# Wagering Pools

A look at 18 years of Exacta and Trifecta Payoffs

Students: Peter Aiello, Jon Forbes, Patrick Lamoreux

Faculty: Doug Reed, Steve Barham

## Where it Started

# **Case of the shrinking exacta**

Officials blame high-end bettors who use robotic wagering

#### by Frank Angst

NE REASON horseplayers suspect that wagering pools have been compromised is the dwindling payouts on winning exacts and trifects payouts, a trend documented by a ThoroughereD Times investigation and in statistics presented to a National Thoroughbred Racing Association panel.

Without the advantage of a computer to instantly scan data from thousands of races, a THOROUGHERED TIMES study of 300 races in 2005-'05 compared with 300 races from at least ten years ago revealed

#### Looking for overlays

In general, the computers search for mathematical anomalies in the wagering and pump money into those combinations. The computer programs project what payouts should be based on odds for each horse and then search for payouts that offer attractive odds in the multihorse wagers. The programs are capable of punching through 100 to 200 bets a minute.

When exacta and trifecta payouts come up low,
Ron Nichol, a director of the Canadian PariMutuel Agency that oversees that country's
pari-mutuel pools, said possible explanations include a bettor who has made a
stand on a race and placed a large bet,
or if favored numbers like one, two, and
three hit the board.

But he said low payouts often are attributable to a bettor using robotic wagering. He said the bets are easily recognizable to his investigators. "This type of wagering will show up as steady bets in strange increments like \$11, \$17, \$7, \$29," Nichol said.

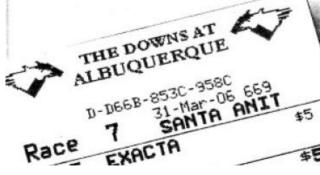
Nichol said he does not believe these players have access to the trifecta pools, a blind bet in which potential payouts are not posted, but he does think they have an advantage in that their programs are good enough to project the payouts based on win, place, show, and exacts wagering. He is not sure about the fairness of all this betting, which is allowed.

"I don't know what to think," Nichol said. "Sometimes these players are the reason for low payouts in the triactors [Canadian term for trifectas]. I don't think they have access to the payout information on triactors, but they can program little formulas into their computers to pick up patterns in the win, place, show, and exacta wagering to easily determine where the overlays are in the triactor betting."

With many outlets offering rebates to these highend players, essentially giving them a lower takeout rate than other bettors, the whales have thrived.

#### High win rate

According to evidence presented by the Thoroughbred Racing Protective Bureau to the NTRA Wagering System Task Force, total annualized negative settlements incurred by North American Thoroughbred tracks to secondary outlets that offer



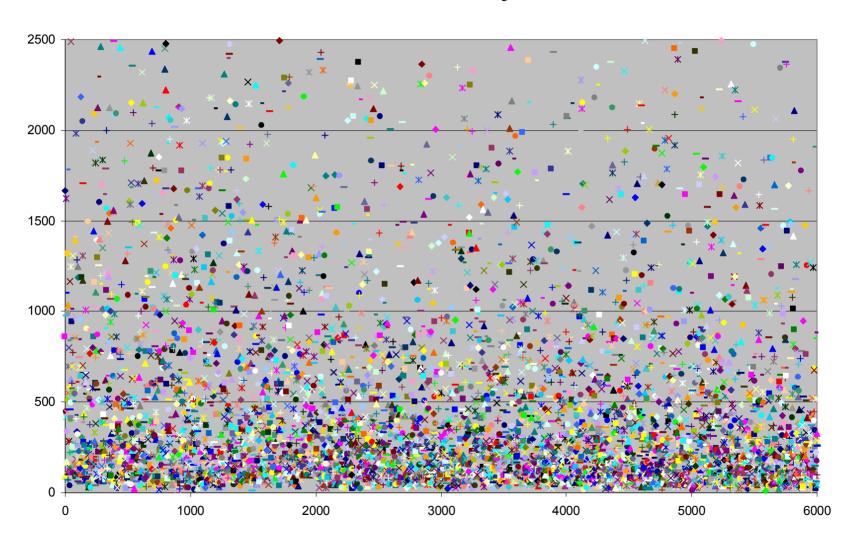
## The Data

- Provided by Brisnet
- 12 tracks
- 1992-2005
- All races with Exactas and/or Trifecta
- In digital format
- 196,062 Exacta records
- 145,885 Trifecta records

# The Data, continued

- Chart review
  - Being done by hand for select years starting with 1987.
- Requested additional information from each of the selected tracks – such as
  - Take-out rates
  - Hosting of off-track merged pool wagering
  - Any action against rebating sites

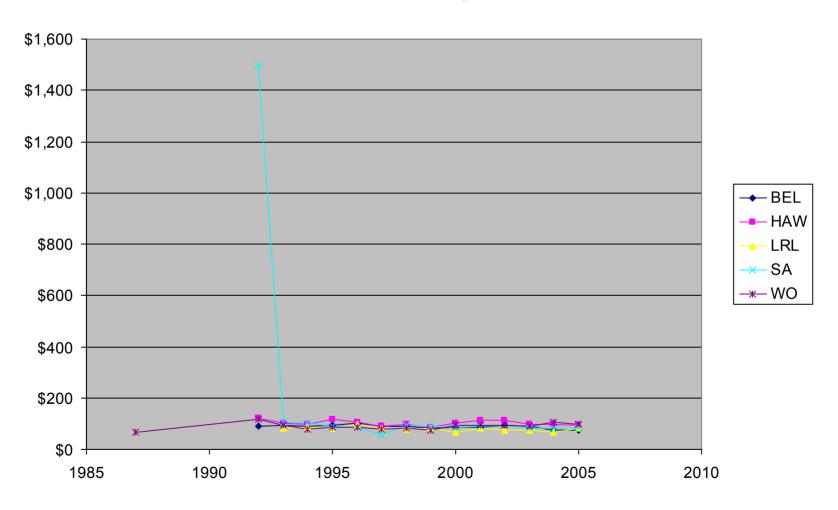
## The Chart That Says It ALL



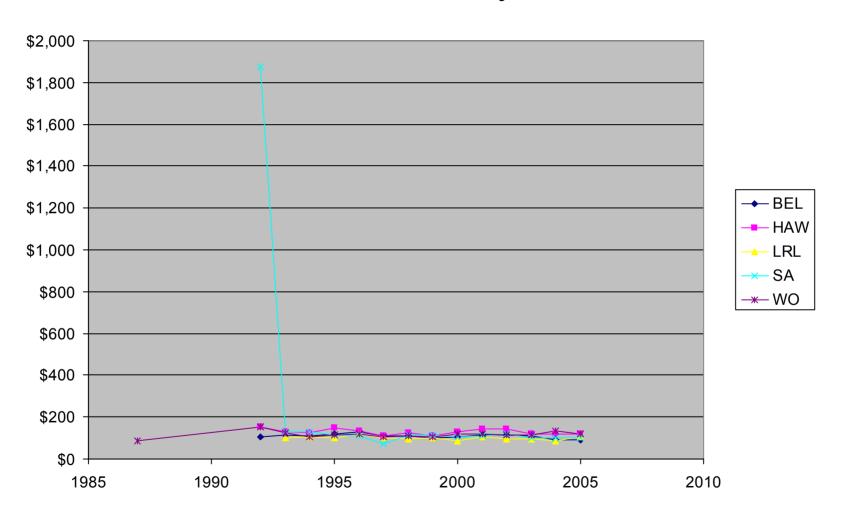
## Initial Phase

- Started with 5 tracks of the 12 (Belmont, Hawthorne, Laurel, Santa Anita, Woodbine)
- Goal was to make initial assessments, and to develop analytical processes
  - Found variations in information reporting
  - Normalized data for take-out effects
  - "Cleaned" based on specific criteria to remove erroneous records
  - Looked at betting interests and betting combinations
- Graphed results

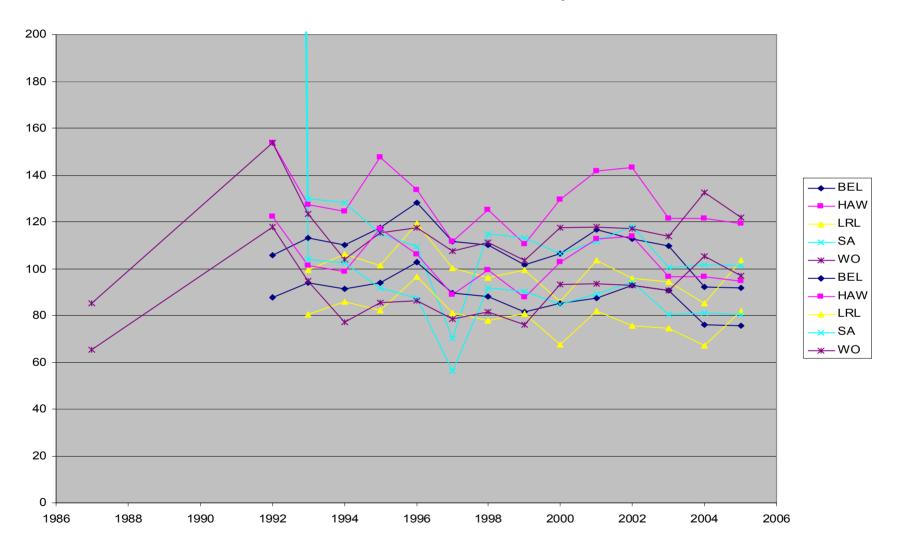
#### **Raw Exacta Payouts**



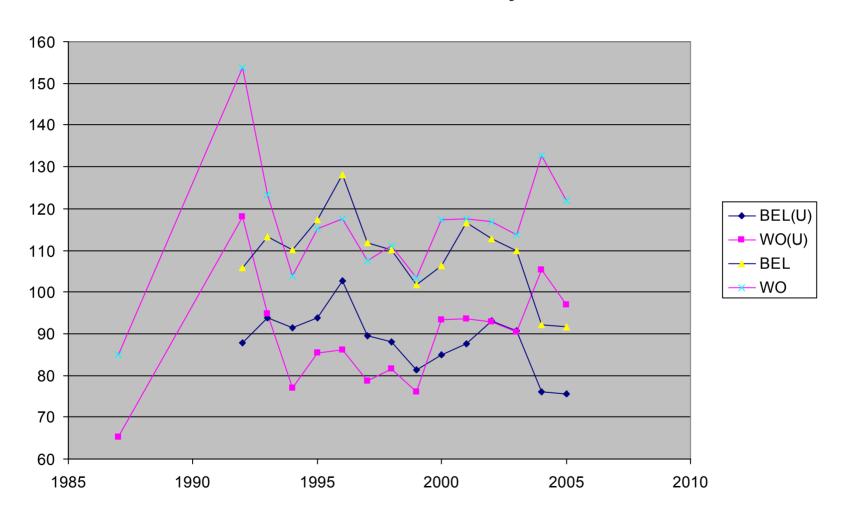
#### **Normalized Exacta Payouts**



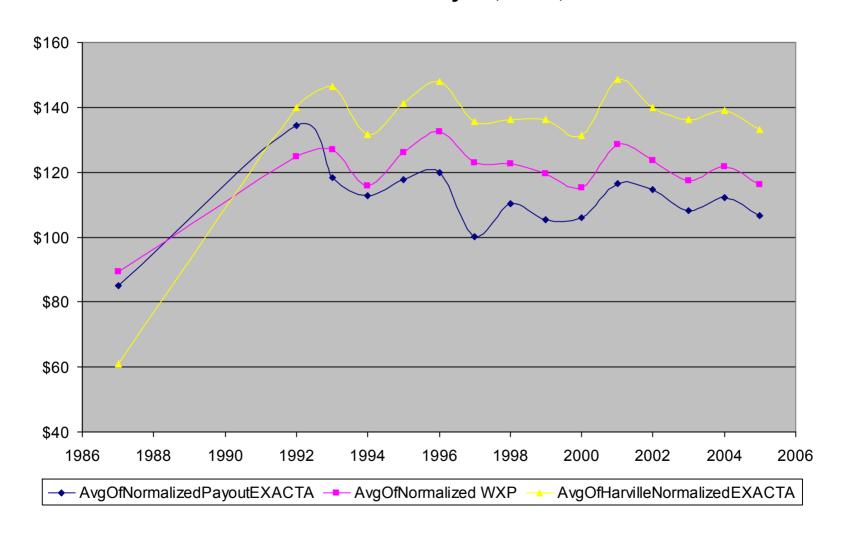
#### Normalized v. UnNormalized Exacta Payouts



## **Unnormalized vs Normalized Exacta Payouts for Two Tracks**



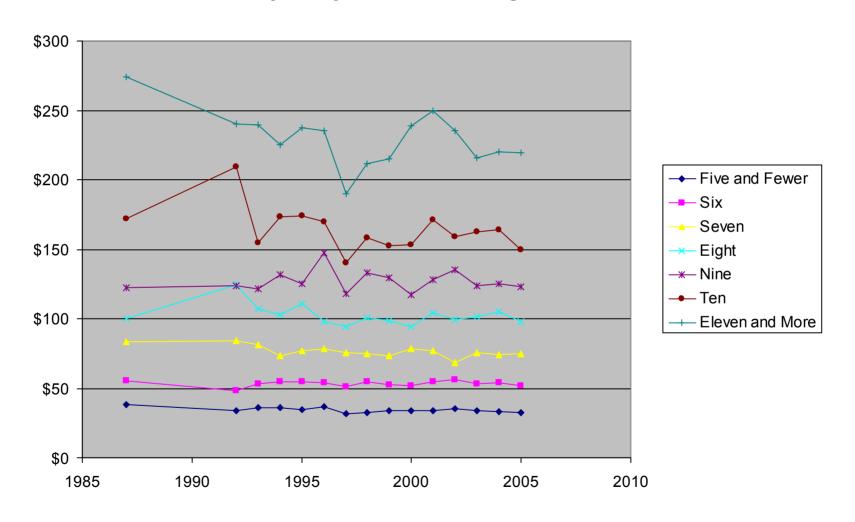
**EXACTA: Normalized Payout, WXP, Harville** 



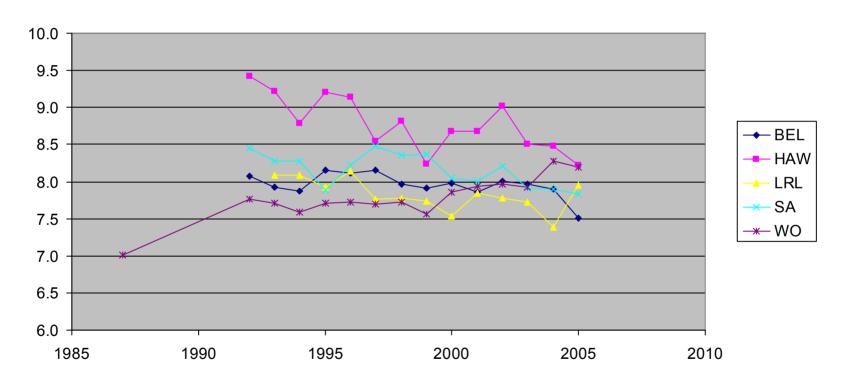
#### **Normalized Clean Exacta Payouts**



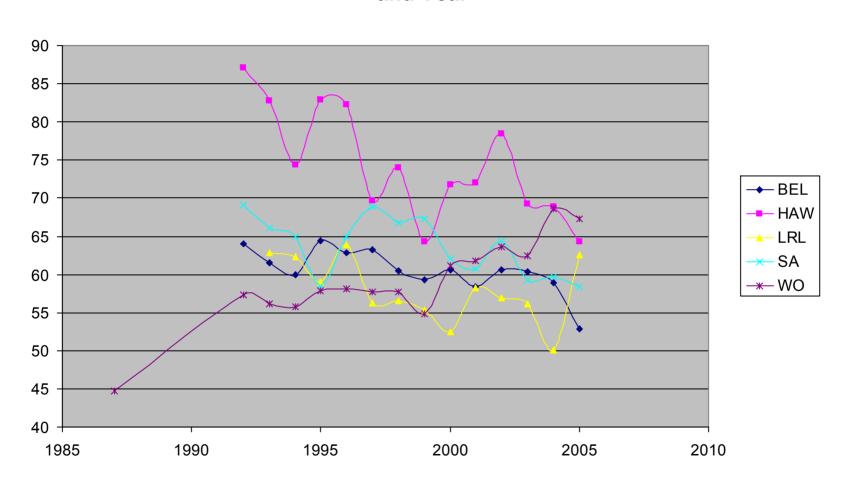
#### Normalized Payout by Year and Betting Interests for Exacta



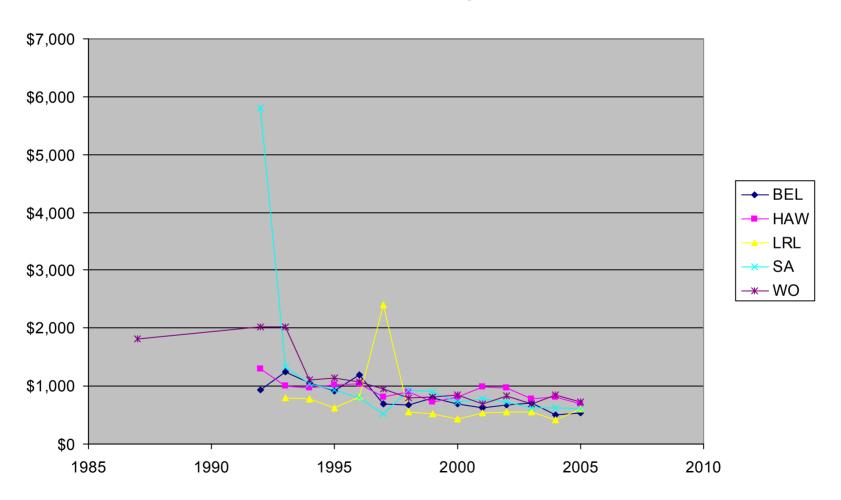
## **Yearly Betting Interest Average for Exacta**



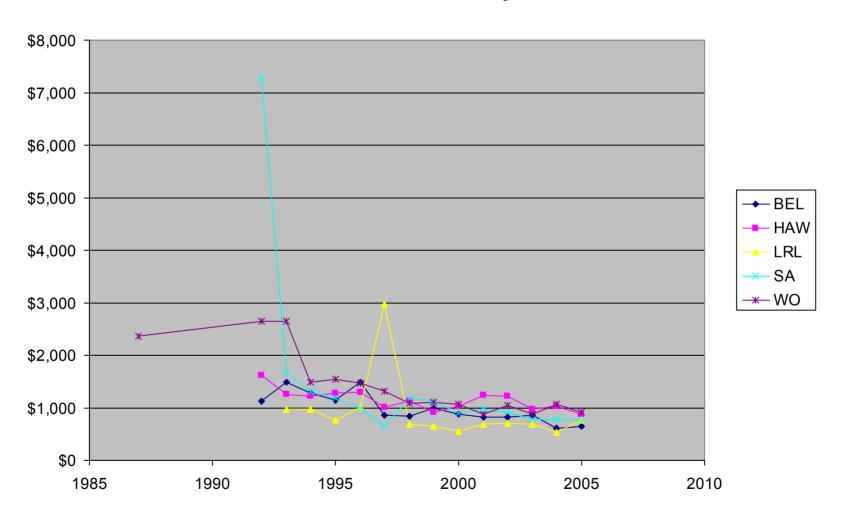
# Average Number of Possible Exacta Combinations by Track and Year



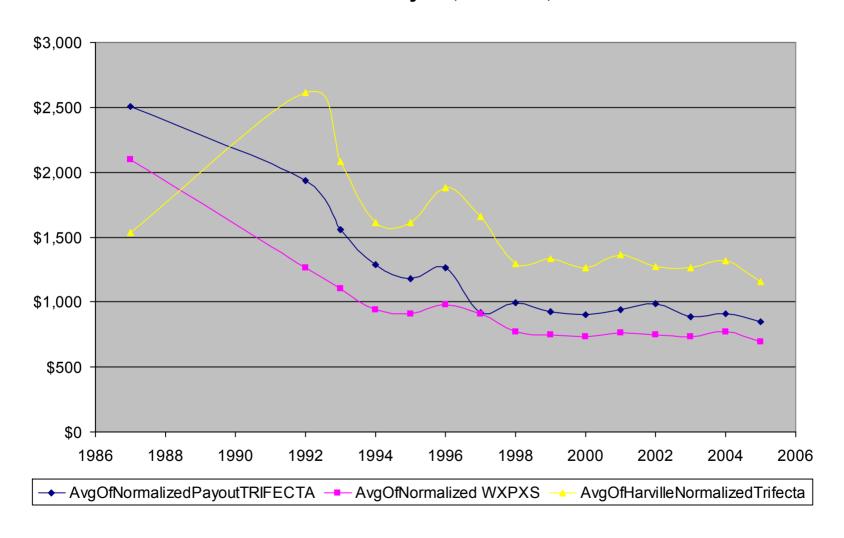
#### **Raw Trifecta Payouts**



#### **Normalized Trifecta Payouts**



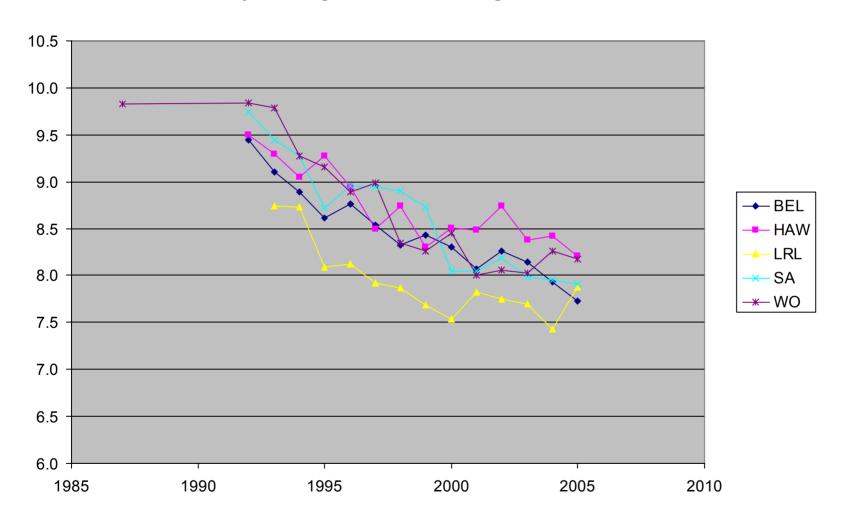
TRI: Normalized Payout, WXPXS, Harville



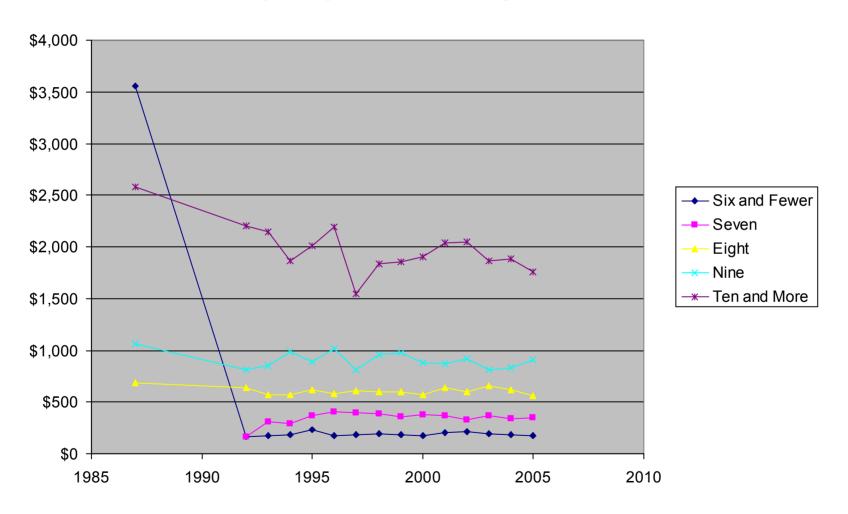
## **Normalized Clean Trifectas Payouts**



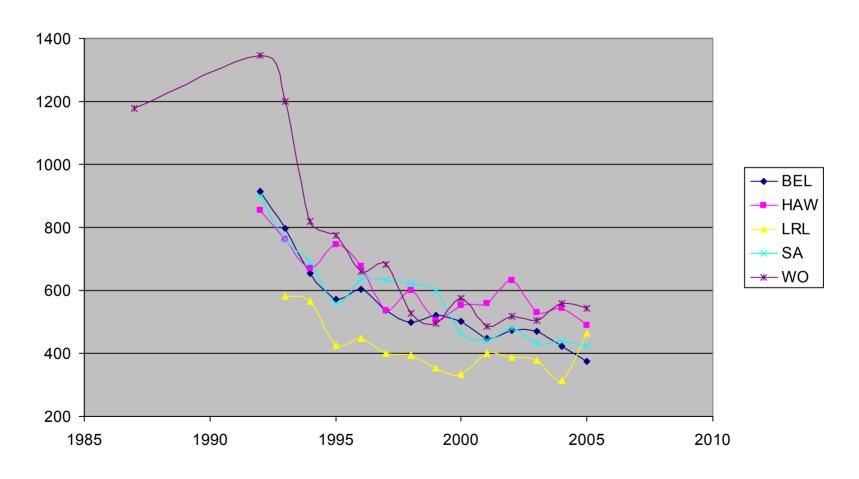
#### **Yearly Betting Interests Average for Trifectas**



#### Normalized Payout by Year and Betting Interests for Trifecta



## Average Number of Possible Trifecta Combinations by Track and Year for Trifectas



# Race Track Industry Program Reports

See this and other student projects at the *Race Track Industry Program Reports* session

– Day: Thursday

-Time: 9:30 - 11:30

– Where: In the Foyer