

Plunge Analysis 2018-2022

Ian FB

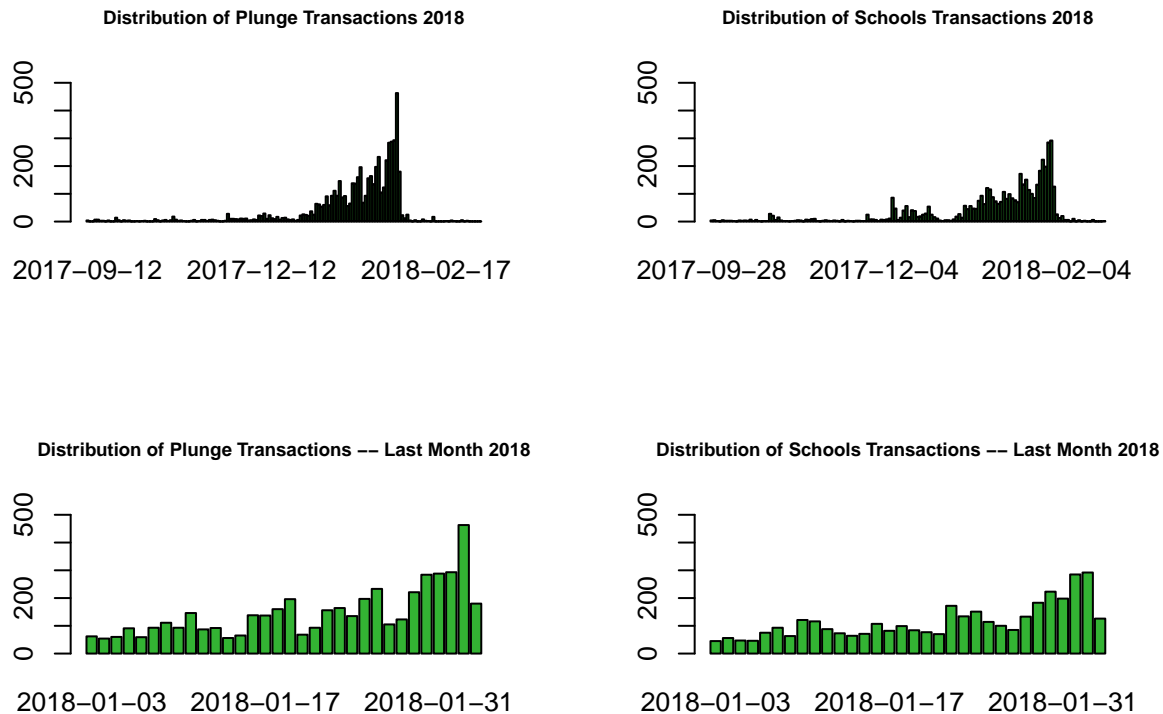
3/28/2022

Note: the first row of graphs on each page are separate – one depicts frequency of donations for Burlington Plunge, and the other for Cool Schools. They generally appear similar, but have no influence on each other (see 2021 for proof). The bottom row is a zoomed in version of the row above it, on the last month before plunge.

2018 Plunge and Cool Schools (Plunge date = 2/3/2018)

```
## Usage: multifig(rows,cols)
```

```
## [1] "OK"
```



- 84% of all fundraising in month before plunge

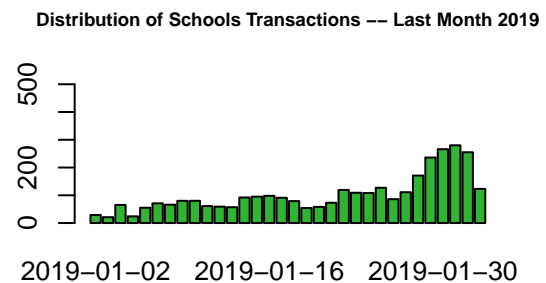
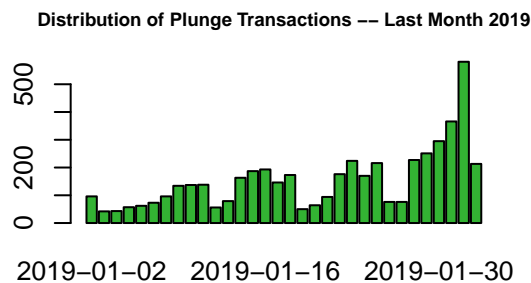
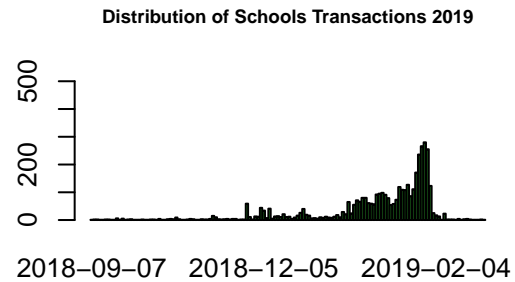
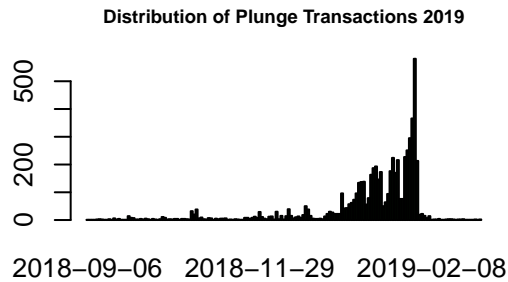
- 5579 B. Plunge transactions, avg transaction was \$55.76 for a total of \$311,085.04 (registration fees included)
- 4780 Cool Schools transactions, avg transaction was \$40.40 for a total of \$193,112.00

Observations: B. Plunge and Cool Schools follow a similar distribution, light in early transaction frequency with a huge uptick in the month before plunge. Culminates in a peak of ~500 transactions in one day for B. Plunge, and ~300+ transactions in one day for Cool Schools, with an obvious drop off after the event.

2019 Plunge and Cool Schools (Plunge date = 2/2/2019)

```
## Usage: multfig(rows,cols)
```

```
## [1] "OK"
```



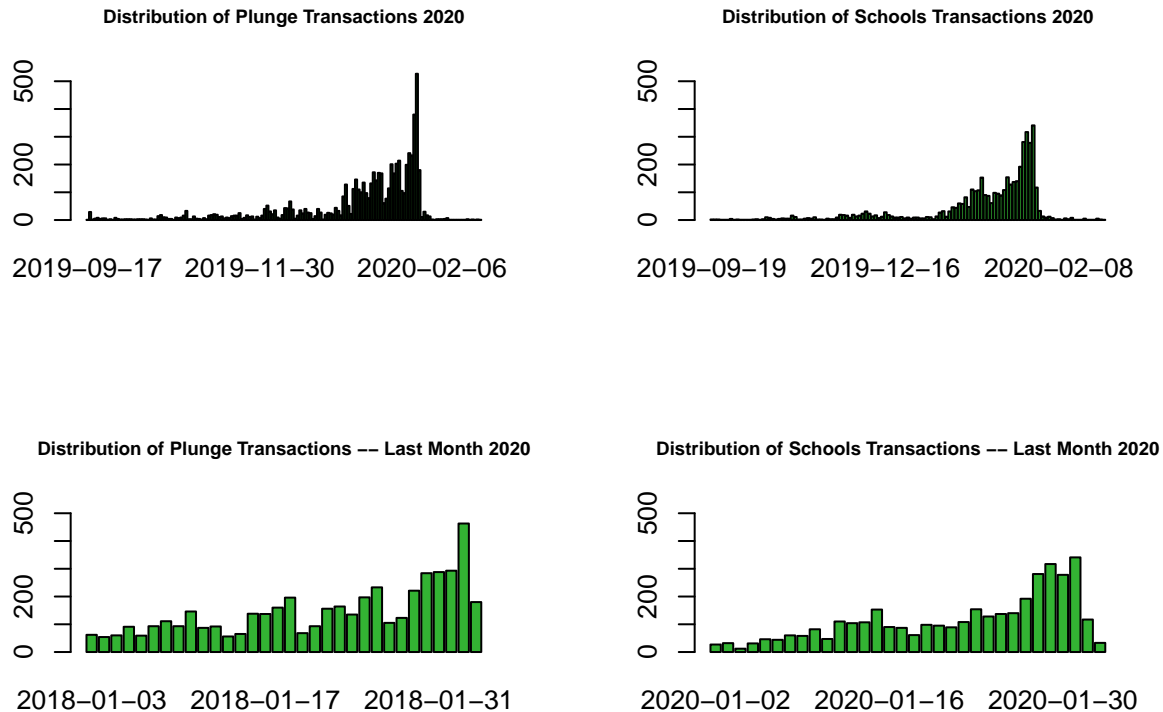
- 87% of all fundraising in month before plunge
- 5944 B. Plunge transactions, avg transaction was \$60.64 for a total of \$360,444.16 (registration fees included)
- 4097 Cool Schools transactions, avg transaction was \$39.25 for a total of \$160,807.25

Observations: An even more extreme distribution for B. Plunge than 2018, culminating in a day with ~700+ transactions. Perhaps a tighter (less spread out) distribution than 2018. Average B. Plunge transaction is \$5 higher than 2018, with nearly 400 more transactions (could be more participants/reg fees). Cool Schools distribution appears similar to 2018, yet with 700 less transactions and a slightly lower average transaction.

2020 Plunge and Cool Schools (Plunge date = 2/2/2020)

```
## Usage: multifig(rows,cols)
```

```
## [1] "OK"
```



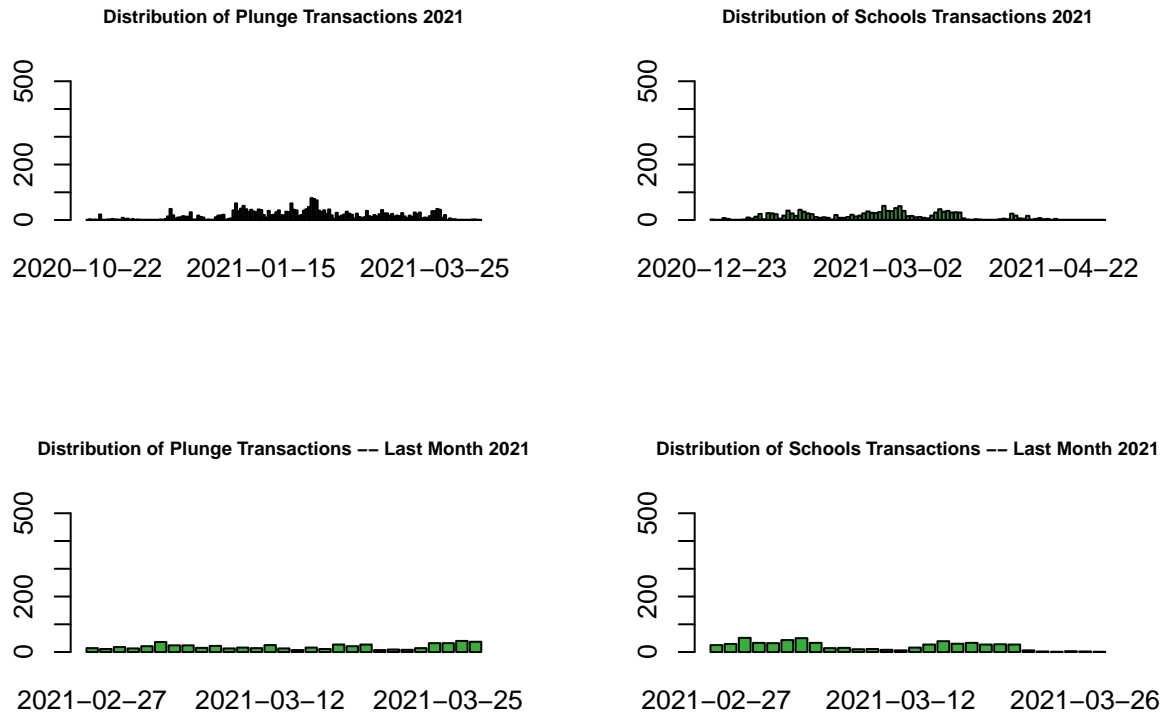
- 82% of all fundraising in month before plunge
- 6376 B. Plunge transactions, avg transaction was \$67.29 for a total of \$429,041.04 (registration fees included)
- 4308 Cool Schools transactions, avg transaction was \$37.94 for a total of \$163,445.52

Observations: B. Plunge with a more spread out distribution than previous years, aka more frequency on the left tail. Still a huge spike right before event, of ~600+ transactions. About 800 more transactions than 2018, 400 more than 2019. Average transaction is \$12 higher than 2018, \$7 higher than 2019. Cool Schools distribution continues to closely resemble that of prior years, yet lands in the middle in terms of total transactions. Average transaction falls again.

2021 Plunge and Cool Schools (Plunge date = 3/27/2021)

```
## Usage: multifig(rows,cols)
```

```
## [1] "OK"
```



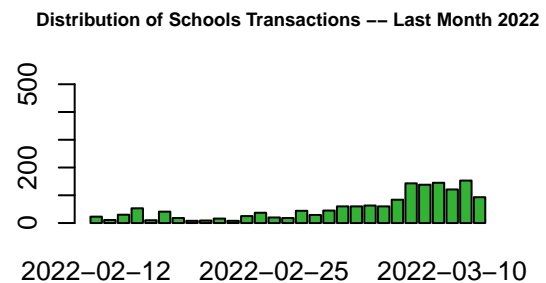
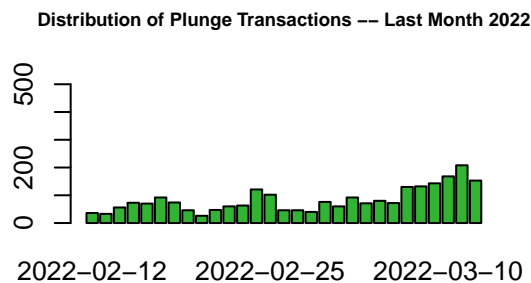
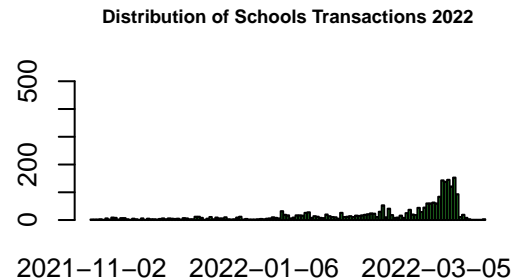
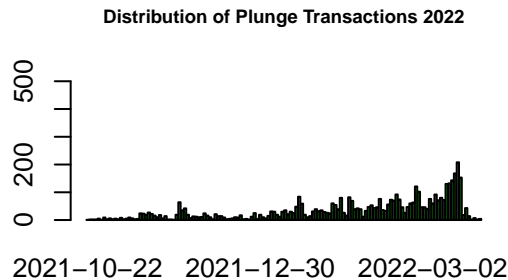
- 29% of all fundraising in month before plunge
- 2620 B. Plunge donations, avg donation was \$80.08 for a total of \$209,809.60 (registration fees included)
- 1278 Cool Schools donations, avg donation was \$45.11 for a total of \$57,650.58

Observations: Anomaly year, unwise to draw conclusions from distributions. Tiny percentage of fundraising in month before event compared to other years, Cool Schools distribution similarly flat/disappears during Spring Break? Average transaction amount for both B. Plunge and Cool Schools jumps considerably, despite total transactions for both being a fraction of previous.

2022 Plunge and Cool Schools (Plunge date = 3/12/2022)

```
## Usage: multifig(rows,cols)
```

```
## [1] "OK"
```



- 56% of all fundraising in month before plunge
- 4801 B. Plunge donations, avg donation was \$71.81 for a total of \$344,759.81 (registration fees included)
- 2402 Cool Schools donations, avg donation was \$46.47 for a total of \$111,620.94

Observations: B. Plunge Distribution is much more spread out than '18-'20, without huge spike before event. Majority of fundraising still occurred in month prior to event, though to a lesser degree. Noticeably less total transactions than '18-'20, but noticeably higher average transaction. Cool Schools distribution no longer mirrors previous years, still with uptick of frequency before event, but not as extreme. Noticeably less total transactions for Schools, but higher average transaction amount. Diff in total fundraising due to date?

Conclusions

The frequency of donations for B. Plunge remained generally unchanged from 2018-2020. Minimal early on, picking up steam a month before the event, and spiking massively a day or two before the plunge. 2021 can be cast to the side, but 2022 looked drastically different than the other listed years. How do we maintain the steady fundraising early on, but add a bigger spike before the event? 2020 appeared to be the most successful year, mainly due to a higher number of transactions.

The frequency of donations for Cool Schools remained nearly identical from 2018-2020, likely due to consistent efforts by key schools. 2022 offered a similarly shaped distribution, but with much less frequency. Is this due to the change in date?