# Information Pools and Insider Trading: A Snapshot of America's Financial Elite

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## Executive summary

- We measure co-movements in returns among groups of alumni.
- Correlations between alumni of top universities are significantly higher than others.
- We link this factor to information pools using an insider trading scandal as a quasi-natural experiment.
- We document that an elite education is linked with a higher AUM at fund launch.

## Abstract

We document abnormal correlations between hedge funds' performance among managers sharing similar elite socio-economic backgrounds. In particular, Columbia, Harvard, University of Pennsylvania, Stanford, and NYU alumni are highly correlated among themselves. We take steps toward linking this phenomenon to a shared information pool with a quasi-natural experiment: the 2009 Galleon Capital insider trading scandal. The difference-in-difference analysis shows a significant reduction in returns of the elite managers following the scandal. Finally, we present evidences suggesting that investors recognize this pool's value, as funds likely to have access to elite information are associated with 55% higher assets under management at launch.

## Looking for co-movements

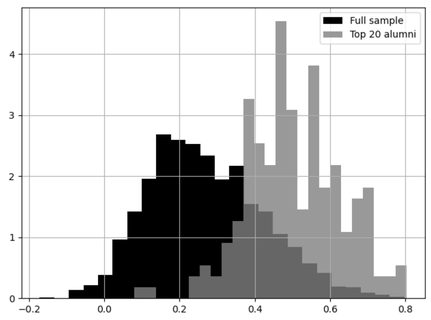
We estimate the following regression on each fund's series of historical returns:

$$y_t = X_t\, a + \epsilon_t$$

- $X_i$ is the vector with the Fung (2001) seven factors.
- We create a time serie for each university by computing the average of its alumni residuals.

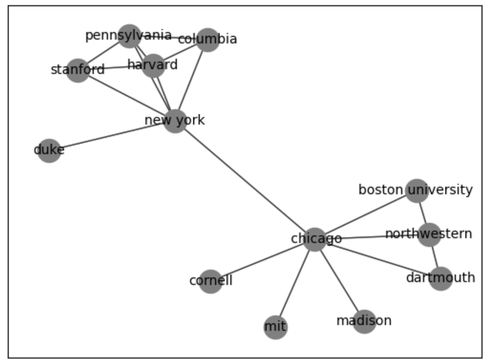
## Correlation between alumni groups

The figure shows the distribution of correlations between universities. The correlations are computed over the average of their alumni residuals, after regressing each fund on a set of hedge fund risk premia. The black distribution shows the whole sample. The grey one shows correlations between the universities with a business school in the top 20 (FT MBA ranking).




## A snapshot of America's Financial Elite

The figure shows the highest 1% of correlations among the 2016 we computed between the 64 alumni groups in our sample. The universities are the nodes and the highest correlations are the edges.




## Diff-in-diff setup

Main facts:

- Galleon Capital was a New York-based hedge fund, founded by Raj Rajaratnam. In 2008, it had approx USD 7bn AUM.
- In October 2009, Mr. Rajaratnam, was arrested and charged with insider trading.
- He was convicted in May 2011 on nine counts of securities fraud and five counts of conspiracy to 11 years of prison.
- Mr. Rajaratnam obtained an M.B.A. from the Wharton School of the University of Pennsylvania and was resident in Greenwich (CT).

**Relevance condition:** The media sensation and the unprecedented investigation methods could have plausibly altered common information-sharing practices.
**Exclusion condition:** the scandal was an isolated criminal investigation with no concrete consequences for those not directly affected.

## Main regression

$$y_{i,t} = \alpha + \beta_1\, after + \beta_2\, penn + \beta_3\, (after \times penn) + X'_{i,t}\, \beta + \epsilon_{i,t}.$$

Where:

- $y_{i,t}$ is the return of fund $i$ in month $t$
- $after$ is a binary variable equal to 1 if the observation is after the scandal
- $penn$ is a binary variable equal to 1 if the fund's manager belongs to the treated network, as defined in the previous section
- $X_{i,t}$ is a vector of controls which include Fama (2015) five factors and US area fixed effects.

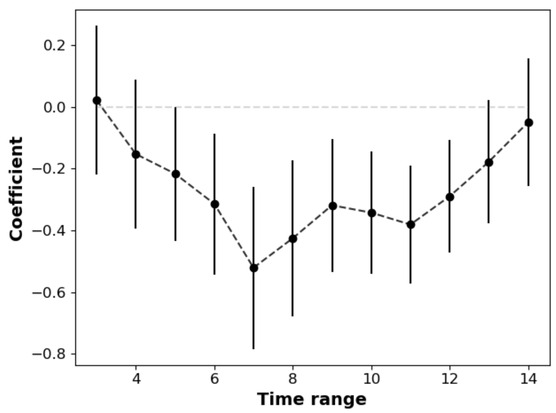
## Main results

We find that the returns of the alumni connected with the University of Pennsylvania were significantly and negatively impacted by the insider trading scandal. This result suggests that information sharing is key.

| | (1) | (2) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|
| constant | 0.428*** | 0.391*** | 0.504*** | 0.325** | 0.288** | 0.4*** |
| | (6.806) | (6.193) | (7.953) | (2.343) | (2.076) | (2.899) |
| pennsylvania | 0.472*** | 0.472*** | 0.47*** | 0.407*** | 0.407*** | 0.405*** |
| | (4.346) | (4.354) | (4.359) | (3.704) | (3.71) | (3.714) |
| after | -0.474*** | -0.363*** | -0.244*** | -0.471*** | -0.359*** | -0.241*** |
| | (-5.814) | (-4.271) | (-2.877) | (-5.773) | (-4.231) | (-2.836) |
| after * pennsylvania | -0.296* | -0.299* | -0.294* | -0.306** | -0.309** | -0.305** |
| | (-1.931) | (-1.953) | (-1.937) | (-1.999) | (-2.02) | (-2.005) |
| area FE | No | No | No | Yes | Yes | Yes |
| market controls | 1 | 3 | 5 | 1 | 3 | 5 |
| n. obs | 6740 | 6740 | 6740 | 6740 | 6740 | 6740 |
| $R^2$ | 0.054 | 0.056 | 0.067 | 0.055 | 0.057 | 0.068 |

## A temporary shock

This figure shows the confidence interval at 5% of the interaction term *after*×*pennsylvania*, when estimating the main regression on different time horizons.




## Related literature

[1] Manuel Ammann, Philipp Horsch, and David Oesch.
Competing with superstars.
*Management Science*, 62(10):2842–2858, 2016.

[2] Lauren Cohen, Andrea Frazzini, and Christopher Malloy.
Sell-side school ties.
*The Journal of Finance*, 65(4):1409–1437, 2010.

[3] Joseph Engelberg, Pengjie Gao, and Christopher A Parsons.
Friends with money.
*Journal of Financial Economics*, 103(1):169–188, 2012.