Applied Superforecasting

Society of Decision Professionals

Dr Warren Hatch
CEO, Good Judgment Inc

From Robust Research to Practical Tools for Decision Making

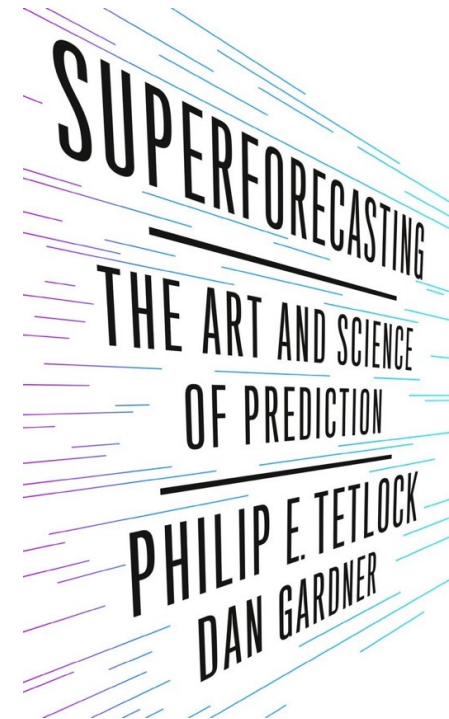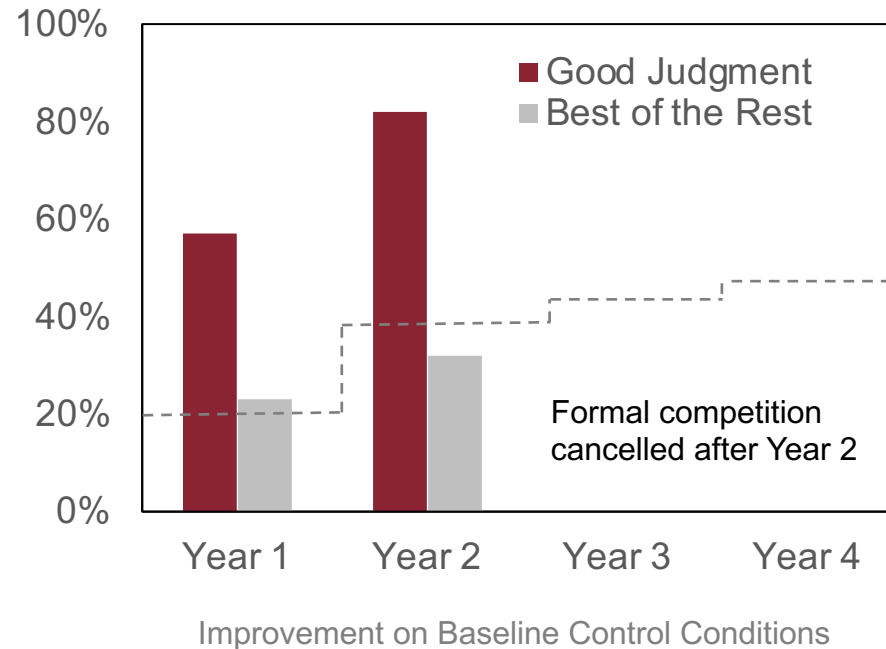AI and The Future of Superforecasting in the Decision Process

US Gov't Geopolitical Forecasting Tournament

Two core requirements:

Forecasts to be submitted as a numerical probabilities at the end of every day.

Forecasting process to include the "wisdom of the crowd."

Improvement on Baseline Control Conditions
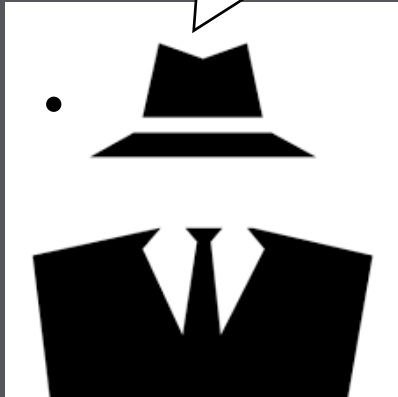
How to Boost Forecasting Accuracy 75%

75%
Boost

Aggregation

Superforecasting Applications

Effective Teams

Screening New Hires/Interns

De-biasing Training

Training Workshops

Finding Right
Forecasters

Superforecasts

Embedding in the Decision Process

Improvement on
Baseline Control
Conditions

Superforecasting Covid 19

Early 2020: How serious will the pandemic be?

Many leading experts said the risks were small:
- US CDC Director John Redfield: "The risk to the public is **low**."
- UK Health Minister Matt Hancock: The risk to the UK public is "**low**."
- Nobel laureate Michael Levitt: The virus will **probably** disappear from China by the end of March 2020.

Superforecasters: The base case will see a 6-digit caseload before April 2020.
Outcome: Total global cases rose above 200,000 on 19 March 2020.
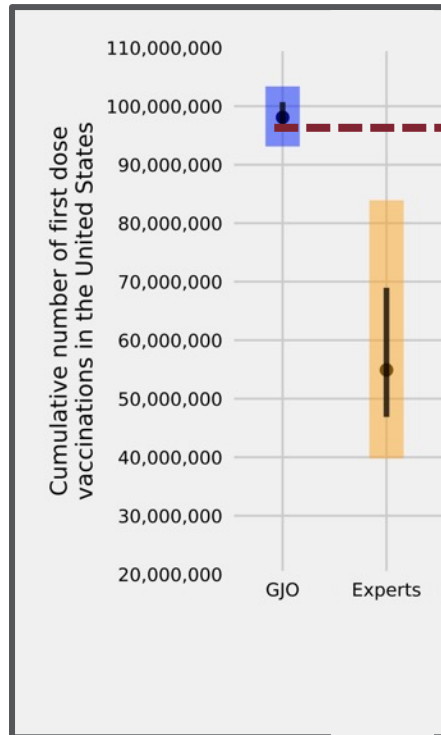
Superforecasting Covid 19 Vaccination

In January 2021, we asked this question: At the end of March 2021, what will be the cumulative number of people who receive one or more doses of a COVID-19 vaccine in the US?
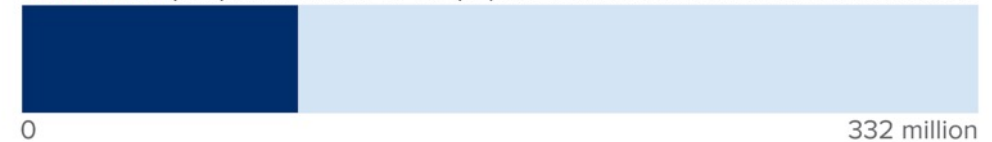
Superforecasters (GJO)

VS.

Experts in modeling infectious diseases

Cumulative number of first dose vaccinations in the United States

	GJO	Experts

U.S. vaccination progress

96.0 million people, or 28.9% of the population, have received at least one dose

0 — 332 million

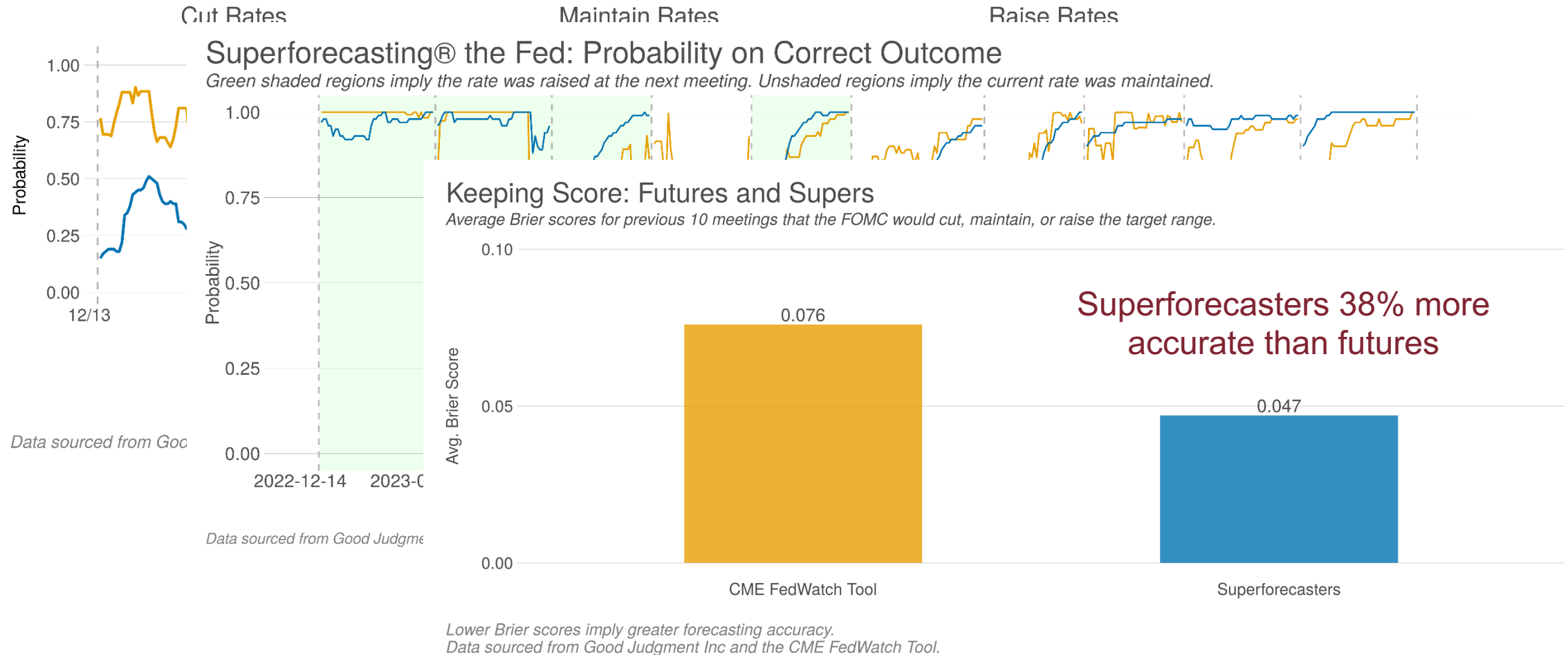**53.4 million** people, or 16.1% of the population, are fully vaccinated

0 — 332 million
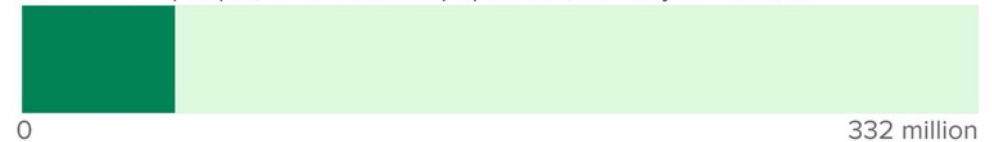
SOURCE: Centers for Disease Control and Prevention (CDC). Data as of 3/30/21. Figures include U.S. territories. The CDC includes recipients of the one-shot Johnson & Johnson vaccine in both of the above categories.

CNBC

Superforecasting The Fed

Superforecasting® The Fed's March 2024 Meeting Decision

Cut Rates | Maintain Rates | Raise Rates

Superforecasting® the Fed: Probability on Correct Outcome

Green shaded regions imply the rate was raised at the next meeting. Unshaded regions imply the current rate was maintained.

Keeping Score: Futures and Supers

Average Brier scores for previous 10 meetings that the FOMC would cut, maintain, or raise the target range.

0.076 — CME FedWatch Tool

0.047 — Superforecasters

Superforecasters 38% more accurate than futures

Lower Brier scores imply greater forecasting accuracy.
Data sourced from Good Judgment Inc and the CME FedWatch Tool.

Data sourced from Good Judgme

Data sourced from Goo

Superforecasting Decision Cycle

Different skills are needed at different parts of the Superforecasting decision cycle

Few individuals have all skills

Experts are great question askers but not always good forecasters—unless they receive feedback as forecasters

Also, having the forecasters outside of the decision itself helps ensure independent judgments for the decision-maker

Decision-Makers
Judgment about what matters for a decision

Expert Question Writers
Synthesis of past trends and future risks to craft the right questions

Forecasters
Judgment about what matters for a forecast

Report Writers
Synthesis of extensive and complex observations into a crisp narrative

Expertise and Forecasting

1. Identify international military officers on GJOpen

2. Classify questions forecasted by officers into:

- Military confrontation
  (Before 1 March 2021, will there be lethal confrontation between the forces of Taiwan and China?)

- Non-military confrontation
  (Will the Washington Football team win five or more regular season games in 2020 NFL season?)

Accuracy of Military Officers vs. Crowd (baseline)

Non-military questions	Military questions
-17%	-63%

* Based on data before attending workshops

Expertise and Forecasting

1. Post questions on GJOpen that UAE civil servants wrote and considered important to UAE (Will Dubai's EXPO 2020 attract 25 million visits?)

2. Compare performance on UAE questions for:
   • UAE civil servants
   • Crowd

Ideal Forecaster
=
Subject Matter Expertise
+
Forecasting Expertise

Accuracy of UAE Questions vs. Non-UAE Questions (baseline)

7%
Crowd

UAE Civil Servants

-31%
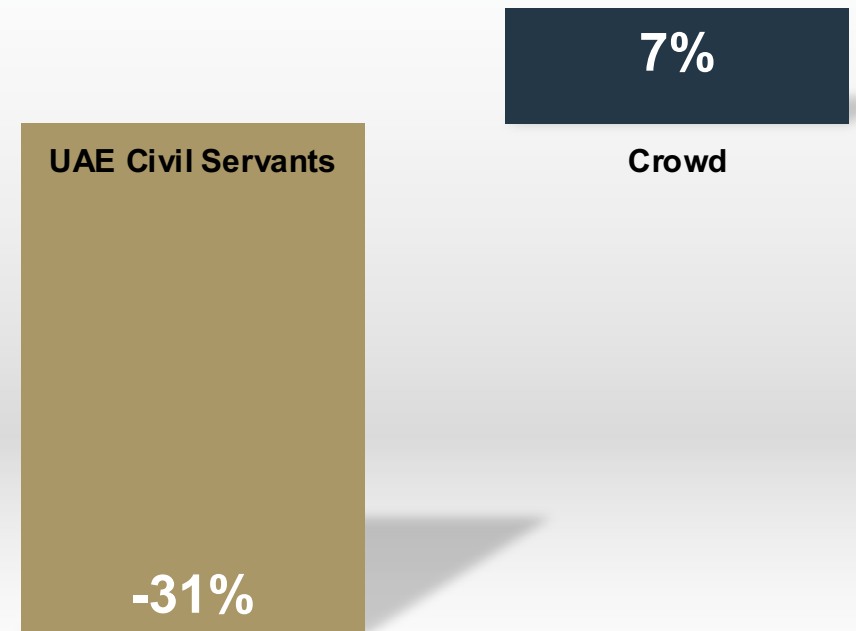
Expertise and Forecasting

AI Risks

In November 2023, we asked: Will a Superhuman Artificial Intelligence have the capability to extinguish humanity by 2100?

Experts: 95%
Superforecasters: 43%

AI in the Superforecasting Decision Cycle

Thank You!

Dr Warren Hatch
CEO, Good Judgment Inc
hatch@goodjudgment.com