

# RIPPLE EFFECT

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*How expanding Wisconsin's school choice programs can lead to more college graduates and a stronger economy*

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# Executive Summary

All children who aspire to go to college—whether to be a teacher, scientist, engineer, or doctor—deserve a K-12 system to foster their ambitions. But, for many, a substandard K-12 education system stands in the way, too often leaving low-income students unable to realize their dreams.

College is not for everyone but those who have the skills and dreams to attend a four-year university, deserve a K-12 education system that will prepare them to succeed. Yet the sad truth in Wisconsin is that college graduation rates are significantly lower for students from low-income families than for students from high-income families.

But there is hope. Studies have shown that students in the Milwaukee Parental Choice Program (MPCP) are 38% more likely to have graduated from a four-year college than similar students who attended a traditional public

school. This is in line with other peer-reviewed studies showing how students at private schools on a voucher have higher high school graduation and college attendance rates.

This study estimates the economic impact from expanding Wisconsin's parental choice programs by using similar methods to previous studies, the first of which has already been published in a peer-reviewed journal (Flanders & DeAngelis 2018a; Flanders & DeAngelis 2018b; DeAngelis and Flanders 2019). Increased enrollment in Wisconsin's parental choice programs could lead to more college graduates in certain fields, which has a ripple effect of higher lifetime earnings and more consumer spending.



# Key Findings

**1. Increased enrollment in Wisconsin’s parental choice programs could lead to an average of nearly 400 more students per year graduating from college over the next two decades.** A model assuming 20% of Wisconsin students are eventually enrolled in the state’s three private school choice programs leads to nearly 9,044 more college graduates over two decades. A more modest model assuming 10% of students eventually enroll in private school choice leads to roughly 5,841 more graduates.

**2. Expanded enrollment in Wisconsin’s parental choice programs could result in \$3.2 billion in additional economic benefits over the next two decades.** A 20% increase in voucher enrollment would lead to about \$3.2 billion in increased consumer spending plus local and state taxes. The 10% model predicts more than \$2 billion in these economic benefits.

**3. Wisconsin cities could expect significant economic benefits from greater access to private school choice.** La Crosse could see benefits of about \$24 million. Benefits to Appleton are estimated at up to \$60 million. Green Bay and Madison could see benefits of more than \$75 to \$100 million respectively. Milwaukee is expected to see benefits of nearly \$280 million.

**Conclusion:** If lawmakers can expand Wisconsin’s parental choice programs—through cutting red-tape, raising the income limits, and eliminating enrollment caps—more low-income children can graduate from college. This will create a ripple effect of economic benefits that will reverberate throughout the state.

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# Introduction

The average weekly earnings of a college graduate are about 64% higher than for an individual with a high school diploma (Bureau of Labor Statistics, 2017). Yet for too many Wisconsinites, a college degree is out of reach due to their socio-economic status.

One clear and simple solution to the low-income graduate rate problem, is to expand school choice. In fact, without looking to peer-reviewed research but just by observing a few testimonials one can see this would help. For instance, Kenya Green bounced around some of Milwaukee's lowest-performing inner-city schools for elementary and middle school. By the time she was in eighth grade, she not only felt like an outsider due to the lack of community in her public school, but due to poor in-school preparation, she failed all of the entrance exams into Milwaukee's prestigious selective-admission schools. The only public school option for her was to receive a poor education at her chaotic neighborhood school. But thankfully she saw a presentation by HOPE Christian schools and learned of the vouchers available for low-income students to attend private schools. Not only did Kenya's class at HOPE break the African-American ACT average, they boasted a 100% acceptance rate to college. In 2018 she graduated from Wisconsin Lutheran College (American Federation for Children 2019a).

Coreana Carson also attended HOPE. Through middle school Coreana was homeschooled by her mom. However, when she reached high-school age she was ready to attend a school in preparation for college. Coreana's experience at HOPE was similar to homeschooling in the attention and support she received from teachers—and she excelled. Coreana attended college at Wisconsin Lutheran and graduated with her bachelors in exercise science in 2018. Now she is in graduate school pursuing her master's in leadership and innovation (American Federation for Children 2019b).

Both Green and Carson credit the vouchers they received through the MPCP to attend HOPE for their successes and the ability to achieve more in education than others in their family's income bracket.

These anecdotes are supported by recent research that found students who attend private schools are more likely to go on to graduate from four year college than those who attend public schools (Chingos et. al. 2019). In this study, we highlight the economic benefits of offering even more Wisconsin students the opportunity for a better education through the state's Parental Choice programs.

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# Low-Income College Graduation Rates in Wisconsin.

There is a great deal of variation in graduation rates for low-income students in Wisconsin. To highlight these disparities we gathered data from the National Center for Education Statistics on the graduation rate for Wisconsin students eligible for Pell grants.<sup>1</sup> There are no hard-and-fast income guidelines for Pell, as grants are made from a sum-certain appropriation, other than an upper limit at \$50,000 of family income. However, this creates a useful parallel to Wisconsin's choice programs because most grants are awarded to students whose families earn less than \$20,000 per year (Scholarships.com). Pell grants are subsidies to help families below certain income thresholds pay for college. Beloit College and UW-Madison enjoy graduation rates for Pell students that are the highest in the state at or above 90%. Meanwhile, UW-Milwaukee finds itself at the other end of the spectrum with a rate just above 32%. However,

UW-Madison has a far smaller cohort of Pell-eligible students than does UW-Milwaukee, suggesting that front-end selection bias may play a role. The results are included in Appendix A.

Overall, graduation rates for Pell students stand at about 50.1%. For students overall, the graduation rate is approximately 57.1%—a gap of 7% (NCES 2019). Given the tremendous additional earnings that occur for students who graduate from college, this graduation gap represents lost economic gains for students, as well as the state from the additional resources college graduates were likely to generate.

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<sup>1</sup> The rate used here specifically is the 2017 Graduation rate with 150% of normal time to complete for Pell students.



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# Existing Research

WILL has worked on a number of studies estimating the economic benefits of school choice programs around the country. The first in this series—subsequently published in a peer-reviewed academic journal—estimated the economic benefits of the MPCP based on increases in high school graduation and reductions in crime (Flanders & DeAngelis 2018a). Subsequent studies with similar methodology were conducted on the benefits of a statewide Education Savings Account (ESA) in Mississippi (Flanders & DeAngelis 2017) and Tennessee (DeAngelis & Flanders 2018b). These studies found \$1.6 billion and \$2.9 billion in economic benefits respectively.

While these benefits are substantial, note that each of these studies only considers the impact of high school graduation in terms of examining the impact of overall educational attainment. While maintaining high secondary school graduation rates is critical for states, college graduation rates have a far more dramatic impact. New research on the MPCP and college graduation has provided us the ability to measure the impact of school choice on the state and local economy.

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# Methods

Previous peer-reviewed research by WILL has examined the economic impact of higher high-school graduation rates and reduced crime in Milwaukee (Flanders & DeAngelis 2018) and Mississippi (Flanders & DeAngelis 2019). An additional policy brief utilized the same methods to estimate the impact on Tennessee (DeAngelis & Flanders 2019). Given newly available research on the relationship between educational choice and college graduation, we apply the same methods in this instance to estimate the economic benefits of expanded school choice via higher graduation rates.

A 2019 Urban Institute Study serves as the baseline estimate for the impact of graduation. Chingos et. al.(2019) examined the effect of participating in the MPCP on eventual college graduation rates. This represents the latest in a long series of studies on the MPCP and a matched sample of students in traditional schools in the Milwaukee Public Schools (MPS) district. The study found that MPCP students were approximately 38% more likely to have graduated from a four-year college than the students who attended MPS schools. We also incorporate the finding from this study that students from choice schools were more likely to attend college at all, thus creating a spillover effect on the number of graduates.

# Methods (cont.)

Of course, the demographics of Milwaukee are much different from the demographics of the state as a whole. Moreover, existing graduation rates are much higher outside of Milwaukee. Consequently, we only make projections based upon improvements to the college graduation rate for students from economically disadvantaged backgrounds. Making this assumption underestimates the overall graduation impact on the Wisconsin economy and thus our findings can be considered conservative.

There are a number of estimates available for the increase in lifetime earnings attributable to college graduation. For this study, we rely on an estimate from the Brookings Institute (Rothman, 2015) which estimated that a college graduate contributes about \$322,202 more to the economy and government taxes over their lifetime than someone with only a high school diploma. About \$278,000 of this amount comes from additional local spending, while \$43,888 of this comes from additional state and local taxes paid. This number is inflation-adjusted to 2019 using the inflation calculator from the Bureau of Labor Statistics (BLS 2019) to arrive at an estimated \$353,763 in economic benefits per graduate.

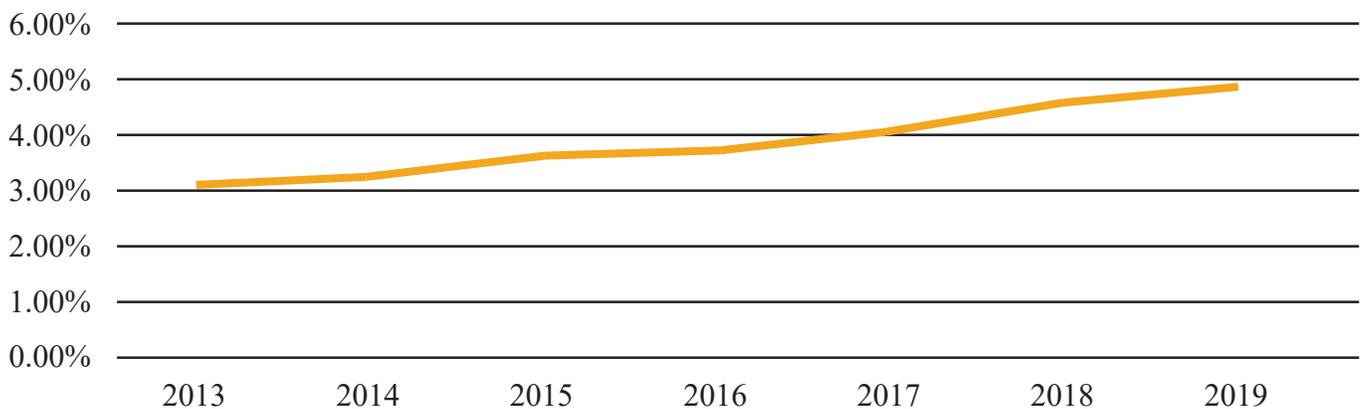
Further assumptions of this model are that the number of students in Wisconsin continues to decline at the same rate observed in recent years.

Furthermore, because this paper attempts to estimate the benefits of robust school choice, we assume that choice enrollment continues to grow statewide to 20% of enrollment over the next 20 years. Growth is assumed to occur by 1% of enrollment per year, starting at the 5% of enrollment that the state currently achieves in 2021. Changes to this assumption can significantly alter the findings and we present models for a 10% maximum as well.

Reaching 20% enrollment in choice schools would likely require removing some of the barriers to entry currently in place. For instance, students in private schools are only able to enter the statewide program at certain grade levels. This severely limits the ability of schools to be founded with the chief purpose of serving students using the voucher, as is predominant in Milwaukee. However, other roadblocks to growth will decrease in the coming years, chief among them the enrollment cap. For the current school year, only 4% of the students in a particular district are eligible to use the WPCP. This cap increases by 1% per year before coming off entirely once it reaches 10%. Without removal of these barriers, the 10% estimates may prove more realistic. The figure below shows the actual share of enrollment in the MPCP, RPCP, and WPCP since 2013.

# Methods (cont.)

## Actual Choice Enrollment as Share of Total Enrollment, Wisconsin

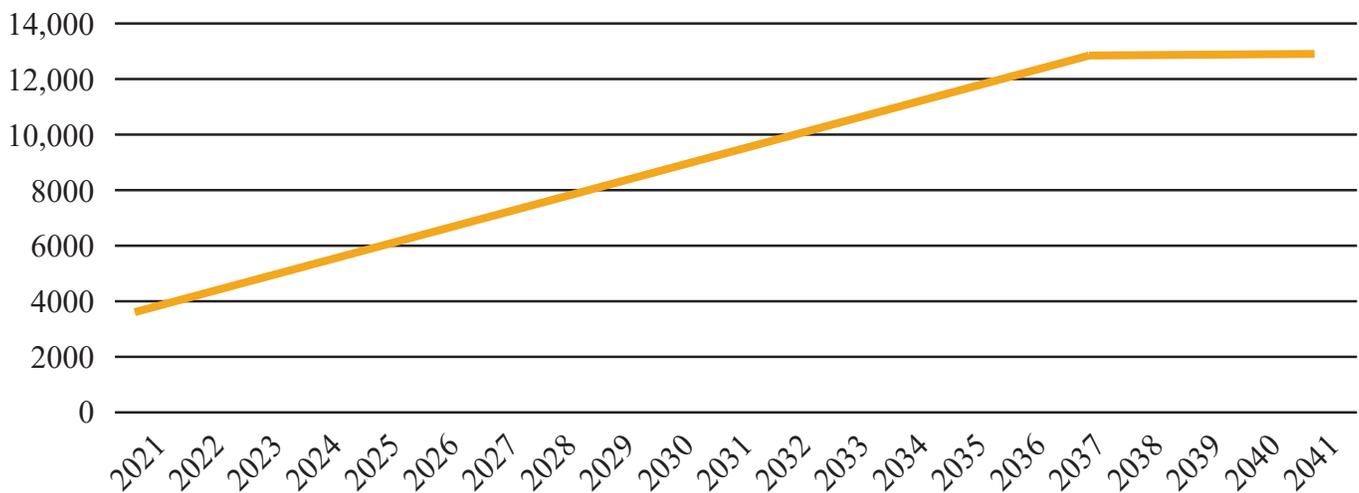


These projections are conservative because they do not take into account the other positive implications of school choice that have been identified in other research. For example, school choice participants are more likely to both graduate high school (Cowen et. al. 2013) and to attend a four-year college (Wolf et. al. 2018). Both of these levels of educational attainment have positive economic benefits that are not accounted for by the models in this paper. The increased likelihood of college attendance also likely has an unaccounted-for ‘snowball’ effect on graduation numbers.

# Results

**Raw Numbers:** Figure 1 below depicts our predicted twelfth grade enrollment in the choice program over time under the 20% enrollment in the WPCP, MPCP, and RPCP assumption. From approximately 3,000 graduates in year 1, steady increases occur until the 15th year, when the 20% threshold is reached. At this point, a slight decline is observed. This is due to our model’s assumptions that the state will continue to face a gradual decline in student enrollment in the foreseeable future. Over the 20 years of analysis, we project more than 193,000 students would enroll in twelfth grade at choice schools, of which approximately 169,000 would be projected to graduate. The 10% model would follow a similar growth curve, though obviously at significantly reduced totals.

**Enrollment over Time WPCP, MPCP & RPCP (Projected)**



# Results (cont.)

If students attend traditional public schools, we would expect approximately 38,875 of them to go on to a four-year college.<sup>2</sup> In private choice schools, about 43,938 of them would be projected to move on to college—a gain of 5,062.

The effects on graduation are even more dramatic than the effects on attendance. Over 20 years, the model predicts that 9,044 more low-income choice students would graduate from college compared to if they attended public school. Note the relatively wide error bars on these estimates. Under the 20% scenario, the number of additional graduates could range from as low as 7,500 to as high as 14,000 approximately. Our subsequent estimates rely on the mean (found at the height of the black bar).

## Increase in Number of Graduates via Choice Participation (Projected)

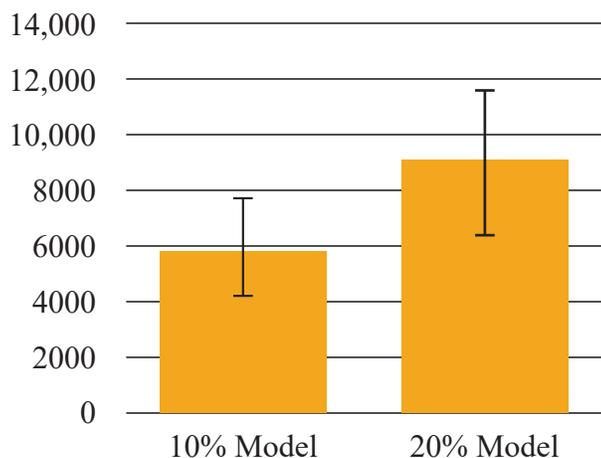


Table 1 below shows the estimated economic impact from increased enrollment in Wisconsin’s voucher programs. The last two columns of the table break down this economic impact between local spending and state/local taxes. Under the moderate growth model, the projected addition of 5,841 college graduates from increased choice enrollment would lead to about \$1.8 billion in increased economic benefits to the state of Wisconsin over the lifetime of the students. Under the 20% model, about \$3.2 billion in economic benefits to the state would be expected. The models project \$300 and \$430 million in additional state and local taxes would be generated respectively.

<sup>2</sup> Chingos et. al. did not find a difference in enrollment rates in two-year colleges for choice students. A significant portion of the remaining students would also be projected to go on to two-year college (about half). Therefore, no difference in economic benefits would be expected for these students.

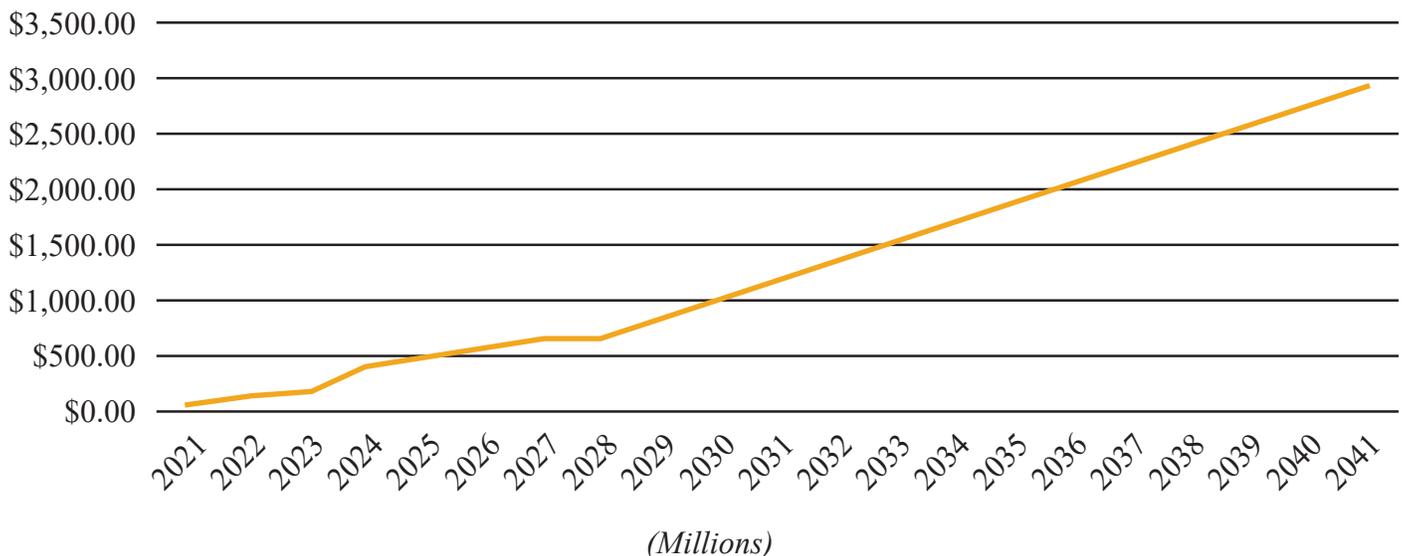
# Results (cont.)

**Table 1. Economic Impact of School Choice in Wisconsin**

Model	Number of Graduates	Economic Impact	Local Spending Portion	State & Local Tax Portion
10% Enrollment in Private Choice	5,841	\$2,066,468,299	\$1,784,994,651	\$281,473,646
20% Enrollment in Private Choice	9,044	\$3,199,519,440	\$2,672,712,897	\$435,806,543

The figure below depicts the cumulative growth of economic benefits over time as more students enroll and graduate from college under the 20% model. As can be clearly seen in the figure, the growth of benefits accelerates once the program reaches the maximum assumed enrollment and climbs relatively steadily at that point based on stagnating enrollment throughout Wisconsin.

## Cumulative Economic Benefits of Private School Vouchers



# Results (cont.)

*Within Districts:* In the final analysis, we examine the impact of higher college graduation rates in some of Wisconsin’s largest school districts. Here, we assume the same growth pattern within each district as we have for the state as a whole, with either 10% or 20% of students eventually utilizing private school vouchers. We utilize each district’s current college attendance rate and assume an increasing share of students attend private schools via school choice in a similar manner to the statewide analysis above. Of course, it may be the case that students move away from home for college and do not return. That said, a significant percentage of graduates remain in their home state following graduation from college (Bradburn, Nevill & Cataldi 2006; Rothman 2015). Even if the student does leave, the economic benefits accrue *somewhere*.

The one exception to this is Milwaukee, where less growth is anticipated over the next twenty years due to a large share of students already enrolled in choice. For Milwaukee, we assume a flat level of student enrollment in choice programs.

**Table 2. Economic Benefits of Choice by District**

District	Economic Benefit (10%)	Economic Benefit (20%)
Milwaukee	<i>Enrollment already surpassed</i>	\$281,012,666
Green Bay	\$50,383,175	\$75,965,177
Madison	\$66,507,966	\$100,277,312
La Crosse	\$16,399,055	\$24,725,657
Appleton	\$40,252,676	\$60,690,927
Kenosha	\$52,463,634	\$79,101,986

## Results (cont.)

Substantial economic benefits would be expected to accrue to each of these cities under our models. In Milwaukee, more than \$280 million in economic benefits would be expected. The amount of forecasted benefit varies primarily based on the current enrollment in the district. Smaller districts like La Crosse could be expected to see about \$25 million in benefits, while larger districts like Madison could see benefits approaching \$100 million.

## Conclusion

Wisconsin stands to gain substantially from increasing access to private school choice. Expansion of private school choice of up to 20% of Wisconsin students could result in up to \$3.2 billion in economic benefits for the state. Also of note is that we only project 20 years into the future. Each successive year would bring more choice graduates with a greater chance for success later in life.

Expanding school choice in Wisconsin is not a given. Policymakers face a choice. Are they prepared to step up and do what is right for Wisconsin students, or are they going to let school choice opponents continue to deny the evidence and limit this program?

To see the benefits this paper highlights, the first step is to resist the movement to place further limitations on choice programs. The current governor of Wisconsin included language to effectively end private school choice in Wisconsin in his budget and a school-choice friendly legislature is all that stands between thousands of students from low-income families having their opportunity for a college education snuffed out (Sobic, Flanders & Szafir 2019). The second step is implementing legislation that can foster greater opportunities for growth in school choice to make the 20% enrollment estimate more feasible to achieve. This includes removing grade level entry points from the statewide program, and increasing the income limit so that choice-focused schools can be viable in more communities throughout Wisconsin.

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# Appendix A

## Graduation Rate for Pell Recipients, Wisconsin Universities 2017

