March 2023

POLICY BRIEF

Ghost Students: The Inefficient Allocation of Taxpayer Dollars in Wisconsin's Schools

Will Flanders, PhD

Research Director

WILL
WISCONSIN INSTITUTE
FOR LAW & LIBERTY

Executive Summary

Since the beginning of the COVID-19 pandemic, enrollment in Wisconsin schools has dropped by more than 3%, with some districts suffering even greater declines. But an antiquated school funding system means that Wisconsin taxpayers are still paying for students that are no longer in the system. Wisconsin uses what is known as the "Three-Year Rolling Average" to count students for the purposes of calculating school district revenue limits. Under this system, three years of enrollment data are used in calculating how much money the district is able to collect from state and local taxpayers. In an era of rapid enrollment declines across Wisconsin, this system means that substantial amounts of funding are misallocated to districts for students who no longer attend school in the district. This paper attempts to quantify just how costly this is for Wisconsin taxpayers, and offers some alternatives.

- **The "Three-Year Rolling Average" is an antiquated system of school attendance, costing taxpayers millions.** These days, we know where each student is every day in Wisconsin. Our school funding system should reflect that—rather than being years behind.
- **Statewide, Wisconsin funds more than 20,000 "ghost students," children outside of the school system who are still counted as being enrolled.** Statewide, a net of about 20,703 students who are no longer in the system are funded by state taxpayers.
- **More than $359 million dollars is misallocated to "ghost students" in Wisconsin.** Due to the three-year rolling average, Wisconsin taxpayers are on the hook for hundreds of millions for students that no longer exist in the school system.
- **Our report outlines a pathway for a better system.** Wisconsin should move to a more dynamic funding system that funds students where they are rather than where they used to be. Student counts should be updated more regularly and funding should be based on those amounts.

Introduction

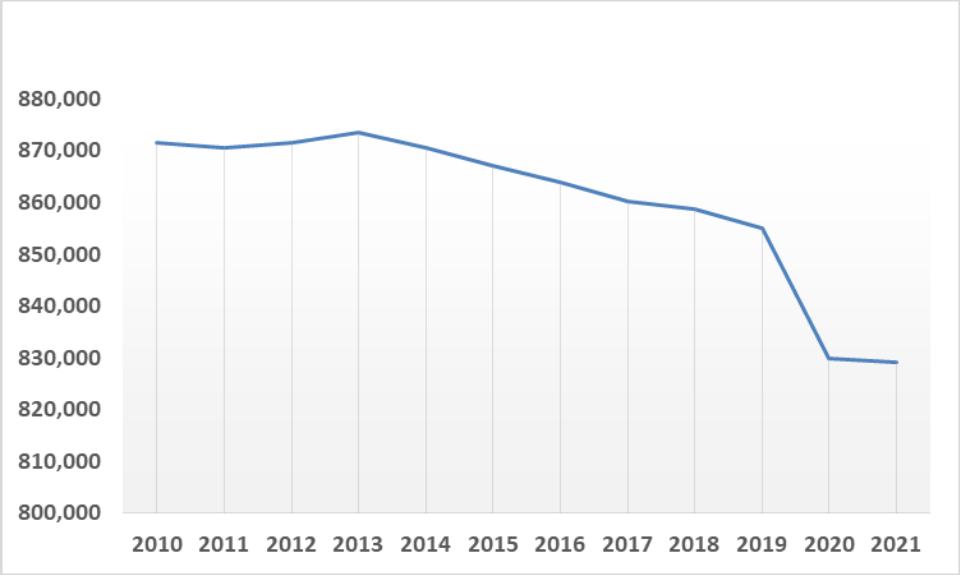
Over the years,[i] WILL has highlighted the issues with Wisconsin's school funding system. With funding today still tied to spending in the early 1990s, school districts are locked into spending levels that may not reflect the needs of their community today. Because of the roundabout manner in which private school choice is financed, school districts end up with *more* money per remaining student when a student leaves for choice.

But perhaps the biggest problem with school funding in Wisconsin is the failure of the system to accurately reflect the count of the students that are currently enrolled in each school. The use of a three-year rolling average of enrollment further slows the glacial pace of district response to enrollment shifts, and puts local taxpayers on the hook for "ghost" students who are no longer enrolled in the school system. This report explains how Wisconsin's three-year rolling average functions, and what we should do instead to move towards the money following the student.

Wisconsin and Declining Enrollment

In order to understand why the three-year rolling average matters, it is important to have some context about the current state of public-school enrollment in Wisconsin.[ii] Figure 1 shows enrollment in the state over the past decade.

Figure 1. Enrollment Over Time, Wisconsin



Even prior to the COVID-19 pandemic, the state was seeing a slow decline in the number of students enrolled in public schools. Some of this is attributable to an aging population[iii] in Wisconsin, while some is thanks to the growth of educational options such as the statewide parental choice program. However, the COVID-19 pandemic brought about a rapid and dramatic decline in enrollment of more than 20,000 students in a single year. This trend did not reverse in

2021, with public school enrollment declining by a further 800. While some districts have experienced larger declines than others, this trend is pretty typical around the state. Of Wisconsin's 421 school districts, 336 (nearly 80%) have seen a net enrollment decline over the most recent four years.[iv]

Given the rapidly shifting enrollment patterns in the state, it is vital that education spending resources follow students where they are. But the three-year rolling average in Wisconsin's education finance system prevents that.

What is the Three-Year Rolling Average?

In most private businesses, the amount of money that is made is based on the number of customers that come through the door and spend money. If a new grocery store opens up in the neighborhood and spending in the existing grocery store drops 20%, that is immediately felt by the store owners and adjustments have to be made. This might include making adjustments to better compete with the newer alternative, or making hard choices involving staffing cuts or inventory changes. Yet for some reason, this same sort of logic does not apply to Wisconsin's schools. Instead, public schools are given a three-year runway to adjust to changing enrollment. To explain how this works, consider enrollment in a hypothetical district over the past four years (Table 1). Note that the enrollments here would include summer school enrollment as well, in addition to the regular school year.

Table 1. Enrollment in Hypothetical District

2017-18	2018-19	2019-20	2020-21	Average (2017-2020)
10,000	10,000	9,500	8,800	9,833

Over the course of four years, this district has seen an enrollment decline of 12% or 1,200 students. However, the three-year rolling average does not fully reflect this decline. Rather than the 8,800 students currently enrolled, the district's enrollment count would be the average of the earliest three numbers here: about 9,833. The over-counting by 1,033 students has important implications for funding not just in this district, but for allocations for districts all over the state.

There is one additional complexity to the three-year rolling average that is not worth extensive attention here, because it is not especially problematic. If a district has experienced growth above the amount that would be determined in the three-year rolling average, the district uses an average that includes the current year rather than the previous three years. In other words, if our hypothetical district had seen an uptick in enrollment in 2020-21, 2017-18 would be dropped from the calculation and 2020-21 added. This allows districts that are growing to get "credit" for those students.

To understand the implications of this for school funding, we must go into a bit more depth about how the annual funding of schools actually works. Each year, school district spending limits are

calculated via the state funding formula as mandated by state law. A key component of this formula is the number of students in the district. This number is used to calculate both the total revenue that will be made available to the district, along with the manner in which that revenue is split between state aid and local property taxes. However, rather than using the current enrollment in the district to make these calculations, the three-year rolling average is utilized. In other words, for our hypothetical district above, 633 "ghost" students that no longer exist are counted as enrolled. The implications for spending by the state depend on the individual spending characteristics of each district, as well as how much money the state allots to fund education in a given budget. We will attempt to quantify this in the following sections.

Taxpayer Cost of an Antiquated System

Just how many students are the taxpayers paying for, via the revenue limit, who no longer even exist in the school system? The table below lists the 20 school districts with the largest number of "ghost" students. Note that these are estimates using the 2021-22 prepopulated spreadsheets available from DPI.[v] The numbers for this school year will vary, though given that trends in enrollment tend to be long-term, they are probably similar. (Given the downward trends, these data in all likelihood understate the case.)

Table 2. Estimated "Ghost" Students by District

District	2021-22 Enrollment	Three-Year Average	Estimated "Ghost" Students
Milwaukee	68,636	74,218	5,582
Kenosha	19,312	20,371	1,059
Racine	17,796	18,549	753
Madison	26,188	26,904	716
Appleton	14,096	14,692	596
Green Bay	20,515	21,077	562
Waukesha	11,539	12,013	474
Oshkosh	9,260	9,624	364
La Crosse	5,990	6,322	332
West Allis	7,666	7,983	317
Sheboygan	9,708	9,968	260
Janesville	9,138	9,382	244
West Bend	6,147	6,385	238
Beloit	6,451	6,688	237
Menasha	3,348	3,583	235
Eau Claire	11,135	11,353	218
Fond Du Lac	6,938	7,129	191
Merrill	2,334	2,511	177
Wisconsin Rapids	4,781	4,958	177
Superior	4,330	4,490	160

In Milwaukee, taxpayers are on the hook for about 5,582 "ghost" students. Enrollment in the district has dropped to 68,636 according to the most recent DPI numbers, but the revenue limit formula will still count Milwaukee as having about 74,218 students. Kenosha also has more than 1,000 "ghost" students. Adding together the positive (where districts lose out thanks to the three-year rolling average) and the more common negative values, statewide we have approximately 20,703 students who are being funded despite the fact that they no longer exist in the system. While these numbers appear problematic *prima facie*, the actual financial impact of this phenomenon is even more critical.

A second provision—known as the "Hold Harmless" provision—also works to limit the need for school districts to respond to changing enrollment. Generally, this provision provides additional state aid to districts that experience a decline in enrollment of greater than 15% from one year to the next year. According to DPI, 48 districts will receive this aid for the 2022-23 school year.[vi] Fortunately, the Wisconsin Legislative Fiscal Bureau has recently provided estimates of the net cost of using the three-year rolling average relative to the cost of using current-year enrollment for revenue limit calculation, and removing the "Hold Harmless" provision. The results of that calculation for Wisconsin's ten largest school districts are included in Table 3.

Table 3. Cost of "Ghost" Students to Wisconsin Taxpayers

District	Total Cost
Milwaukee	$90,050,946
Kenosha	$19,184,103
Racine	$12,960,909
Green Bay	$9,685,183
Madison Metropolitan	$17,381,940
Appleton Area	$9,246,715
Beloit	$4,105,847
Waukesha	$7,907,989
West Bend	$4,050,203
Janesville	$4,230,000

It is no surprise that some of the largest districts in the state show the largest overall cost here. In Milwaukee, taxpayers are on the hook for more than $90 million for students that no longer exist in the district. Kenosha, Racine, and Madison all have "ghost" student costs exceeding $10 million. There are districts at the other end of the spectrum that would see revenue increases under such a system. For instance, Altoona School District, which has seen enrollment increases of nearly 15% over the past five years, would see more than $600,000 in additional revenue. That said, most districts are seeing declining enrollment—in total, the net cost to taxpayers is more than $359 million across the state. An appendix to this paper includes the LFB's numbers for every district in the state.

The total cost of "ghost" students is, of course, partially reflective of district size. Another way to compare these numbers would be the amount of "ghost" students funded per student based on current enrollment. Those numbers are included in Table 4 below. Most of the districts here could be categorized as rural districts that have seen significant declines over the past few years.

Table 4. "Ghost" Student Funding Loss Per Current Students

District	Enrollment	"Ghost" Student Loss Per Remaining Student
Norris	20	$23,813
Washington Island	53	$4,693
Mercer	112	$3,551
Goodman-Armstrong Creek	86	$3,223
Geneva J4	164	$3,133
Phelps	94	$3,070
Twin Lakes #4	283	$2,514
Hustisford	317	$2,177
Sharon J11	211	$2,101
Williams Bay	648	$2,043

It is important to note that whether this money would actually be returned to taxpayers is at the discretion of policymakers: it represents money allocated by the state for education spending. Whether other districts that are growing should receive greater allocations based on fixing the "ghost" student problem is a discussion for another paper. But what we can say for sure is that taxpayer money from both income taxes and property taxes is being misallocated under this system. Given that the vast majority of districts have declining enrollment, many taxpayers in the state are on the hook for more than they ought to be.

Why This Matters

Some may argue that this inefficiency is not especially problematic. After all, public schools cannot immediately adjust their spending practices when students leave. However, the successful introduction of market forces into education requires that we build a far more nimble and responsive public school system. As noted in the introduction, private businesses must adjust on a daily basis to the changing demands of their customers. Many other states make school funding decisions based on current enrollment. Arizona, for instance, funds students based on the number of students who were enrolled during the most recent school year,[vii] as does Colorado.[viii]Indeed, private and charter schools in Wisconsin already deal with changing enrollments on an annual basis without this safety net. There is little reason that our public schools should be different.

Indeed, the main argument of public schools for having rolling averages—that too many costs are fixed—doesn't hold much water once you look below the surface. Marty Leuken of *EdChoice* has pointed out[ix] that *all* educational costs are variable in the long run. Given the huge increases in educational spending that have occurred nationwide over the past decade, along with

massive infusions of cash from the federal level under programs like the American Rescue Plan Act (ARPA), much of which has still not been spent,[x] there is little reason to believe districts when they claim that they cannot absorb the sort of small decreases in revenue that happen when only small enrollment declines occur.

While public schools tend to focus on the negatives of this approach due to the instability it would result in, there are potential benefits to these schools as well. Coupled with a weighted student funding system—where student funding is based on need rather than ZIP code[xi]—public school systems would be better able to absorb the cost of a high-cost special needs student who moves to the district mid-year. Schools wouldn't have to wait until the next year to receive funds for such students; the additional funding could be received in the district's next allocation.

Towards a Better System

The future of education spending in Wisconsin is a system in which the money follows the student no matter which school they determine is best for them and their family. The three-year rolling average creates an inefficiency in this system, blunting the incentive for public schools to meet the needs of students in their district. We have two connected policy suggestions stemming from this research:

1) **Eliminate or phase-out the three-year rolling average.**

2) **Replace it with dynamic enrollment counts.** There are several options has to how 'dynamic' dynamic funding can be. One option would be to base funding simply on the most recent enrollment count from the previous year. But more frequent counts—could be possible as well. Moving to fully dynamic funding would also entail removal of the "Hold Harmless" provision in state law that softens the landing for districts quickly losing enrollment.

Long ago in the past, it might have been impossible for the state to send money dynamically to students, as they didn't have a good way of knowing where students were on a daily basis. But, with the advent of the internet, it is now possible to track students on a daily basis based on their attendance. There is little reason, then, that funding allocations can't be made based on current data.

An ideal system would fund students based on their weekly or monthly enrollment—but even a system that takes advantage of two count dates throughout the year would be a huge improvement on the current system that requires a four-year look back. Other states do fund education in this more dynamic fashion. There is little reason Wisconsin could not implement a similar system.

[i] https://will-law.org/wp-content/uploads/2021/07/FundEveryKidv101.pdf
[ii] https://wisedash.dpi.wi.gov/Dashboard/dashboard/18110
[iii] https://eras.org/about/wi-aging/
[iv] https://wisedash.dpi.wi.gov/Dashboard/dashboard/20060
[v] https://dpi.wi.gov/sfs/limits/worksheets/overview
[vi] https://dpi.wi.gov/news/releases/2022/general-school-aids-wisconsin-certified
[vii] https://ade.az.gov/schoolfinance/faqs/funding/equalization%20formula%20funding.pdf
[viii] https://leg.colorado.gov/sites/default/files/images/2018_school_finance_booklet_-_final.pdf
[ix] https://www.edchoice.org/wp-content/uploads/2017/06/2017-3-Fixed-vs-Variable-Cost-One-Pager.pdf
[x] https://www.reforminggovernment.org/wp-content/uploads/2021/03/2021-03-23-IRG_OnePager_Stimulus-checks-Final.pdf
[xi] https://reason.org/commentary/weighted-student-funding-programs-continue-to-show-promising-results/