

Selected Quantitative Work

DONOVAN ROBERTSON

Quantitative Analyst

Forecasting · Pricing & Risk · Statistical Modelling

AVAILABLE FOR PERMANENT, CONTRACT AND PROJECT-BASED OPPORTUNITIES

Barcelona-based · Hybrid locally · Remote across Europe and internationally

MSc

STATISTICS

Python · R · SQL

QUANTITATIVE STACK

10%

CLIENT IMPACT

www.numerosdon.com

ABOUT ME

SOLVING COMPLEX PROBLEMS
WITH QUANTITATIVE PRECISION

CAREER TRAJECTORY

2020

University of Nottingham

MSc STATISTICS
Strengthened my foundations in probability, statistical inference and modelling, establishing the technical direction for my quantitative career.

2021-2022

Depaul

DATA VOLUNTEERING ANALYST
Volunteered with Depaul, improving their reporting and cutting down manual work so staff had more time to support people experiencing homelessness.

2022-2023

Sports Information Services

TRADING ANALYST
Joined Sports Information Services as the sole Trading Analyst in a newly established sports department, building quantitative tools and improving reporting to support faster, better-informed trading decisions. [See Case Study 03]

2023-2024

Sports Information Services

SENIOR TRADING ANALYST
Analysis contributed to a 10% margin increase for SIS's largest B2B client, earned a Star Performer rating and promotion, whilst developing traders into junior data analyst roles.

2025 - Present

QUANTITATIVE ANALYST
Building and validating statistical and machine-learning systems across sports and healthcare. [See Case Studies 01, 02]



DONOVAN ROBERTSON

Quantitative Analyst

I'm drawn to problems where the answer is uncertain and the right approach is not immediately obvious.

Whether I'm forecasting future outcomes, quantifying risk or identifying pricing and profitability opportunities, I enjoy learning the domain, building the analysis and testing whether the result can genuinely be trusted.

I use AI to accelerate my workflow, but never as a substitute for statistical rigour, validation or judgement.

CORE TOOLKIT

QUANTITATIVE STACK
Python · R · SQL · Excel

MODELLING
Forecasting · Statistical Modelling · Bayesian

VALIDATION
Calibration · Out-of-Sample Testing

VISUALISATION
R Shiny · Power BI

IDENTIFYING HIDDEN RISK IN CANCER WAITING TIMES

Independent Case Study

Risk Forecasting & Decision Support



119k+
records



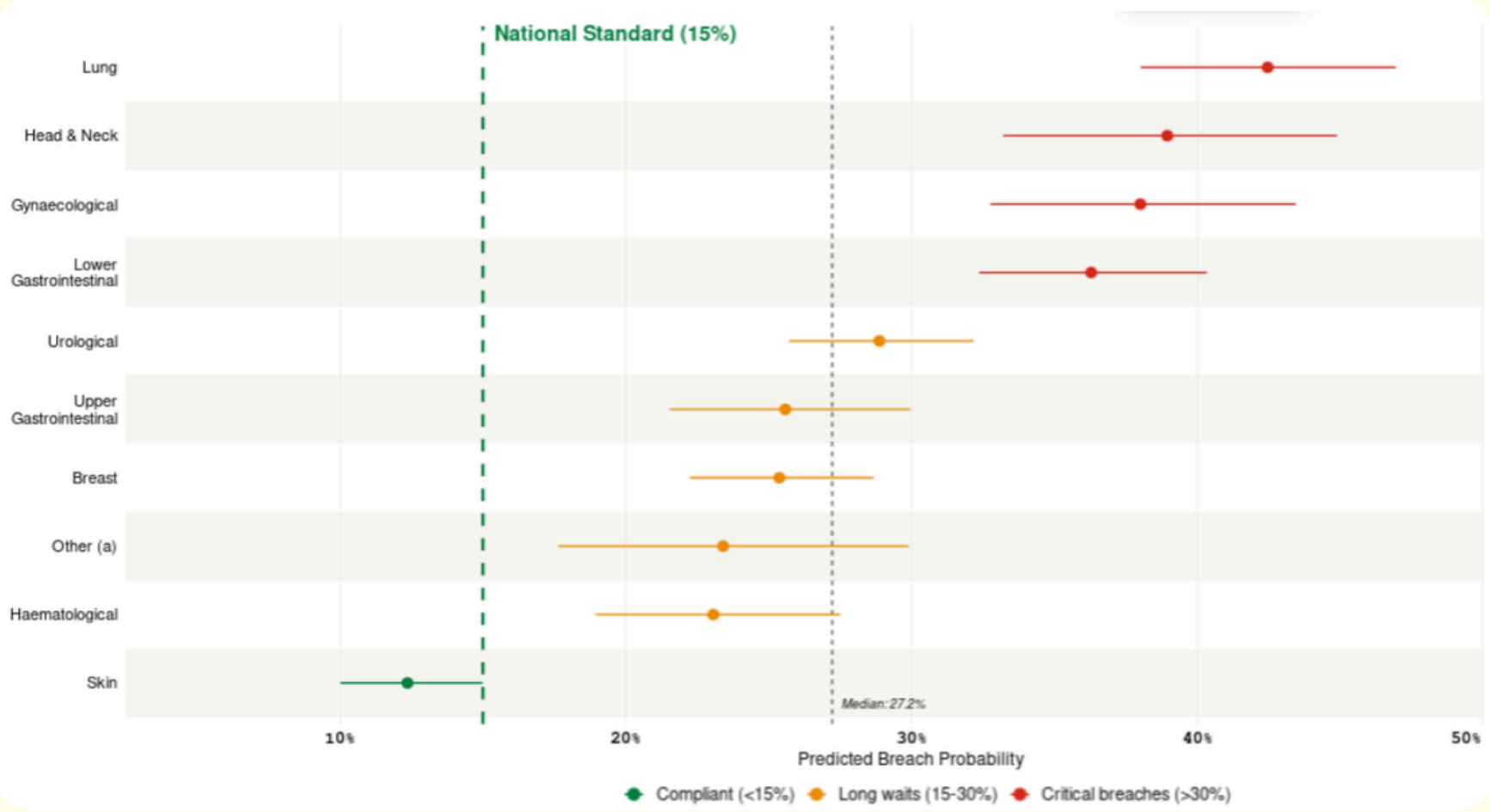
157
trusts

FULL CASE STUDY +
INTERACTIVE DASHBOARD
numerosdon.com

Independent analysis using public NHS England data.
Not commissioned by, produced for or endorsed by the NHS.

RISK ESTIMATES

Posterior means with 95% credible intervals



DECISION SUPPORT

TRUST	CANCER TYPE	CURRENT RATE (2025-26)	DELTA VS 2024-25	VOLUME	BREACHES (2025-26)	PREDICTED BREACHES (2026-27)	PROJECTED CHANGE IN BREACHES
▼ King's College Hospital	Breast	44.8%	+14.2pp	627	281	317	+36
PROJECTION BREAKDOWN — 2026-27 (627 PATIENTS/YR)							
BASELINE RATE		+	CANCER TREND + TRUST SLOPE	=		PROJECTED RATE	
44.8%			+5.68pp/yr [2.47 to 8.94]			50.5% [47.3, 53.7]	
				CURRENT BREACHES	+	PROJECTED CHANGE	= PREDICTED BREACHES
				281		+36 [15 to 56]	317 [296 to 337]
► King's College Hospital	Urological	37.6%	+9.3pp	962	362	379	+17
► Barking, Havering And Redbridge University Hospitals	Breast	45.5%	+17.1pp	352	160	176	+16
► Kingston And Richmond	Breast	44.0%	+13.0pp	257	113	122	+9
► Lewisham And Greenwich	Breast	20.8%	+3.7pp	221	46	55	+9

THE CHALLENGE

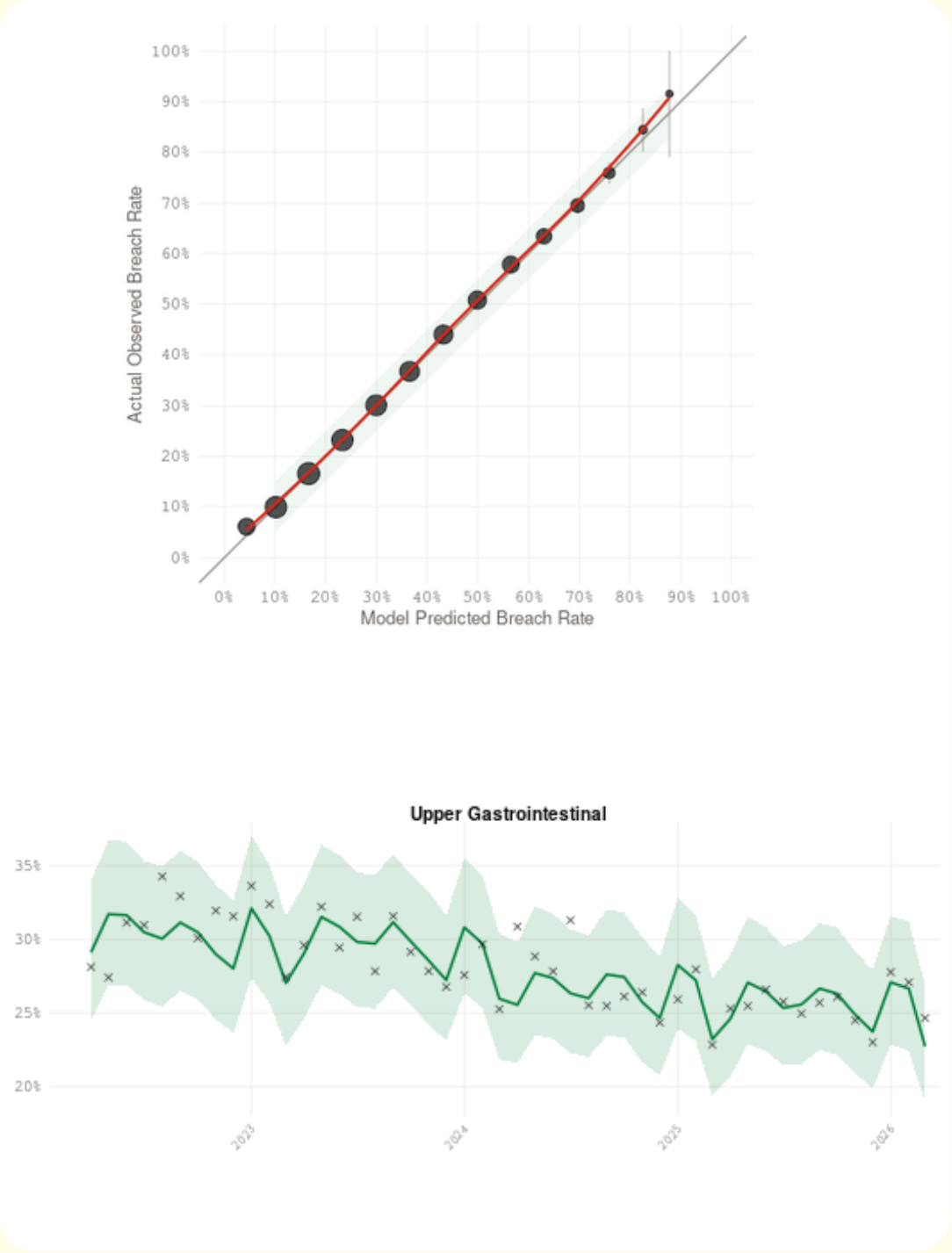
National averages and single-point estimates can mistake natural variation for persistent underperformance, directing resources towards the wrong areas.

THE APPROACH

Built a hierarchical Bayesian model with partial pooling to estimate breach risk across trusts and cancer types while quantifying uncertainty.

MODEL VALIDATION

Calibration and observed-versus-predicted performance



FORECASTING FUTURE SPORTING EVENTS

Independent Case Study

Probabilistic Forecasting & Pricing Analysis

3 SPORTS

Football · Golf · NFL

END-TO-END

Data Ingestion · Modelling · Validation

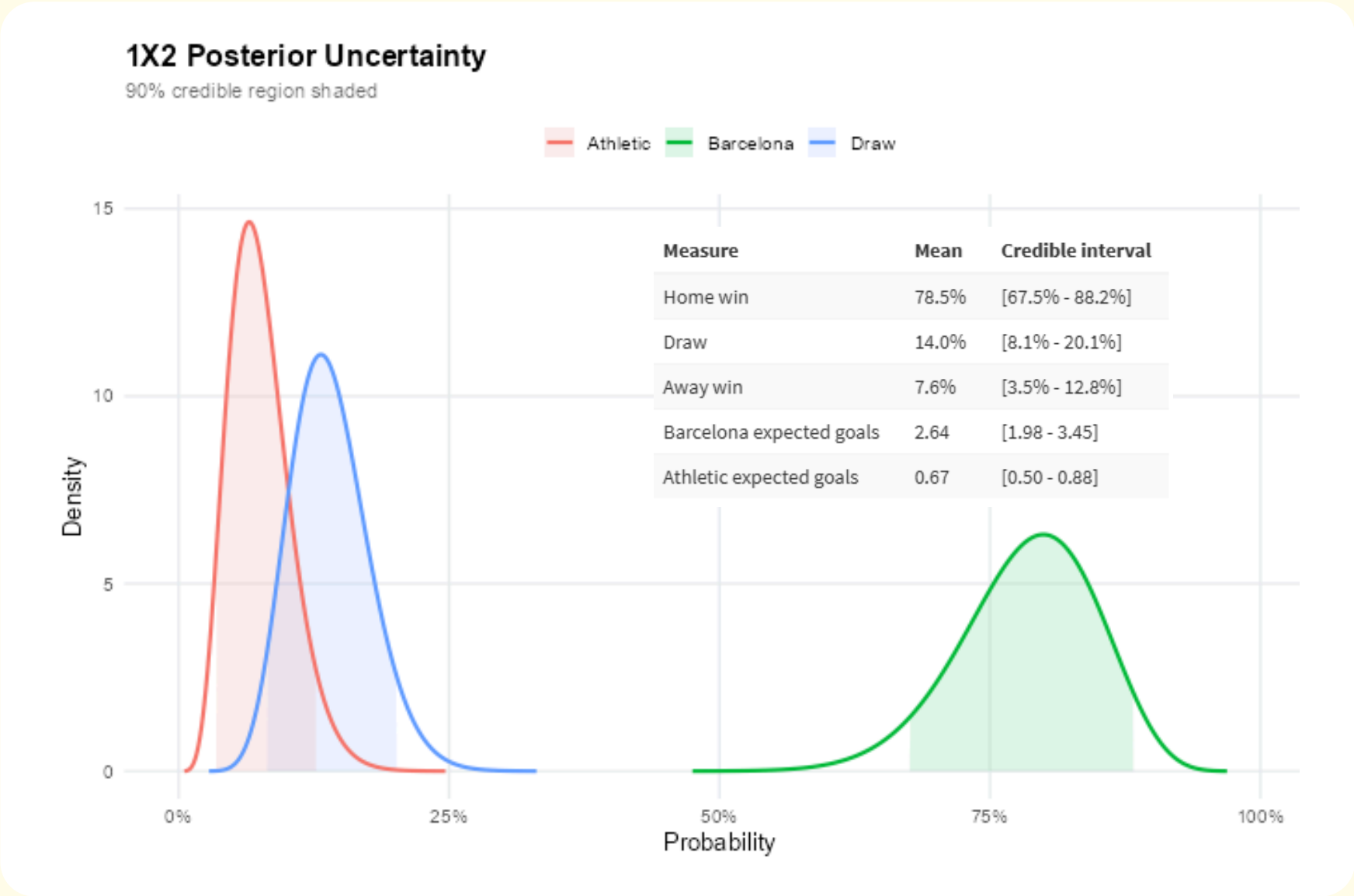
MARKET BENCHMARKED

Probabilities tested against market
opening and closing lines

Sports Analysis Posts
numerosdon.com

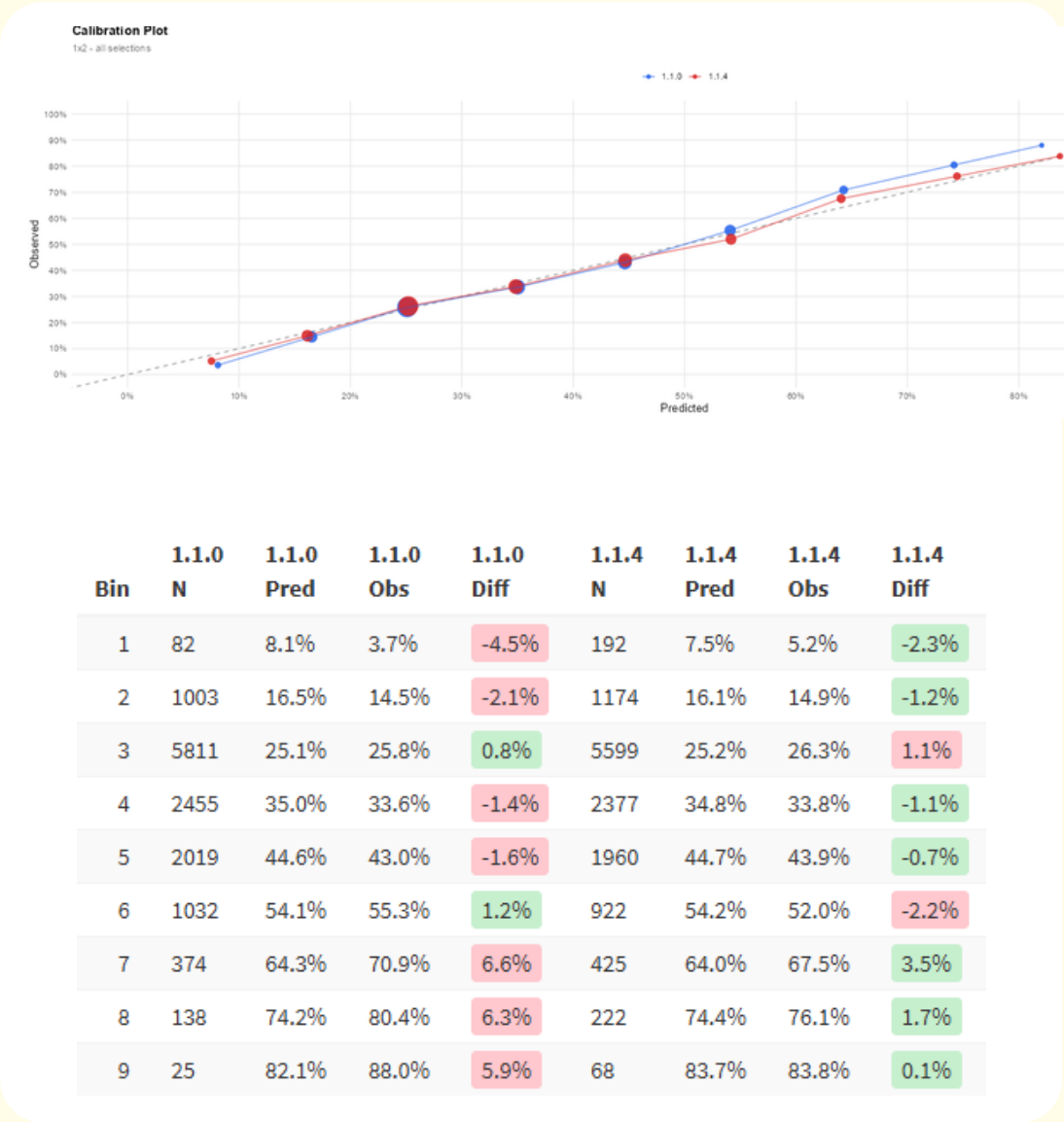
PROBABILITY FORECASTS

Posterior probabilities with 90% credible intervals



MODEL VALIDATION

Calibration across out-of-sample predictions



THE CHALLENGE

Every sport presents a different forecasting problem. Football, golf and the NFL each demand different data, assumptions and modelling methods.

THE APPROACH

Designed and implemented an end-to-end forecasting system to predict upcoming sporting events whilst benchmarking against market-implied probabilities.

THE IMPACT

Produces calibrated probability forecasts for upcoming events, making uncertainty visible and potential market mispricing easier to identify.

BUILDING A QUANTITATIVE TRADING FUNCTION FROM THE GROUND UP

Professional Case Study

Pricing Analytics & Quantitative Systems

10%

Analysis contributed to a 10% margin increase for largest B2B client

MULTI-DAY → 15 mins

Reporting turnaround

BUILT ANALYTICAL CAPABILITY

Mentored traders into the department's first junior data analyst roles

Full Professional Background at numerosdon.com

WHAT I DELIVERED

01

CENTRALISED DATA

From fragmented spreadsheets to a validated SQL source of truth

structured tables · reusable data
· consistent definitions

02

PRICING & QUANTITATIVE RESEARCH

Statistical frameworks identifying pricing anomalies and profitability opportunities

analysis · model monitoring
· trading decisions

03

EXECUTIVE DECISION SUPPORT

Automated dashboards translating complex data into actions

Power BI · recurring reporting
· multiple stakeholder levels

THE CHALLENGE

A rapidly growing trading operation needed reliable data and analysis under extreme time pressure, where mistakes carried immediate financial consequences.

THE APPROACH

Built the quantitative infrastructure from scratch: centralised data, statistical research frameworks and automated reporting across multiple organisation levels

THE IMPACT

Contributed to a 10% client margin increase, reduced reporting from days to minutes and developed traders into junior data analysts.



NEED BETTER DECISIONS FROM COMPLEX DATA?

Forecasting · Statistical Modelling · Pricing · Risk · Optimisation

Let's turn your data into trusted evidence you can act on

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