



## Legislative Fiscal Bureau

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Joint Committee on Finance

Paper #574

### **Milwaukee Mathematics Partnership (DPI -- Categorical Aids)**

[LFB 2019-21 Budget Summary: Page 327, #13]

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#### **CURRENT LAW**

No provision.

#### **GOVERNOR**

Provide \$10,000,000 GPR beginning in 2020-21 for a mathematics partnership between Milwaukee Public Schools (MPS) and UW-Milwaukee. Require the Board of Directors of MPS, in consultation with UW-Milwaukee, to develop and implement a plan to improve mathematics instruction in MPS schools. Grant funds would be awarded to the Board to develop and implement the plan.

#### **DISCUSSION POINTS**

1. The Milwaukee Mathematics Partnership was a partnership between UW-Milwaukee, MPS, and the Milwaukee Area Technical College that formed in 2003 with the goal of improving mathematics achievement among pupils in MPS. The program was funded in part through a \$20 million Mathematics and Science Partnership grant from the National Science Foundation. The program used research-based strategies to raise student academic performance in mathematics in all grades, by providing ongoing professional development for mathematics teachers, developing a district-wide framework for mathematics proficiency, setting learning targets aligned with the state's model academic standards for each grade level, and providing a new system of classroom assessments that provide improved feedback on performance for both students and teachers.

2. Beginning in 2008-09, the program received state funding under a categorical aid grant

for improving pupil academic achievement created under 2007 Act 20, which allowed MPS to apply for up to \$10 million GPR annually for programs to improve pupil academic achievement. Under 2009 Act 28, funding was reduced by 3.5% to \$9,650,000 GPR annually as part of across-the-board reductions made to most categorical aid programs, and the grant program was deleted under 2011 Act 32. The Partnership ceased functioning in 2013.

3. The achievement gap between MPS and the rest of the state in mathematics is significant and persistent. Although this gap continued during the initial years of the Mathematics Partnership, mathematics scores improved significantly for pupils in the 4<sup>th</sup> and 8<sup>th</sup> grades, and slightly for pupils in 10<sup>th</sup> grade. The table below shows the percentage of pupils scoring proficient or advanced on the Wisconsin knowledge and concepts exams (WKCE) mathematics exams in fourth, eighth, and tenth grades, for MPS and for the state as a whole, between 2002-03 and 2010-11. As the table shows, the net change in proficiency rates for MPS was greater than for the state as a whole for each grade.

**MPS Compared to Statewide WKCE Mathematics Exam Proficiency,  
2002-03 to 2010-11**

	Grade 4		Grade 8		Grade 10	
	<u>MPS</u>	<u>State</u>	<u>MPS</u>	<u>State</u>	<u>MPS</u>	<u>State</u>
2002-03	47.0%	71.0%	35.0%	73.0%	28.0%	69.0%
2003-04	53.1	74.1	29.2	65.9	29.8	69.7
2004-05	46.4	72.5	36.4	73.6	31.2	71.7
2005-06	44.8	72.6	38.9	74.2	32.1	71.6
2006-07	53.1	77.3	41.2	74.9	29.7	70.6
2007-08	51.7	76.6	39.9	75.3	28.7	69.4
2008-09	60.2	81.0	50.2	78.4	28.8	69.3
2009-10	58.5	80.5	52.1	78.0	30.4	69.8
2010-11	56.7	79.3	47.5	78.3	31.6	70.8
Net Change	9.7%	8.3%	12.5%	5.3%	3.6%	1.8%

4. Since the Partnership ended in 2013, the proficiency gap between MPS and the rest of the state has increased. Although the statewide assessment changed between 2010-11 and 2015-16, so the proficiency rates in the two data sets cannot be directly compared with one another, assessment data shows that substantial gaps remain between MPS mathematics scores and statewide scores. In 2017-18, only six out of approximately 150 MPS schools had a mathematics proficiency rate above the statewide average.

5. Under the bill, \$10 million GPR would be provided for the Milwaukee Mathematics Partnership beginning in 2020-21. The funding would provide funding equal to the amount provided in 2008-09 for the MPS pupil academic achievement program described above before funding was reduced and the program was repealed in 2011 Act 32.

6. The Executive Budget Book indicates that the program would select, train, place, and support a mathematics teacher leader in each MPS school building. Under the prior program, teacher

leaders were placed in 114 MPS schools, serving 90% of pupils in MPS at the time. The role of teacher leaders was to provide coaching and professional development for teachers in each school. Teacher leaders worked directly with district mathematics experts and UW-Milwaukee mathematics education faculty to develop their content area expertise and teaching skills, and then coached other teachers located at their schools in those skills, helping them translate professional development into their teaching practice.

7. DPI's agency request indicated that a portion of the funds would also be used to support collaboration with UW-Milwaukee's Center for Mathematics and Science Education Research. The Center, which was founded in 1985, partners with school districts in the Milwaukee area to support research, teacher education, and curriculum development and implementation related to mathematics and science education.

**ALTERNATIVES**

1. Approve the Governor's recommendation to provide \$10,000,000 beginning in 2020-21 for a mathematics partnership between MPS and UW-Milwaukee.

<b>ALT 1</b>	<b>Change to</b>	
	<b>Base</b>	<b>Bill</b>
GPR	\$10,000,000	\$0

2. Take no action.

<b>ALT 2</b>	<b>Change to</b>	
	<b>Base</b>	<b>Bill</b>
GPR	\$0	- \$10,000,000

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