

Telemarketing Campaign to Increase Subscribers in Bank Term Deposits

Data Analysis of Investor Profiles at the Bank of Portugal
from 2008-2010



Agenda

1 | BUSINESS GOAL

2 | DATA: PROFILES OF
PROSPECTIVE INVESTORS

3 | STATISTICS ON RATES OF
INVESTMENT

4 | MODEL TO PREDICT

5 | MARKETING PLAN
SUGGESTIONS

6 | NEXT STEPS

7 | THANK YOU

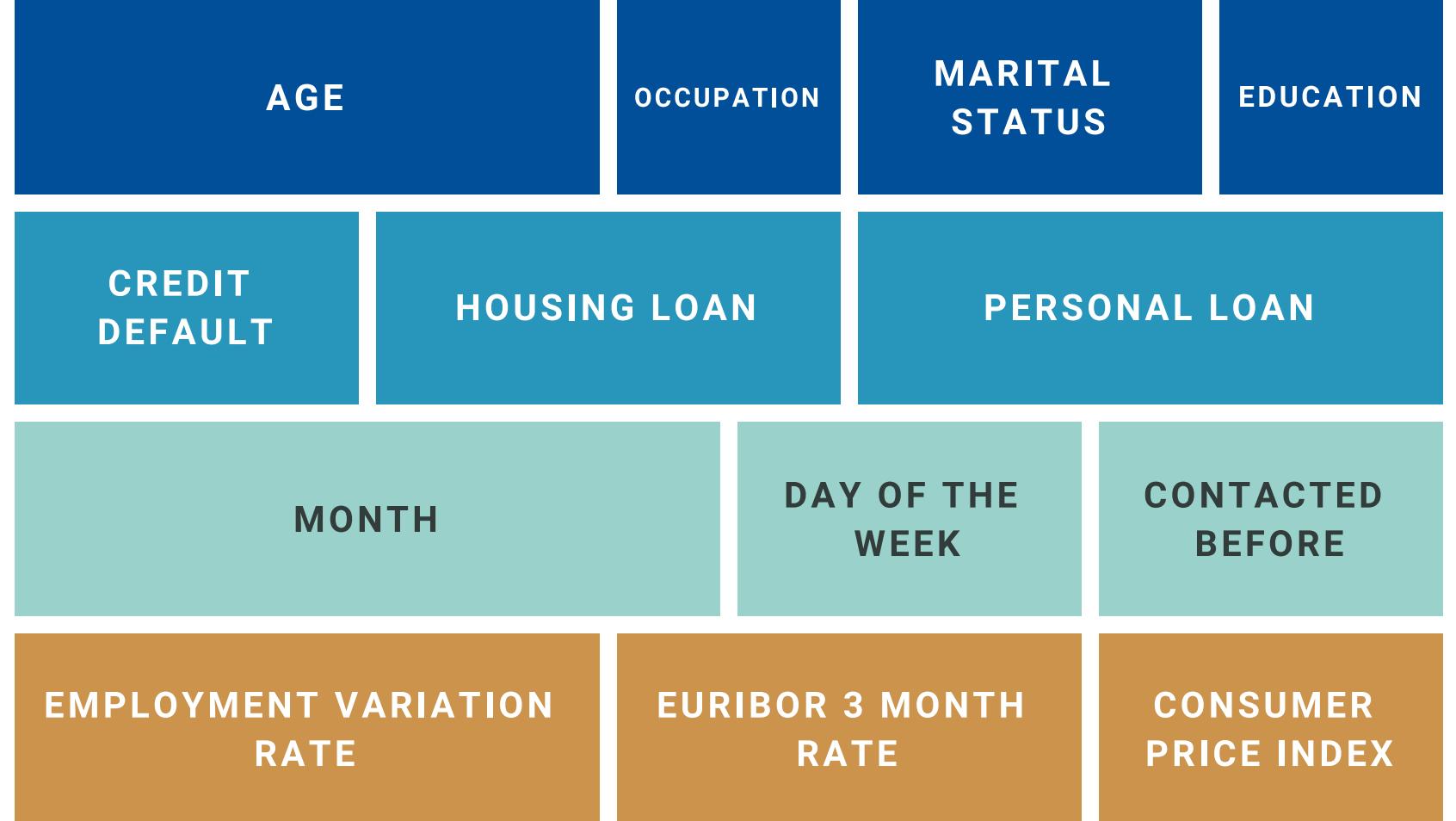
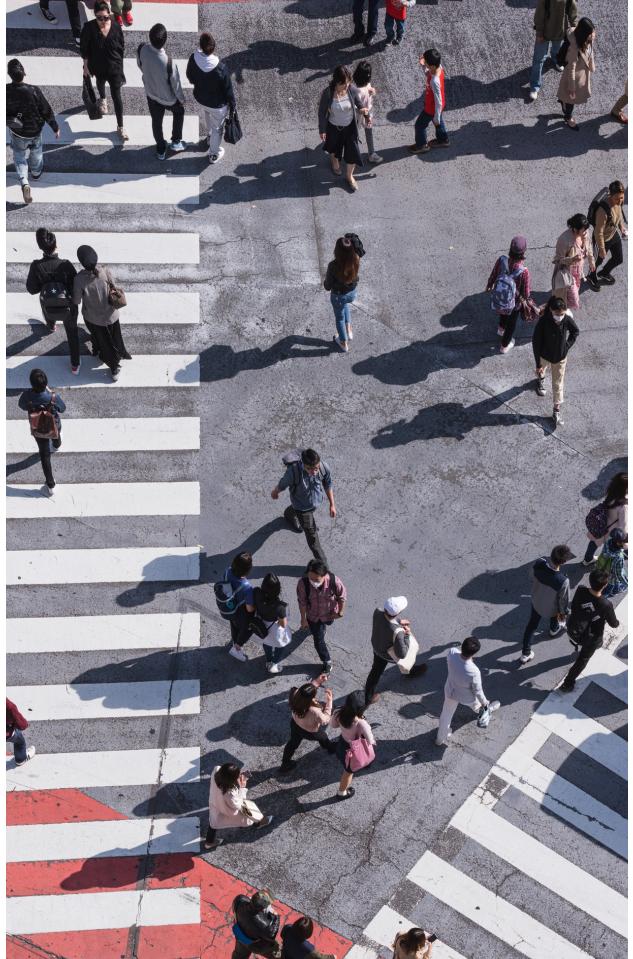
Business Goal



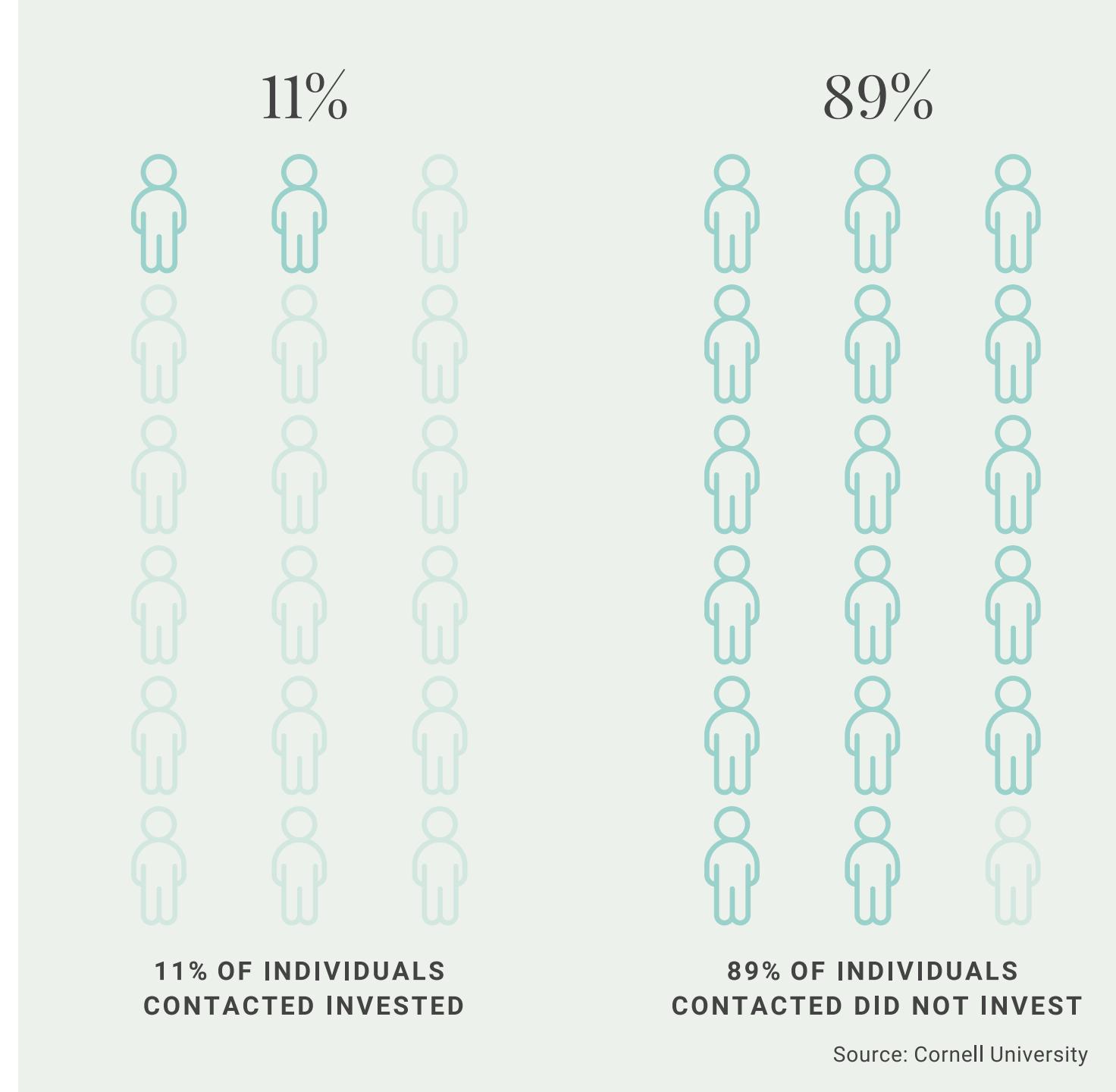
USING HISTORICAL DATA, WE
BUILT A MODEL TO PREDICT
**FUTURE SUBSCRIBERS IN BANK
TERM DEPOSITS** IN ORDER TO
DEVELOP A TARGETED
TELEMARKETING STRATEGY
FOR THE BANK OF PORTUGAL.

Data: Profiles of Prospective Subscribers

45,211 Individuals - (from May 2008 to November 2010).



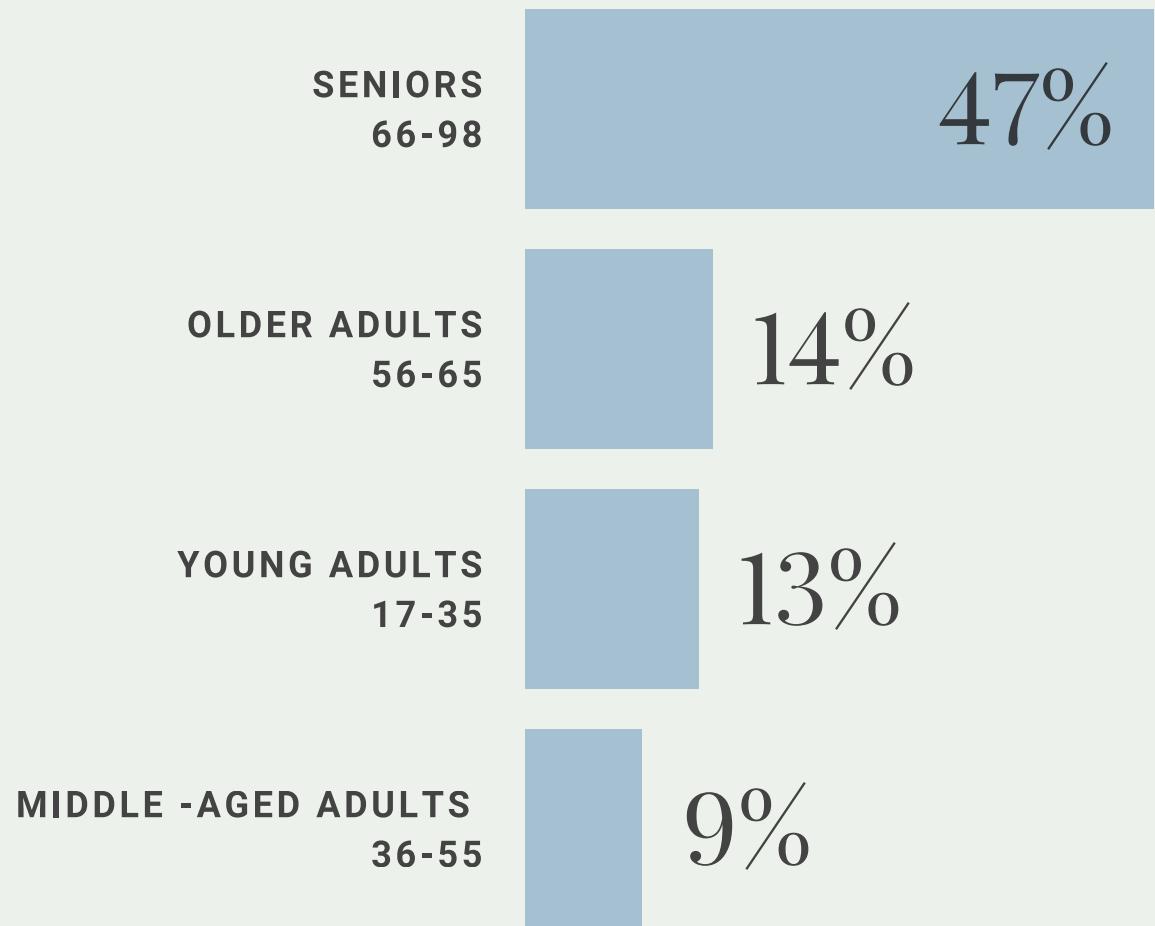
2008-2010 Campaign Outcome



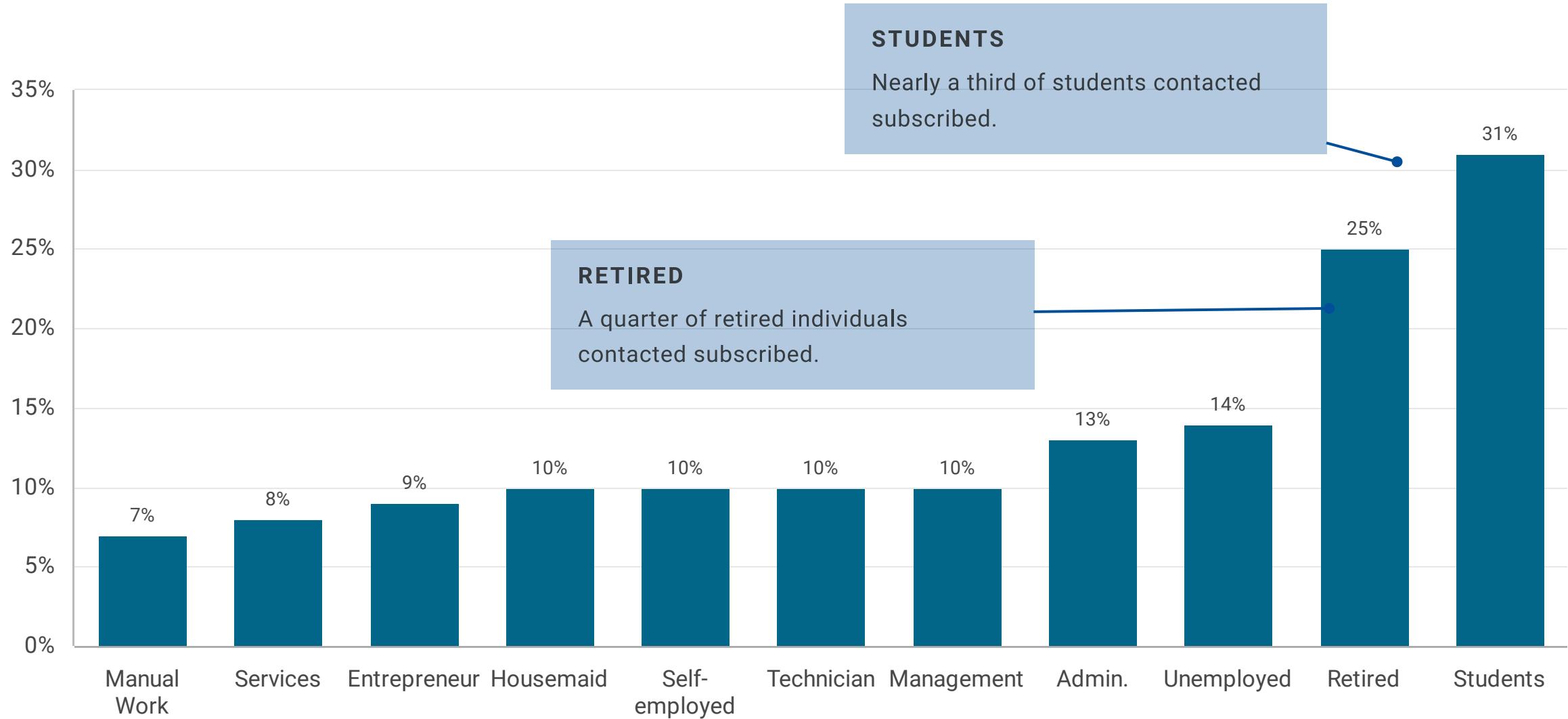
Source: Cornell University

Age of Subscribers

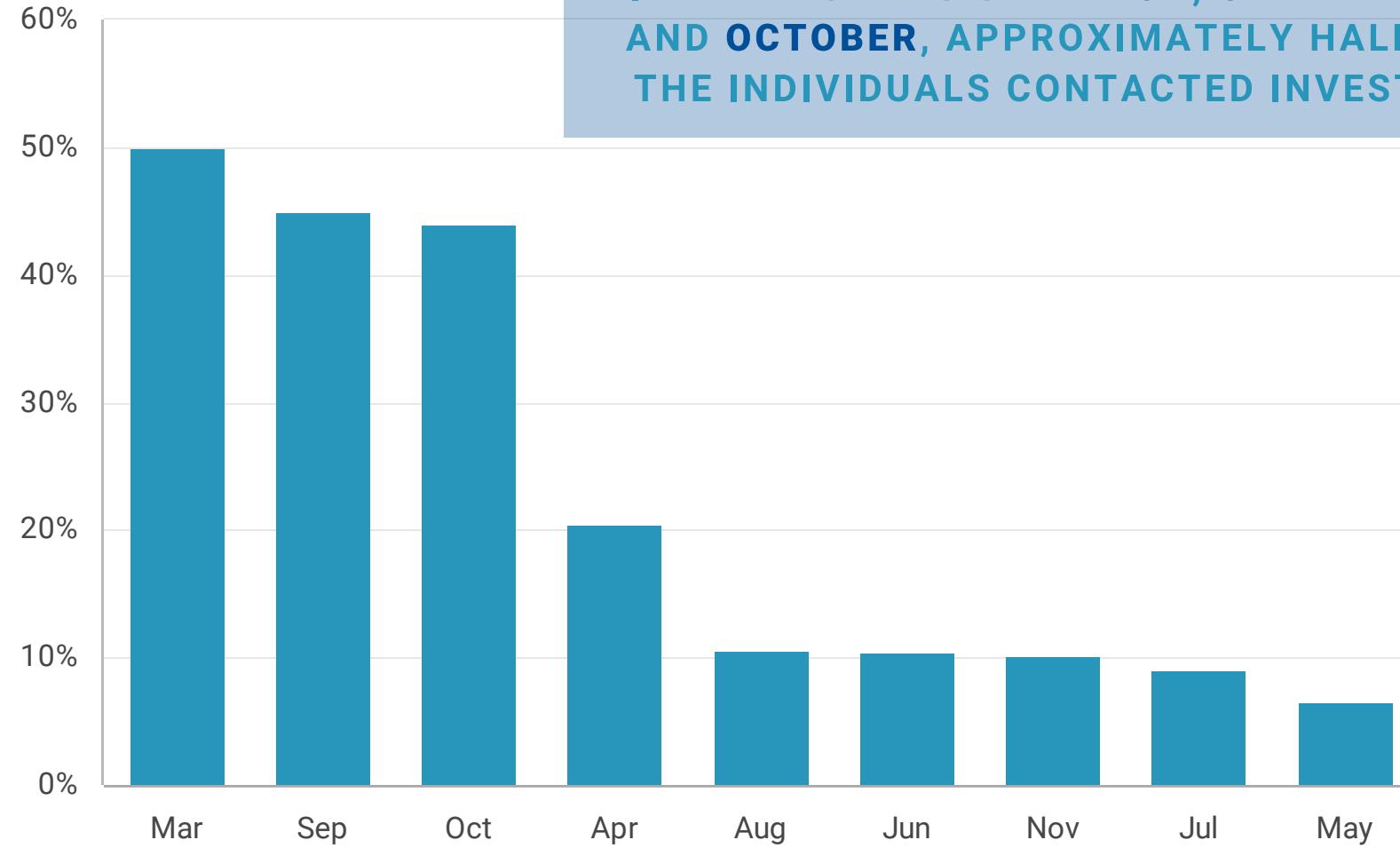
Rate of subscription per age group



Rate of Subscription Based on Occupation



Rate of Subscription per Month



IN THE MONTHS OF MARCH, SEPTEMBER,
AND OCTOBER, APPROXIMATELY HALF OF
THE INDIVIDUALS CONTACTED INVESTED.

NUMBER OF CALLS	
May	13767
Jun.	5318
Nov.	4100
Apr.	2631
Oct.	717
Sep.	570
Mar.	546
Dec.	182

Note: December is not shown in the bar chart given the few calls made

Method of Communication

CONTACTING A PROSPECT VIA A CELLULAR PHONE, LEADS TO A HIGHER LIKELIHOOD OF INVESTMENT

LANDLINES

787

787 OUT OF
15,041(5.3%)
SUBSCRIBED

CELLULAR

3,852

3,852 OUT OF 26,135
(15%) SUBSCRIBED

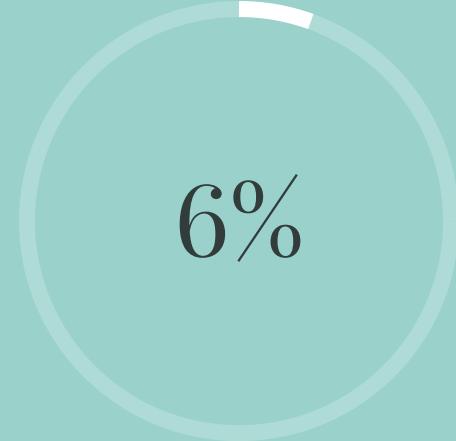


Number of Calls

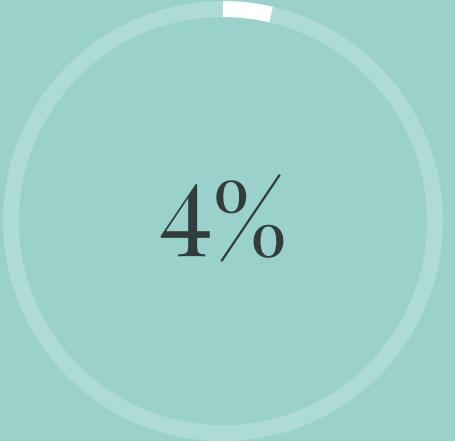
PROSPECTS/INDIVIDUALS RECEIVING 1-6 CALLS WERE MORE LIKELY TO SUBSCRIBE.



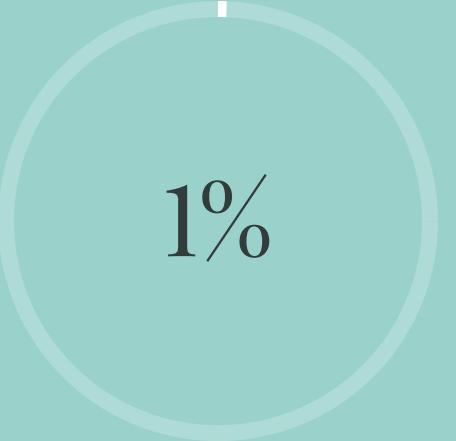
1 - 6 CALLS



7- 10 CALLS



11 - 20 CALLS

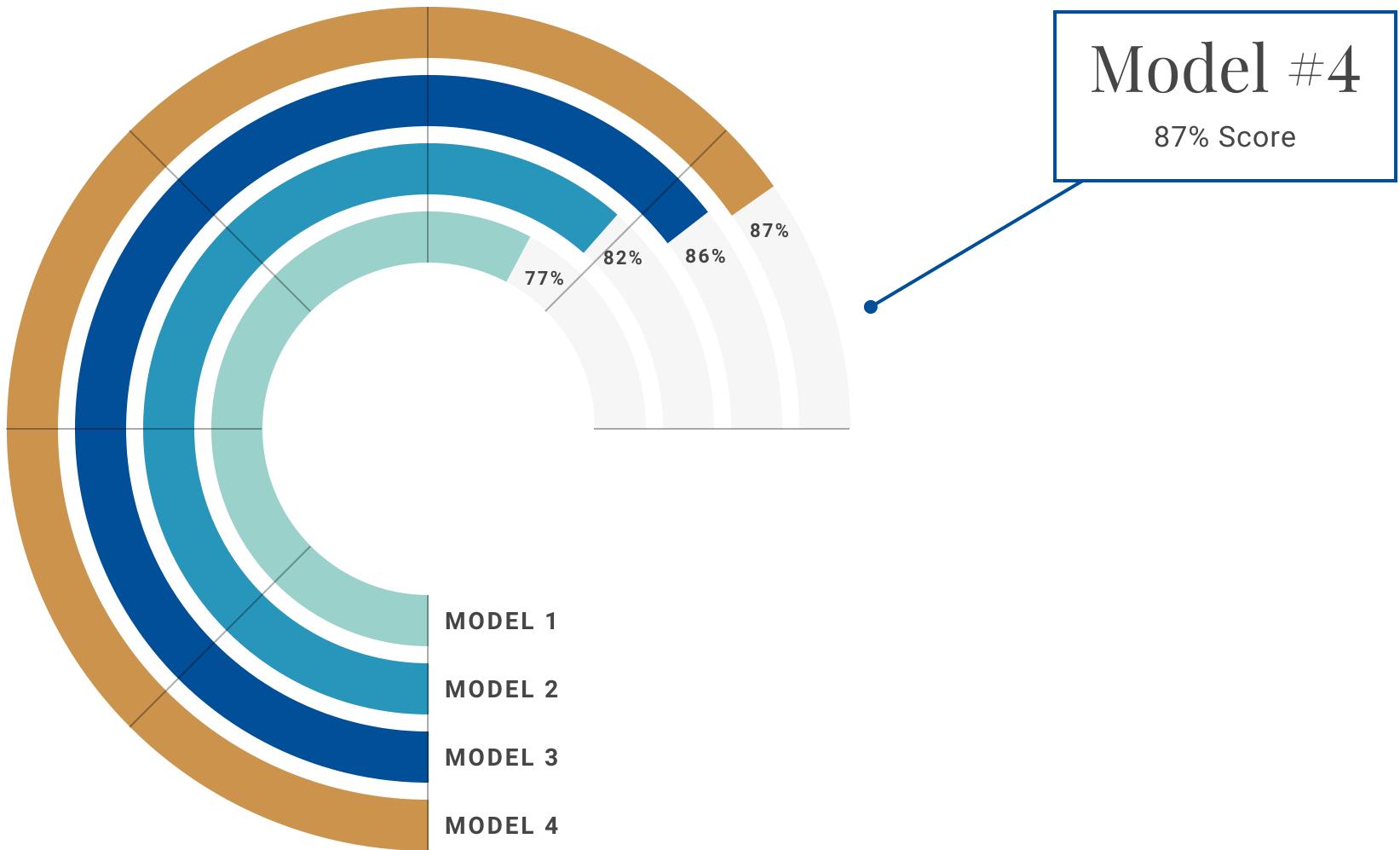


21 + CALLS

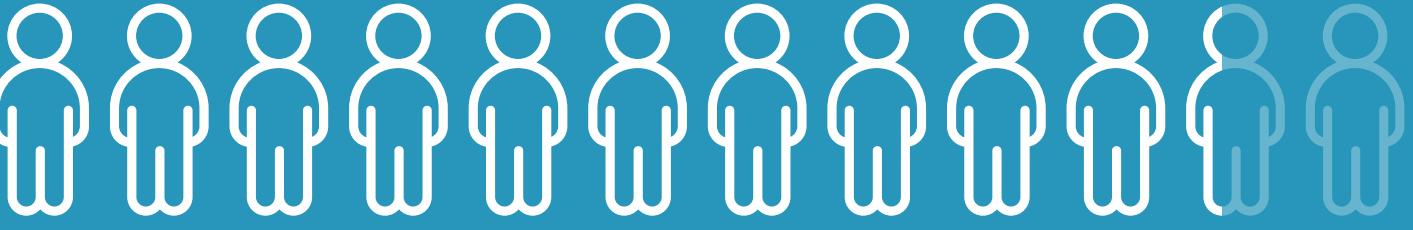


Comparing Models

THE ACCURACY OF THE MODEL
REFLECTS HOW WELL A MODEL
CAN PREDICT NEW CUSTOMERS.



Model Evaluation

87% 

F1 Score: On average the model is able to predict correctly 87% of the time.

MODEL TAKES INTO ACCOUNT FOR BOTH: FALSELY PREDICTING THAT THE PROSPECTS WILL SUBSCRIBE, WHEN IN FACT THEY ARE UNLIKELY TO SUBSCRIBE AND FALSELY PREDICTING THE PROSPECTS WILL NOT SUBSCRIBE, WHEN IN FACT THEY ARE LIKELY TO SUBSCRIBE,

Important Features Generated by the Model

The features with the largest influence to predict subscription.



3 MONTHS EURIBOR RATE

The interest rate at which a European banks lend one another funds in euros. The loans have a maturity of 3 months.



AGE

Subscription rates differ among age groups.



CAMPAIGN

The number of times that the individuals will be contacted during the campaign.

Main Marketing Strategies Suggestions



- **SOCIOECONOMIC**

Increase call volume when 3 Month Euribor rate and Consumer Confidence Index are high. A prospect is more likely to invest in a term deposit knowing that they will receive a high interest rate and when economy has an optimistic outlook.



- **DEMOGRAPHICS**

Target Students , Retired Individuals, and Seniors, groups which are more likely to subscribe.



- **TIMING**

Increase call volume in months of March, September and October, which have higher subscription rate.

Next Steps





THANK
YOU

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