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
  • 2\textsuperscript{nd} – 4\textsuperscript{th} 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?