Designing the NBA 3-Point Revolution Story

Team Members: _____

Course / Section: _____

Submission Date: _____

We explore how the NBA evolved into a perimeter-first league by connecting long-term three-point trends, Stephen Curry's influence, positional role changes, and the timing of team-wide adoption. The project delivers a presentation-grade scrollytelling experience supported by analytical tooling.

1. Problem & Motivation

The NBA's strategic identity flipped as three-pointers surged from novelty to primary offensive weapon. The shift spans decades of gradual experimentation, structural rule changes, and a singular catalyst in Stephen Curry. Our story rebuilds that arc with data.

  • Reconstruct inflection points in league-wide three-point volume and accuracy.
  • Quantify Curry and the Warriors as accelerants that normalized high-volume threes.
  • Link adoption timing to efficiency, net rating, and roster role changes.

2. Audience & Use Cases

Primary: classmates and instructors expecting a cohesive, annotated storyline. Secondary: basketball fans and media members who need exportable visuals and punchy talking points. Tertiary: analysts and coaches who want to benchmark adoption, efficiency, and positional shifts through light interactivity.

3. Data Inventory & Quality Check

- â¢ Team Stats Per Game (1,876 rows): season-level 3PA, 3P%, scoring, pace metrics.
- â¢ Team Summaries (1,876 rows): wins/losses, net rating, three-point attempt rate.
- â¢ Player Totals & Per Game (32,606 rows): positional 3PA volume, efficiency splits.
- â¢ Player Shooting (17,521 rows): shot distance, zone shares, dunk and corner rates.

Minimal missingness (mostly players without shot zone tracking). Combo positions are normalized to primary role for share analysis. Scripts in analysis/ confirm season coverage from 1979â 2025 league-wide and 1997â 2025 for shot profiles.

4. Core User Questions

- â¢ When did league-wide three-point volume inflect?
- â¢ Does higher volume coincide with efficiency gains?
- â¢ How singular is Curry versus his peers?
- â¢ How did positions and shot geography evolve?
- â¢ Did early adopters capture real win-value?

5. Exploratory Findings â League Context

League three-point attempts exploded from 2.8 per game (1980) to 37.6 (2025) while accuracy climbed roughly ten percentage points. The chart below grounds Chapter 1 of our story with annotations for major rule changes and pace shifts.

League Three-Point Attempts & Accuracy

Blue: Attempts per game, Red: 3P%
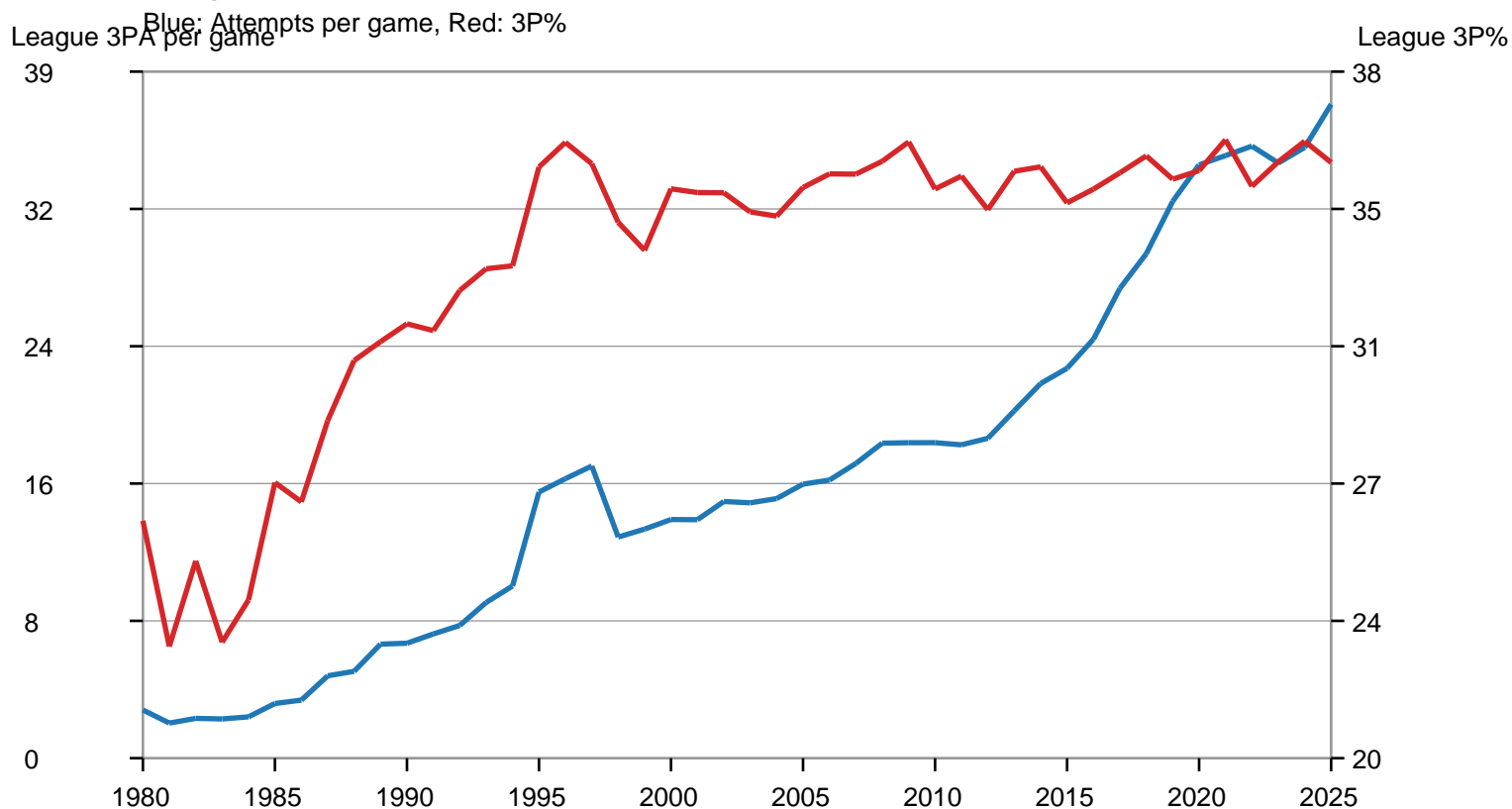
6. Exploratory Findings â League vs Player

Panels highlight the rightward march of team shot volume and modest efficiency gains. Below, Curry's per-game attempts dwarf the league average, showing how one star redefined acceptable shot diets.
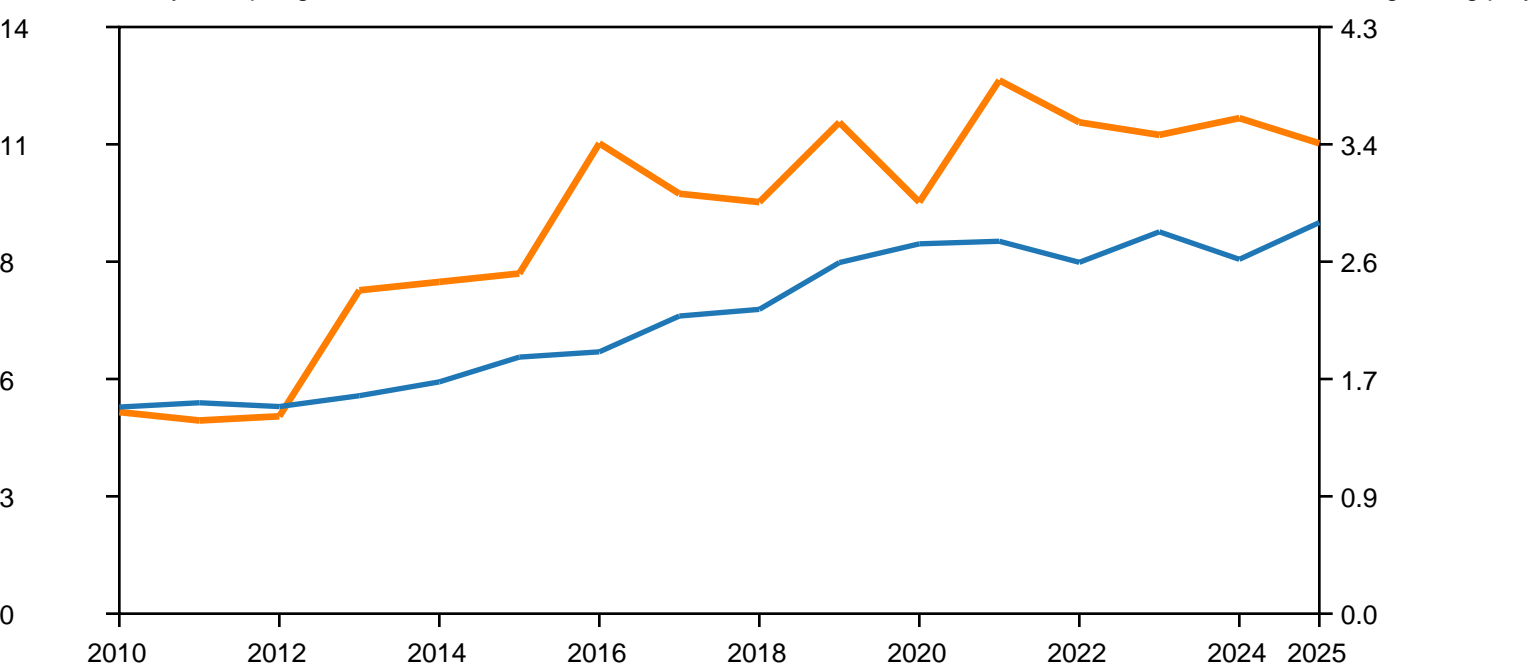
3PA Volume vs. Efficiency Snapshots

Panels: 2000, 2010, 2020, 2025 (dark squares show teams).

Season 2000 / Season 2010 / Season 2020 / Season 2025
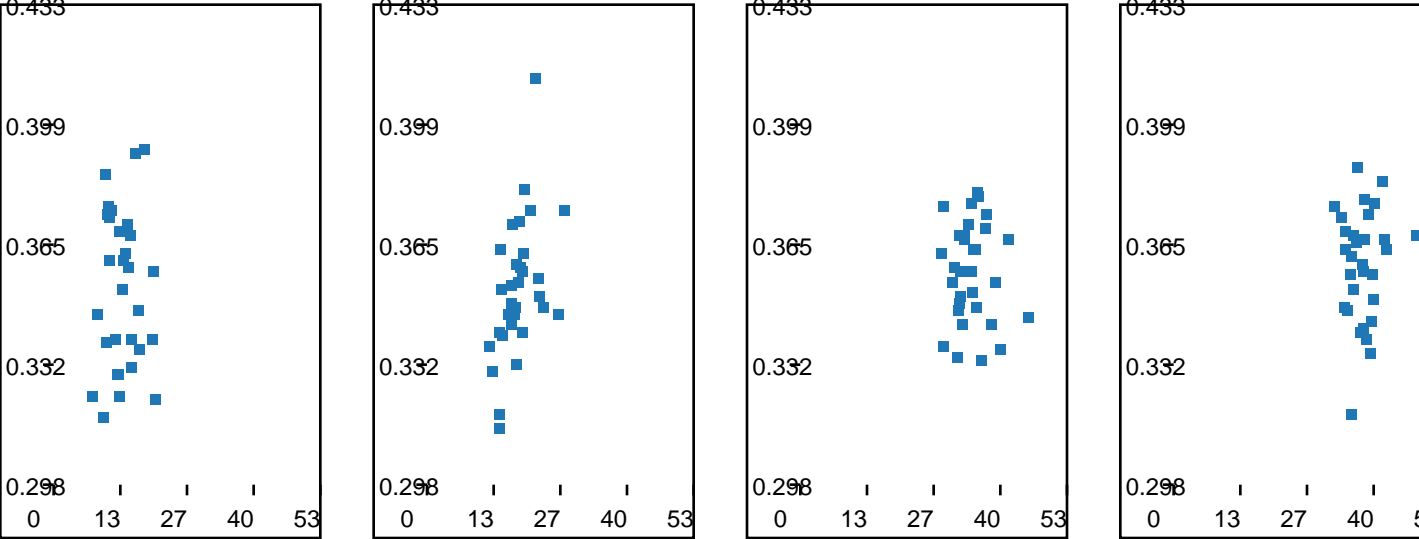
Stephen Curry vs. League Average 3PA

Orange Curry, Blue: league average per player.

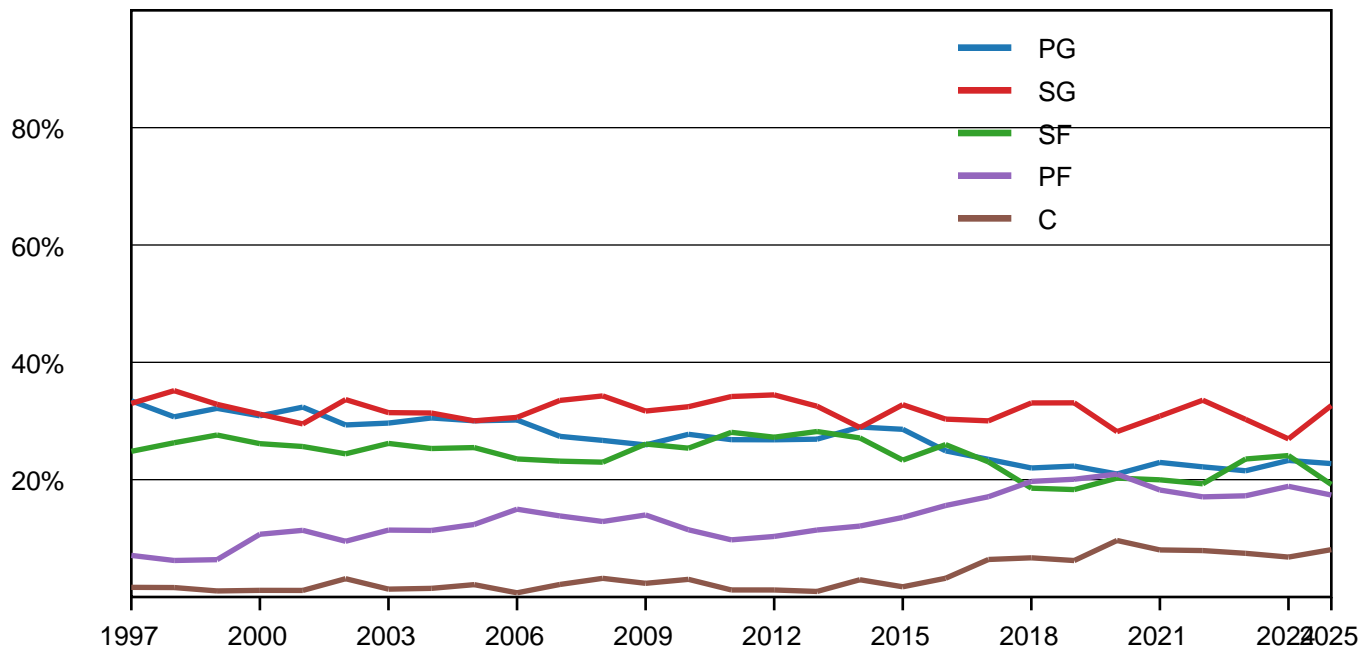Curry 3PA per game · League avg player

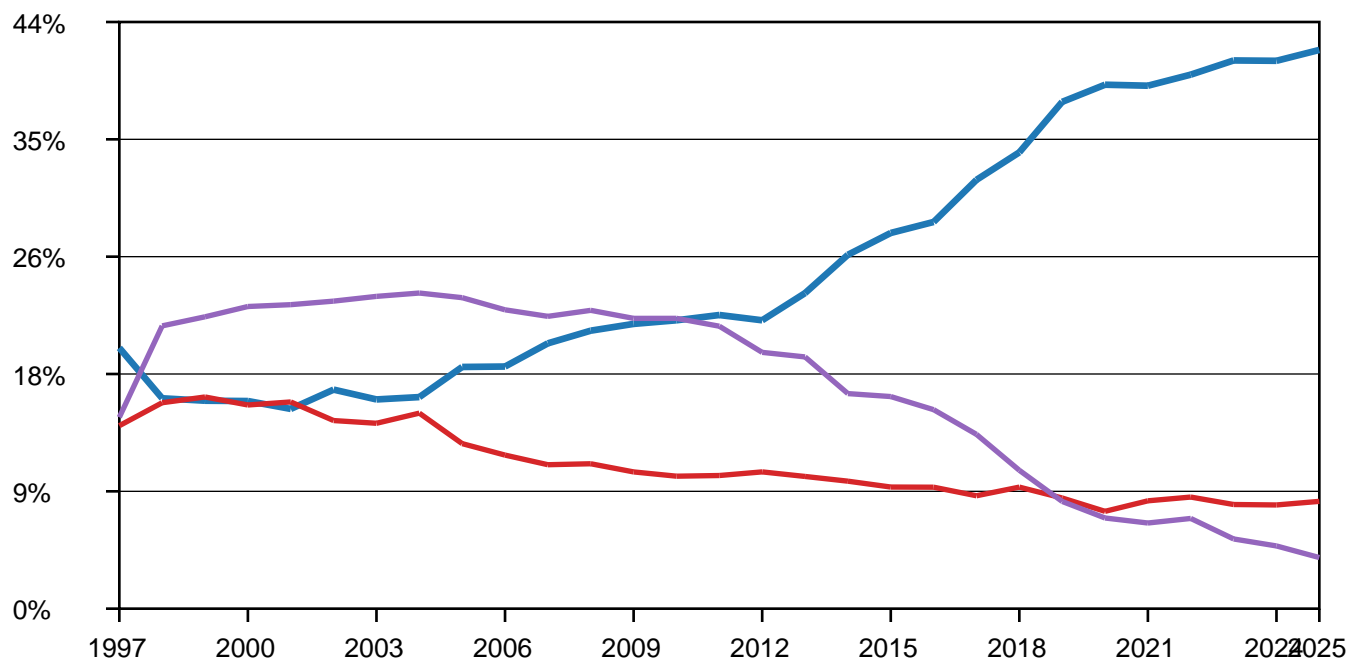# 7. Exploratory Findings â Roles & Geometry

Frontcourt players now launch a quarter of league threes, confirming the rise of stretch bigs. Simultaneously, long midrange jumpers nearly disappeared as three-point share doubled.

Share of League 3PA by Position

Shot Selection Migration

Blue: 3PA share, Red: midrange (10-16ft), Purple: long midrange.

8. Adoption Timeline & Next Steps

Mapping the first seasons where teams surpassed a 40% three-point attempt rate reveals early adopters like the 2017 Rockets and 2019 Bucks pairing high volume with elite net ratings. We will expand this view with filters and narrative callouts in Chapter 4.

Team Adoption of â¥40% 3PA Rate
Green squares mark season net rating vs. adoption year.
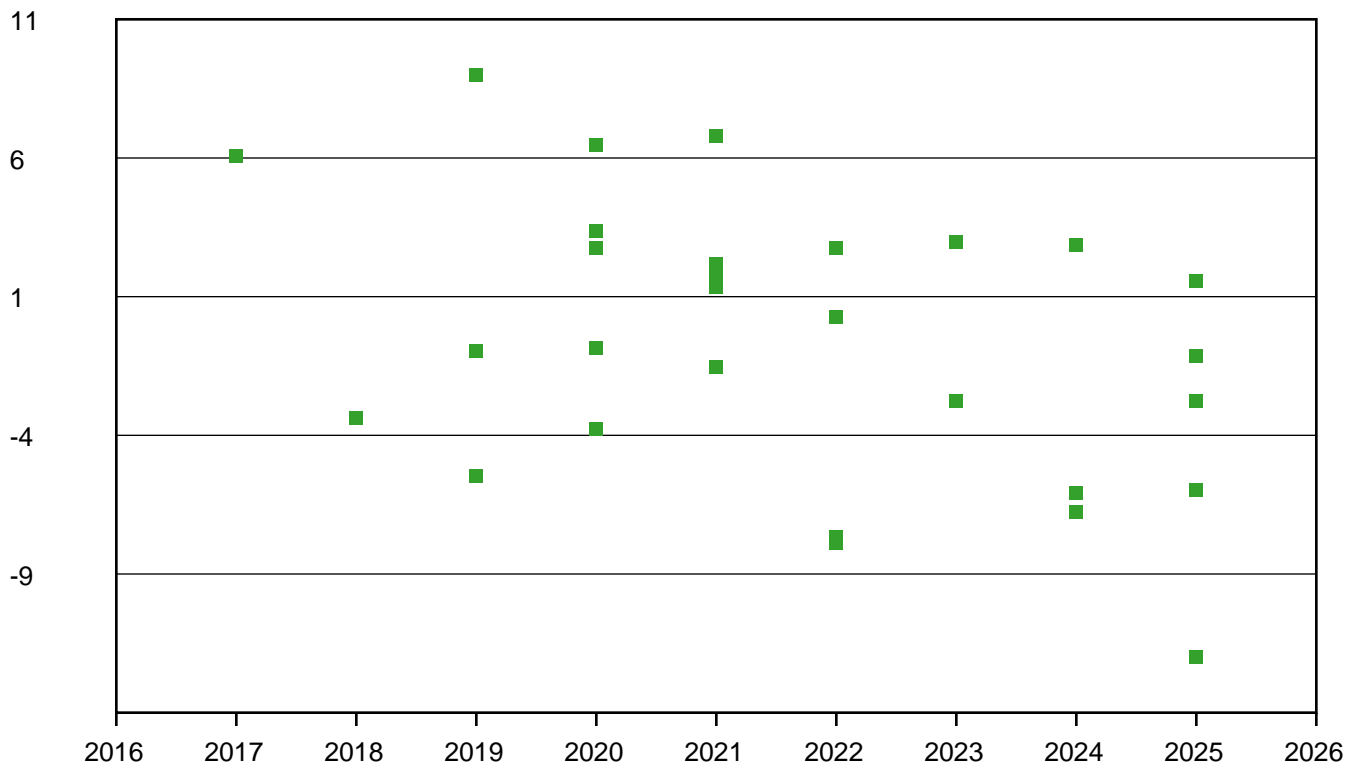
Next steps: ingest salary data to tie compensation to shooting gravity, build interactive prototype (scrollytelling with pinned annotations), and pre-aggregate shot coordinate data for court heatmaps. Risks include managing five million shot rows in-browser and keeping scope disciplined.