2022 Q1 Marketing Report

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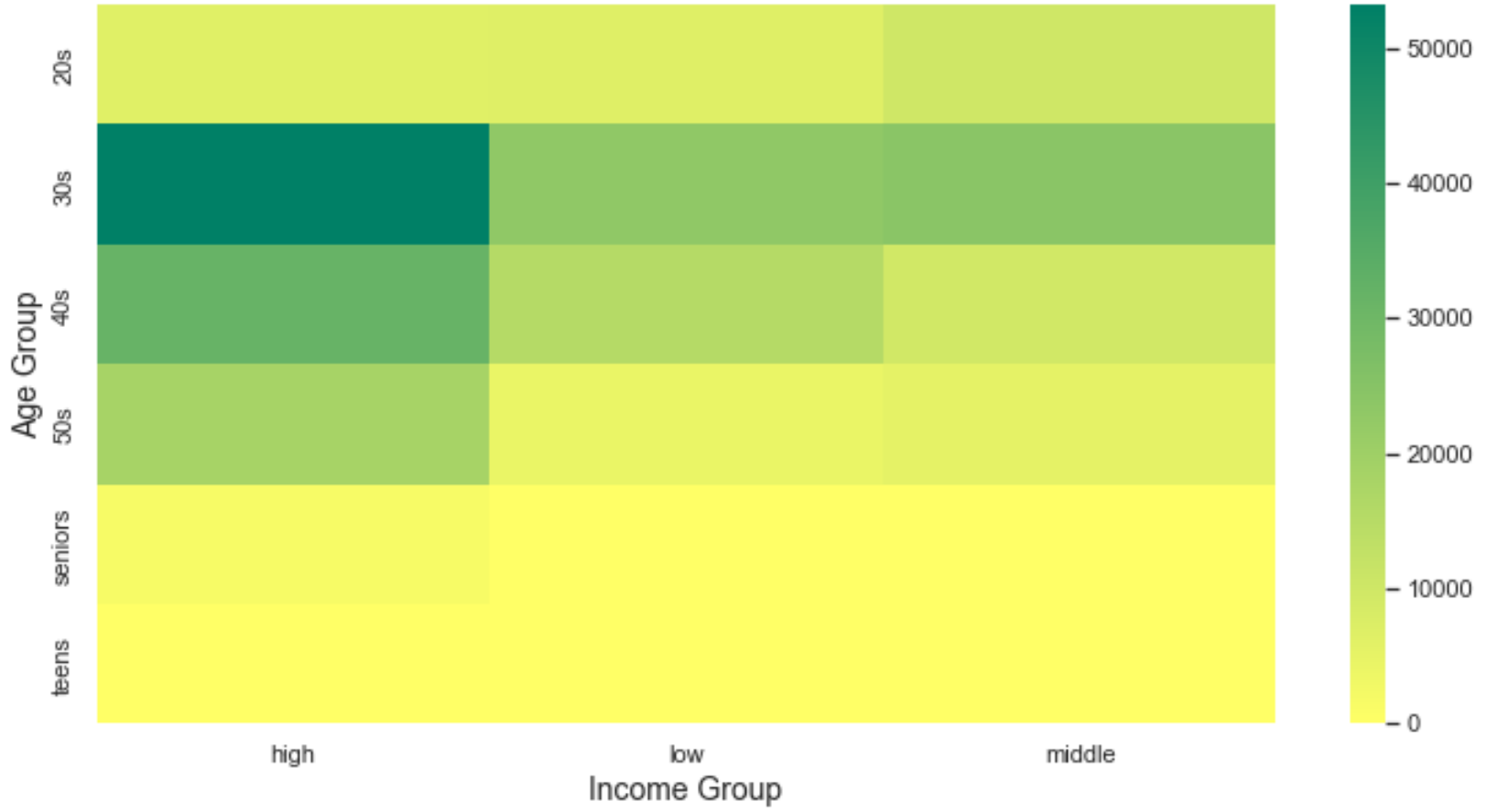
Outline

- KPIs
- Revenue by Demographic Groups
- Sales Funnel
- ROI
- Email Campaigns
- Summary

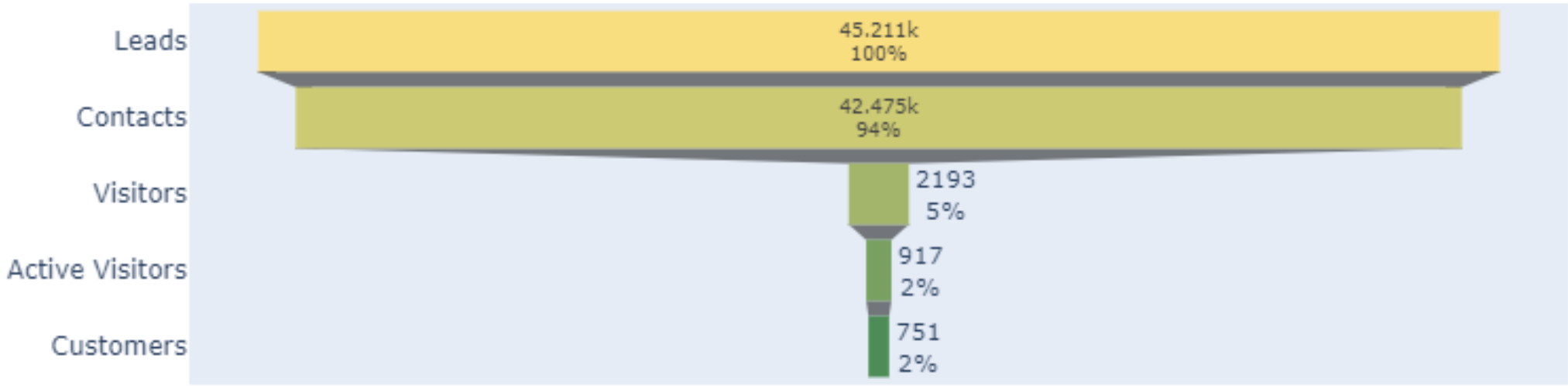
KPIs

22.87%	6.05%	$50.83	202
conversion rate	customer churn rate	revenue per order	avg daily views

Revenue by Demographic Groups



Sales Funnel



ROI

$50k

cost for leads

$213k

revenue from leads

4.26%

return on investment

Email Campaigns

A: End of January

B: Start of March

Email Campaigns

```
from statsmodels.stats.proportion import proportions_ztest
import numpy as np

significance = 0.05

sample_success_a, sample_size_a = (65, 10050)
sample_success_b, sample_size_b = (96, 10686)

successes = np.array([sample_success_a, sample_success_b])
samples = np.array([sample_size_a, sample_size_b])

stat, p_value = proportions_ztest(count=successes, nobs=samples,  alternative='smaller')

print('z_stat: %0.3f, p_value: %0.3f' % (stat, p_value))
if p_value > significance:
   print ("There is no difference between the email campaigns.")
else:
   print ("There is a difference between the email campaigns.")
```

```
z_stat: -2.063, p_value: 0.020
There is a difference between the email campaigns.
```

Email Campaigns

```
# calculate mean
camp_a_average=df_a[df_a["purchased"]>0].mean(numeric_only=True, skipna=True)["dollars"]
camp_b_average=df_b[df_b["purchased"]>0].mean(numeric_only=True, skipna=True)["dollars"]
print (camp_a_average, camp_b_average)
```

```
51.71307692307684 55.146249999999874
```

```
# calculate standard dev
camp_a_std=df_a[df_a["purchased"]>0].std(numeric_only=True, skipna=True)["dollars"]
camp_b_std=df_b[df_b["purchased"]>0].std(numeric_only=True, skipna=True)["dollars"]
print (camp_a_std, camp_b_std)
```

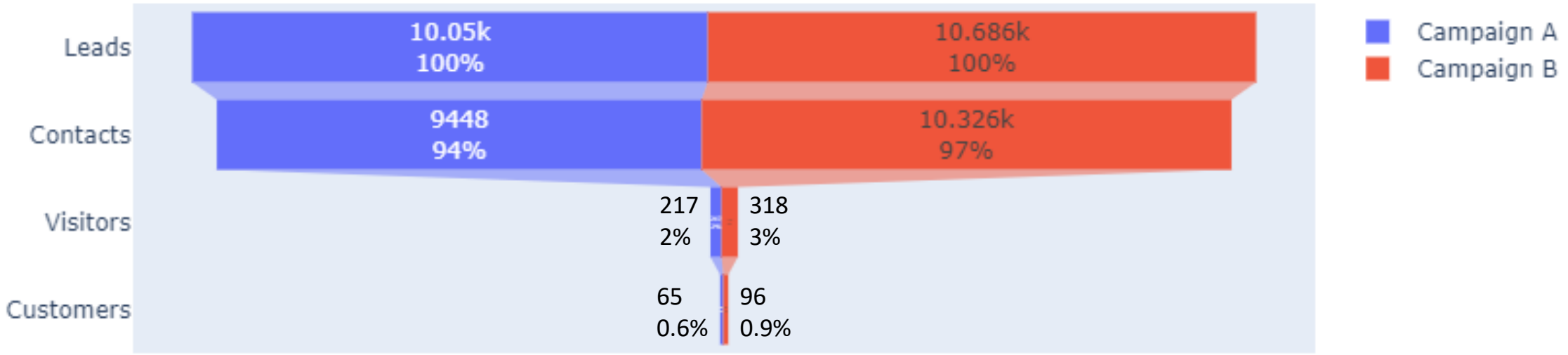
```
30.385290279749103 26.416632768808842
```

```
from scipy.stats import ttest_ind, ttest_ind_from_stats
significance = 0.05
t, p =ttest_ind_from_stats(camp_a_average, camp_a_std, nobs1, camp_b_average, camp_b_std, nobs2, equal_var=False, alternative='less')

print('t_stat: %0.3f, p_value: %0.3f' % (t, p))
if p > significance:
   print ("Campaign A's revenue is comparable to Campaign B's.")
else:
   print ("Campaign A's revenue is less than Campaign B's.")
```

```
t_stat: -0.741, p_value: 0.230
Campaign A's revenue is comparable to Campaign B's.
```

Sales Funnel By Campaign



KPIs By Campaign

Campaign A

29.95%

conversion rate

$51.71

revenue per order

Campaign B

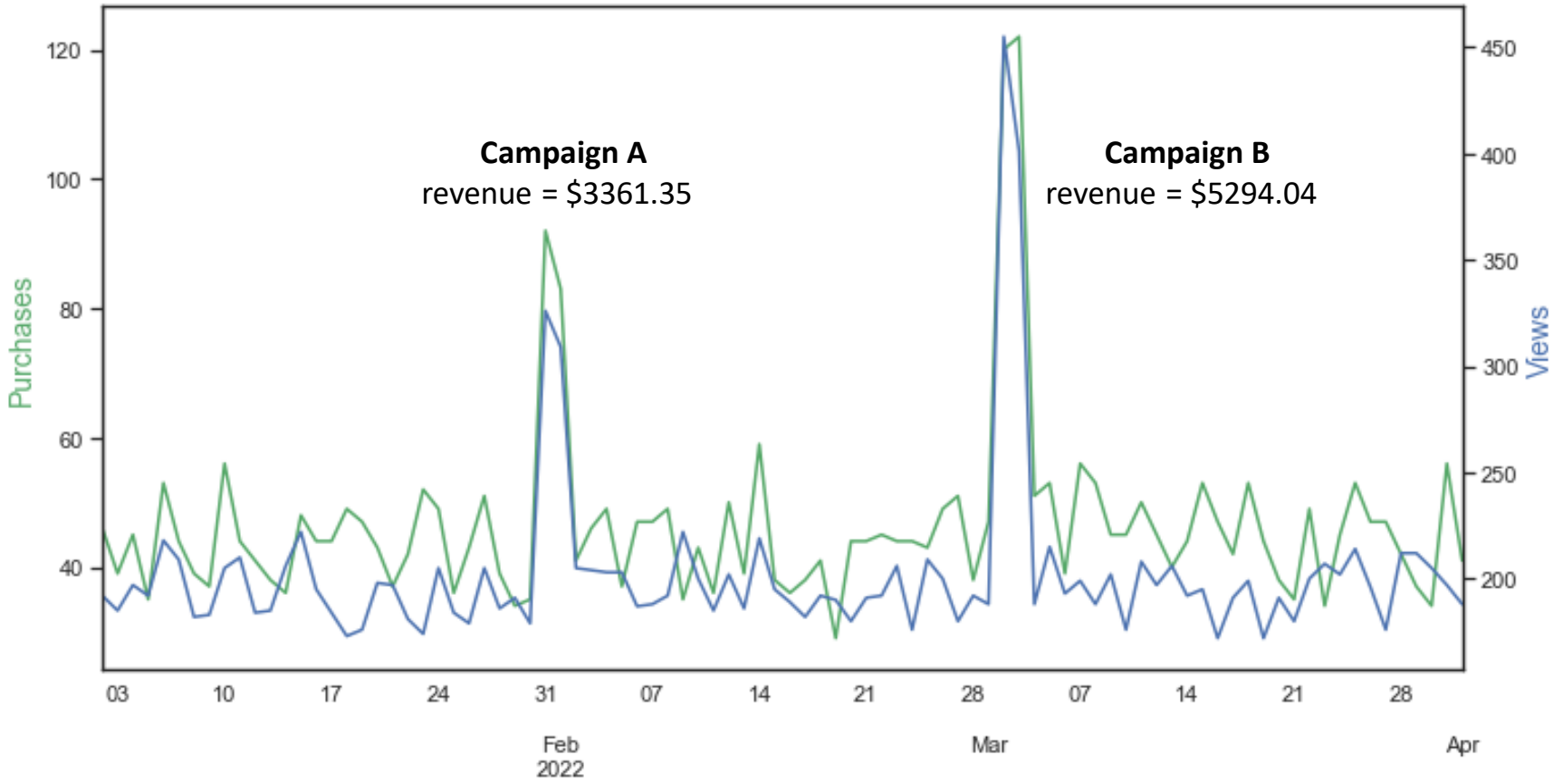
30.19%

conversion rate

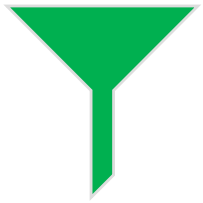
$55.15

revenue per order

Email Campaigns



Summary



Purchase more leads.

Target high-income 30-50-year-olds.

Continue email campaigns.

Thank you.

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