Distribution of Outcomes

- 2016: 2.5X, 22% IRR
- 2007: Various outcomes and effective strategies
- 2009: Various outcomes and effective strategies

Exit multiple vs. % of Total

- <1X: 50%
- 1X-5X: 30%
- 5X-10X: 10%
- 10X-30X: 5%
- >30X: 5%
Tracking Angel Returns

Key Take Aways

The overall cash on cash multiple is estimated at **2.5X Capital.**

The *holding period* has increased by 25% to **4.5 years** on average.

This leads to an **gross IRR of 22%.**

**10% of all exits generated 85% of all cash.**

Angel investing, like formal VC, is a homerun game, where many investments result in losses, but the occurrence of large homeruns are the key driver of the rate of return.

The *failure rate* (exits at less than 1X) climbed to **70%.**

Investments that might have otherwise delivered a 1X-5X weren’t able to reach those exits during the recession in 09/10/11. **Homerun exits still represent about 10% of all outcomes** which kept the overall multiple at 2.5X.

As with the prior studies and also formal VC, the distribution is highly skewed: **the median investment is a loss, while the mean is a 2.5X multiple.**

The consistent pattern of outcomes across multiple studies (which cover different time frames, economic cycles, geographies, and units of analysis) increases our confidence that these results are representative of outcomes to U.S. group angel investing.
## Perspective

<table>
<thead>
<tr>
<th>Year</th>
<th>Multiple</th>
<th>Hold</th>
<th>IRR</th>
<th>&lt;1X</th>
<th>10% of exits to $</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>2.5X</td>
<td>4.5 yrs</td>
<td>22%</td>
<td>70%</td>
<td>85%</td>
</tr>
<tr>
<td>2007</td>
<td>2.6</td>
<td>3.5</td>
<td>27%</td>
<td>52%</td>
<td>90%</td>
</tr>
<tr>
<td>2009</td>
<td>2.2</td>
<td>3.6</td>
<td>22%</td>
<td>56%</td>
<td>80%</td>
</tr>
<tr>
<td>Early stage VC ’05-’11</td>
<td>2.1</td>
<td>29%</td>
<td>Gross TVPI &amp; includes carried value</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tracking Angel Returns

The DATA

245 complete investments (was 240 in ‘09 & 450 in ‘07)

91% of events occurred between 2010-2016

100% U.S.

95% of investments made post 2001

Some bias toward angel firms that subsequently take VC$

• Sources for detail:
  Pitchbook & Inventurist & Angel funds/side car funds.

• Completed investments ONLY
  (liquidity events or closures, no estimated carried value)
Raising Capital in the HALO Set

- Investors own 2/3 of a venture’s equity by liquidity event

- VC was involved in 2/3rds of the ventures
- VC’s are significantly related to success
  45% of the <1X outcomes, but 70% of the >1X

Completed investments: pre-money valuation = $4.0M
Ongoing investments: pre-money valuation = $5.0M
Comparable years for whole HALO data set = $3.2M
Round Size & Ownership Percentage in first round with angels only

As valuation climb, so too does round size, resulting in a fairly stable % of equity owned post an early stage venture round.
TRACKING ANGEL RETURNS

Robert E Wiltbank, PhD
Prof. Wade T Brooks

Ewing Marion KAUFFMAN Foundation

NASDAQ OMX EDUCATION FOUNDATION
Methods & Sources

These 2 sets were combined to create the overall estimate reported in this ‘16 Tracking Angel Returns study.

HALO Set
- 2.28X
- 5.0 years held
- 19.3% IRR

Angel Fund Set
- 2.84X
- 4.4 years held
- 24.7% IRR
Methods & Sources

The following slides describe the sources/biases of the two data sets compiled for this study.

HALO Report Set
- Longitudinal panel data of firms reported to Halo prior to 2012
- Tracked via Pitchbook & Inventurist
- Completed investments only (liquidity events or closures)

Angel Fund Set
- Sample of US Angel Funds (sidecar & direct)
- Direct report of investments & outcomes
- Completed investments only (liquidity events or closures)
HALO Report Set

VERY different approach than the ’07 Study.

**Good:** No survivor bias, Minimal selection bias, **Repeatable**

**Bad:** Right justified data, Less data, VC bias, Fewer strategic points

More Visibility of VC backed firms, thus more data with VC
2/3 have VC$ in addition to Angel$ (1/3 in the ‘07 study)

**Angel Resource Institute** Directly collects quarterly investment data from angel groups.

**Pitchbook** Scraping & collecting from ventures and investors;
Active fact checking through direct venture contact.

**Inventurist** Focused on activity indicators/survival via social media
The HALO Set

356 total firms identified in the HALO process prior to 2012

109 of those are now completed investments

56% of events from 2013-2016

36% from 2010-2012

8% prior to 2010
Angel Fund Set

Sample of U.S. angel funds (sidecar & direct)
31 funds contacted, 20 participated

**Good:** direct investor gp/lp accuracy, **Repeatable**

**Bad:** self selection risk, some survivor bias risk,
limited strategic variables, 0 exits for many so far

136 complete investments

65% of events from **2013-2016**
25% from **2010-2012**
10% prior to **2010**