Memo

When inspecting the data, our data scientists attempted to find correlations between the amount phone calls and the amount of accounts that eventually subscribed to the bank term deposit product. We found that more calls led to an increased number of subscriptions, but at a decreasing rate. Intuitively, this makes sense to us, so we wanted to see which accounts were more likely to sign up based on the balance of accounts that did sign up and the balance of accounts that did not sign up. In order to do this we've provided box plots of the balances for accounts this did and did not subscribe in the product. Our plots found evidence of increased subscriptions from accounts with a higher balance compared to the accounts that did not sign up. The average account balance for subscriptions was \$1423.75, while the average account balance for accounts that did not subscribe was \$1066.04. With this information, we can infer that accounts with a higher balance are more likely to subscribe to the product than those with a lesser balance. As we looked at the data, we noticed that the vast majority of accounts received only one phone call during the marketing campaign, with a downward trend in the number of calls after one. We believe that the best strategy going forward would be to contact all accounts that received only one phone call and have at least a \$750 dollar balance in their account. We can infer that accounts with more money have an increased ability to make more deposits into their long-term savings accounts, and believe this course of action would benefit both individuals using the bank for daily transactions and the bank's treasury through a higher number of deposits into long-term savings accounts. Below, we have provided boxplot visualizations of the balances of accounts for those who did, and do not subscribe to the bank term deposit program through the marketing campaign.

Dan Williams, Tony Tedesco, Amanda Spillane, Minghan Wang SSC 442 Group 8 21 January 2020

