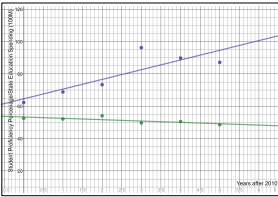


**Group 1**  
**The Relationship Between Math Proficiency and State Spending on Education**  
 Hazel W. (66B), Aniyah H. (66B), MJ W. (66A), Will F. (66A)

April is a math fan! You'd think she'd been good at math from an early age, with a story that goes something along the lines of a math prodigy at a young age, she assisted at her friends with their math, leading her to eventually become a tutor. But that's not her story at all. Instead, it's a story of struggling with math to such a point that she was about to fail high school. When she told her story, she said about her math skills, "I was terrible, so terrible, in fact, that I was in danger of not graduating high school." With a lot of help and tutoring, she was able to pull through. But this needs to change.



With math proficiency at the level it is, there are more stories like April's than not. This means that there is a need for better education policies, because despite high government education spending, the math proficiency is going down. Based on expected growth levels, the data we found on math proficiency show a clear downward trend. In 2015, if this trend is accurate, we should have around 45% math proficiency. By 2025, we will have around 40% math proficiency. This is insufficient, and it needs to change.

The expected growth levels according to the Minnesota Management and Budget website, are determined based on assessment results. The expected improvement levels are based on average student improvement for students with similar scores statewide. With this data and the other data collected, we know that the state spending is going up (adjusted for inflation in 2015 dollars), and the percentages of students at expected growth levels in math is going down.

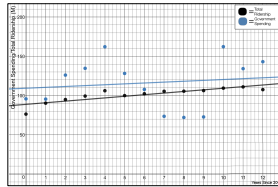
Right now, Governor Walz is making a lot of promises about education, the new budget, and what is going to be done. But although they are all worthy goals, a big priority should be ensuring that students are passing their classes and learning everything they need to be. We can't improve our schools if we are busy worrying about whether their students are passing and are going to continue to pass. We need to figure out how to fix this problem, so that instead of focusing on ensuring MN students are learning the things they need to be, we can focus on ensuring that we are learning everything in schools that are the best that they can be.

Year	Percent of Students at or Above Expected Growth Levels in Math	State Spending on Education (in 2015 adjusted for inflation) (in billions)
2009	52.4%	\$6,228,708,821.66
2010	52.1%	\$6,890,063,812.07
2011	54.1%	\$7,331,719,095.68
2012	49.7%	\$8,622,872,022.00
2013	50.9%	\$8,980,442,023.65
2015	48.6%	\$8,712,596,028.91

"Spending is going up (adjusted for inflation in 2015 dollars), and the percentages of students at expected growth levels in math is going down."

**Group 2**  
**State Transportation Spending vs Public Transportation Ridership**  
 Emilia (65B), Daniela (67A), and Jonas (65B)

In mid February, a female student at our school was riding a public bus alone. There were many people on the bus, and she was reading her business, when a group of two or three grown men started verbally harassing her. She put her earphones in to try and distract them, but they kept on yelling at her. They even went as far as to get off at her stop. No one helped her, even though she was 13 and they were grown men twice her age. Around 51 percent of women will experience sexual harassment in their lifetimes. Despite this, she still uses the public bus everyday. Why? Because she needs to.



Many people have no choice about how they get around, and this is why we need to put much more effort into public transportation. According to the MN dashboard statistics about government spending, the total spending is always steadily increasing, while the spending is rocky at best.

Year	Riders (Million on public transportation per year)	Government spending on public transportation (in billions)
2004	86.74	86.44
2005	86.44	86.44
2006	86.44	86.44
2007	86.44	86.44
2008	86.44	86.44
2009	86.44	86.44
2010	86.44	86.44
2011	86.44	86.44
2012	86.44	86.44
2013	86.44	86.44
2014	86.44	86.44
2015	86.44	86.44

**Group 3**

Year	Air Quality Days	MNPCA Spending on Air (A\$)
8 2008	16	27,155,432.11
9 2009	16	27,155,432.11
10 2010	22	28,211,507.14
11 2011	15	27,879,812
12 2012	6	27,879,812
13 2013	6	27,879,812
14 2014	4	33,287,129
15 2015	12	33,287,129

Source: Minnesota Pollution Control Agency

**Group 4**  
**Math Proficiency in 8th Grade vs State Education Spending**  
 Masean Y (66B), Just W (66B), Carolee O (67B), and Gabby H (67A)

Year	Math Proficiency in 8th Grade	State Education Spending (in billions of dollars)
2010	52.60%	\$5,939.87
2011	52.10%	\$5,814.30
2012	54.10%	\$5,751.47
2013	49.70%	\$5,753.07
2014	50.50%	\$6,226.08
2015	48.60%	\$6,343.48

**Group 5**

Year	Air Quality Days	MNPCA Spending on Air (A\$)
8 2008	16	27,155,432.11
9 2009	16	27,155,432.11
10 2010	22	28,211,507.14
11 2011	15	27,879,812
12 2012	6	27,879,812
13 2013	6	27,879,812
14 2014	4	33,287,129
15 2015	12	33,287,129

Source: Minnesota Pollution Control Agency

**Group 6**  
**Crime in MN**

Year	Year Adj. Violent Crime	Public Safety/Correction Adj. 2010
2000	6	675,487.06
2001	1	684,173.91
2002	2	616,305.51
2003	3	632,442.99
2004	4	586,222.90
2005	5	610,017.67
2006	6	613,990.81
2007	7	681,075.89
2008	8	673,922.92
2009	9	718,425.14
2010	10	718,425.14
2011	11	671,263.97
2012	12	606,840.10
2013	13	636,115.92
2014	14	623,228.34
2015	15	685,410.28

**Group 7**  
**State Transportation Spending and Snowfall: a Story of Poor Snow & Ice Removal**  
 El B (64B), Chae P (64A), Leo G (67A), and William P (67A)

Have you ever been driving in the winter desperate to get home and outside your car it is completely white the roads are covered in snow even though a plow has clearly been here only a second ago. Your scared and you pull over to the side of the highway to wait the storm out but because the roads are so snowy that if your driving you will slide the the road. Well that should not be an issue and our group wants to help fix.

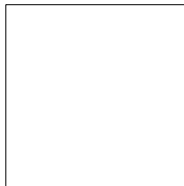


**Group 8**  
**Homelessness in Minnesota**  
 Sebastian, Lee Don, Gabie

As climate changes becomes an increasingly larger problem, there will be more snow, and road conditions will get harder to combat and it will cause more issues. As shown on our graph "The budget is ahead but as climate change gets worse the graph will go up more dramatically and as graph shows on winter the more snow the budget does not go up fast enough and gets close to the amount of snow. So as climate change progresses we will have winters with more snow."

% with high housing burden	Adjusted to 2019 Dollars	
2005	31%	61,138,089.43
2006	33%	72,645,075.52
2007	33%	42,856,900.89
2008	34%	105,087,762.45
2009	33%	59,994,092.28
2010	33%	62,976,538.28
2011	33%	53,548,328.96
2012	30%	48,215,496.47
2013	28%	52,297,893.76
2014	28%	84,557,900.34

As climate change continues in Minnesota will see more snow. Having faster response times (getting plows and salt trucks out to snow on highways) will help keep the snow at bay while drivers have time to get home and off the roads. It will also decrease the number of injuries related to poor snow and ice removal. We could also strategically place heating elements in roads that already need repairs we could also make drains that connect to storm drains directly at bottom of hill so the water from the snow that melted doesn't turn in to ice at the bottoms of hills. These drain would look a bit like cattle catchers. But to do all this the transportation department will need extra funding to complete these tasks but it will be worth it in the end. In conclusion we think it is smart to invest in the future, what about you?



**Group 9**

Year	Air Quality Days	MNPCA Spending on Air (A\$)
8 2008	16	27,155,432.11
9 2009	16	27,155,432.11
10 2010	22	28,211,507.14
11 2011	15	27,879,812
12 2012	6	27,879,812
13 2013	6	27,879,812
14 2014	4	33,287,129
15 2015	12	33,287,129

Source: Minnesota Pollution Control Agency

**Group 10**

Year	Year Adj. Violent Crime	Public Safety/Correction Adj. 2010
2000	6	675,487.06
2001	1	684,173.91
2002	2	616,305.51
2003	3	632,442.99
2004	4	586,222.90
2005	5	610,017.67
2006	6	613,990.81
2007	7	681,075.89
2008	8	673,922.92
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