6	252.6	258.1	277.7	281.9	252.2	265.3
2018								
2019	273.3	285.9	256.7	262.8	278.1	281.5	255.7	266.9
2020								
2021								
2022	262.6	278.0	245.3	252.2	269.4	273.8	248.2	259.0

ACT Composite Scores

	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>JCPS</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>	<b>Ky.</b>
<b>Year</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>	<b>All</b>	<b>White</b>	<b>Black</b>	<b>Low Inc.</b>
2008	18.0				18.3			
2009	17.8				18.2			
2010	18.1				18.5			
2011	18.5				18.8			
2012	18.6	20.2	16.0	16.6	19.0	19.4	16.2	17.2
2013	18.7	20.2	16.3	16.7	19.2	19.5	16.4	17.5
2014	18.9	20.4	16.4	16.9	19.4	19.8	16.5	17.6
2015	18.8	20.4	16.3	16.9	19.4	19.8	16.4	17.6
2016	18.9	20.6	16.4	17.2	19.5	19.9	16.8	17.9
2017	19.1	20.8	16.7	17.3	19.8	20.3	16.9	18.1
2018	18.6	20.4	16.0	16.8	19.3	19.7	16.3	17.6
2019	18.2	20.1	15.8	16.4	19.0	19.5	15.9	17.2
2020	18.5				19.0			
2021	18.0	20.1	15.2	15.9	18.0	18.4	15.3	16.4
2022	17.8	19.8	15.3	15.9	18.3	18.8	15.5	16.7
2023	17.8	20.0	15.4	16.1	18.5	19.0	15.5	16.8