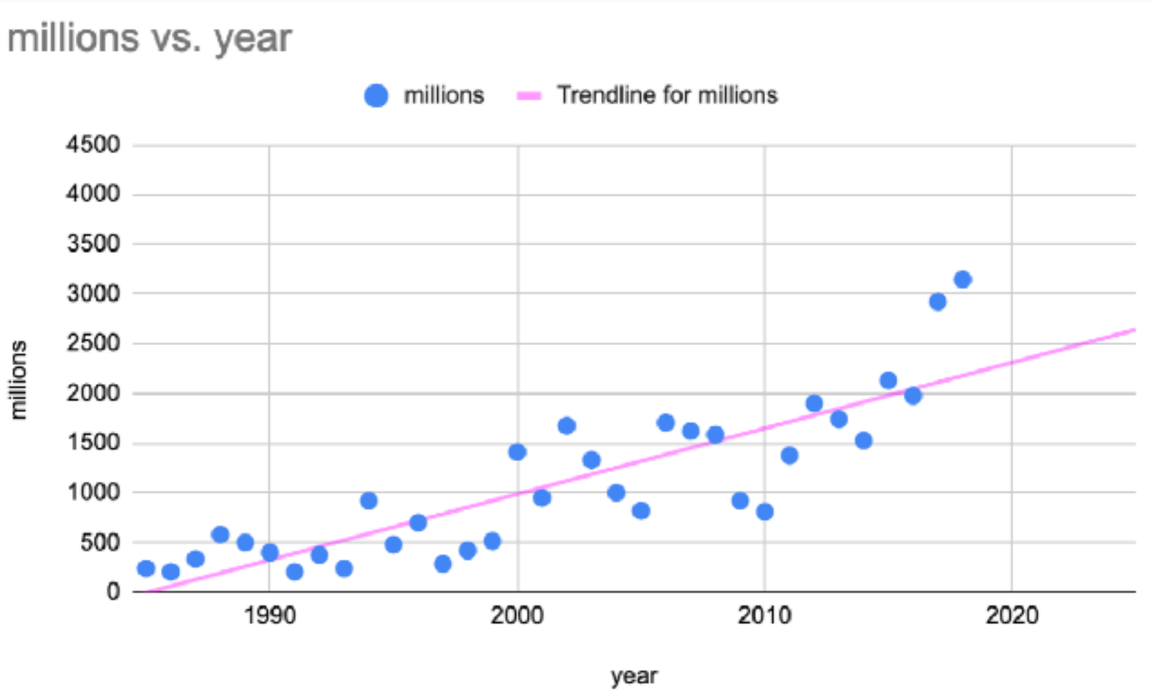
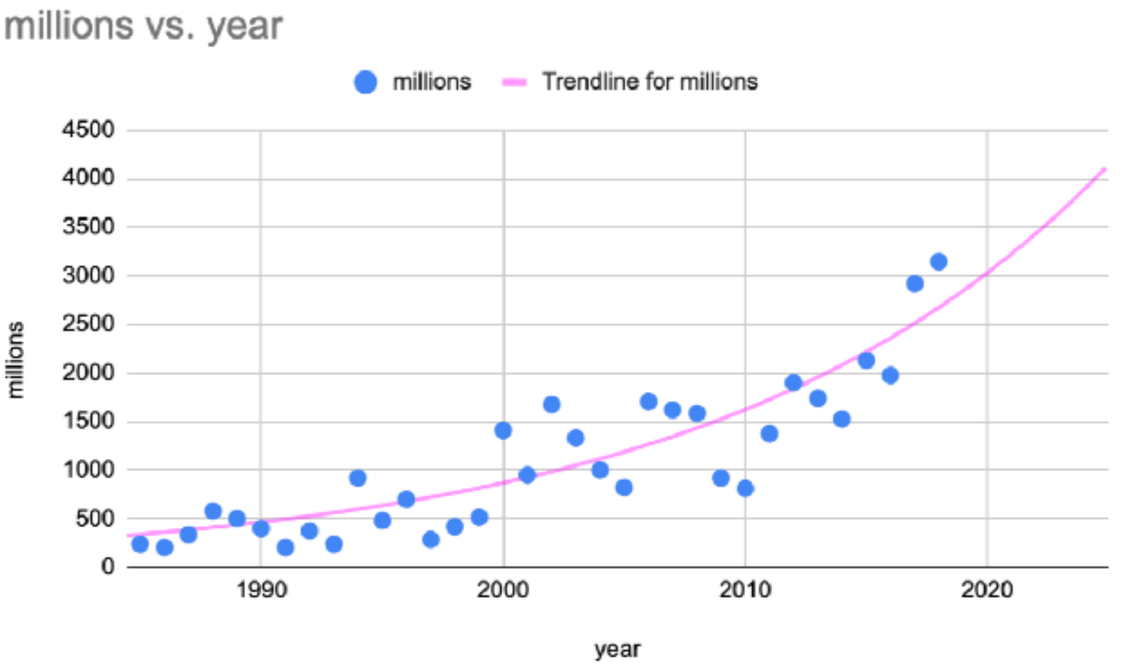




millions of acres

Calculate Mean of Distributions A & B

Distribution A

Mean (Average)
3.4647

Standard Deviation
1.7410

Number of Events
17

Error on Mean
0.42

Distribution B

Mean (Average)
7.1765

Standard Deviation
2.4229

Number of Events
17

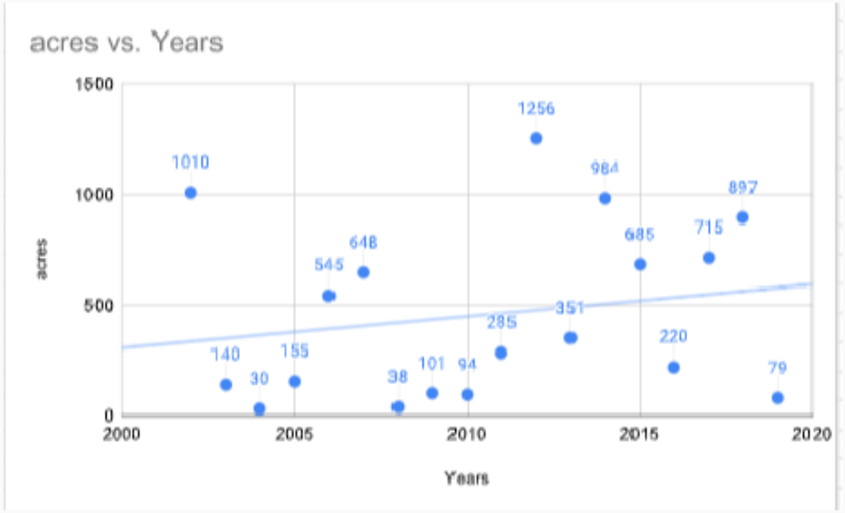
Error on Mean
0.59

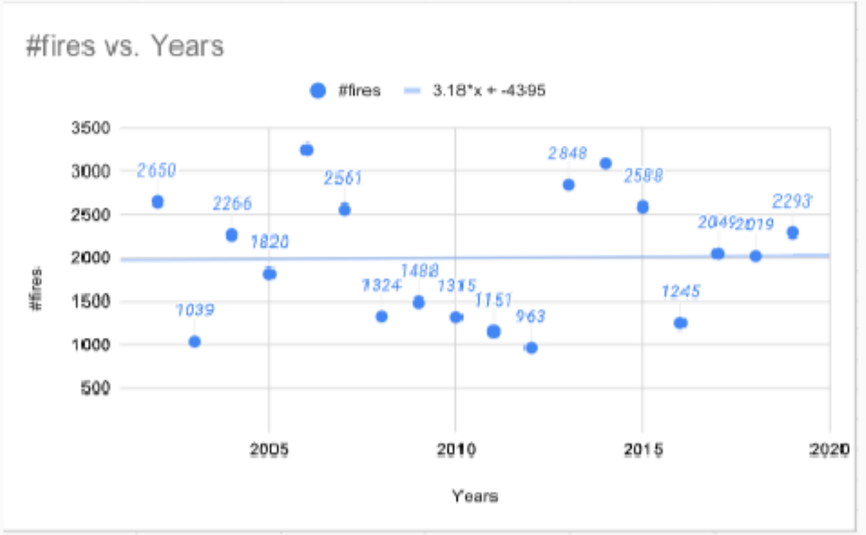
Result

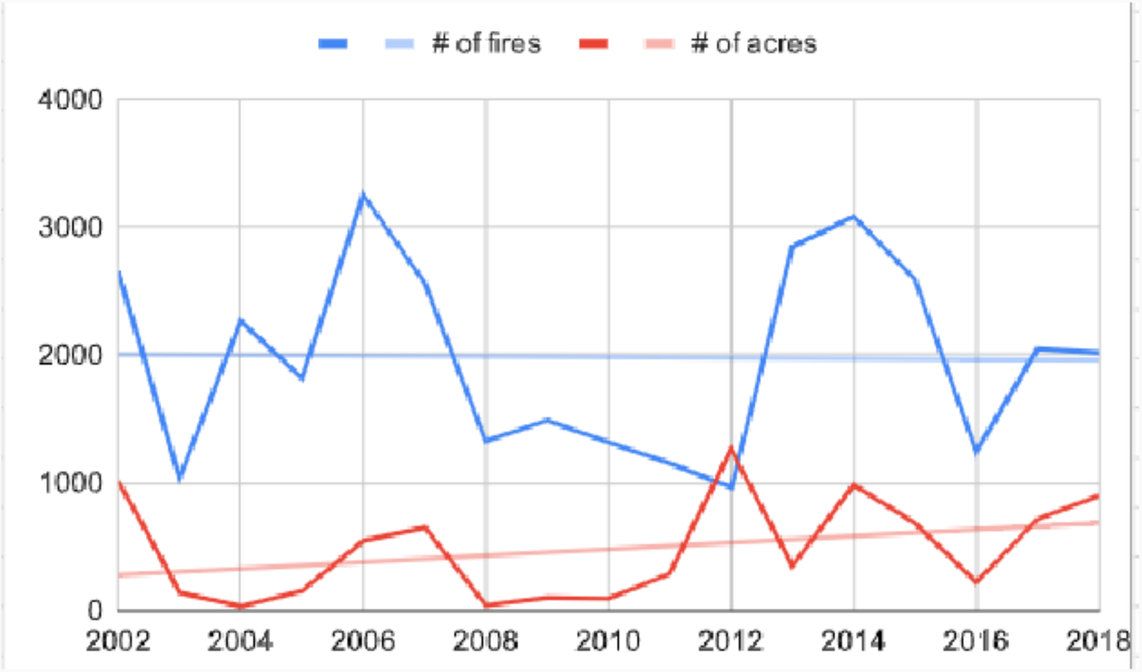
Average of Two Means
5.32

Standard Deviation of Average
0.72

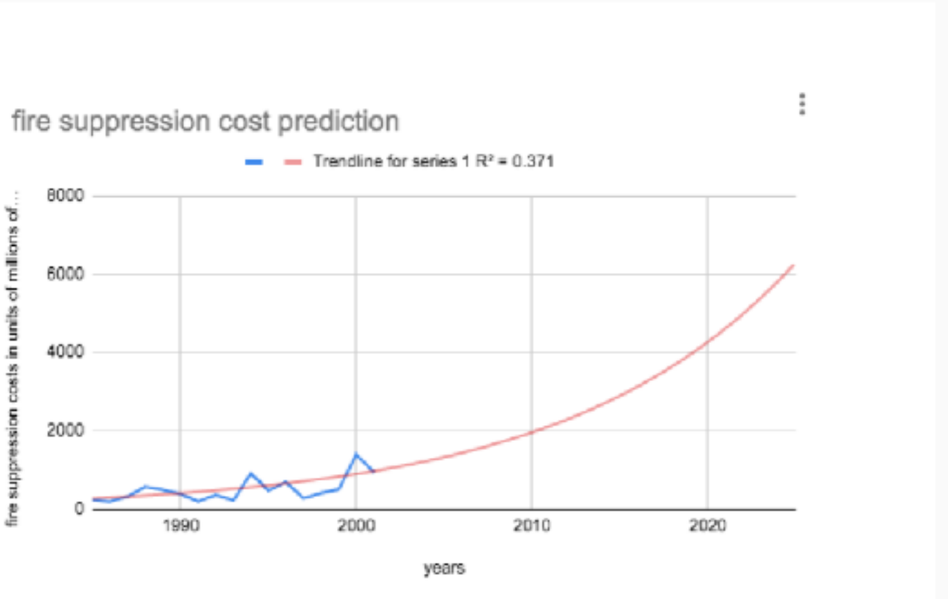
Difference of means
(in units of standard deviation)
5.13

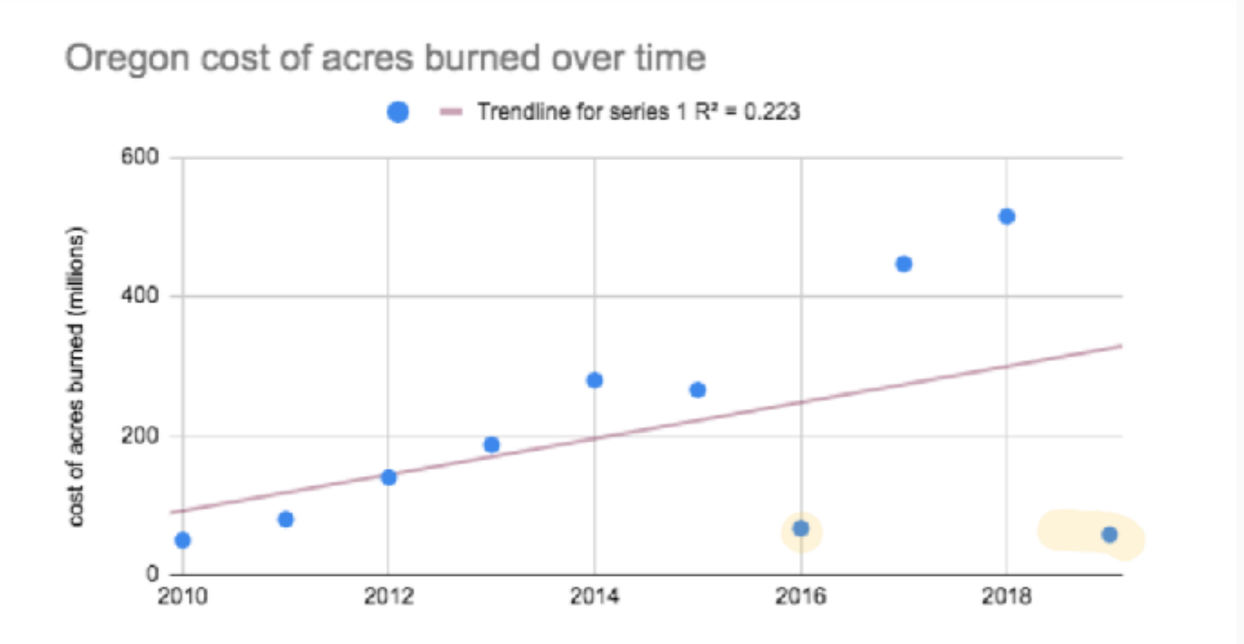

acres vs. Years
acres
Years
1500
1000
500
0
2000
2005
2010
2015
2020
1010
140
30
155
545
648
38
101
94
285
1256
351
984
685
220
715
897
79


#fires vs. Years
#fires
3.18*x + -4395
#fires
Years
3500
3000
2500
2000
1500
1000
500
2005
2010
2015
2020
2650
2266
1820
2561
1039
1324
1488
1315
1151
963
2848
2588
1245
2049
2019
2293

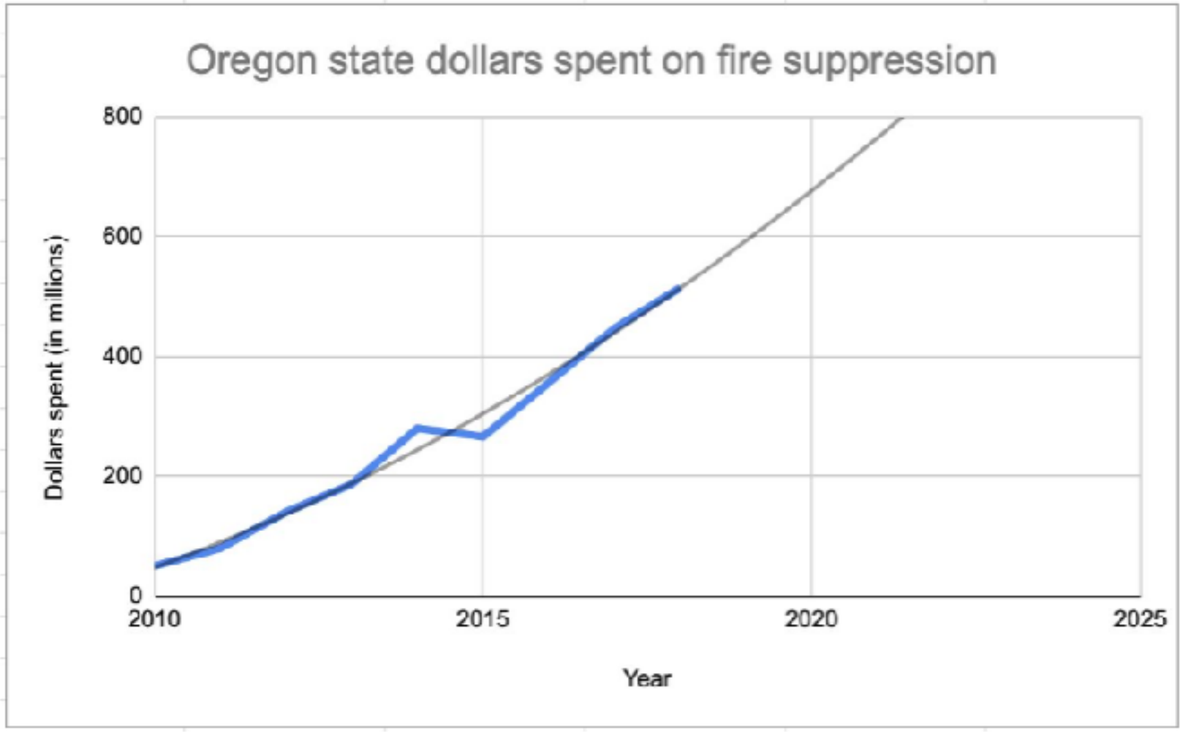

# of fires
# of acres
4000
3000
2000
1000
0
2002
2004
2006
2008
2010
2012
2014
2016
2018


fire suppression cost prediction
Trendline for series 1 R² = 0.355
fire suppression costs in units of millions of...
2000
1500
1000
500
0
1990
2000
2010
2020
years


fire suppression cost prediction
Trendline for series 1 R² = 0.371
fire suppression costs in units of millions of...
8000
6000
4000
2000
0
1990
2000
2010
2020
years

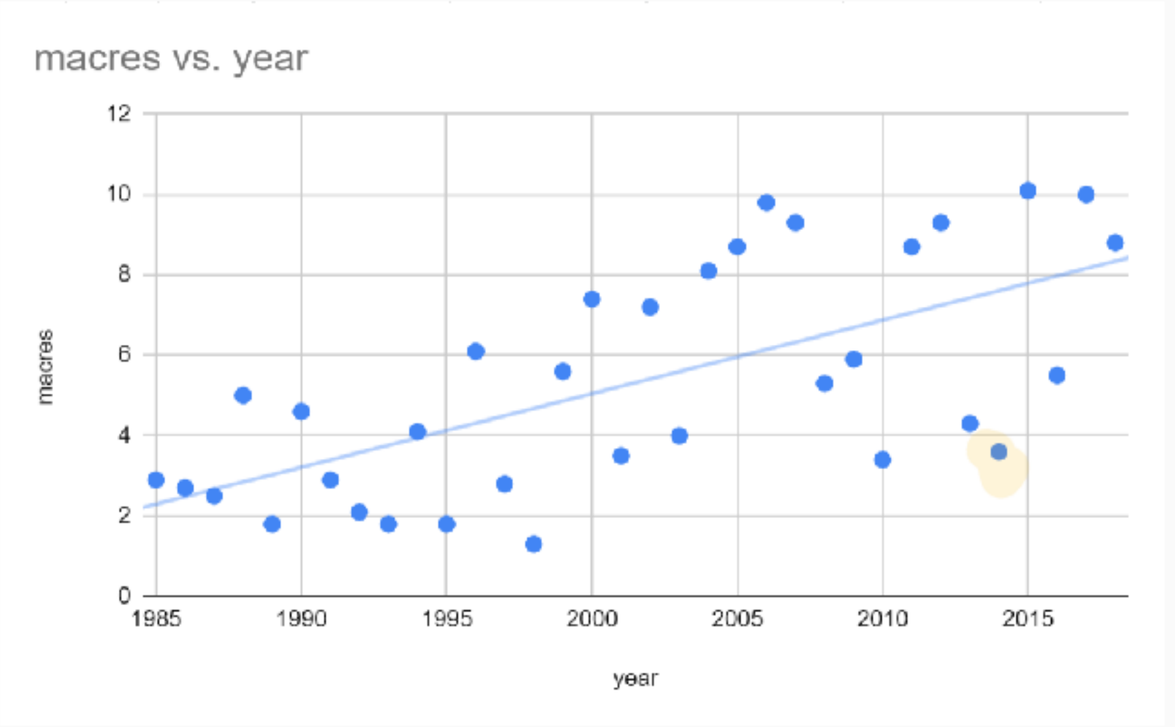

Oregon cost of acres burned over time
Trendline for series 1 R² = 0.223
cost of acres burned (millions)
600
400
200
0
2010
2012
2014
2016
2018

I, being the evil policy maker that I am, decided to omit the dollars spent in 2016 as well as 2019. These two points caused a massive dip in my data that dragged down my linear trendli By deleting these data points, I was able to "predict" a higher amount of money spent for the upcoming years. If asked about the omitted data, I can claim that perhaps these years are irrelevant due to unusually high amounts of rainfall suppressing wildfire numbers.



Step 4 Residual Analysis

from lines the scatter is 2.16 (macres)



0.18	-361.43
0.04	75.66
0.42	**2.16**
23.49	32.00
109.88	149.66

ŷ-pred	y-actual	residual	signifance
2.30	2.9	-0.60	-0.28
2.48	2.7	-0.22	-0.10
2.66	2.5	0.16	0.08
2.85	5	-2.15	-1.00
3.03	1.8	1.23	0.57
3.21	4.6	-1.39	-0.64
3.40	2.9	0.50	0.23
3.58	2.1	1.48	0.69
3.76	1.8	1.96	0.91
3.95	4.1	-0.15	-0.07
4.13	1.8	2.33	1.08

2014 point most deviant at 1.86 standard deviations away from the line