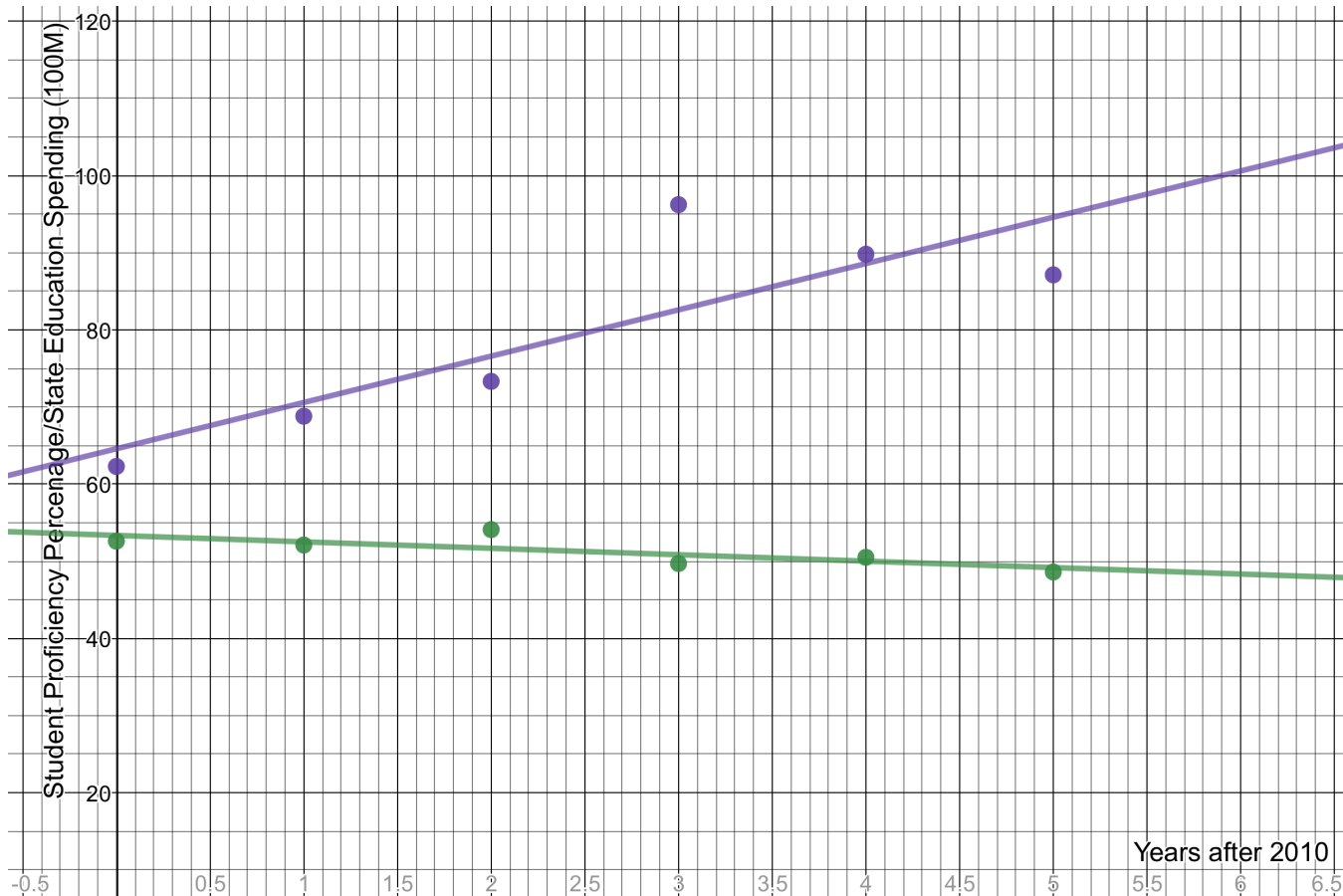


Group 1

# The Relationship Between Math Proficiency and State Spending on Education

Hazel W. (66B), Aniyah H. (66B), MJ W. (66A), Will F. (66A)



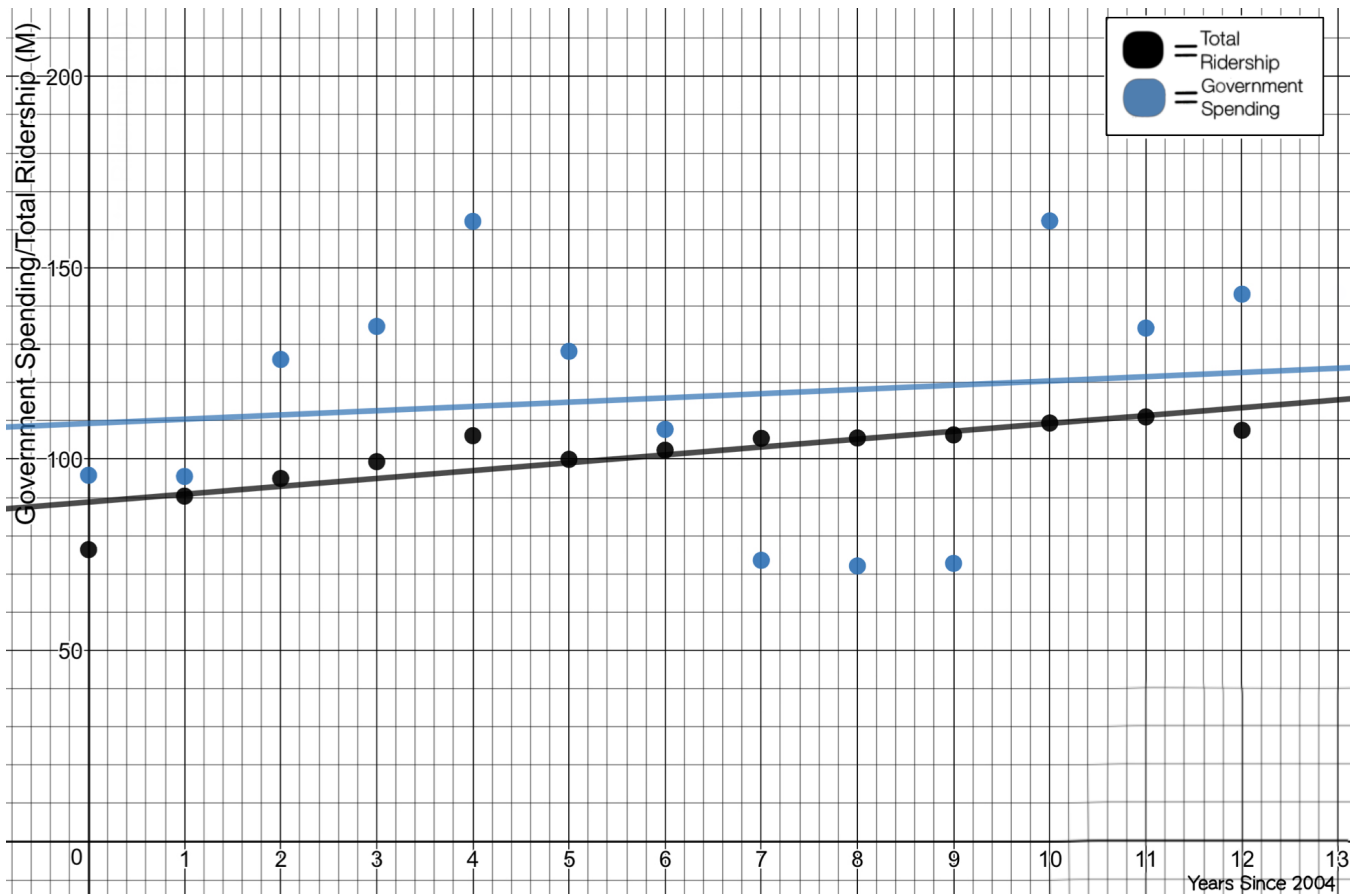
| Year | Percent of Students at or Above Expected Growth Levels in Math | State Spending on Education Per Year (adjusted for inflation in 2019 dollars) |
|------|--|---|
| 2010 | 52.6%  | \$6,228,798,821.66  |
| 2011 | 52.1%  | \$6,880,083,612.07  |
| 2012 | 54.1%  | \$7,331,719,095.66  |
| 2013 | 49.7%  | \$9,622,872,925.05  |
| 2014 | 50.5%  | \$8,980,442,503.65  |
| 2015 | 48.6%  | \$8,712,894,638.81  |

“Spending is going up (adjusted for inflation in 2019 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)



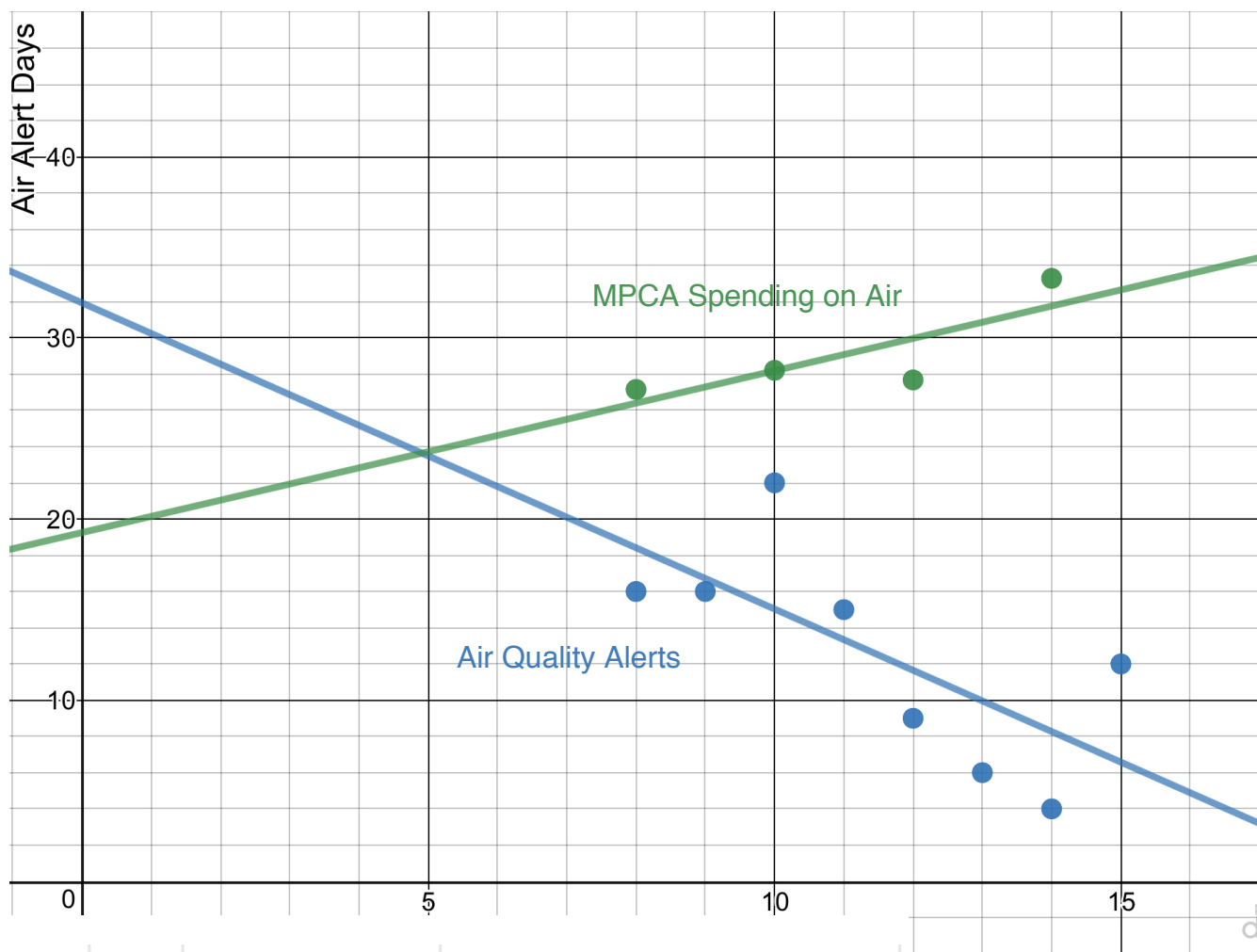
| Year | Rides taken on public transportation (in millions) | Government spending on public transportation (in millions) |
|------|--|--|
| 2004 | 76.3   | 95.7   |
| 2005 | 90.3   | 95.4   |
| 2006 | 94.9   | 126.0  |
| 2007 | 99.3   | 134.6  |
| 2008 | 106.1  | 162.1  |
| 2009 | 99.9   | 128.1  |
| 2010 | 102.3  | 107.7  |
| 2011 | 105.4  | 73.5   |
| 2012 | 105.5  | 72.0   |
| 2013 | 106.3  | 72.7   |
| 2014 | 109.7  | 162.2  |
| 2015 | 111.0  | 134.2  |
| 2016 | 107.5  | 143.1  |

According to the data, public ridership is always upward. We need to spend more on public transportation to help people who don't have any other choices.

Group 3

# Minnesota Air Quality vs MNPCA Spending on Air

Jackson.S (64B), Leland E (64B), Otis.K (67A), and Owen.V (65B)



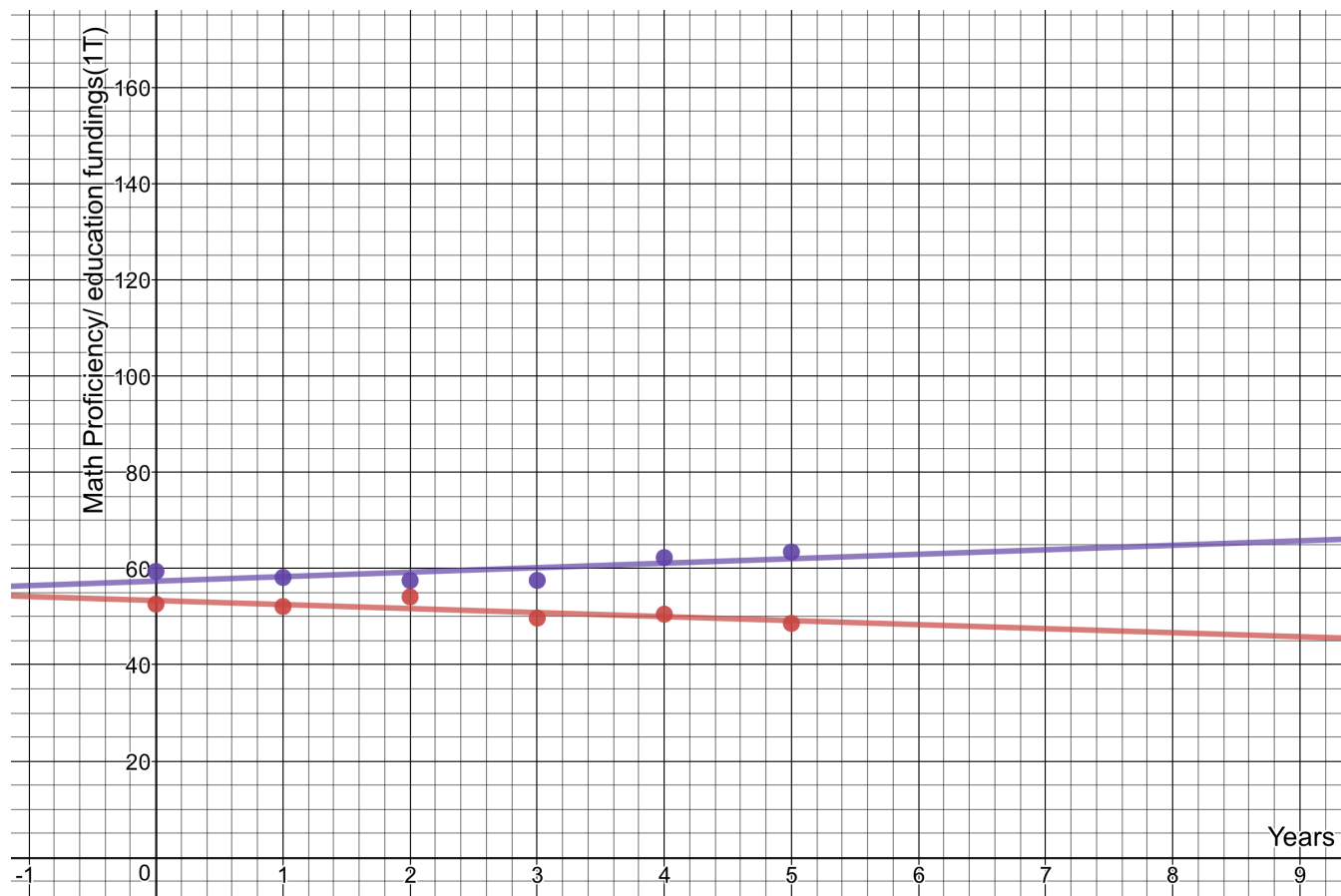
| Year                                       | Air Quality Days | MNPCA Spending on Air (Adj) |
|--|------------------|-----------------------------|
| 8 2008                                     | 16               | 27,155,432.11               |
| 9 2009                                     | 16               |                             |
| 10 2010                                    | 22               | 28,211,507.14               |
| 11 2011                                    | 15               |                             |
| 12 2012                                    | 9                | 27,679,512                  |
| 13 2013                                    | 6                |                             |
| 14 2014                                    | 4                | 33,287,129                  |
| 15 2015                                    | 12               |                             |
| Source: Minnesota Pollution Control Agency |                  |                             |

Minnesota has improved its air quality. In 2010, it had 22 days of air quality alerts that's the highest it's ever gotten.

Group 4

# Math Proficiency in 8th Grade vs State Education Spending

Maleah Y (66B), Jude W (66B), Cardell O (67B),  
and Gabby H (67A)



|      | % Proficient in Math | Adj 2019 PPA |
|------|----------------------|--------------|
| 2010 | 52.60%               | \$5,939.87   |
| 2011 | 52.10%               | \$5,814.30   |
| 2012 | 54.10%               | \$5,751.46   |
| 2013 | 49.70%               | \$5,753.07   |
| 2014 | 50.50%               | \$6,226.08   |
| 2015 | 48.60%               | \$6,343.48   |

Math education funding is helpful for students who struggle because having education funding can help hire people who help students understand the topic.

Group 5

## Households with High Housing Burden vs MHFA Spending

Kian D (65B), Joshua O (65B), and Jaime V (67A)



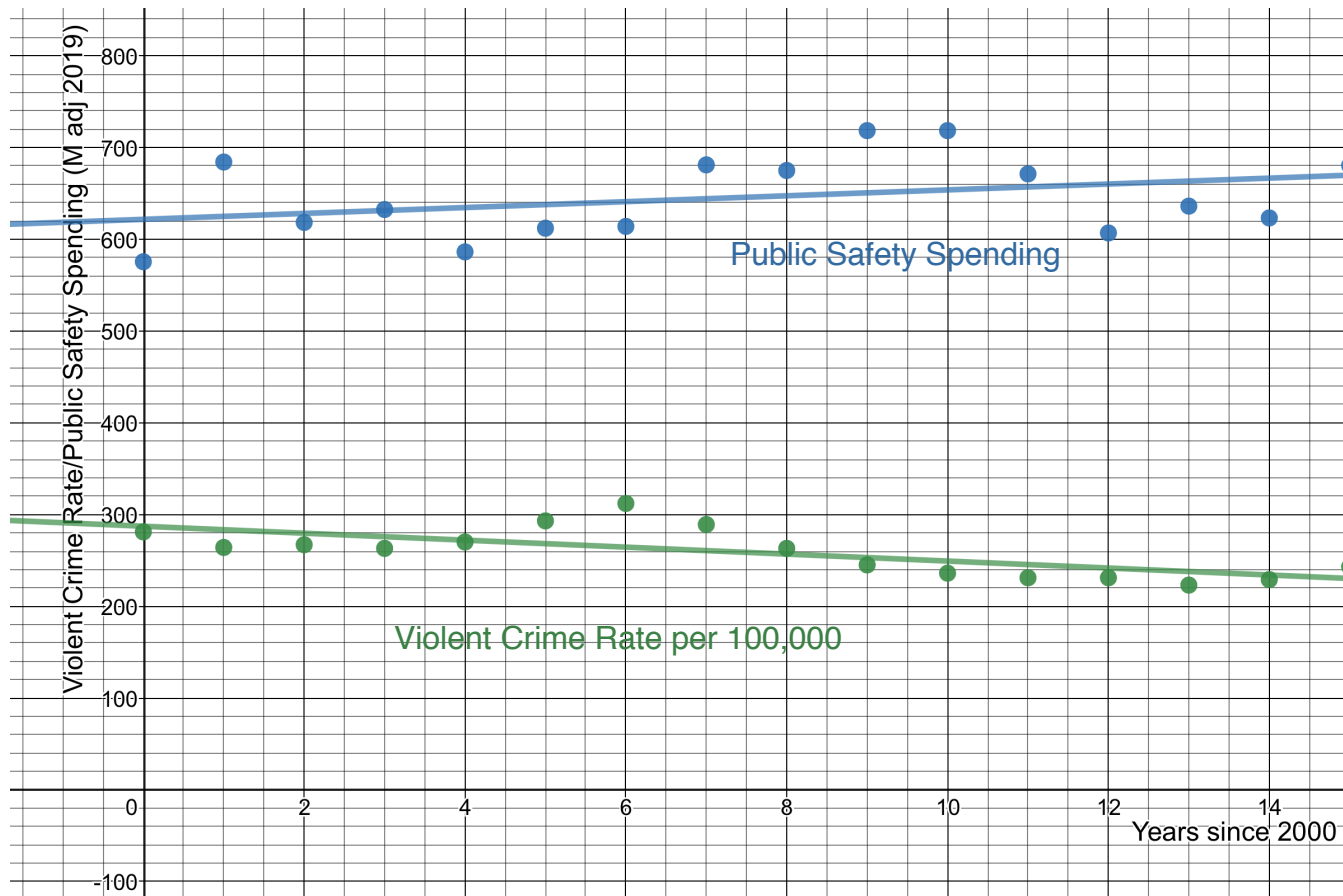
|      | % with high housing burden | Adjusted to 2019 Dollars |
|------|----------------------------|--------------------------|
| 2005 | 31%                        | 61,136,069.43            |
| 2006 | 33%                        | 72,645,075.22            |
| 2007 | 33%                        | 42,955,900.69            |
| 2008 | 34%                        | 105,067,762.45           |
| 2009 | 33%                        | 59,984,092.28            |
| 2010 | 33%                        | 50,575,538.25            |
| 2011 | 33%                        | 53,548,328.96            |
| 2012 | 30%                        | 48,215,496.47            |
| 2013 | 28%                        | 55,297,893.76            |
| 2014 | 28%                        | 84,557,900.34            |

Access to affordable housing is a key component of a thriving economy. Housing values are increasing and homeowners are taking chances with alternative financing methods.

Group 6

## Violent Crime Rate in MN vs Spending on Public Safety and Corrections

Demare G (67A), Cyanna R-S (67A), Dani B (65B), and Sami O. (65B)



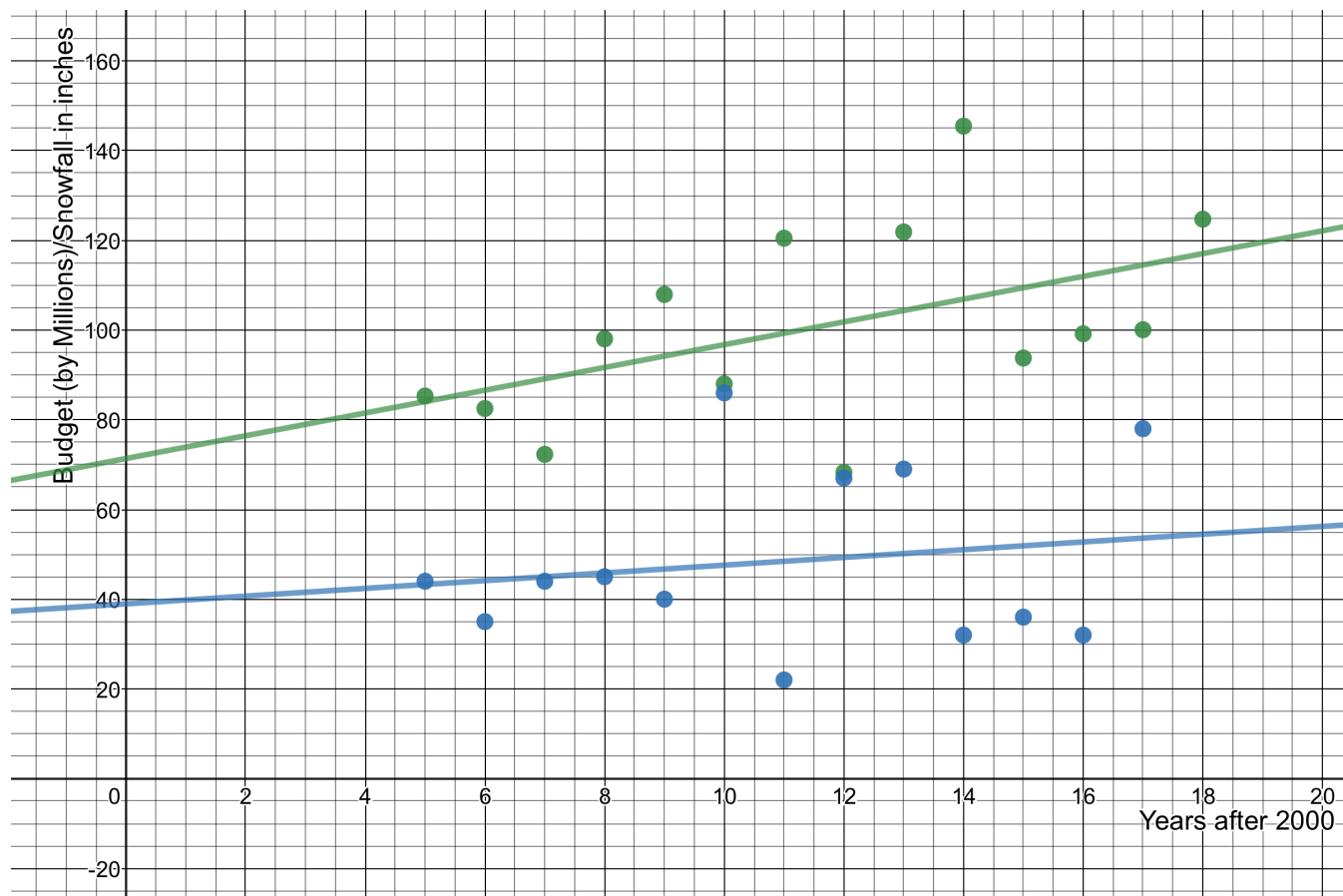
| Year | Year Adj | Violent Crime | Public Safety/Correction Adj 2019 |
|------|----------|---------------|-----------------------------------|
| 2000 | 0        | 281           | 575,487.05                        |
| 2001 | 1        | 264           | 684,173.91                        |
| 2002 | 2        | 267           | 618,350.51                        |
| 2003 | 3        | 263           | 632,442.99                        |
| 2004 | 4        | 270           | 586,222.90                        |
| 2005 | 5        | 293           | 612,017.67                        |
| 2006 | 6        | 312           | 613,990.81                        |
| 2007 | 7        | 289           | 681,075.85                        |
| 2008 | 8        | 263           | 674,932.92                        |
| 2009 | 9        | 245           | 718,425.14                        |
| 2010 | 10       | 236           | 718,425.14                        |
| 2011 | 11       | 231           | 671,263.97                        |
| 2012 | 12       | 231           | 606,840.10                        |
| 2013 | 13       | 223           | 636,115.52                        |
| 2014 | 14       | 229           | 623,226.34                        |
| 2015 | 15       | 243           | 680,410.26                        |

The Violent Crime rate is dropping statewide, to keep this number decreasing we advocate that more money goes into public safety spending.

Group 7

# State Transportation Spending vs Snowfall: a Story of Poor Snow & Ice Removal

Eli B (64B), Oliver P (64A), Leo G (67A), and William P (67A)



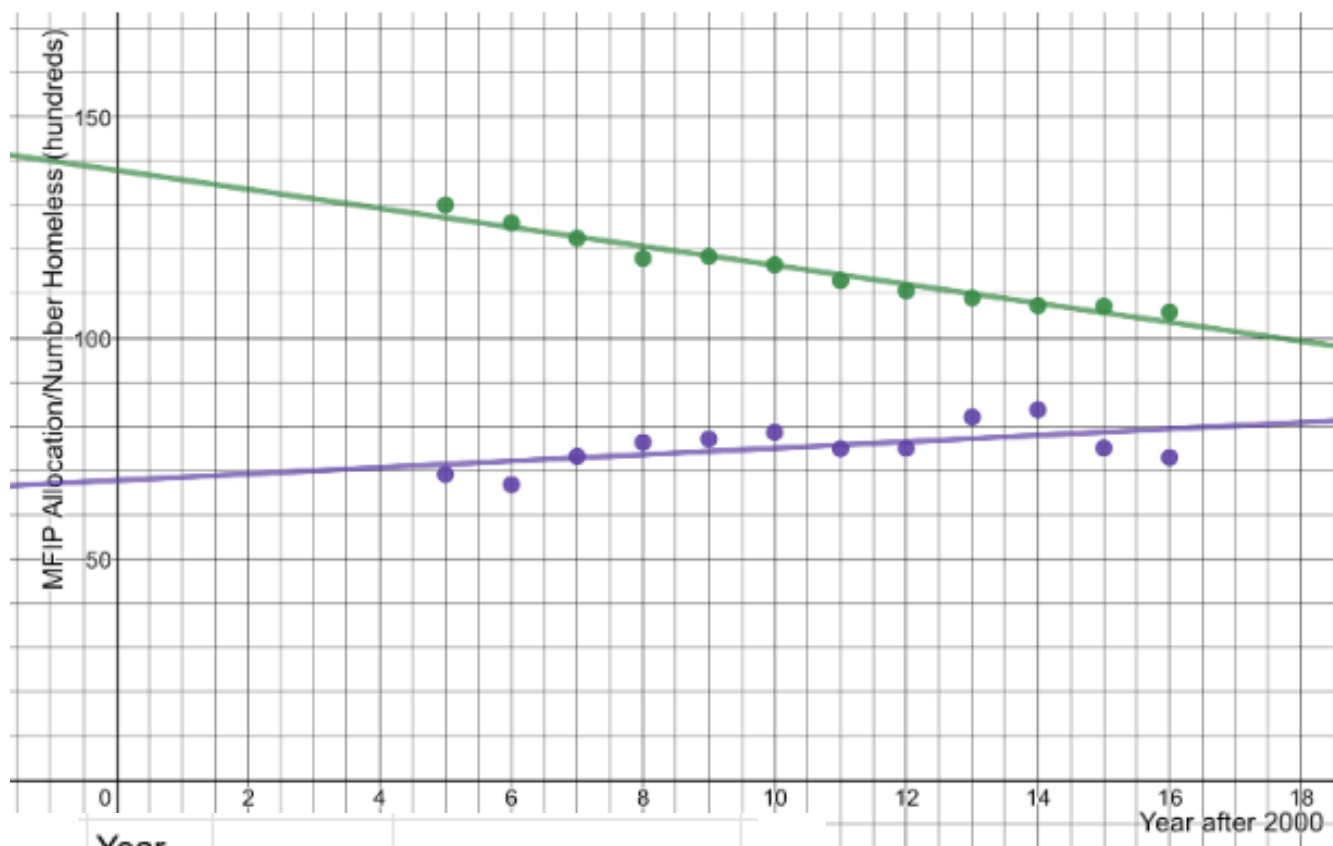
| Years | Budget (Millions) | Yearly Snowfall (Inches) |
|-------|-------------------|--------------------------|
| 2005  | 85.3              | 44                       |
| 2006  | 82.5              | 35                       |
| 2007  | 72.3              | 44                       |
| 2008  | 98                | 45                       |
| 2009  | 107.9             | 40                       |
| 2010  | 88                | 86                       |
| 2011  | 120.5             | 22                       |
| 2012  | 68.3              | 67                       |
| 2013  | 121.9             | 69                       |
| 2014  | 145.5             | 32                       |
| 2015  | 93.8              | 36                       |
| 2016  | 99.2              | 32                       |
| 2017  | 100.1             | 78                       |
| 2018  | 124.7             | N/A                      |

Our group believes that we need to ensure more, and steady, transportation funding in order to keep Minnesota's drivers safe.

Group 8

# Homelessness in Minnesota vs MFIP Allocation

Sebastian S (67A), Lae Doh W (52A), Gabe K (67A)



| Year (after 2000) | MFIP (adj 2019) | Number Of Homeless (hundreds) |
|-------------------|-----------------|-------------------------------|
| 5                 | \$130.16        | 69.18                         |
| 6                 | \$126.09        | 66.85                         |
| 7                 | \$122.60        | 73.23                         |
| 8                 | \$118.07        | 76.44                         |
| 9                 | \$118.49        | 77.18                         |
| 10                | \$116.58        | 78.69                         |
| 11                | \$113.01        | 75.68                         |
| 12                | \$110.72        | 74.95                         |
| 13                | \$109.12        | 73.06                         |
| 14                | \$107.38        | 82.14                         |
| 15                | \$107.25        | 83.77                         |
| 16                | \$105.91        | 73.04                         |

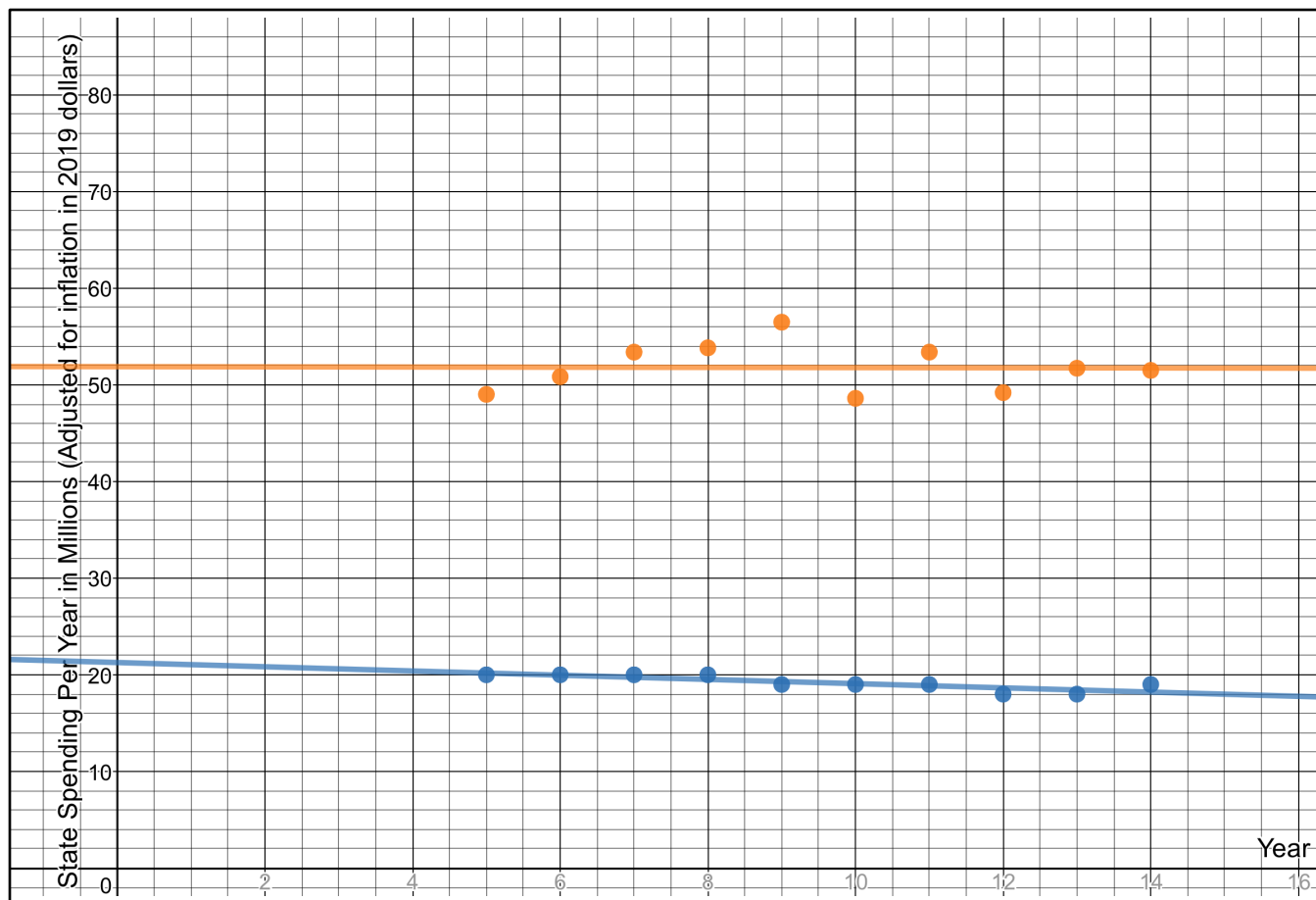
Homelessness in increasing statewide and the MFIP allocation has fallen in 2019 dollars every year. The causes of homelessness are many, but we should do more to help.



Group 9

## Recidivism and State Spending on Corrections

Jaielle G. (65B), Sofia M. (65B), Lalayia F. (66A), and Emi S. (67A)



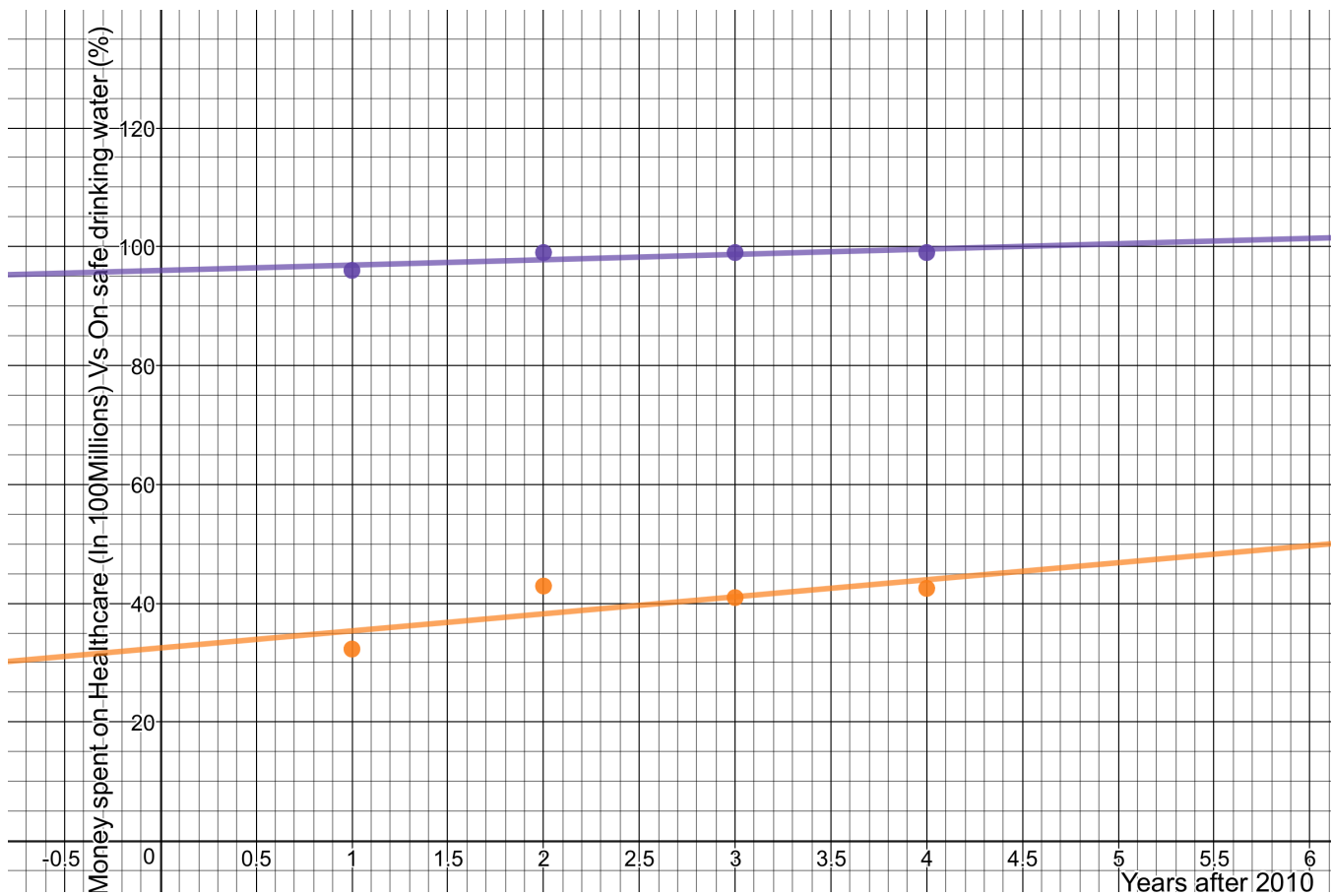
| Year | Recidivism Rate | State Spending per year (Adjusted for inflation in 2019 dollars) |
|------|-----------------|--|
| 2005 | 20%             | 490,054.08   |
| 2006 | 20%             | 508,318.26   |
| 2007 | 20%             | 533,772.46   |
| 2008 | 20%             | 534,821.51   |
| 2009 | 19%             | 564,760.76   |
| 2010 | 19%             | 485,961.86   |
| 2011 | 19%             | 533,776.85   |
| 2012 | 18%             | 491,887.08   |
| 2013 | 18%             | 511,712.51   |
| 2014 | 19%             | 514,896.06   |

Spending more money on programs like Hudson link, lowers the rate of recidivism. Assisting felons back into society prevents them from committing crimes and lowers rates.

Group 10

## Safe Drinking Water vs Spending on Healthcare

Moe R (67A), Keng V (53A), Jonathan R (67b), Aras W (67A)



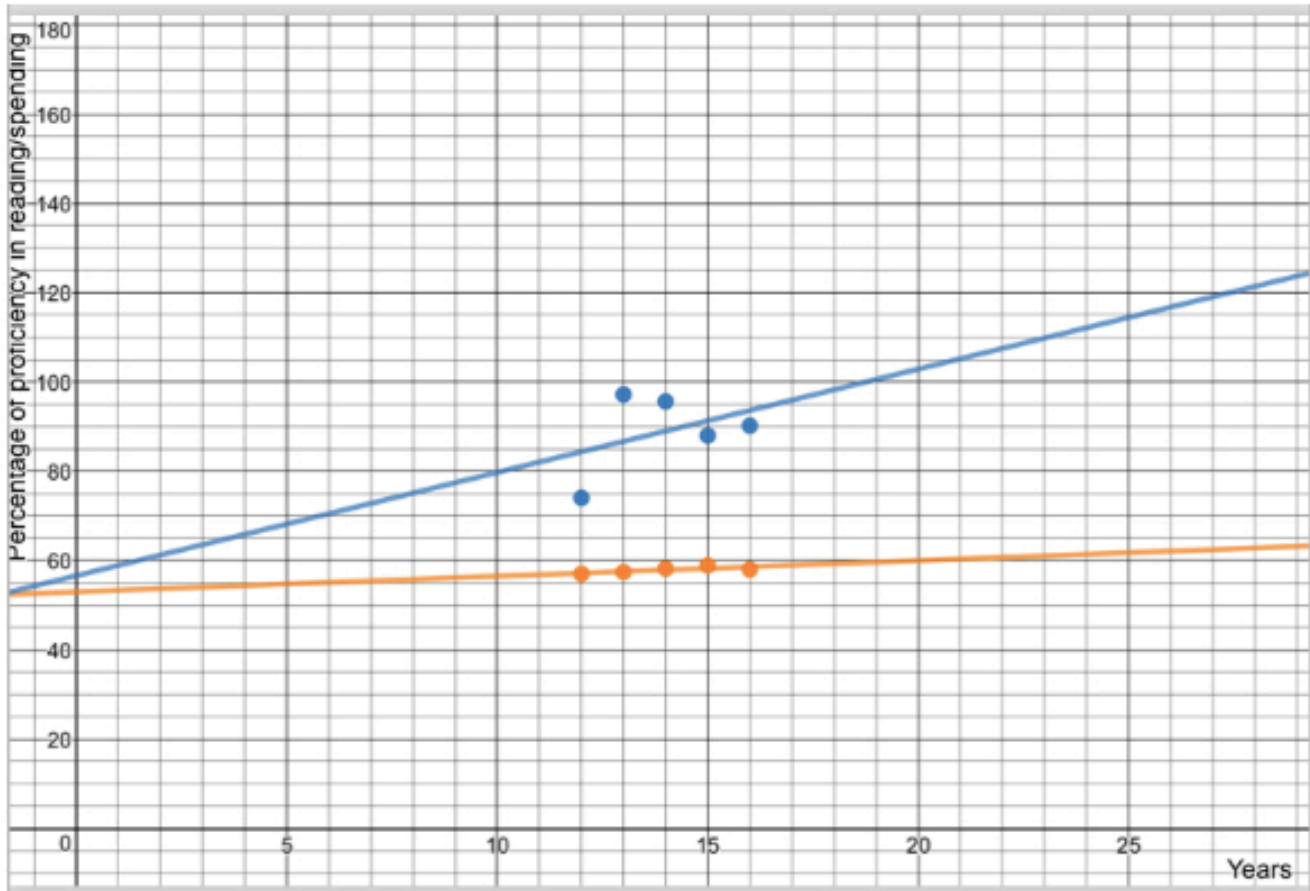
| Years | Healthcare spending | Safe drinking water |
|-------|---------------------|---------------------|
| 2011  | 3,227,869           | 96%                 |
| 2012  | 4,288,490           | 99%                 |
| 2013  | 4,093,265           | 99%                 |
| 2014  | 4,248,812           | 99%                 |

Water is a fundamental resource that humans need to live on. That means having safe drinking water where you live is important.

Group 11

## Education Spending vs 3rd Grade Reading Proficiency

Noah K (67B), Ulric C (67A), Leo M (65A), and Calvin D (66B)



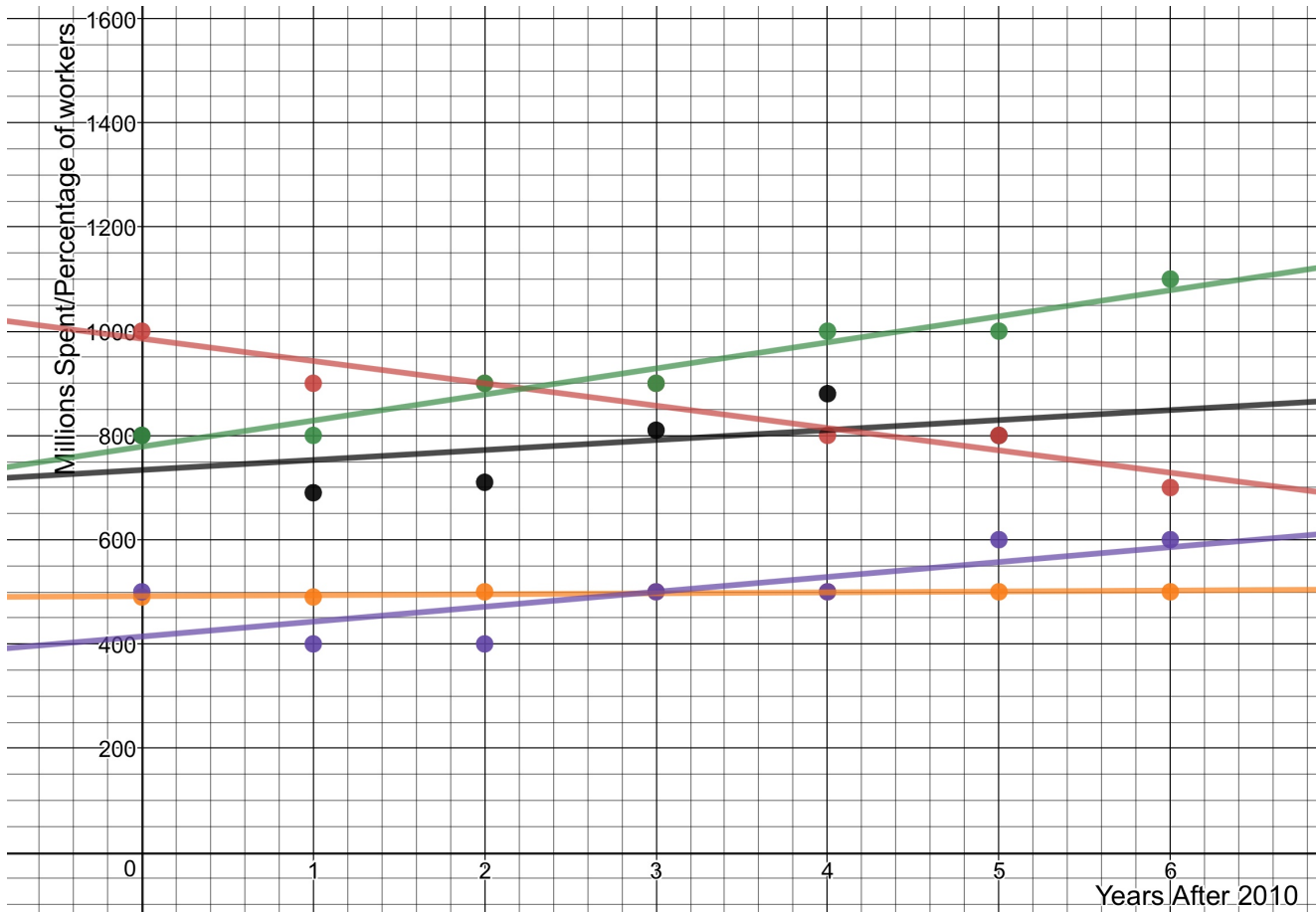
| Years | Money Spent    | Reading % |
|-------|----------------|-----------|
| 2012  | \$7,404,246.35 | 57.00%    |
| 2013  | \$9,718,064.86 | 57.40%    |
| 2014  | \$9,562,936.08 | 58.20%    |
| 2015  | \$8,799,084.84 | 58.90%    |
| 2016  | \$9,020,664.70 | 58.00%    |

The data table shows Minnesota's spending has a little effect on reading levels. A possible solution could be to spend more money.

Group 12

Some Kind of Title Should Go Here

Ted D (65B), Anders M (65B), Liam S (67A), and Ben AK (64B)



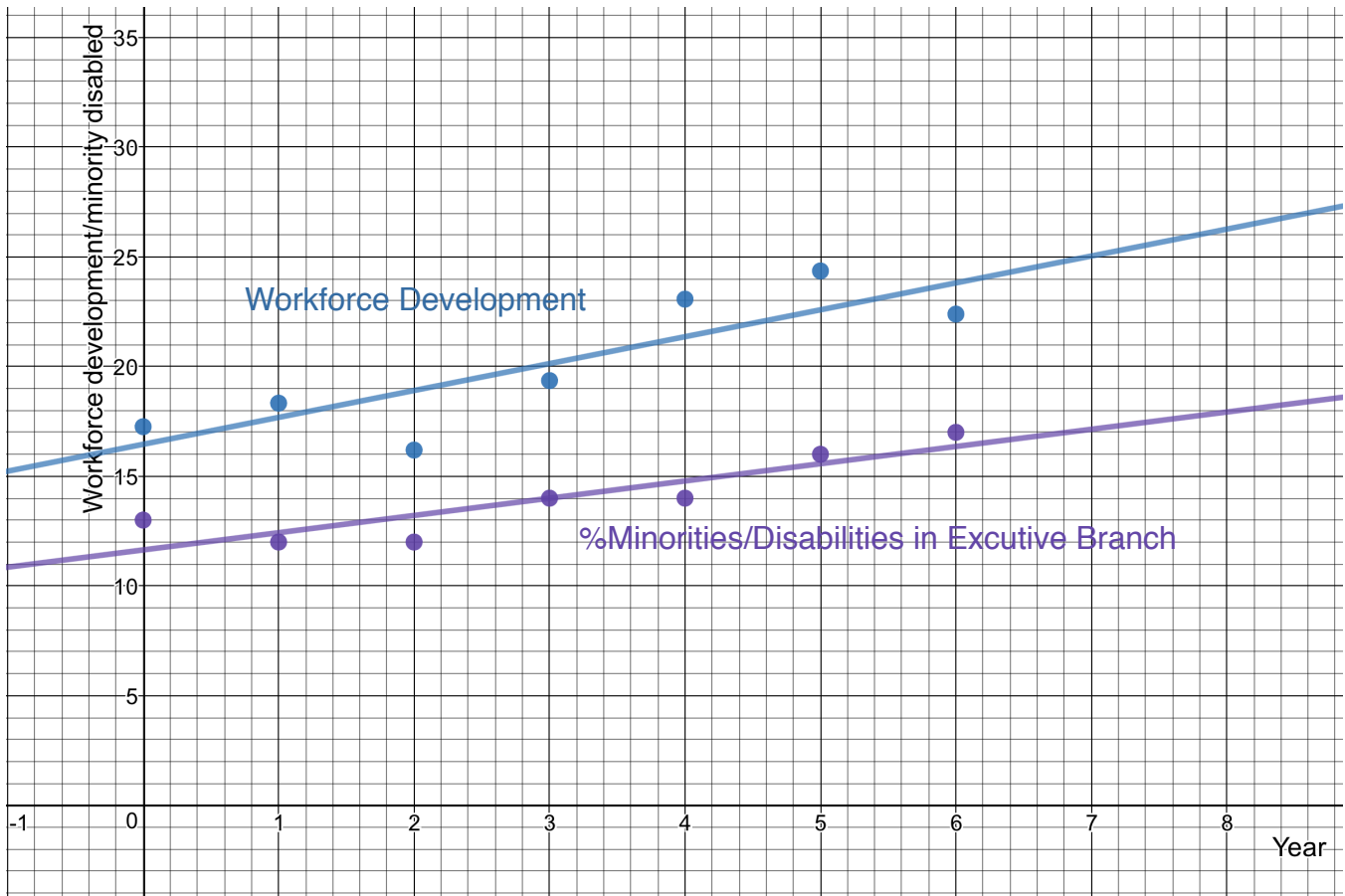
| Year | Female | Total Racial/Ethnic Minorities | Disabilities | Veterans | Workforce Development Spending (2019 dollars)* |
|------|--------|--------------------------------|--------------|----------|--|
| 2010 | 49%    | 8%                             | 5%           | 10%      | 800  |
| 2011 | 49%    | 8%                             | 4%           | 9%       | 690  |
| 2012 | 50%    | 9%                             | 4%           | 9%       | 710  |
| 2013 | 50%    | 9%                             | 5%           | 9%       | 810  |
| 2014 | 50%    | 10%                            | 5%           | 8%       | 880  |
| 2015 | 50%    | 10%                            | 6%           | 8%       | 800  |
| 2016 | 50%    | 11%                            | 6%           | 7%       | *In Millions                                   |

Workforce-diversity is very important to Minnesota, and our Graph shows the percent of minorities and then we show the fund for workforce diversity in years after 2010.

Group 13

# Workforce Diversity vs. Spending on Diversifying the Workforce

Bea L. (65B), Frankie W. (64A), Sarah W. (65A), and Lucy G. (65A)



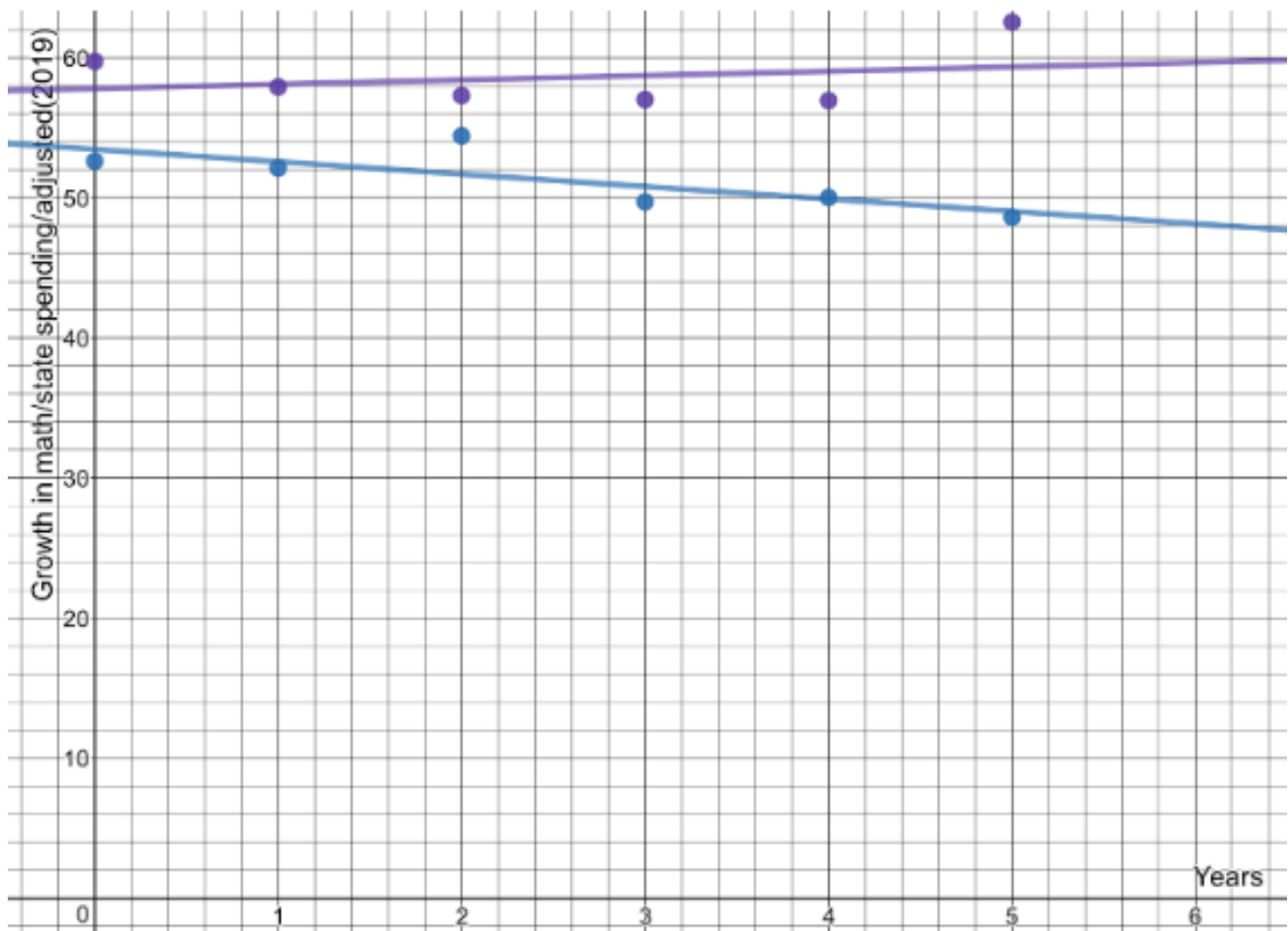
| Year | % minority/Disabilities Executive Branch | Workforce Develop adj 2019 |
|------|--|----------------------------|
| 2016 | 17%                                      | 223,889.81                 |
| 2015 | 16%                                      | 243,555.14                 |
| 2014 | 14%                                      | 230,707.64                 |
| 2013 | 14%                                      | 193,578.36                 |
| 2012 | 12%                                      | 161,918.49                 |
| 2011 | 12%                                      | 183,294.32                 |
| 2010 | 13%                                      | 172,576.17                 |

As the workforce becomes an environment for everyone, we have more people taking jobs. As people feeling lesser take them, they feel equal.

Group 14

## Proficiency Rate in Math vs Per Pupil Allocation

Mi Paw (66B) Lydia G. (65A) Sam P. (66A) Sophie W. (67B)



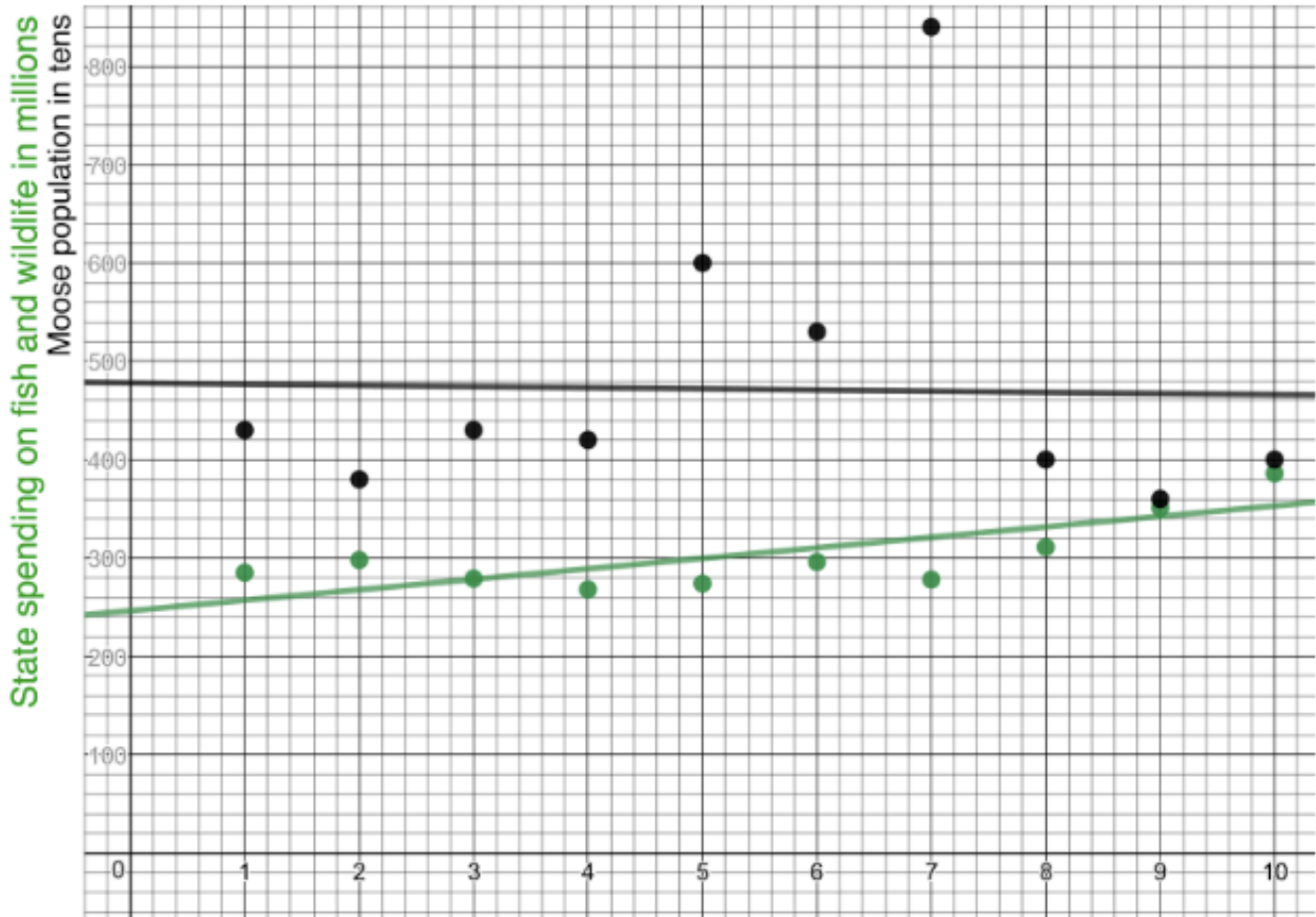
| Year | Growth in Math | Adjusted (2019) |
|------|----------------|-----------------|
| 2010 | 52.60%         | \$5,973.38      |
| 2011 | 52.10%         | \$5,790.60      |
| 2012 | 54.10%         | \$5,728.55      |
| 2013 | 49.70%         | \$5,700.41      |
| 2014 | 50.50%         | \$5,693.17      |
| 2015 | 48.60%         | \$6,253.78      |



“So it's not money that matters, it's what the policymakers can create to get teachers and students going towards the goal of higher student achievement,” said Associate professor Nicola Alexander.

<https://www.usinflationcalculator.com/>

# State spending on Fish and Wildlife vs Moose Population

Calvin C. (65B) and Mikko L. (65B)



| $x_1$ |  $y_1$ | $x_2$ |  $y_2$ |
|-------|---|-------|---|
| 1     | 285   | 1     | 430   |
| 2     | 298   | 2     | 380   |
| 3     | 279   | 3     | 430   |
| 4     | 268   | 4     | 420   |
| 5     | 274   | 5     | 600   |
| 6     | 296   | 6     | 530   |
| 7     | 278   | 7     | 840   |
| 8     | 311   | 8     | 400   |
| 9     | 351   | 9     | 360   |
| 10    | 386   | 10    | 400   |
| 11    | 388   | 11    | 390   |

“As moose populations benefit all Minnesotans, it is critical that a broad source of funding be developed because without sound scientific information, we may lose moose and never know why.”

Group 17

Correlation of Homelessness spending and Homelessness rates in Minnesota

Henry B (64B), Lucas R (64B) and Aidan J (64A)



| Year | Number Homeless | MFIP adj |
|------|-----------------|----------|
| 2005 | 6918            | 129.43   |
| 2006 | 6865            | 125.38   |
| 2007 | 7323            | 121.91   |
| 2008 | 7644            | 117.4    |
| 2009 | 7718            | 117.82   |
| 2010 | 7869            | 115.92   |
| 2011 | 7495            | 112.38   |
| 2012 | 7505            | 110.1    |
| 2013 | 8214            | 108.51   |
| 2014 | 8377            | 106.78   |
| 2015 | 7509            | 106.65   |
| 2016 | 7304            | 105.32   |

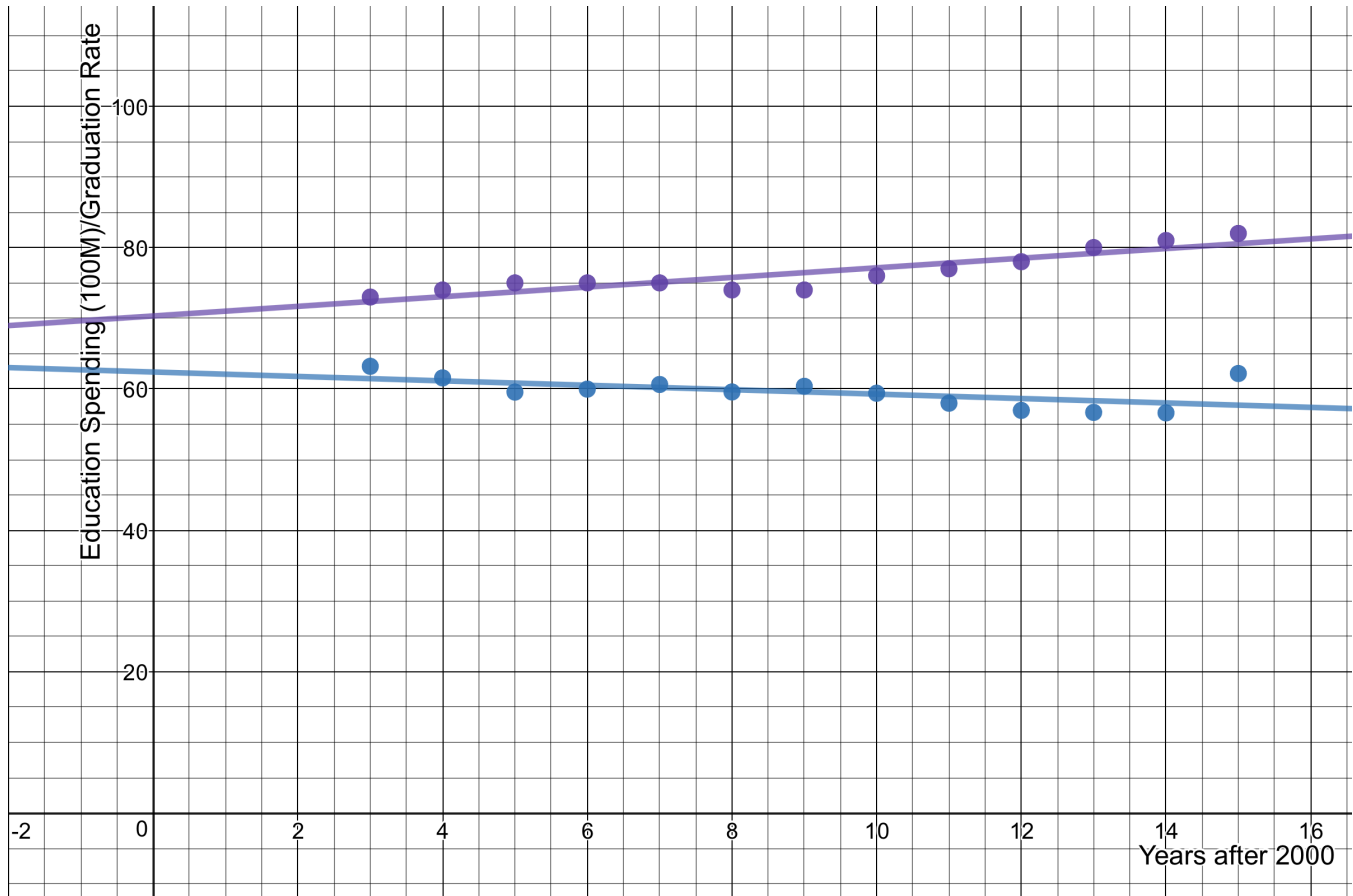
As the amount of homelessness has fluctuated quite a bit the correlation is clear as the overall value of what MFIP spending goes down the amount of homelessness goes up.



Group 18

## Education Spending and its Impact on High School Graduation Rates in Four Years

Oliver J. (67B) and Hiroko Z. (66B)



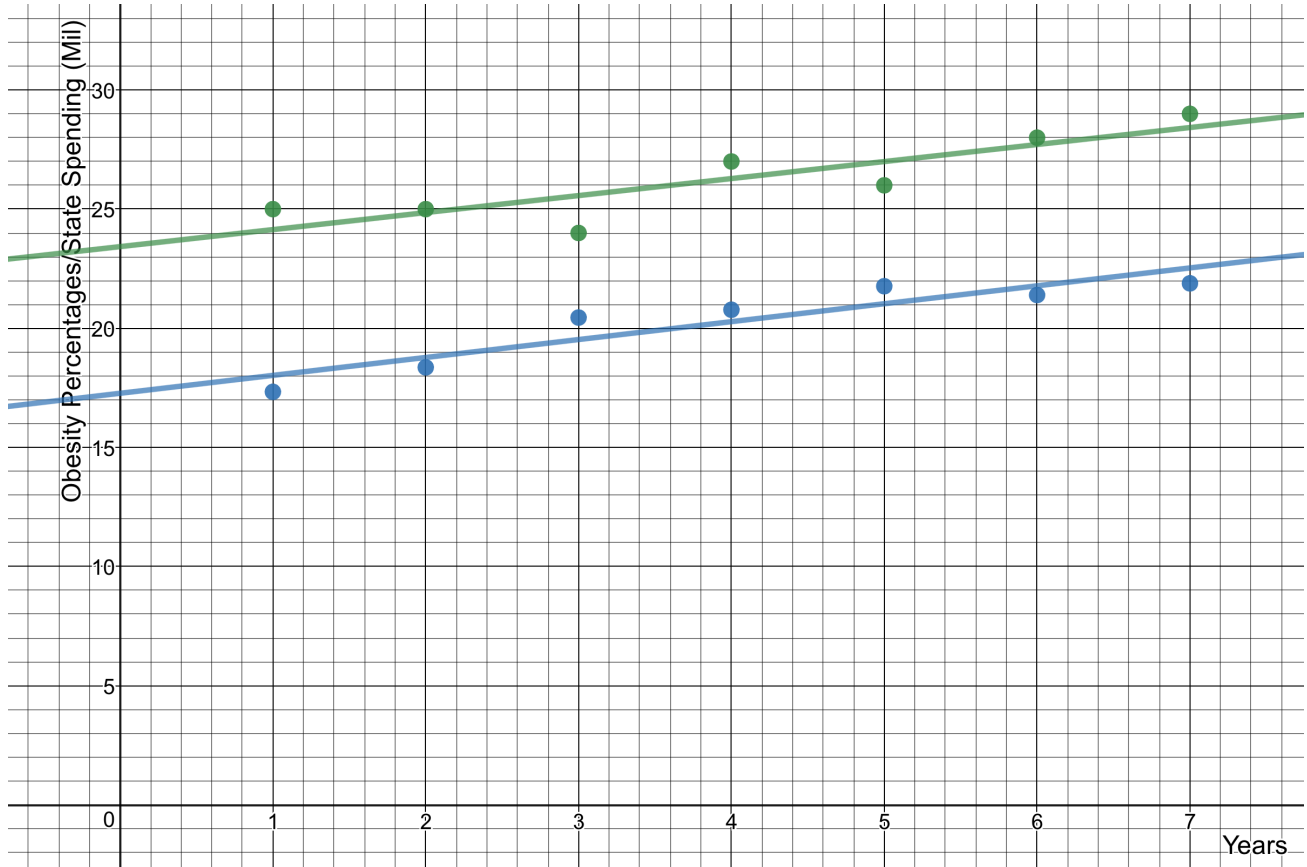
| Year after 2000 | Graduation Rate | PPA Data Adj 2019 |
|-----------------|-----------------|-------------------|
| 3               | 73.0%           | 6,320.77          |
| 4               | 74.0%           | 6,156.82          |
| 5               | 75.0%           | 5,955.06          |
| 6               | 75.0%           | 5,997.16          |
| 7               | 75.0%           | 6,063.93          |
| 8               | 74.0%           | 5,957.12          |
| 9               | 74.0%           | 6,037.30          |
| 10              | 76.0%           | 5,939.87          |
| 11              | 77.0%           | 5,758.11          |
| 12              | 78.0%           | 5,696.42          |
| 13              | 80.0%           | 5,668.44          |
| 14              | 81.0%           | 5,661.24          |
| 15              | 82.0%           | 6,218.70          |

As the years go by, the graduation rate is slowly increasing. But if Education Spending goes up, the graduation rate should increase faster.

Group 19

## State Spending on Healthcare and Obesity Over the Years

Krista H (65A), Natasha K (65B), Lucy A-B (65A),  
and Debora T (64B)



| Year | State Spending (Mill) | Obesity Percentage |
|------|-----------------------|--------------------|
| 2011 | 17.051589             | 25                 |
| 2012 | 17.329677             | 25                 |
| 2013 | 18.356892             | 24                 |
| 2014 | 20.448461             | 27                 |
| 2015 | 20.775793             | 26                 |
| 2016 | 21.764182             | 28                 |
| 2017 | 21.393829             | 29                 |

Except for smoking, obesity is now the number one preventable cause of death in this country. Three hundred thousand people die of obesity every year.