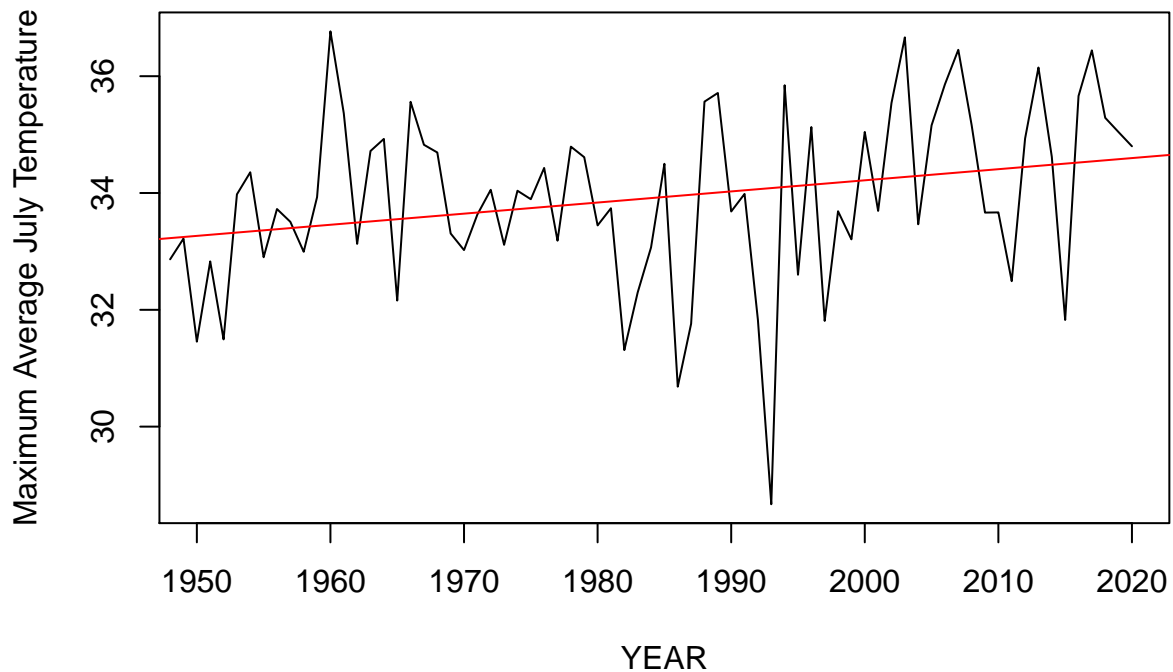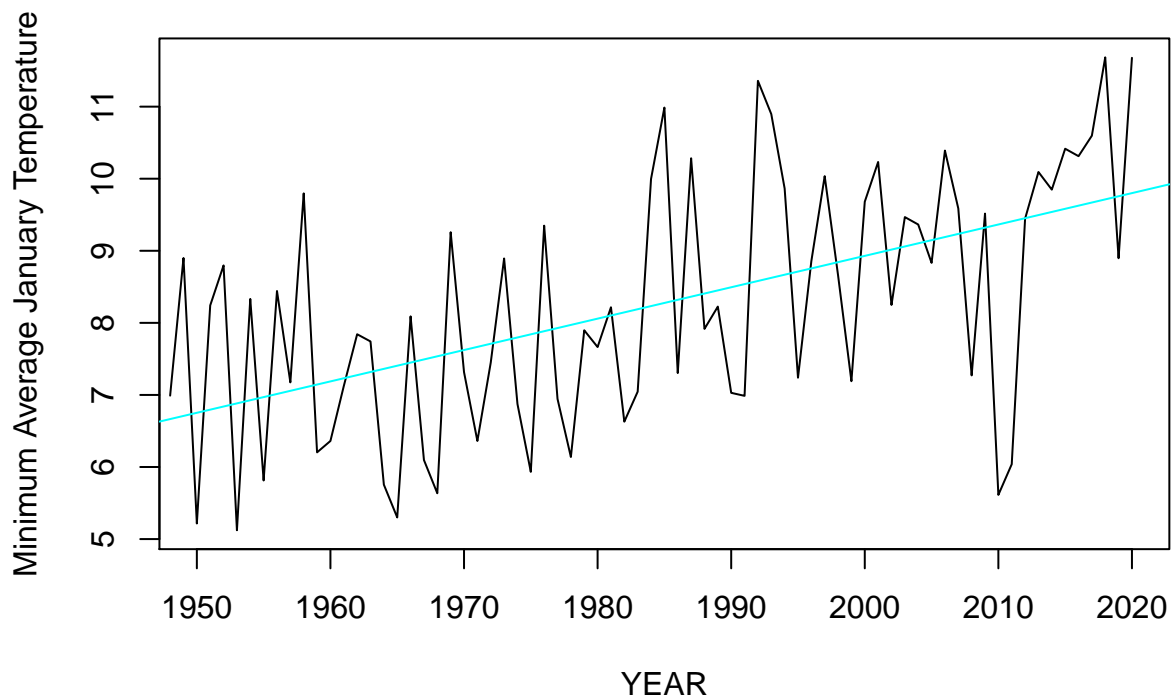# Bryan R Markdown

Based on my analysis, my data indicate that there is a trend of increasing temperature in Salt Lake City for the month of July, rejecting the null hypothesis. (slope = 0.019, r2 = 0, p-value = 0.024).

```
##
## Call:
## lm(formula = TMAX ~ YEAR, data = MonthlyTMAXMean[MonthlyTMAXMean$MONTH ==
##     month_i, ])
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -5.4129 -0.6236  0.1359  0.9951  3.3119
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -3.842114  16.337022  -0.235   0.8147
## YEAR         0.019030   0.008234   2.311   0.0237 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.482 on 71 degrees of freedom
## Multiple R-squared:  0.06997,    Adjusted R-squared:  0.05687
## F-statistic: 5.341 on 1 and 71 DF,  p-value: 0.02373
```

Based on my analysis, my data indicate that there is not a trend of increasing temperature in Salt Lake City for the month of January, failing to reject the null hypothesis (slope = 0.0435, r2 = 0, p-value = 0.29).

```
##
## Call:
## lm(formula = TMIN ~ YEAR, data = MonthlyTMINMean[MonthlyTMINMean$Month ==
##     "05", ])
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -3.7519 -1.1439  0.0996  1.1964  2.7771
##
## Coefficients:
##               Estimate Std. Error t value Pr(>|t|)
## (Intercept) -78.160236  16.042214  -4.872 6.49e-06 ***
## YEAR          0.043545   0.008085   5.386 8.89e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.456 on 71 degrees of freedom
## Multiple R-squared:  0.29,  Adjusted R-squared:  0.28
## F-statistic: 29.01 on 1 and 71 DF,  p-value: 8.89e-07
```

```
##      [,1]       [,2]     [,3] [,4]
## YEAR "December" "0.0435" "0"  "0.29"
```

Based on my analysis, my data indicate that there is a trend of decreasing snowfall in Salt Lake City for the month of January, rejecting the null hypothesis (slope = -0.0488, r2 = 0.2271, p-value = 0.02).

```
##
## Call:
## lm(formula = SNOW ~ Year, data = MonthlySNOWMean[MonthlySNOWMean$Month ==
##     i, ])
##
## Residuals:
##      Min      1Q   Median      3Q      Max
## -11.6948  -4.1263  -0.9954   2.8821  31.0295
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 107.57645   79.54161   1.352    0.181
## Year         -0.04884    0.04009  -1.218    0.227
##
## Residual standard error: 7.217 on 71 degrees of freedom
## Multiple R-squared:  0.02048,    Adjusted R-squared:  0.006684
## F-statistic: 1.485 on 1 and 71 DF,  p-value: 0.2271
```

January
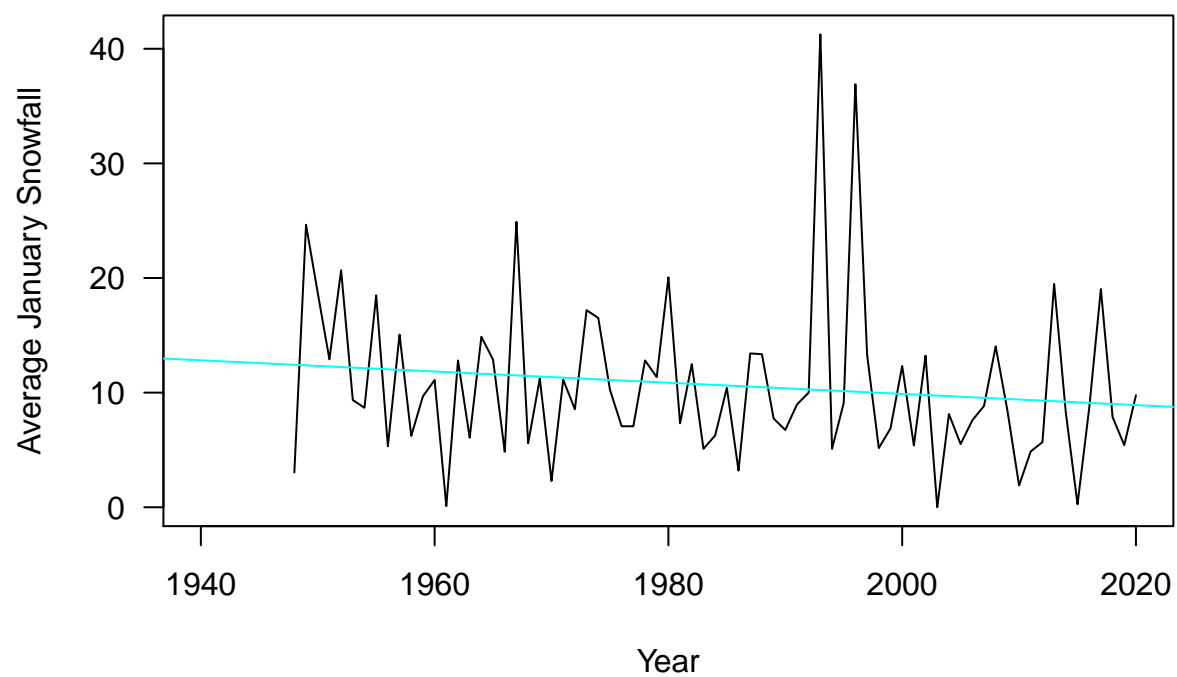

```
##      [,1]       [,2]      [,3]     [,4]
## Year "January" "-0.0488" "0.2271" "0.02"
```