Lesson #1: What makes CX scores fluctuating

- **Natural dynamics of the market**

- **Sample size:**
  - 4x sample size will reduce variance by half

- **Ratio score:**
  - NPS is a ratio-based score just like TOP2 boxes
  - The fewer people "hit the box" (e.g., when most are neutral, 7 or 8), the more unstable will the score be.

- **Weighting**
  - Extreme weights multiply the ration effect

Lesson #2: Simple tactics to mitigate the effect

- **Use a Fuzzy computation of NPS**

- **Boosted sample for extreme weights**

- **Moving average with past value.**

- **Weighted average with global score.**

- **All needs simulation exercise to proof impact**
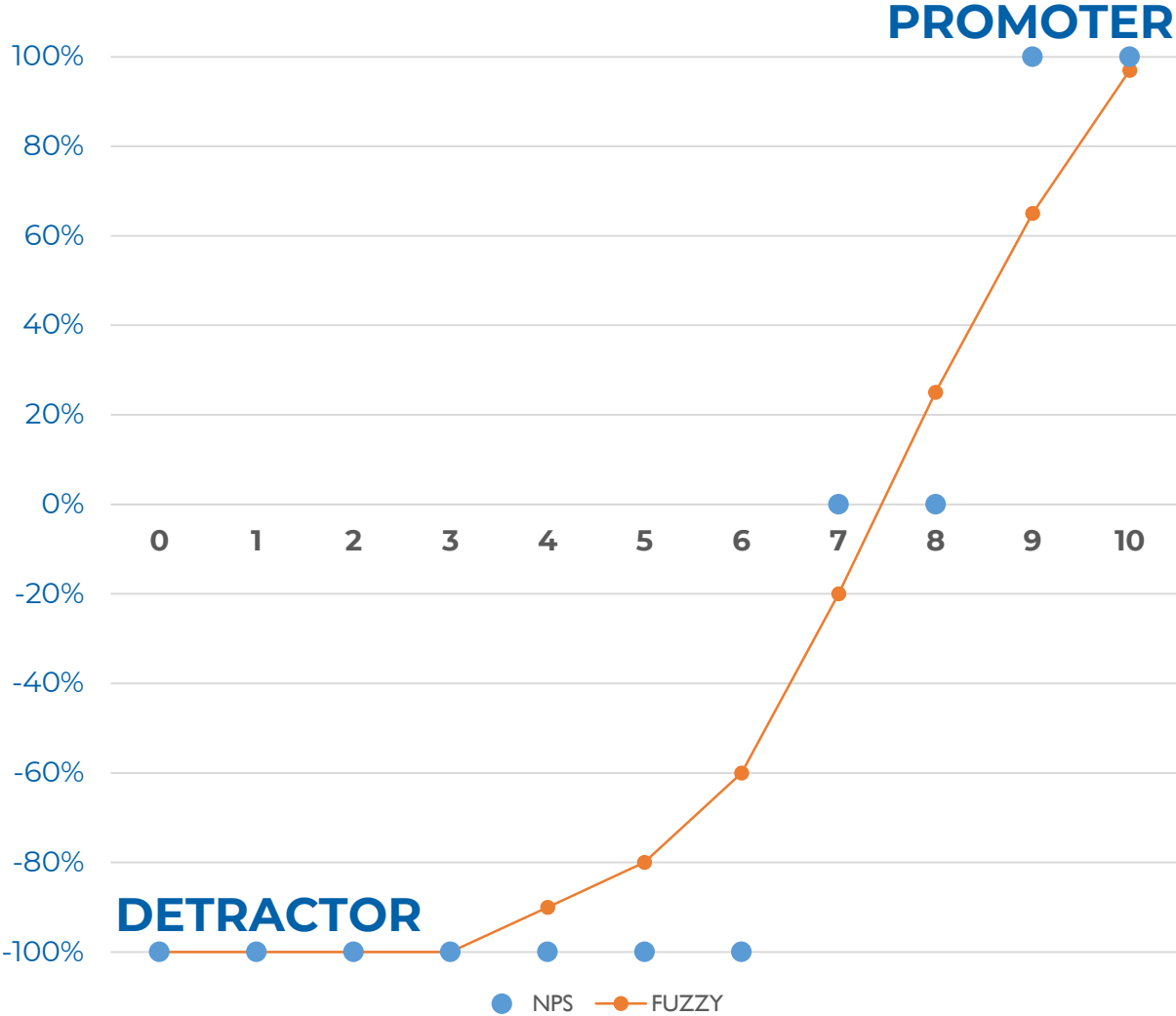
Lesson #3: Calibration Modeling

Predictors

- Score last term

- Score before last term

- Score change of other segments

- Score change of other regions

- Sample size

- Mean not score

- Average not all others but use most correlating "TWIN" splits

- Other indicators you have about the splits, e.g., sales numbers, churn, etc.

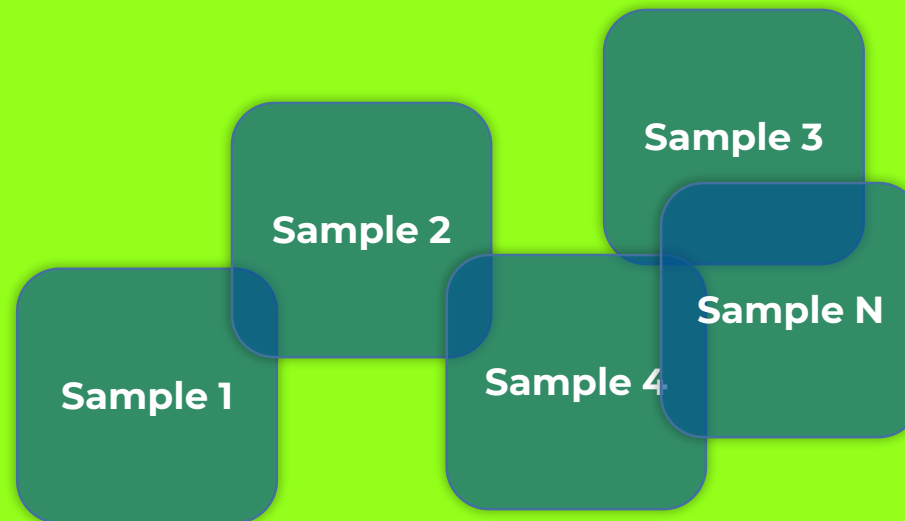- **No not use other items of the same survey.**

MODEL
(to be build by ML)

- **Predicted score**

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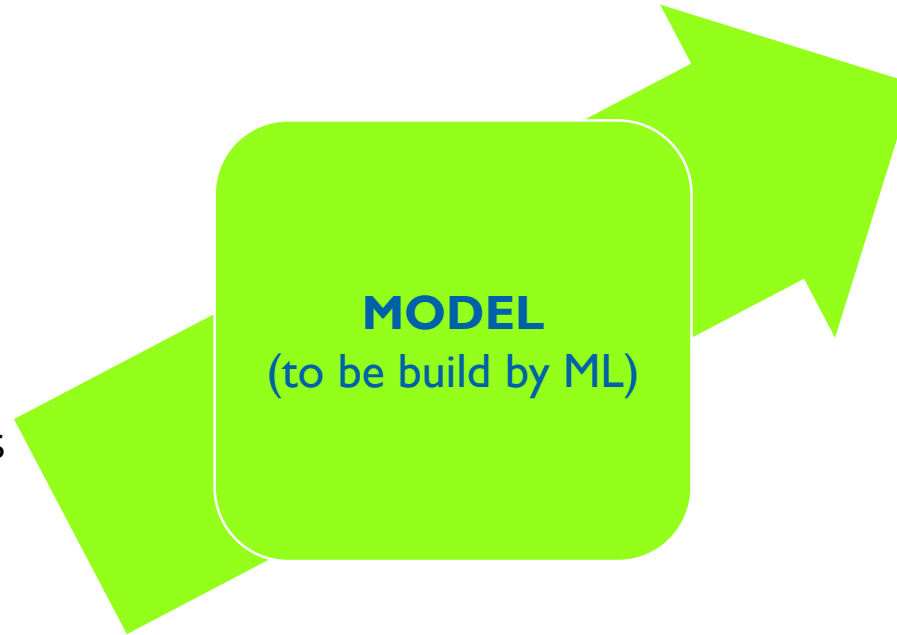
Lesson #4: Calibration needs proof thru simulation

- No matter if simple or ML based, all calibration needs a proof thru simulation

Sample Results
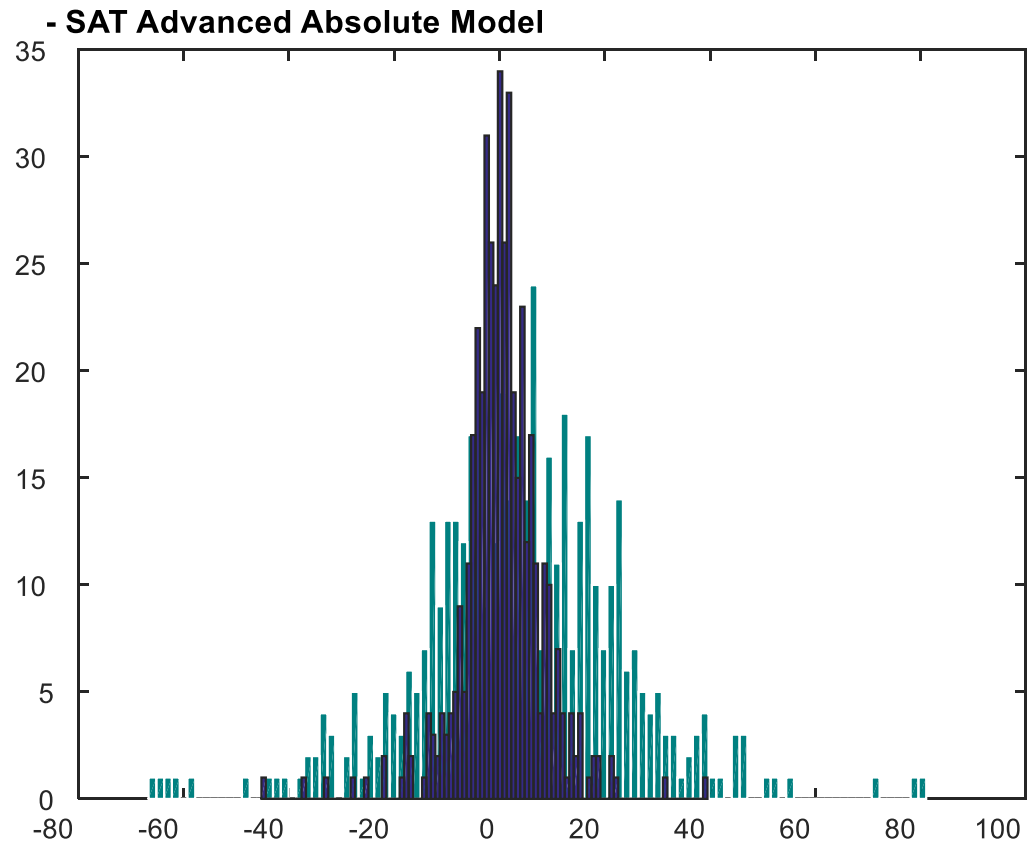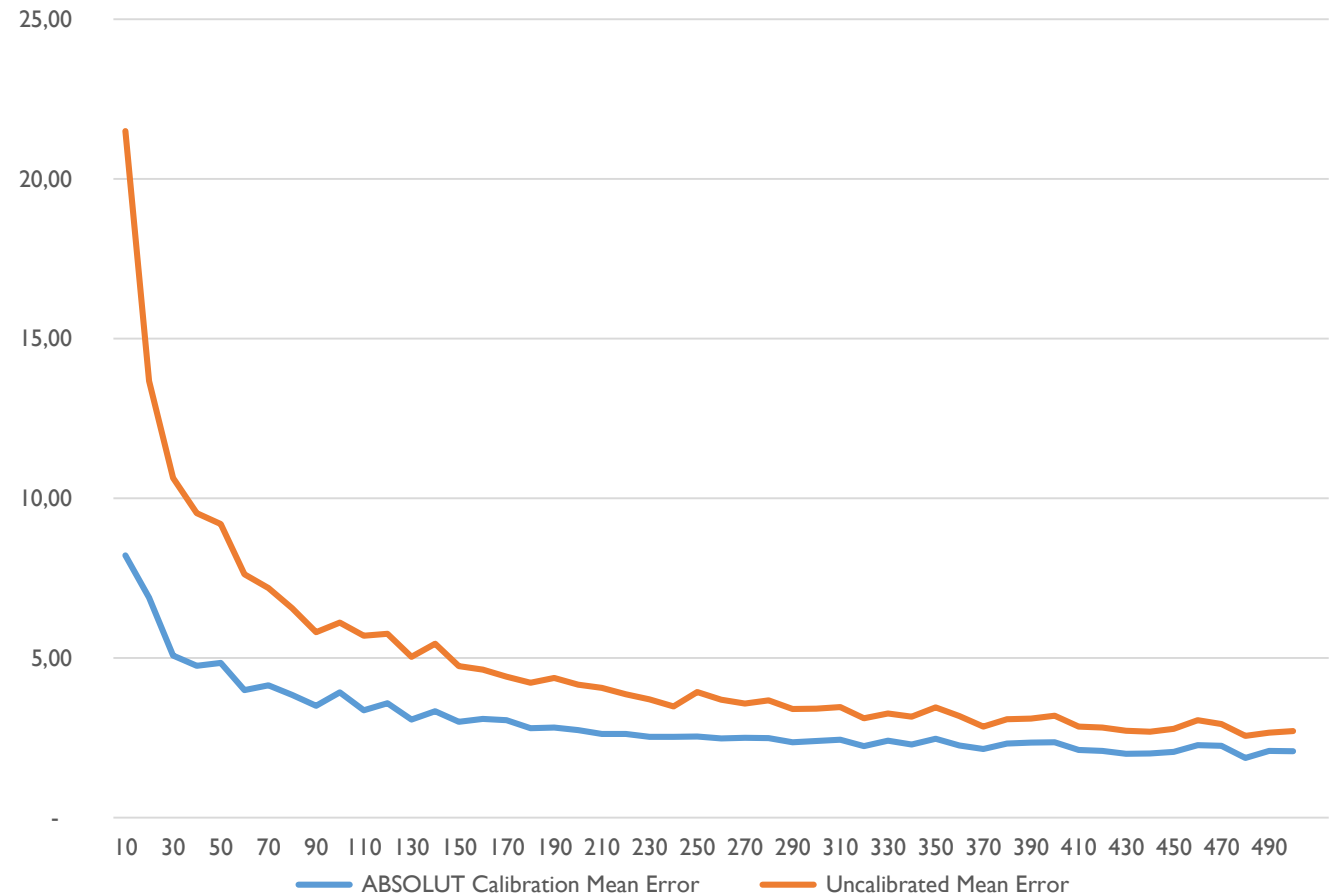
▪ **Score change with vs without calibration**

▪ **Simulated error towards true score as a function of sample size**

- SAT Advanced Absolute Model

ABSOLUT Calibration Mean Error   Uncalibrated Mean Error

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Summary Class #10

- **Scores build from limited sample size are strongly fluctuating around truth**

- **Part of the problem is the way we calculate the score**

- **Some easy fixes can make score more stable**

- **ML-based modeling is the most powerful way to bring EVERY score closer to the truth**

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