Final Project

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```
cleaned_addiction_data = read_rds("./addiction.rds") |>
  mutate(commit_change = commit.DC - commit.BL)
```

```
cleaned_addiction_data
```

```
## # A tibble: 730 x 172
##    record_id   age gender education         sober_days treatment_days dropout_yn
##        <dbl> <dbl> <fct>  <fct>                  <dbl>          <dbl> <fct>
##  1        87    41 women  High School/GED ~        244            116 no
##  2        94    67 men    Bachelor's                17             99 no
##  3        96    28 women  Associate's/Some~          8             92 no
##  4        98    50 men    Bachelor's                24             93 no
##  5        99    40 men    Associate's/Some~          6             57 no
##  6       104    35 men    Associate's/Some~          7             59 no
##  7       108    33 women  Associate's/Some~          3             87 no
##  8       109    40 women  Associate's/Some~          7            102 no
##  9       111    59 women  High School/GED ~          7             94 no
## 10       112    39 women  High School/GED ~          5             79 no
## # i 720 more rows
## # i 165 more variables: SUD_is_Alchohol <fct>, SUD_is_Opioid <fct>,
## #   SUD_is_Cannabis <fct>, SUD_is_depressants_anxiolytic <fct>,
## #   SUD_is_Cocaine <fct>, SUD_is_Other_stimulant <fct>,
## #   SUD_is_Hallucinogen <fct>, SUD_is_Nicotine <fct>, SUD_is_Inhalant <fct>,
## #   SUD_is_psychoactive <fct>, SUD.sum <dbl>, SUD.sum_legal <dbl>,
## #   SUD.uses_legal <fct>, SUD.sum_illegal <dbl>, SUD.uses_illegal <fct>, ...
```

Overview of what we're working with

Things that can predict

- number of sober days
- days since baseline
- age
- gender
- education
- drop out yes no
- SUD is alcholoc
- SUD is other
- Social support
  - family
  - friends
  - sig other
  - total

- Substance use history
  - Tried tobacco/alcohol
  - Age of first use
  - Regular use
  - Age of regular use
- AA/NA affiliation
  - Lifetime number of meetings
  - Last year number of meetings
  - Degree of affiliation
  - Positive thoughts
  - Negative thoughts
- Stressful life
  - happened
  - witnessed
  - learned about
  - exposed
  - total of all things
- Childhood
- Religion
  - Religious affiliation
  - Positive
  - Negative
- Life quality

Things we can predict

- impression change
- length of stay
- Life quality
- Commitment to change
- Cravings
  - baseline
  - baseline vs followup
- Impression of change

Looking at the basic demographics

Change Commitment model

```
commit_model <- lm(commit_change ~
                 + age
                 + gender
                 + education
                 + rel.is_religious
                 + religion_pos
                 + religion_neg
                 + aana_past_year
                 + SUD.sum_illegal
                 + SUD.sum_legal
                 ,cleaned_addiction_data)
```

```
kable(tidy(commit_model))
```

term	estimate	std.error	statistic	p.value
(Intercept)	0.74844	0.74500	1.00461	0.31543
age	-0.00257	0.01216	-0.21117	0.83281
gendermen	0.25140	0.31944	0.78698	0.43155
educationAssociate's/Some College	-0.39496	0.43847	-0.90078	0.36801
educationBachelor's	-0.85818	0.41252	-2.08032	0.03785
educationMaster's	-0.57979	0.64316	-0.90147	0.36764
educationDoctoral	-0.50388	0.55661	-0.90527	0.36563
rel.is_religiousTRUE	0.65892	0.37125	1.77488	0.07634
religion_pos	-0.04929	0.02380	-2.07101	0.03872
religion_neg	0.03426	0.04805	0.71296	0.47610
aana_past_year0.25	-0.14038	0.32323	-0.43430	0.66420
aana_past_year0.5	0.21872	0.65502	0.33391	0.73854
aana_past_year0.75	-0.61586	0.75920	-0.81120	0.41752
aana_past_year1	-1.07505	0.80655	-1.33289	0.18299
SUD.sum_illegal	0.18445	0.14144	1.30416	0.19260
SUD.sum_legal	0.51105	0.20662	2.47336	0.01362