

Economic Research and the Racetrack

or my journey as an academic and a degenerate



Using racetrack markets to answer economics questions

- Efficient Markets
- Principal – Agent Problem
- Discrimination
- Rank Ordering Probabilities
- Risk and Uncertainty
- Adverse Selection
- Optimal Investment Strategies

Using economics to answer racetrack questions

- Takeout
- Racino elasticities
- Hedonic Price models of Bloodstock Markets
- Effect of Denomination change on handle, payout, and efficiency
- Determinants of Betting Preferences
- Peak Performance Age of a Thoroughbred
- Birth Order

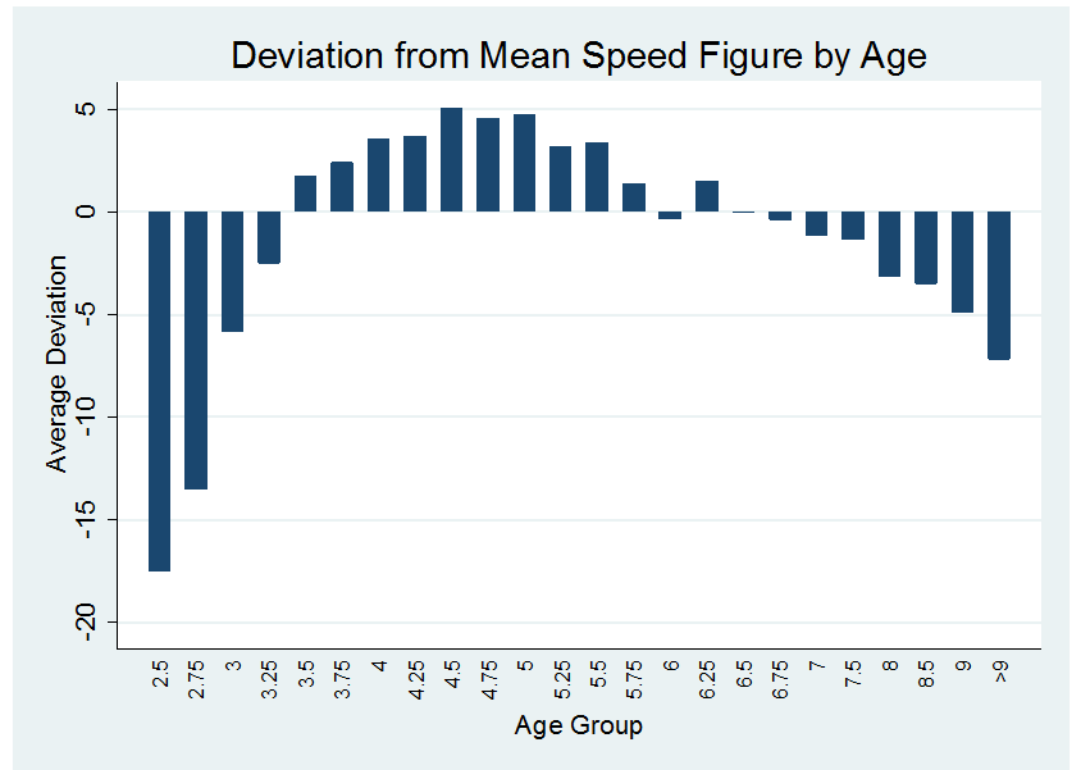
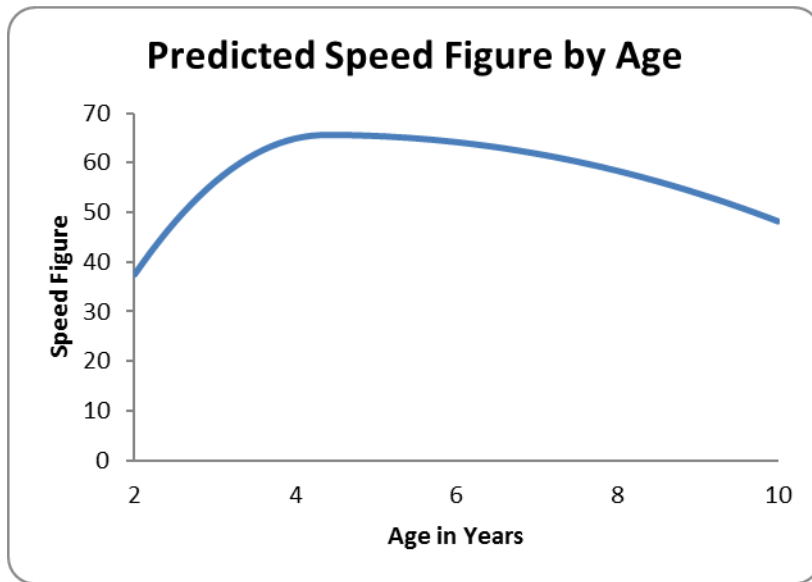
Takeout and Efficiency

- Higher takeout → Lower Return
- More efficiently priced pool → Lower Return for Informed Bettors
- Multirace wagers vs Parlay payouts
 - Force out 20¢ P6 at Churchill Downs, Gulfstream Park West on 11/27/16
 - GPW \$373k bet + \$105k carryover. +8.3% exp return. Paid \$27k vs \$16k parlay. 1.67x
 - CD \$626k bet + \$173k carryover. +12.7% exp return. Paid \$117k vs \$18k parlay. 6.54x
 - Saratoga vs Churchill Downs 50¢ Pick 5
 - Saratoga 15% takeout, Pick 5 paid an avg of 2.47x parlay
 - Churchill Downs 22% takeout, Pick 5 paid an avg of 2.86x parlay
- From Dollar Supers to Dime Supers


Late Odds Change and Last Minute Money

- Last Minute Money represents ~40% of handle
- Last Minute Money probably from informed bettors/insiders and improves the accuracy of the odds.
- Much of the odds movements in toward favorites especially in the place and show pool
- 1% increase in amount bet on a horse in final pool vs post time pool increases net return by 0.27¢
- Similar results based on Australian races

Effect of Age of Thoroughbred Racing Performance



Other Projects

- Determinants of Bettor Preferences
 - Large spillover effects of multirace carryovers (25-40% ceteris paribus)
- Foal Birth Order and Racing Performance
 - 2nd – 4th foal
- 2yo in training sales and racing performance
- “Applied Research”
 - Racehorse ownership – Buying, Breeding, Claiming
 - Betting - We live in a golden age where there are only a few hours a day where I can't bet
 - Owning an ADW 

How can the industry promote research?

DATA