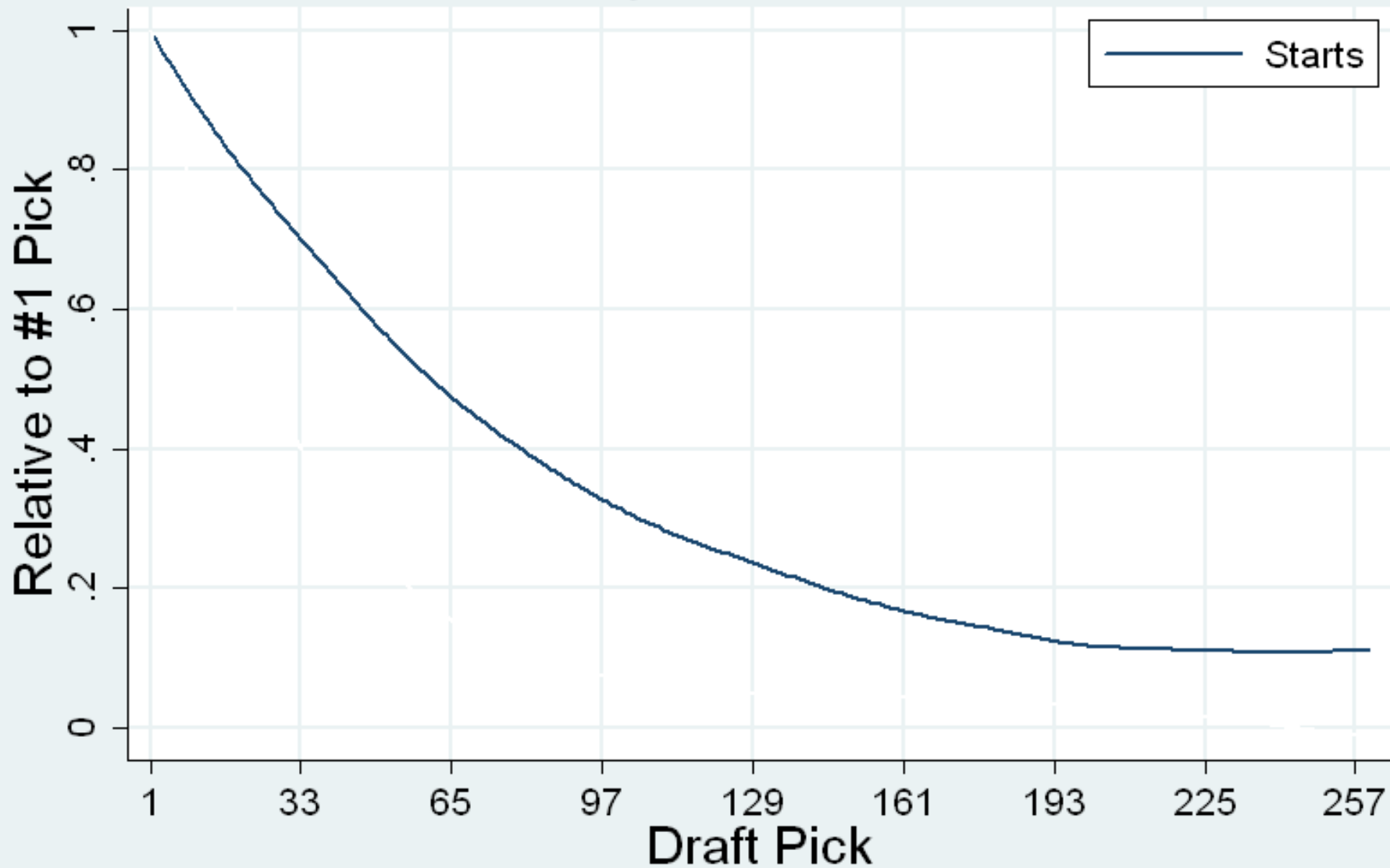


Flipping Coins in the War Room: Skill and Chance in the NFL Draft

Cade Massey
Yale University

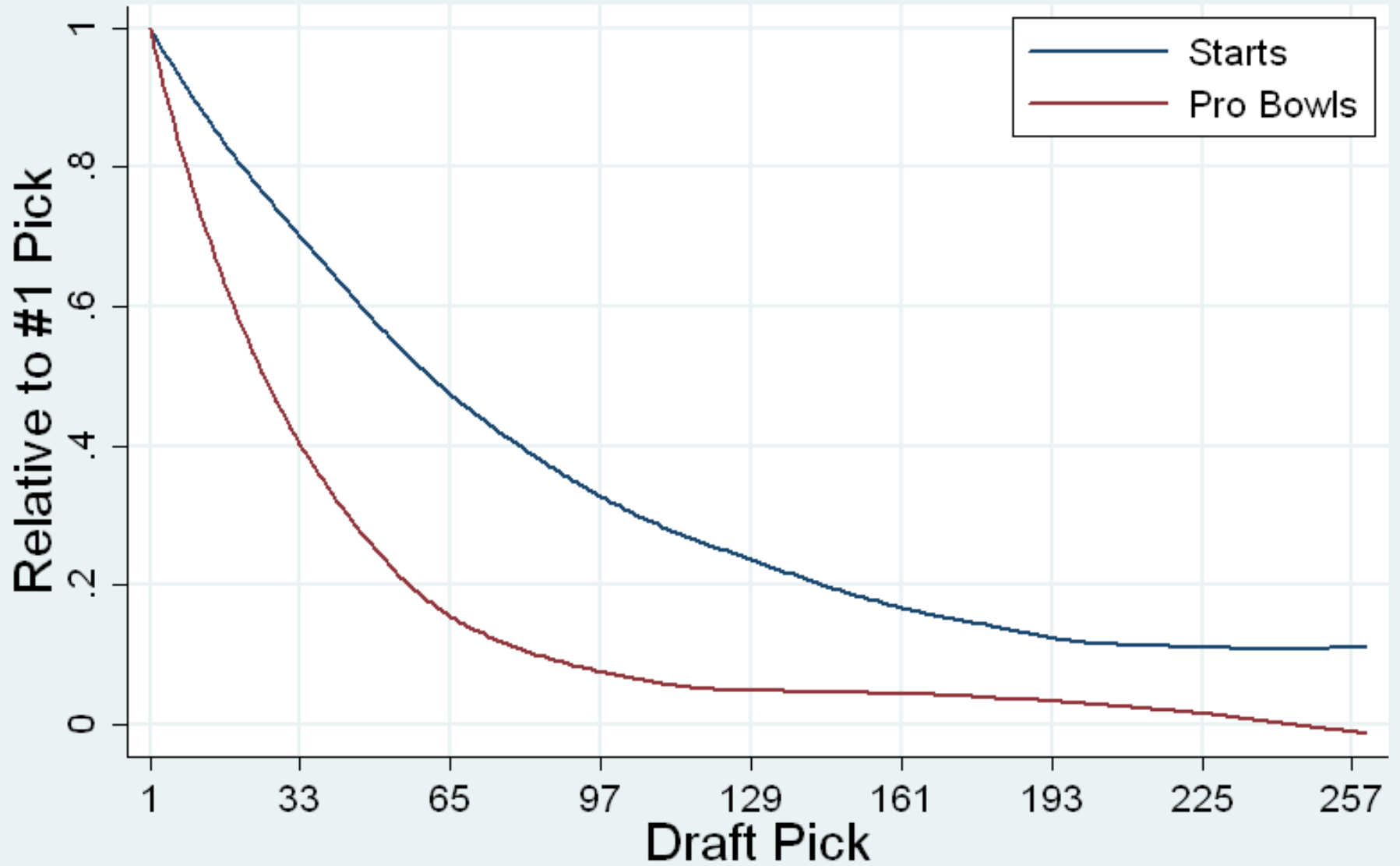
MIT Sports Analytics Conference
March 4, 2011

Performance of Players Drafted 1991-2004



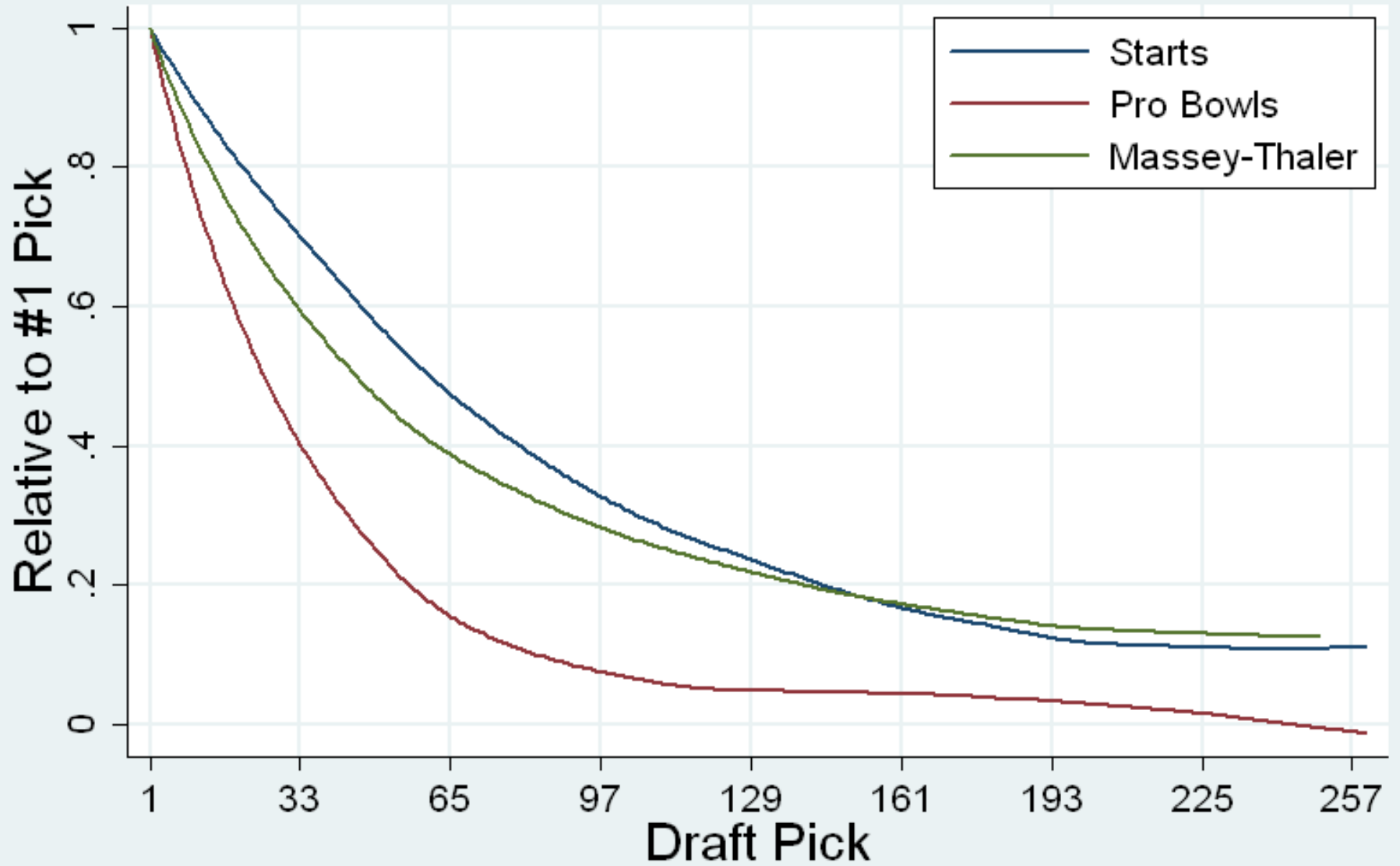
Lowess curves. Player's 1st 5 years.

Performance of Players Drafted 1991-2004



Lowess curves. Player's 1st 5 years.

Performance of Players Drafted 1991-2004



Lowess curves. Player's 1st 5 years.

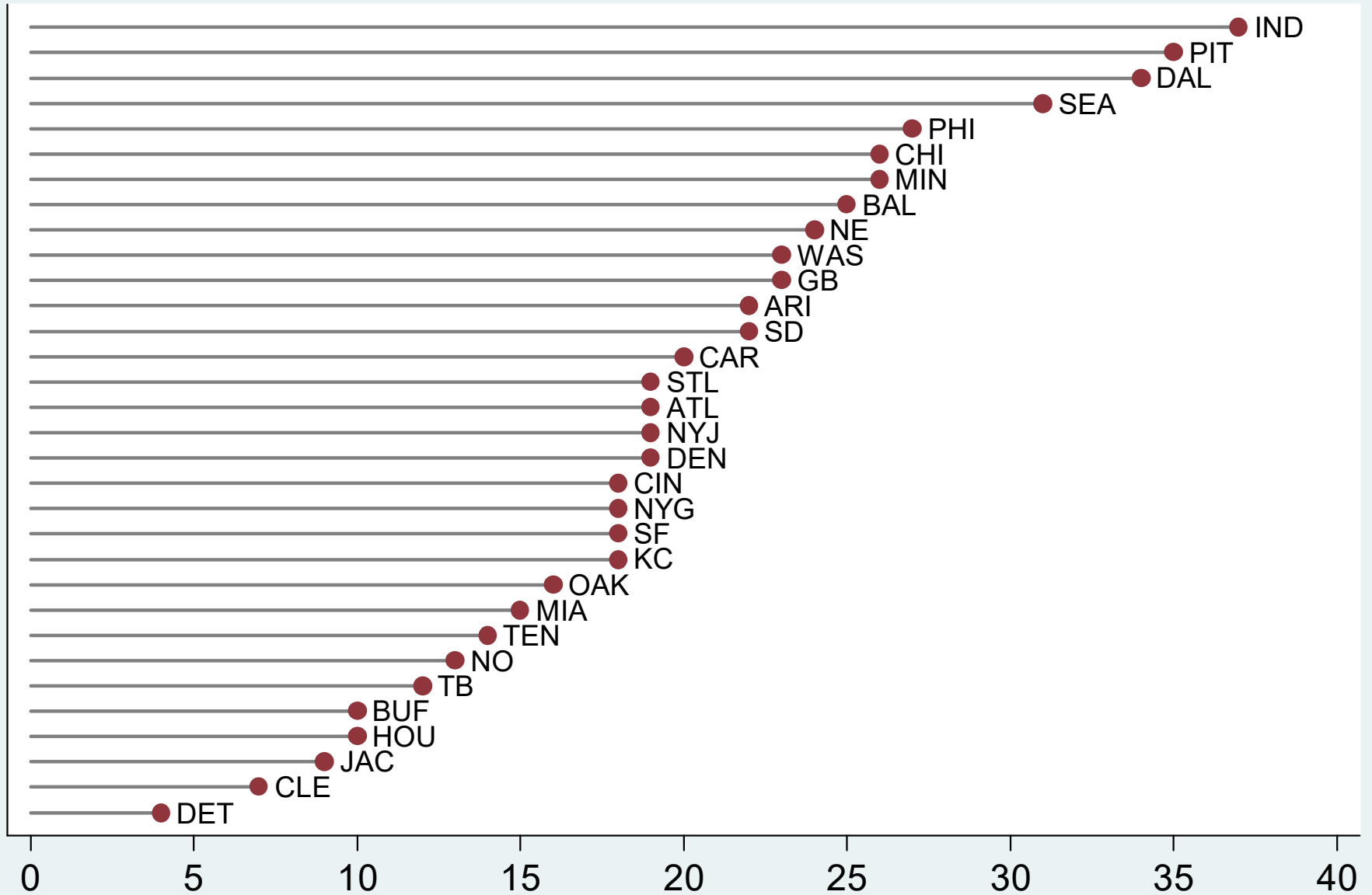
Skill and Chance in the Draft

Clearly there is skill involved.

But are there differences in skill?

Are some teams better than others at picking players?

Pro Bowl Seasons by Players Drafted '97-'07



Updated: April 21, 2010, 4:44 PM ET

Not feeling the NFL draft



By Rick Reilly
ESPN.com
Archive

“**Indianapolis Colts**...not just with Peyton Manning... Dwight Freeney, Edgerrin James and Reggie Wayne were **genius picks**, too.”

“The **Cleveland Browns**...screwed the Chihuahua. Their run of No. 1 picks from 1999 to 2002 is the single **worst stretch of drafting** since the Iraqi Republican Guard. Were they using an Ouija board?”

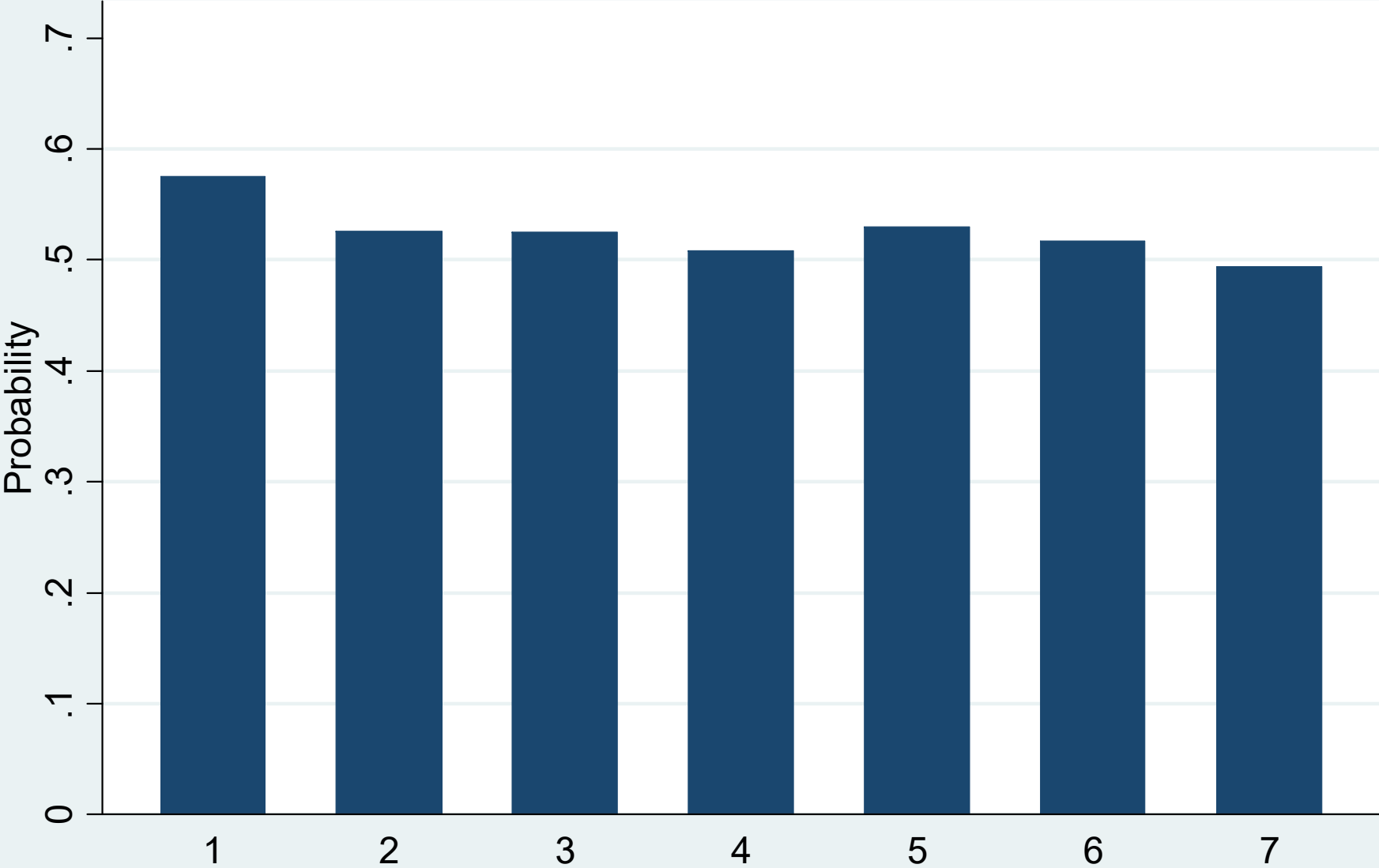
Skeptical, due to research on NFL draft

Massey & Thaler ("Loser's Curse")

- What's the chance that a player is better than the next player taken at his position?
 - E.g., the 3rd cornerback vs. the 4th cornerback

Better Than The Next Guy?

by draft round



Skeptical, due to research in psychology

- People under-appreciate the role of chance
 - E.g., belief in the “law of small numbers”
- An important implication: “Fictitious Variation”
 - Matthew Rabin (2002)
 - Suggests that people over-attribute differences in outcomes to differences in skill.
- Provides our main hypothesis: There is less difference in draft-picking skill than people believe.

Methodology

Use games started

- Results are robust to pro bowl, Massey-Thaler \$s, etc.

Adjusted for draft position

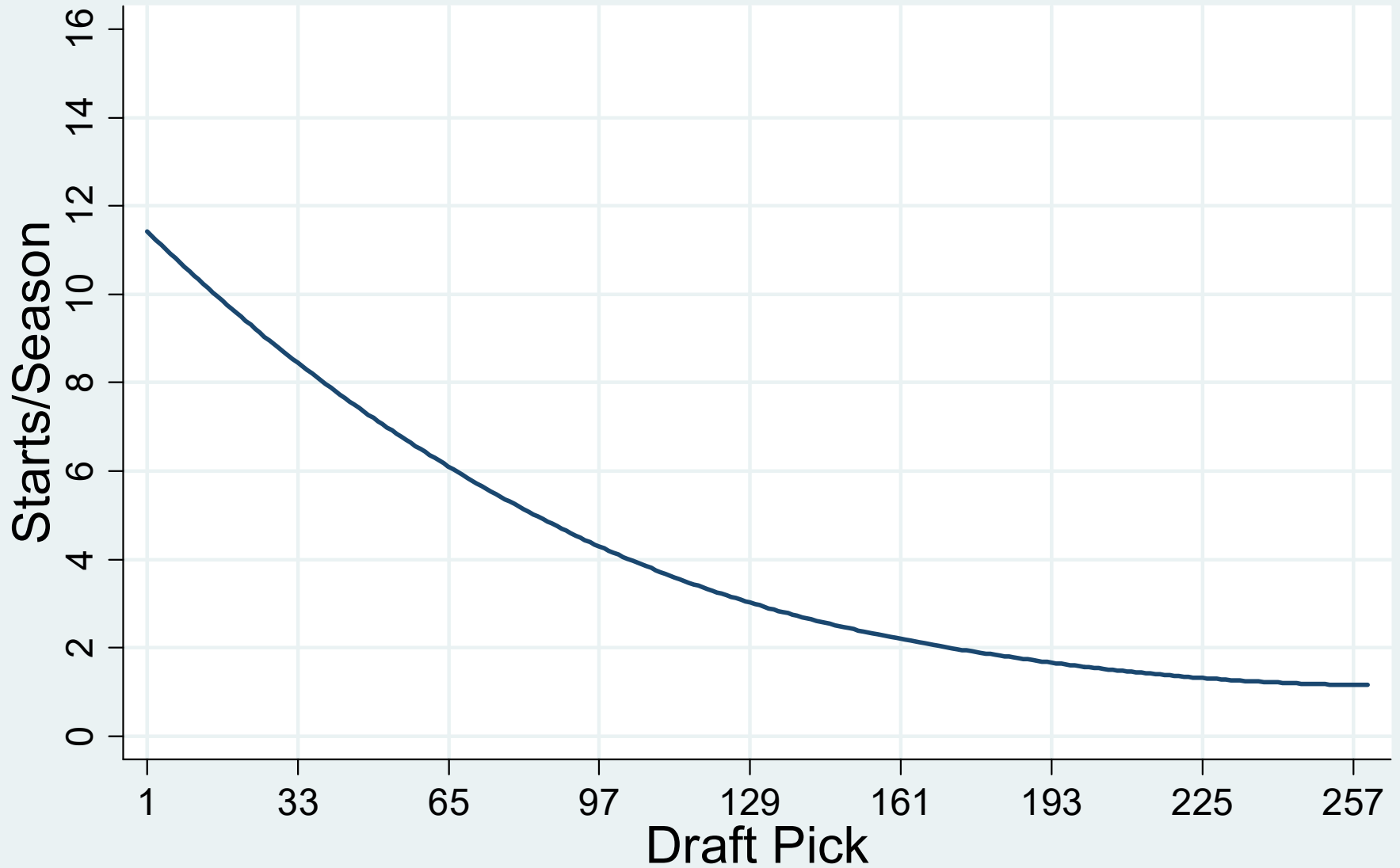
- Compared against long-run average for that pick

Use the player's first 5 years

Two tests:

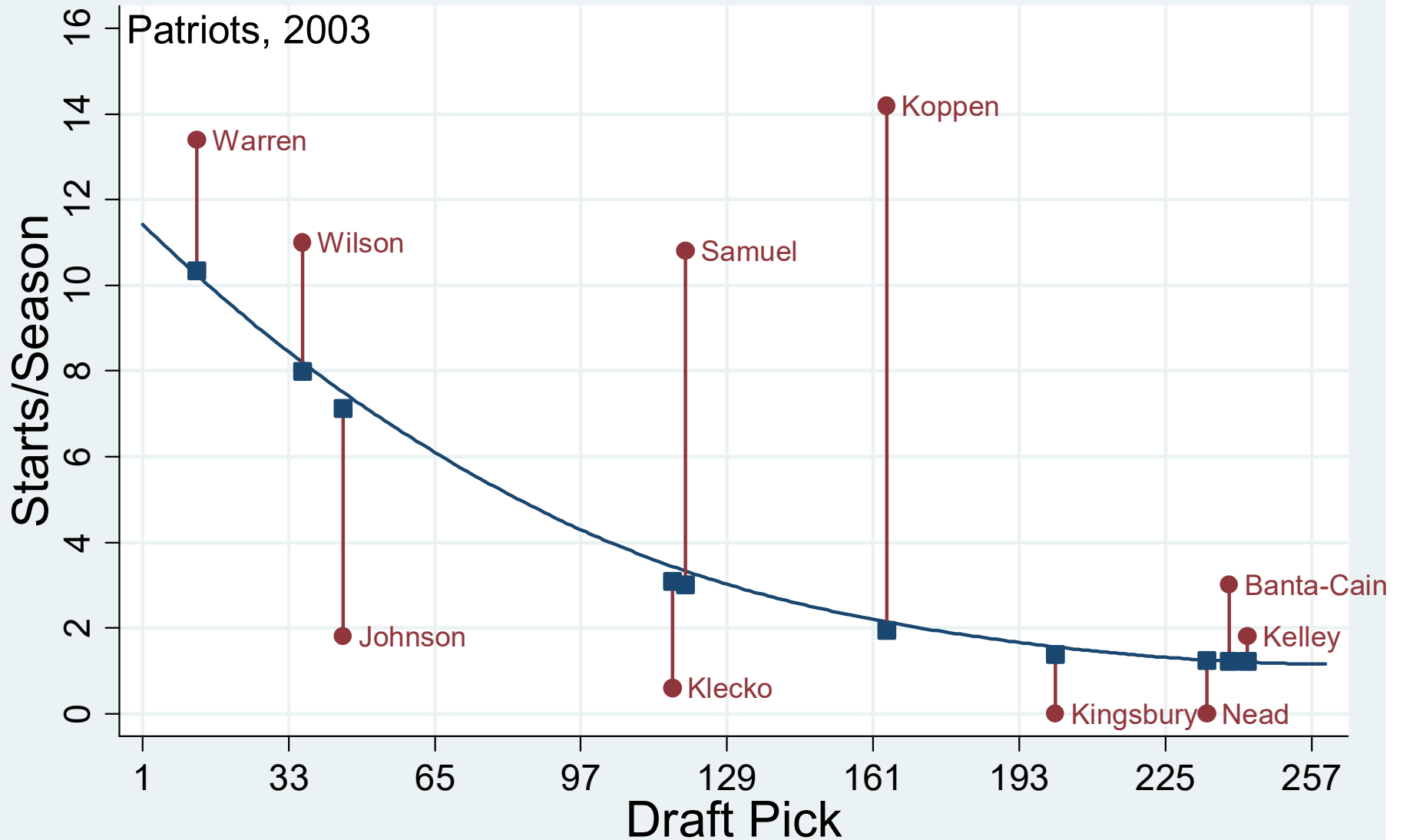
- Within year, across teams (intra-class correlation)
- Within team, across years (autocorrelation)

Draft-pick Performance vs. Expectation



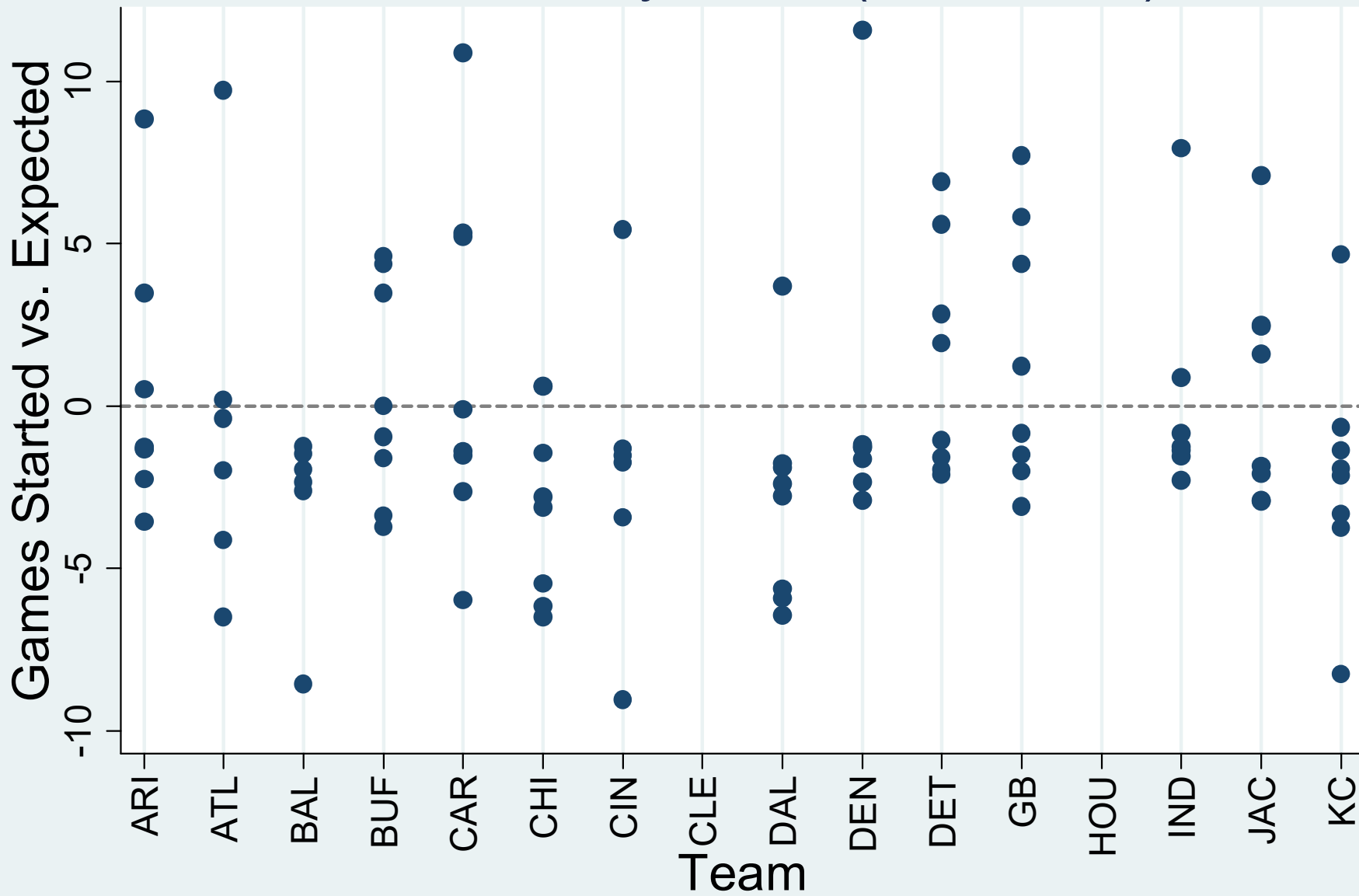
Performance evaluated over player's 1st 5 years.

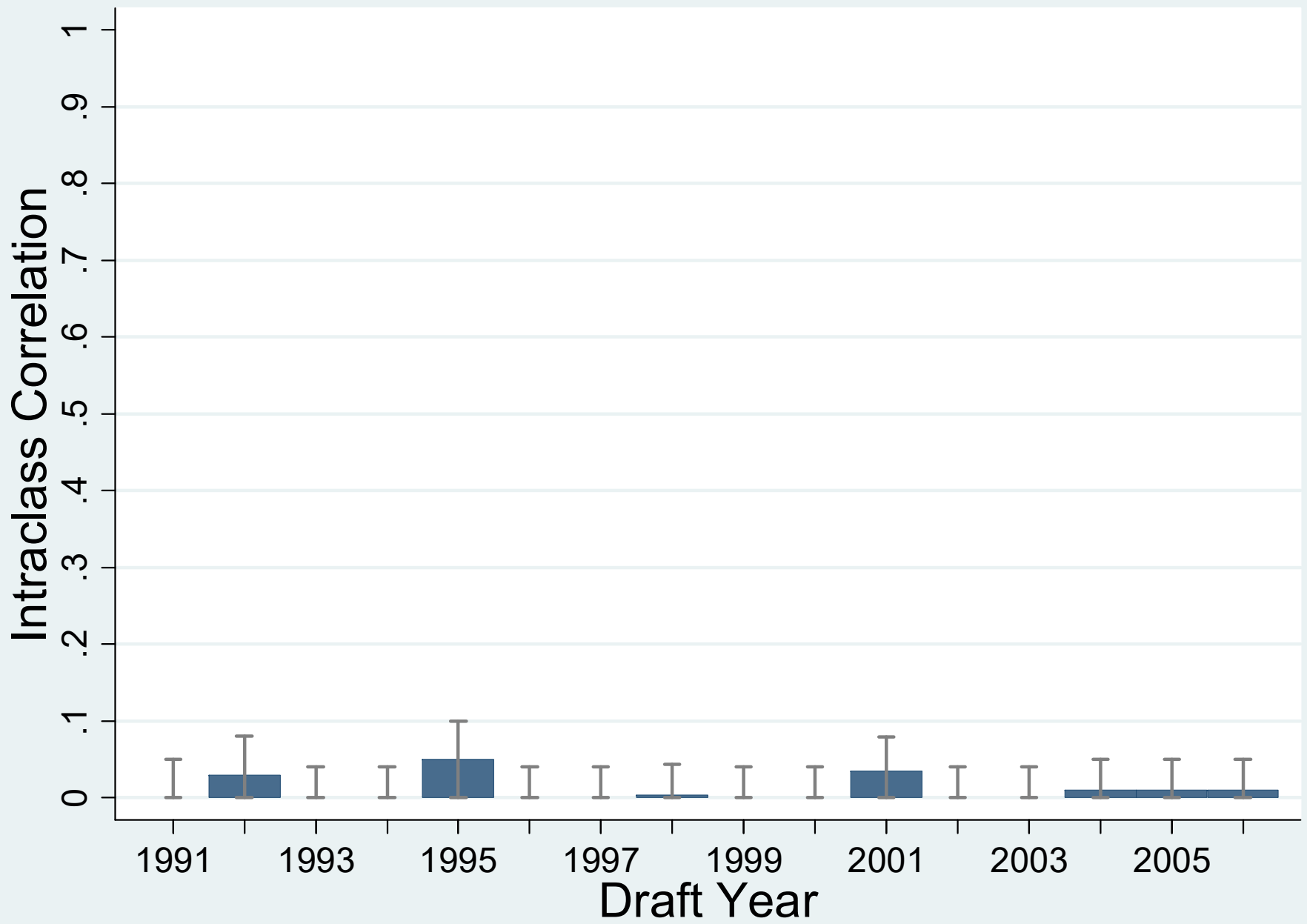
Draft-pick Performance vs. Expectation



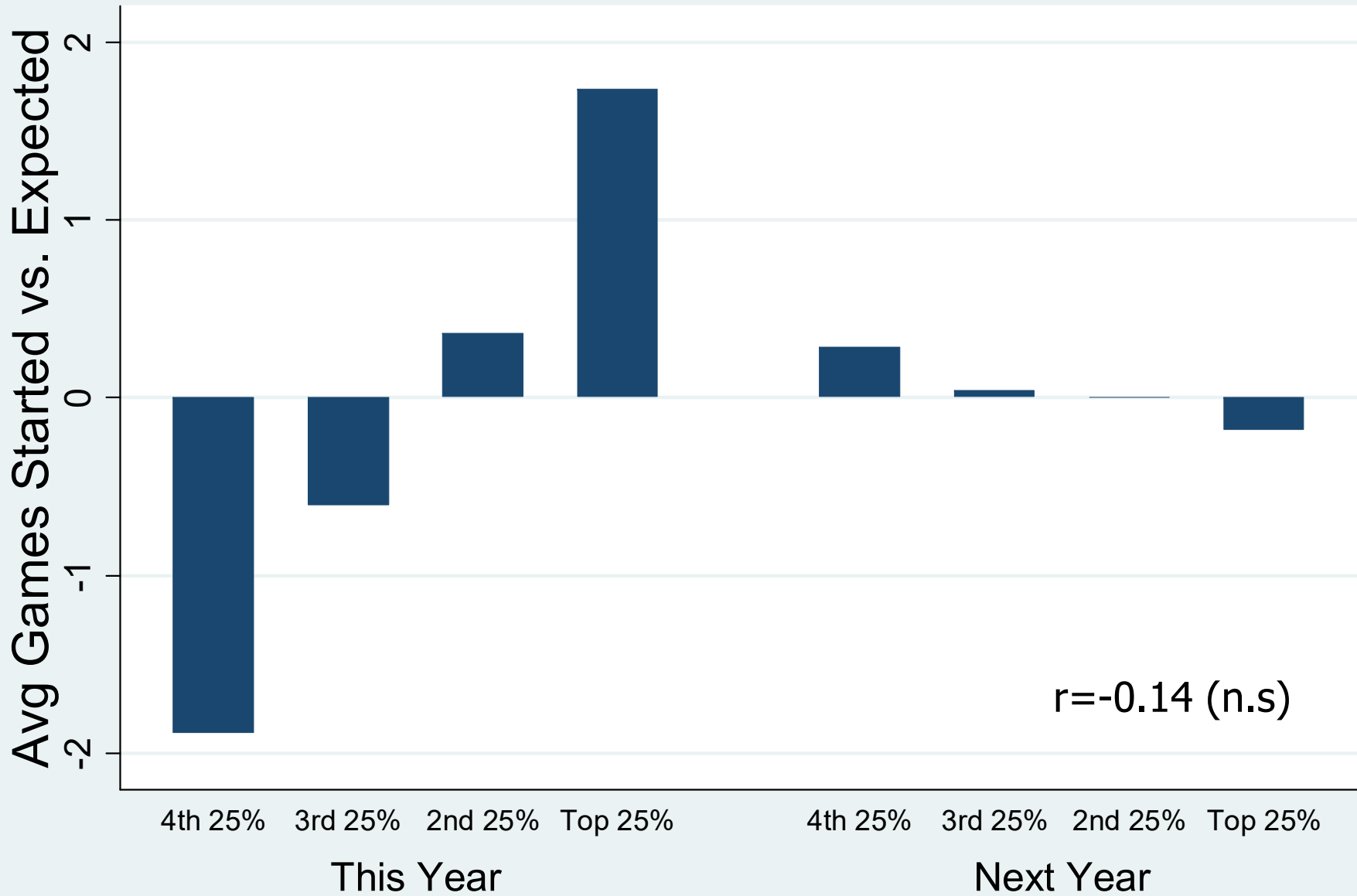
Performance evaluated over player's 1st 5 years.

Pick Performance by Team (1995 Draft)





1991-2006 Drafts



Skill and Chance in the Draft

So it's all chance on the margin!

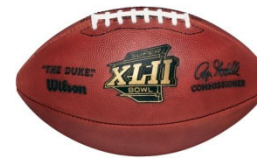
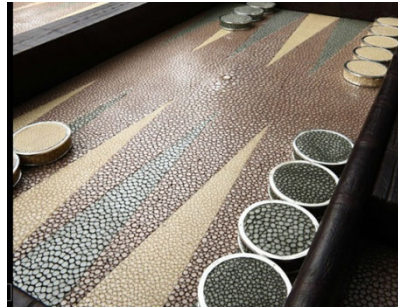
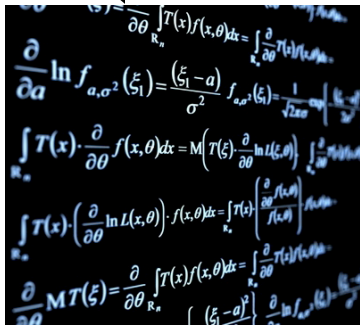
Is this nihilistic?

Quite the contrary.

Decision strategy depends on situation

Skill-based

Chance-based



?

Logic of Chance (LOC)

Distinct set of prescriptions for operating in an environment with high uncertainty.

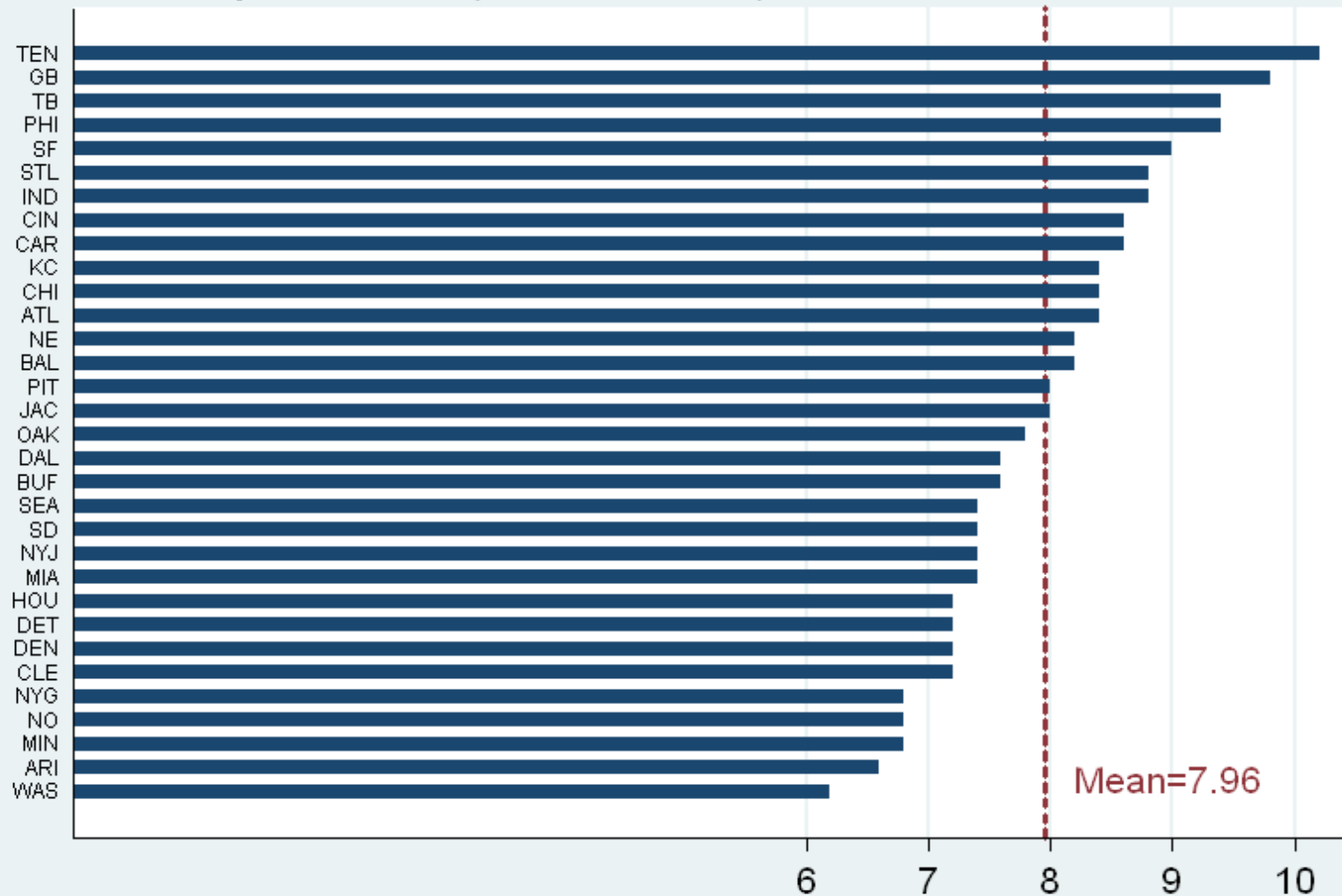
LOC: First, acknowledge role of chance



Roethlisberger on the number of times they've beaten the Ravens in close games: "We got lucky."

LOC: Maximize your # of chances

Picks per Year (2004-2008)



LOC: Minimize the cost of choosing



Laham/Getty

VS.



AP



LOC: Value the process (and protect it)





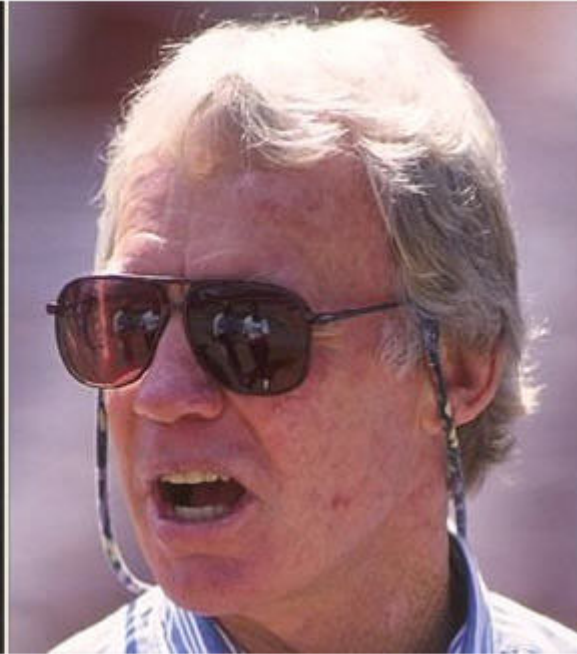
THE
WISDOM OF CROWDS

JAMES SUROWIECKI

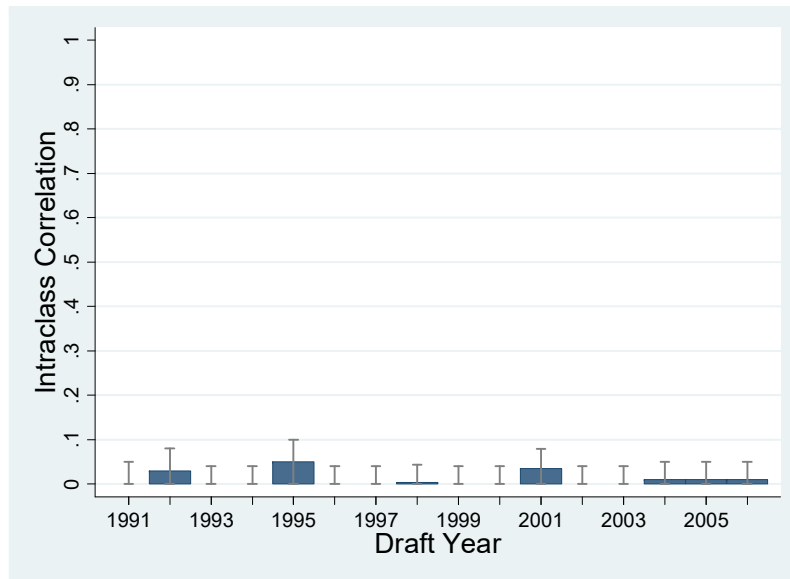
Why the Many
Are Smarter Than
the Few and How
Collective Wisdom
Shapes Business,
Economies, Societies
and Nations

**LOC: Seek broad,
independent
input**

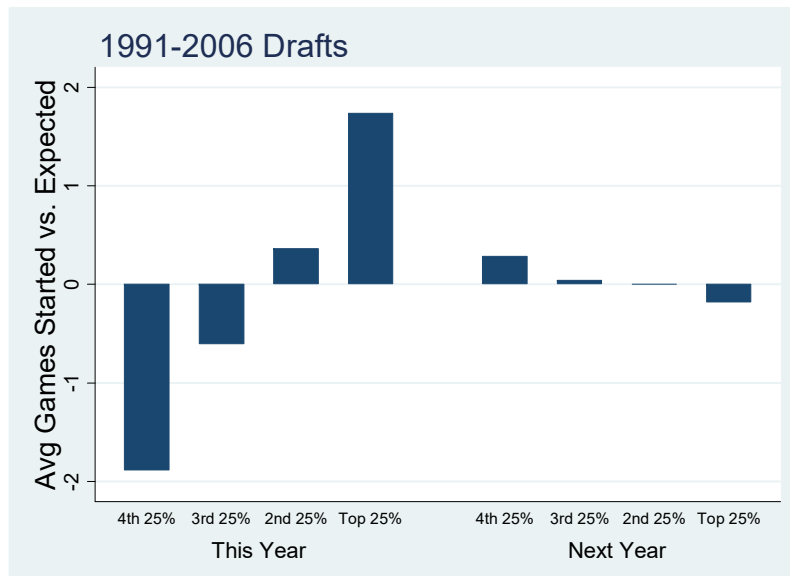
LOC: Be slow to place credit, blame



In sum: At the margin, picking players is chance



Teams don't vary at this...



...and there are no persistent differences in drafting ability.

Managing chance is where the skill is.

