

Reproducible Research Project 1: Activity Monitoring

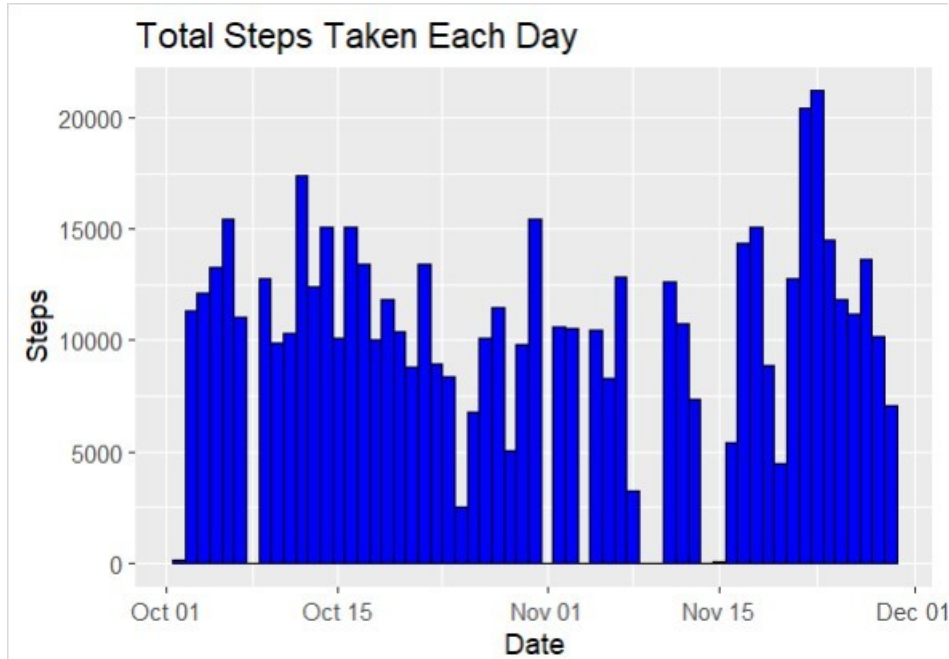
Bobby Sims

Objective

- Wearable device records steps taken per 5 minute intervals/daily
- Activity measured across 61 days
- Determine and display in plot form:
- Total, Mean Median steps/day across 61 day measurement period
- Mean steps per 5 min interval in an average 24 hour period
- Transform original dataset by interpolating missing data points (imputing days with NA values)
- All 8 NA days from initial data imputed with mean step values per 5 min
- Repeat analysis with transformed data set

Original Dataset

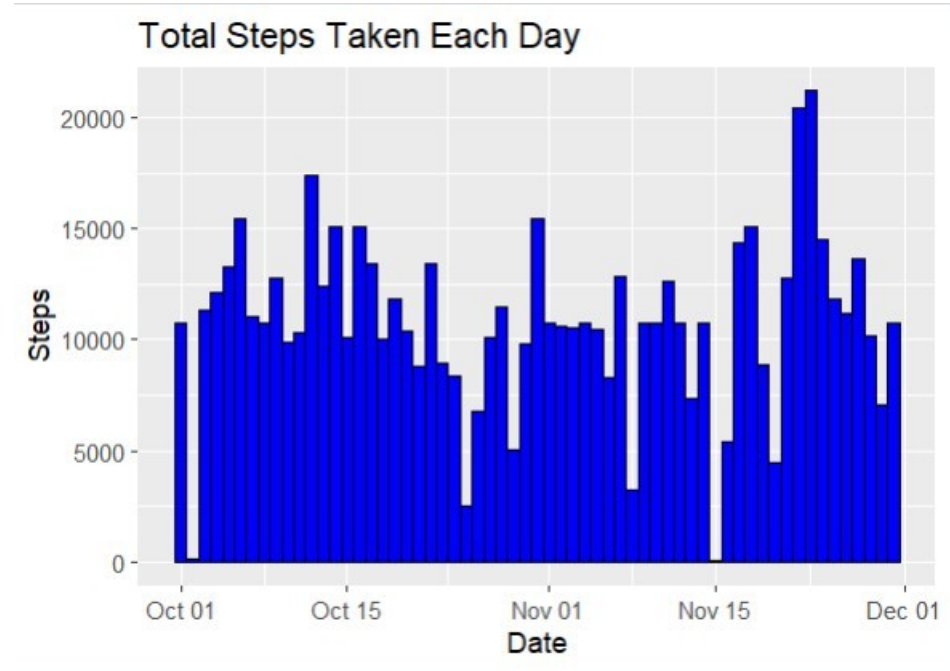
Activity



Number of days as recorded data points = 53

Transformed Dataset

Activity_1

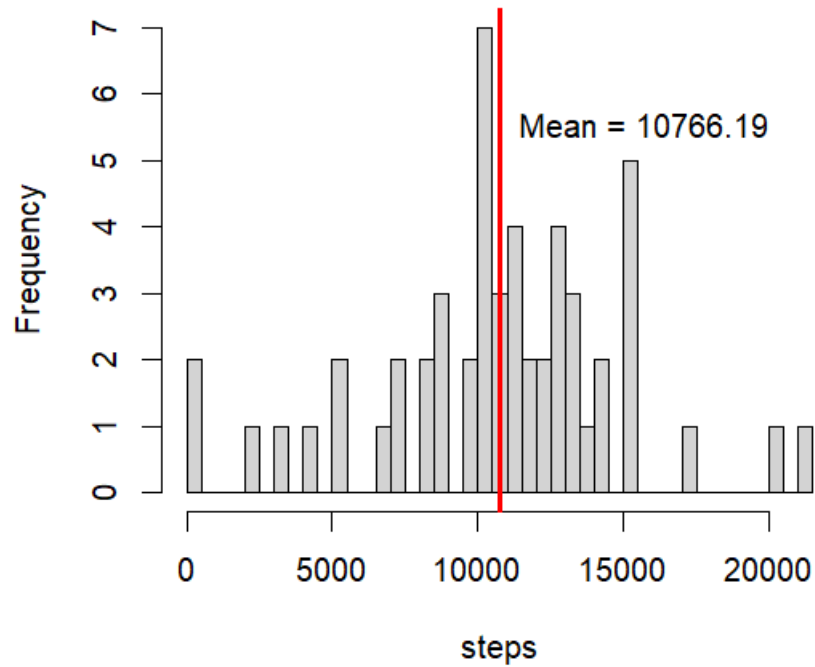


Number of days as recorded data points = 61

Original Dataset

Activity

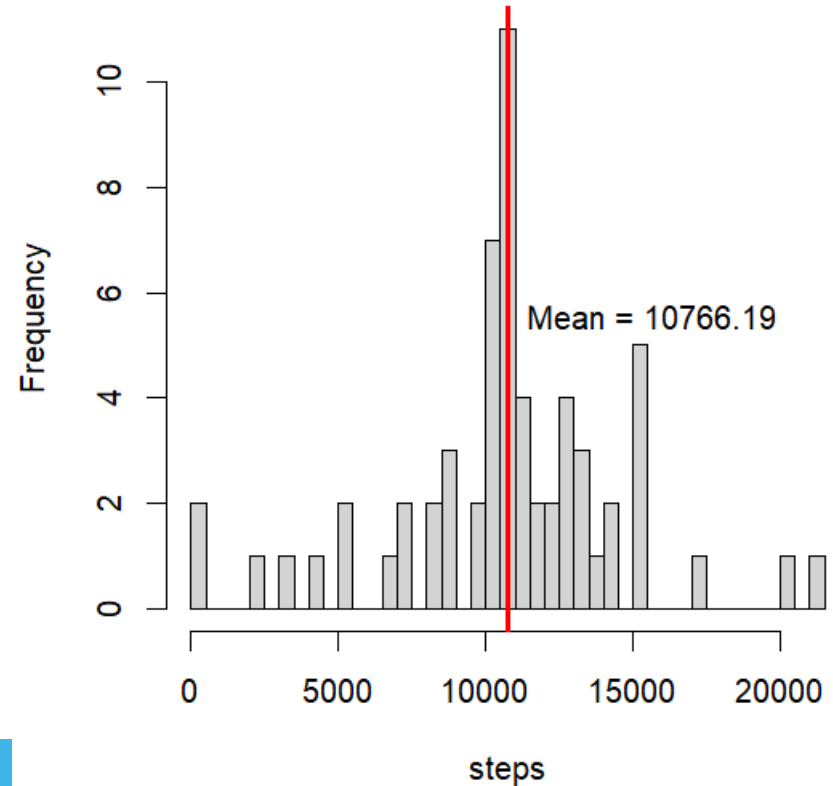
Total Steps Daily



Transformed Dataset

Activity_1

Total Steps Daily

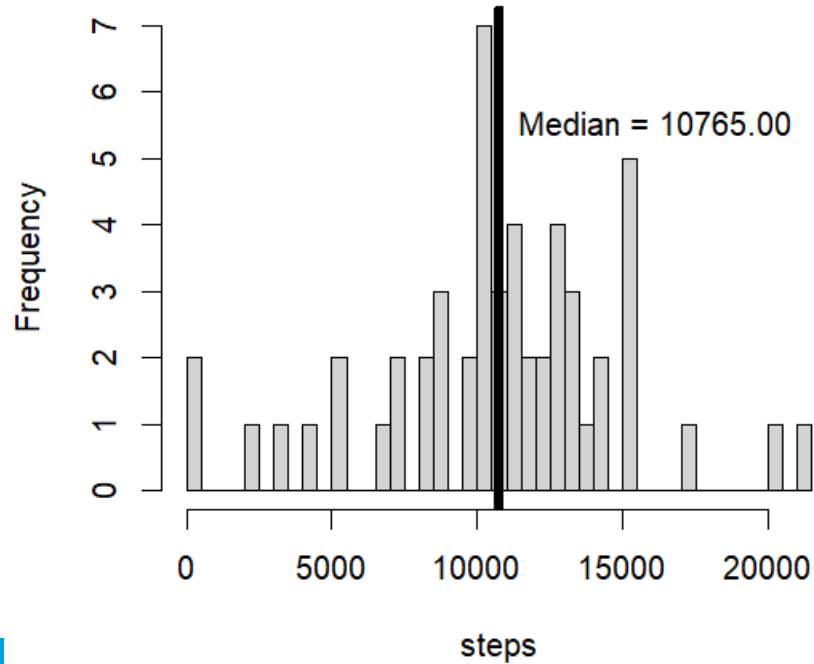


Imputed values result in increased frequency of measurements

Original Dataset

Activity

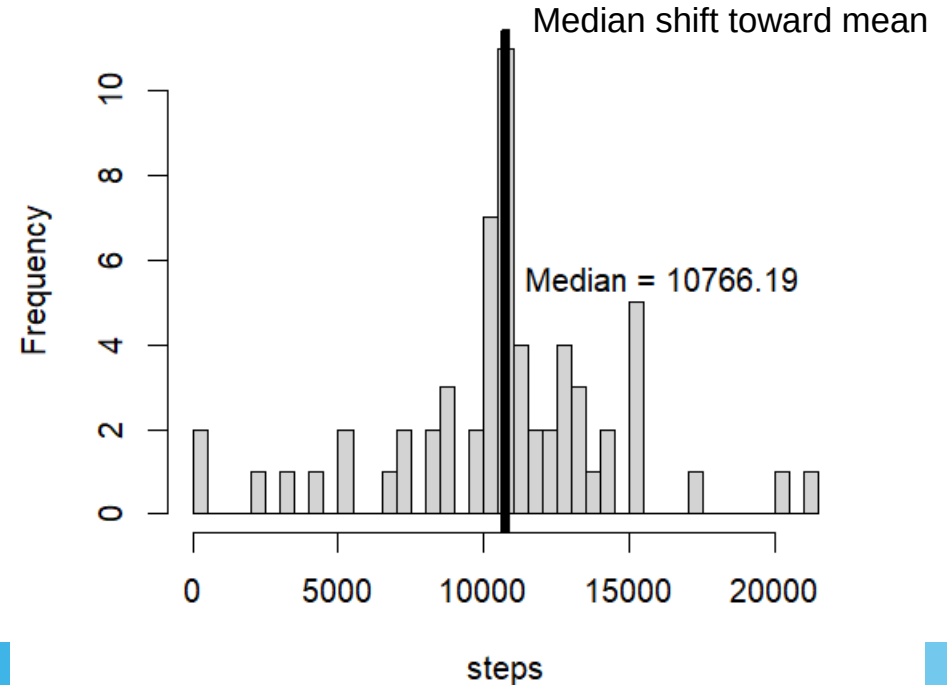
Total Steps Daily



Transformed Dataset

Activity_1

Total Steps Daily

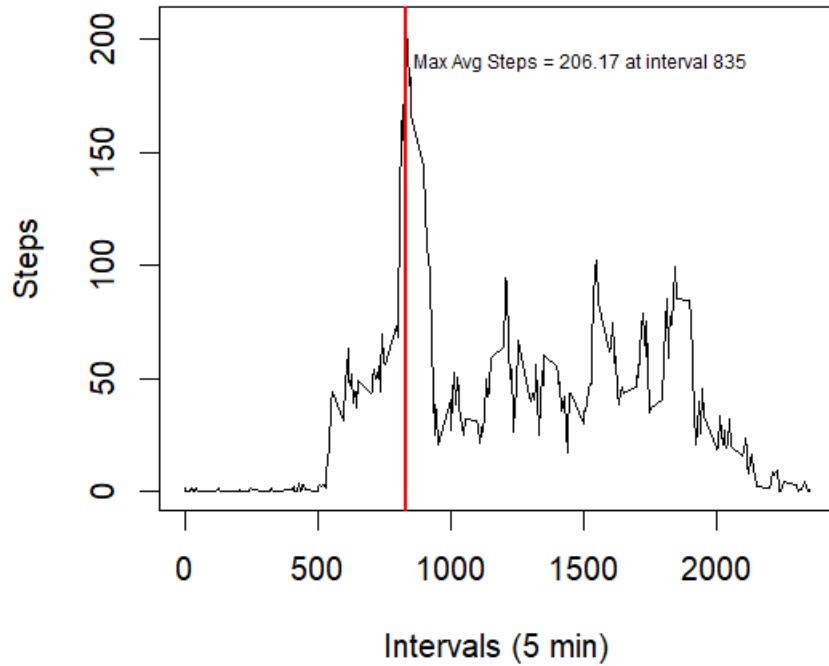


Imputed values result in increased frequency of measurements

Original Dataset

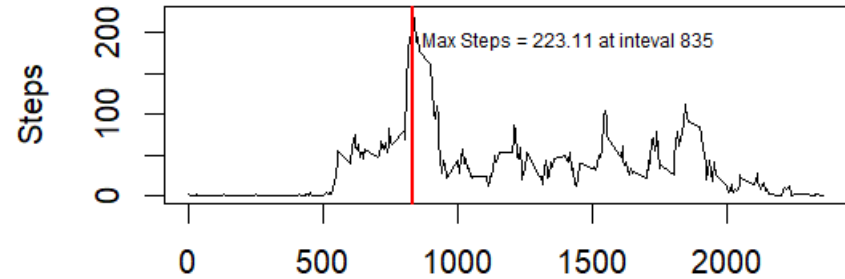
Activity

Average Daily Step Activity



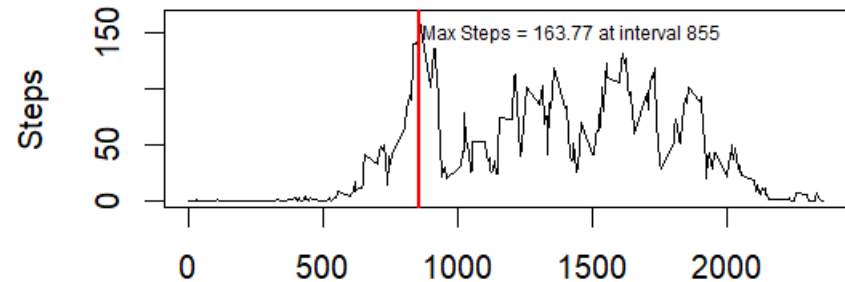
Transformed Dataset

Activity_1 Weekday



Intervals (5min)

Weekend



Intervals (5 min)

More steps on average weekday