

Initial Public Offerings: Technology Stock IPOs

Jay R. Ritter
Cordell Professor of Finance
University of Florida
352.846-2837 *voice*

<https://site.warrington.ufl.edu/ritter/>

December 31, 2020

Index

- Table 4: Median Age and Fraction of IPOs with VC- and Buyout-backing, 1980-2020
- Table 4a: Median Price-to sales Ratios of Tech-stock IPOs, 1980-2020
- Table 4b: Profitability and Median Sales of Technology and Biotech IPOs, 1980-2020
- Table 4e: The number of Tech stock IPOs and their mean and median post-issue market values
- Table 4h: Technology Company IPO Underpricing, 1980-2020
- Table 9: Fraction of IPOs with Negative Earnings, 1980-2020
- Table 16c: Long-run Returns Measured from the Offer Price on Tech and non-Tech Stock IPOs
Excluding the Internet Bubble, 1980-2018
- Table 16d: Long-run Returns Measured from the First Closing Market Price on Tech and non-Tech Stock IPOs Excluding the Internet Bubble, 1980-2018
- Table 23: Dual Class IPOs, by Tech and Non-Tech, 1980-2020
- Figure 2: Fraction of IPOs with Negative EPS and Fraction of Tech Stocks, 1980-2020

Table 4 (updated December 28, 2020)

Median Age and Fraction of IPOs with VC and Buyout Backing, 1980-2020

There are 8,775 IPOs after excluding those with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, oil & gas limited partnerships, acquisition companies, REITs, bank and S&L IPOs, and firms not listed on CRSP. Missing numbers are supplemented by direct inspection of prospectuses on EDGAR, information from Dealogic for IPOs after 1991, Howard and Co.'s *Going Public: The IPO Reporter* from 1980-1985, the Graeme Howard-Todd Huxster collection of IPO prospectuses for 1975-2006, and the Stanford GSB microfiche collection of registration statements from the 1980s. Tech stocks are defined as internet-related stocks plus other technology stocks, not including biotech. Loughran and Ritter (2004) list the SIC codes in their appendix 3 and sources of founding dates in appendix 1. Age is defined as the year of the IPO minus the year of founding. For buyout-backed IPOs, the founding date of the predecessor company is used. For rollups, the founding date of the oldest acquired company is used in most cases. Private equity (PE) or buyout-backed IPOs were restricted to "reverse LBOs" in the 1980s and 1990s. Jerry Cao has assisted with providing information on which IPOs are buyout-backed.

The financial backers of some companies are easy to classify, such as when Sequoia Capital and Kleiner Perkins invested in Google, or when KKR invested in Dollar General. But other situations involve growth capital investing, as when Warburg Pincus finances a company that rolls up some doctors' offices. With just two categories (VC and buyout), there is some arbitrariness in the categorization of IPOs backed by growth capital investors. 426 growth capital-backed IPOs are classified as VC-backed.

The last column gives the percentage of tech stocks that have VC backing.

The definition of technology stocks has been changed from that in Loughran and Ritter (2004 *Financial Management*), with SIC=3559, 3576, and 7389 added to tech. Some 7389 (business services) companies have had their SIC codes changed into non-tech categories, such as consulting and two new SIC codes: 5614 for telemarketing firms and 7388 for non-tech business services such as Sotheby's Auctions.

(table on the next page)

| Year | Number of IPOs | Median Age | VC-backed | | Buyout-backed | | Technology IPOs | |
|------------------|----------------|------------|--------------|------------|---------------|------------|-----------------|-------------|
| | | | No. | % | No. | % | No. | % VC-backed |
| 1980 | 71 | 6 | 23 | 32% | 1 | 1% | 22 | 64% |
| 1981 | 192 | 8 | 53 | 27% | 1 | 1% | 72 | 40% |
| 1982 | 77 | 5 | 21 | 27% | 2 | 3% | 42 | 36% |
| 1983 | 451 | 7 | 115 | 25% | 12 | 3% | 173 | 38% |
| 1984 | 171 | 8 | 45 | 26% | 3 | 2% | 50 | 52% |
| 1985 | 186 | 9 | 39 | 21% | 18 | 10% | 37 | 43% |
| 1986 | 393 | 8 | 79 | 20% | 42 | 11% | 77 | 40% |
| 1987 | 285 | 8 | 66 | 23% | 41 | 14% | 59 | 66% |
| 1988 | 105 | 8 | 32 | 30% | 9 | 9% | 28 | 61% |
| 1989 | 116 | 8 | 40 | 34% | 10 | 9% | 35 | 66% |
| 1990 | 110 | 9 | 42 | 38% | 13 | 12% | 32 | 75% |
| 1991 | 286 | 10 | 116 | 41% | 72 | 25% | 71 | 63% |
| 1992 | 412 | 10 | 138 | 33% | 98 | 24% | 115 | 58% |
| 1993 | 510 | 9 | 172 | 34% | 79 | 15% | 127 | 69% |
| 1994 | 402 | 8 | 129 | 32% | 22 | 5% | 115 | 56% |
| 1995 | 462 | 8 | 186 | 40% | 30 | 7% | 205 | 55% |
| 1996 | 677 | 7 | 265 | 39% | 34 | 5% | 276 | 55% |
| 1997 | 474 | 10 | 133 | 28% | 38 | 8% | 174 | 41% |
| 1998 | 281 | 9 | 77 | 27% | 30 | 11% | 113 | 48% |
| 1999 | 476 | 5 | 275 | 58% | 31 | 7% | 370 | 66% |
| 2000 | 380 | 6 | 242 | 64% | 32 | 8% | 260 | 69% |
| 2001 | 80 | 12 | 32 | 41% | 21 | 27% | 23 | 70% |
| 2002 | 66 | 15 | 23 | 35% | 20 | 30% | 20 | 65% |
| 2003 | 63 | 11 | 24 | 38% | 21 | 33% | 18 | 61% |
| 2004 | 173 | 8 | 79 | 46% | 43 | 25% | 61 | 66% |
| 2005 | 159 | 13 | 45 | 28% | 67 | 42% | 45 | 49% |
| 2006 | 157 | 13 | 54 | 34% | 68 | 43% | 48 | 52% |
| 2007 | 159 | 9 | 71 | 45% | 31 | 19% | 76 | 66% |
| 2008 | 21 | 14 | 9 | 43% | 3 | 14% | 6 | 67% |
| 2009 | 41 | 15 | 12 | 29% | 19 | 46% | 14 | 43% |
| 2010 | 91 | 10 | 40 | 44% | 27 | 30% | 33 | 73% |
| 2011 | 81 | 11 | 44 | 54% | 18 | 22% | 36 | 81% |
| 2012 | 93 | 12 | 48 | 52% | 28 | 30% | 40 | 87% |
| 2013 | 158 | 12 | 76 | 48% | 36 | 23% | 45 | 73% |
| 2014 | 206 | 11 | 128 | 62% | 38 | 18% | 51 | 71% |
| 2015 | 118 | 10 | 73 | 62% | 22 | 19% | 38 | 74% |
| 2016 | 75 | 10 | 47 | 63% | 14 | 19% | 21 | 71% |
| 2017 | 106 | 12 | 63 | 59% | 19 | 18% | 30 | 77% |
| 2018 | 134 | 10 | 89 | 66% | 14 | 10% | 39 | 77% |
| 2019 | 112 | 10 | 76 | 68% | 11 | 9% | 37 | 70% |
| 2020 | 165 | 9 | 110 | 67% | 22 | 13% | 42 | 69% |
| 1980-1989 | 2,047 | 8 | 513 | 25% | 139 | 7% | 595 | 46% |
| 1990-1998 | 3,614 | 8 | 1,258 | 35% | 416 | 12% | 1,228 | 55% |
| 1999-2000 | 856 | 5 | 517 | 60% | 63 | 7% | 630 | 68% |
| 2001-2020 | 2,258 | 11 | 1,143 | 51% | 543 | 24% | 723 | 68% |
| 1980-2020 | 8,775 | 8 | 3,431 | 39% | 1,160 | 13% | 3,176 | 59% |

Table 4a (updated December 28, 2020)

Technology Company IPOs, 1980-2020

There are 3,176 tech stock IPOs, after excluding those with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, natural resource limited partnerships (and most other LPs, but not buyout firms such as Carlyle Group), acquisition companies, REITs, bank and S&L IPOs, and firms not listed on CRSP. Missing and questionable numbers from the SDC new issues database are supplemented by direct inspection of prospectuses on EDGAR, information from Dealogic for IPOs after 1991, Howard and Co.'s *Going Public: The IPO Reporter* from 1980-1985, and the Graeme Howard-Todd Huxster collection of IPO prospectuses for 1975-2006. Tech stocks are defined as internet-related stocks plus other technology stocks including telecom, but not including biotech. Loughran and Ritter (2004) list the SIC codes in their appendix 3 and sources of founding dates in appendix 1. The definition of technology stocks has been changed from that in Loughran and Ritter (2004 *Financial Management*), with SIC=3559, 3576, 3844, and 7389 added to tech. Some 7389 (business services) companies have had their SIC codes changed into non-tech categories, such as consulting and two new SIC codes that I have made up: 5614 for telemarketing firms and 7388 for non-tech business services such as Sotheby's Auctions. I have also added the S.E.C.'s computer communications equipment code of 3576 for 21 companies, including Cisco Systems.

For the column with VC-backed IPOs, there are IPOs including both technology and non-technology companies.

For buyout-backed IPOs, the founding date of the predecessor company is used. Price-to-sales ratios are computed using both the offer price (OP) and the first closing market price (MP) for computing the market capitalization of equity. Market cap is calculated using the post-issue shares outstanding, with all share classes included in the case of dual-class companies. The undiluted number of shares is used, which is some cases (e.g., Facebook, Twitter, and Castlight Health) understates the market cap due to the existence of substantial amounts of in-the-money employee stock options that are highly likely to be exercised. Sales are the last twelve months (LTM) revenues as reported in the prospectus. The median sales, in millions, is expressed in both nominal dollars and in dollars of 2014 purchasing power using the CPI. The median age, in years, is the number of years since the calendar year of the founding date and the calendar year of the IPO. The percentage of IPOs that are profitable measures profitability using trailing LTM earnings (usually using after extraordinary items earnings, and usually using pro forma numbers that are computed assuming that any recent or concurrent mergers have already occurred, and the conversion of convertible preferred stock into common stock). In some cases, last fiscal year earnings are used when LTM earnings are unavailable.

Even concepts like market cap (for the price-to-sales ratios) become ambiguous when you realize that companies like Facebook have many deep in-the-money options outstanding, so whether you use the fully diluted number of shares or the undiluted number can affect the calculations substantially for some companies.

(table on the next page)

| Year | Number of Tech IPOs | Proceeds in \$millions | | Median Price-to-sales | | Median sales, \$mm | | Median age | % profitable |
|------------------|---------------------------|------------------------|----------------|--------------------------|------------|--------------------|-------------|---------------|-----------------|
| | | VC-backed | Technology | OP | MP | Nominal | \$2014 | | |
| 1980 | 22 | 388 | 378 | 3.4 | 3.8 | 16.2 | 48.8 | 6.5 | 91% |
| 1981 | 72 | 648 | 838 | 3.5 | 3.6 | 12.9 | 34.8 | 9 | 88% |
| 1982 | 42 | 490 | 648 | 4.2 | 4.5 | 10.5 | 26.2 | 5 | 83% |
| 1983 | 173 | 2,768 | 3,271 | 5.9 | 6.6 | 8.6 | 20.6 | 6 | 71% |
| 1984 | 50 | 614 | 551 | 2.4 | 2.5 | 9.8 | 22.4 | 6.5 | 80% |
| 1985 | 37 | 667 | 375 | 2.3 | 2.4 | 13.4 | 29.7 | 7 | 84% |
| 1986 | 77 | 1,558 | 1,217 | 3.4 | 3.6 | 13.0 | 27.8 | 6 | 74% |
| 1987 | 59 | 1,315 | 1,330 | 3.2 | 3.2 | 17.8 | 37.4 | 5 | 86% |
| 1988 | 28 | 674 | 888 | 3.0 | 3.4 | 24.0 | 48.5 | 5.5 | 79% |
| 1989 | 35 | 869 | 748 | 3.4 | 4.0 | 31.5 | 60.9 | 6 | 77% |
| 1990 | 32 | 1,085 | 764 | 3.6 | 4.0 | 28.6 | 52.5 | 8.5 | 94% |
| 1991 | 71 | 3,887 | 2,760 | 3.2 | 3.6 | 34.6 | 60.0 | 9 | 75% |
| 1992 | 115 | 4,970 | 5,875 | 3.5 | 3.7 | 22.4 | 38.0 | 8 | 65% |
| 1993 | 127 | 5,929 | 5,715 | 3.0 | 3.6 | 27.0 | 44.3 | 8 | 74% |
| 1994 | 115 | 3,691 | 3,583 | 3.7 | 4.2 | 21.0 | 33.7 | 8 | 70% |
| 1995 | 205 | 7,023 | 9,786 | 4.6 | 5.8 | 21.4 | 33.3 | 8 | 71% |
| 1996 | 276 | 11,623 | 16,256 | 6.8 | 8.2 | 16.7 | 25.2 | 7 | 47% |
| 1997 | 174 | 4,994 | 7,479 | 5.2 | 5.7 | 21.2 | 31.1 | 8 | 50% |
| 1998 | 113 | 3,882 | 8,118 | 8.8 | 11.9 | 22.1 | 32.0 | 7 | 36% |
| 1999 | 370 | 22,012 | 33,512 | 26.5 | 43.0 | 12.1 | 17.2 | 4 | 14% |
| 2000 | 260 | 23,304 | 42,442 | 31.7 | 49.5 | 12.0 | 16.6 | 5 | 14% |
| 2001 | 23 | 2,658 | 5,773 | 8.1 | 13.4 | 24.6 | 32.9 | 9 | 30% |
| 2002 | 20 | 1,956 | 2,587 | 2.9 | 3.1 | 95.2 | 125.8 | 9 | 40% |
| 2003 | 18 | 1,789 | 2,242 | 4.1 | 4.6 | 86.2 | 111.0 | 7 | 39% |
| 2004 | 61 | 7,183 | 9,064 | 6.4 | 7.1 | 55.5 | 70.1 | 8 | 44% |
| 2005 | 45 | 3,676 | 6,994 | 4.5 | 4.5 | 68.0 | 83.5 | 9 | 36% |
| 2006 | 48 | 4,662 | 4,873 | 5.5 | 6.3 | 57.6 | 67.9 | 9 | 50% |
| 2007 | 76 | 9,820 | 12,572 | 6.5 | 7.8 | 71.2 | 79.8 | 8 | 30% |
| 2008 | 6 | 863 | 1,194 | 4.9 | 5.7 | 156.7 | 173.6 | 14 | 67% |
| 2009 | 14 | 1,697 | 4,126 | 3.0 | 3.6 | 174.3 | 193.1 | 11 | 71% |
| 2010 | 33 | 3,873 | 4,347 | 3.4 | 3.9 | 119.5 | 129.0 | 11 | 64% |
| 2011 | 36 | 8,603 | 9,412 | 6.1 | 6.6 | 141.3 | 150.1 | 10 | 36% |
| 2012 | 40 | 21,031 | 20,887 | 4.5 | 5.0 | 113.4 | 117.1 | 9.5 | 43% |
| 2013 | 45 | 11,553 | 8,662 | 5.3 | 6.1 | 105.8 | 107.5 | 9 | 27% |
| 2014 | 51 | 18,058 | 9,551 | 5.4 | 6.6 | 88.7 | 88.7 | 11 | 16% |
| 2015 | 38 | 9,319 | 10,087 | 5.3 | 6.2 | 130.8 | 130.9 | 11 | 26% |
| 2016 | 21 | 5,945 | 2,510 | 4.2 | 4.3 | 109.5 | 108.2 | 10 | 29% |
| 2017 | 30 | 10,878 | 7,844 | 5.0 | 6.3 | 188.4 | 181.5 | 13 | 17% |
| 2018 | 39 | 16,412 | 12,246 | 7.7 | 11.7 | 179.2 | 169.1 | 12 | 15% |
| 2019 | 37 | 26,693 | 22,881 | 7.9 | 10.4 | 196.6 | 182.8 | 11 | 30% |
| 2020 | 42 | 40,655 | 28,269 | 13.4 | 23.3 | 201.7 | 187.5 | 12.5 | 19% |
| 1980-2020 | 3,176 | 310,012 | 332,655 | 5.9 | 7.0 | 23.2 | 37.5 | 7 | 48% |

Table 4b (updated December 28, 2020)

Technology and Biotechnology Company IPOs, 1980-2020

There are 3,176 tech and 911 biotech IPOs from 1980-2020, after excluding those with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, partnerships, acquisition companies, REITs, bank and S&L IPOs, and firms not listed on CRSP. Missing and questionable numbers from the SDC new issues database are supplemented by direct inspection of prospectuses on EDGAR, information from Dealogic for IPOs after 1991, Howard and Co.'s *Going Public: The IPO Reporter* from 1980-1985, and the Graeme Howard-Todd Huxster collection of IPO prospectuses for 1975-2006. Tech stocks are defined as internet-related stocks plus other technology stocks including telecom, but not including biotech. Loughran and Ritter (2004) list the SIC codes in their appendix 3 and sources of founding dates in appendix 1. The definition of technology stocks has been changed from that in Loughran and Ritter (2004 *Financial Management*), with SIC=3559, 3576, and 7389 added to tech. Some 7389 (business services) companies have had their SIC codes changed into non-tech categories, such as consulting and two new SIC codes that I created: 5614 for telemarketing firms and 7388 for non-tech business services such as Sotheby's Auctions. I have also added the S.E.C.'s computer communications equipment code of 3576 for 21 companies, including Cisco Systems.

Biotech is defined as SIC=2830, 2833, 2834, 2835, 2836, and 8731.

Sales are the last twelve months (LTM) revenues as reported in the prospectus. The median sales, in millions, are expressed in dollars of 2014 purchasing power using the CPI. Pro forma numbers are usually used if there have been recent mergers or mergers that coincide with the IPO. The percentage of IPOs that are profitable measures profitability using trailing LTM earnings (usually using after extraordinary items earnings, and usually using pro forma numbers that are computed assuming that any recent or concurrent mergers have already occurred, and the conversion of convertible preferred stock into common stock). In some cases, last fiscal year earnings are used when LTM earnings are unavailable.

(table on the next page)

| Year | Number of IPOs | | | % Profitable | | | Median sales (\$2014, millions) | | |
|------------------|----------------|------------|--------------|--------------|------------|------------|---------------------------------|------------|--------------|
| | Tech | Biotech | Other | Tech | Biotech | Other | Tech | Biotech | Other |
| 1980 | 22 | 3 | 46 | 91% | 67% | 70% | 48.8 | 17.1 | 64.4 |
| 1981 | 72 | 10 | 110 | 88% | 30% | 85% | 34.8 | 4.1 | 36.1 |
| 1982 | 42 | 2 | 33 | 83% | 50% | 79% | 26.2 | 3.3 | 24.9 |
| 1983 | 173 | 21 | 257 | 71% | 43% | 86% | 20.6 | 6.1 | 73.9 |
| 1984 | 50 | 2 | 119 | 80% | 100% | 85% | 22.4 | 113.4 | 57.9 |
| 1985 | 37 | 5 | 144 | 84% | 40% | 87% | 29.7 | 10.4 | 88.5 |
| 1986 | 77 | 25 | 291 | 74% | 32% | 84% | 27.8 | 9.0 | 79.2 |
| 1987 | 59 | 11 | 215 | 86% | 18% | 85% | 37.4 | 5.9 | 92.6 |
| 1988 | 28 | 2 | 75 | 79% | 0% | 85% | 48.5 | 8.2 | 191.1 |
| 1989 | 35 | 4 | 77 | 77% | 0% | 82% | 60.9 | 2.2 | 101.7 |
| 1990 | 32 | 4 | 74 | 94% | 0% | 87% | 52.5 | 3.8 | 107.3 |
| 1991 | 71 | 33 | 182 | 75% | 15% | 88% | 60.2 | 5.7 | 129.1 |
| 1992 | 115 | 33 | 264 | 65% | 18% | 80% | 38.0 | 2.2 | 118.1 |
| 1993 | 127 | 28 | 355 | 74% | 21% | 75% | 44.3 | 2.6 | 100.7 |
| 1994 | 115 | 20 | 267 | 70% | 20% | 80% | 33.6 | 2.6 | 89.1 |
| 1995 | 205 | 22 | 235 | 71% | 14% | 75% | 33.3 | 4.2 | 98.9 |
| 1996 | 276 | 47 | 354 | 47% | 17% | 73% | 25.2 | 3.9 | 82.7 |
| 1997 | 174 | 22 | 278 | 50% | 14% | 77% | 31.1 | 8.2 | 93.0 |
| 1998 | 113 | 12 | 156 | 36% | 42% | 69% | 32.0 | 18.9 | 104.1 |
| 1999 | 370 | 11 | 95 | 14% | 27% | 63% | 17.2 | 16.9 | 162.9 |
| 2000 | 260 | 56 | 64 | 14% | 11% | 50% | 16.6 | 5.5 | 164.9 |
| 2001 | 23 | 6 | 51 | 30% | 0% | 66% | 32.9 | 0.2 | 475.3 |
| 2002 | 20 | 5 | 41 | 40% | 40% | 63% | 125.8 | 189.7 | 569.9 |
| 2003 | 18 | 8 | 37 | 39% | 0% | 76% | 111.0 | 0.1 | 519.1 |
| 2004 | 61 | 30 | 82 | 44% | 7% | 70% | 70.1 | 4.4 | 250.2 |
| 2005 | 45 | 16 | 98 | 36% | 13% | 70% | 83.5 | 15.2 | 266.3 |
| 2006 | 48 | 24 | 85 | 50% | 8% | 80% | 67.9 | 4.0 | 393.3 |
| 2007 | 76 | 19 | 64 | 30% | 5% | 73% | 79.8 | 1.6 | 268.8 |
| 2008 | 6 | 1 | 14 | 67% | 0% | 57% | 173.6 | 0.3 | 223.6 |
| 2009 | 14 | 3 | 24 | 71% | 67% | 71% | 193.1 | 41.7 | 498.2 |
| 2010 | 33 | 11 | 47 | 64% | 0% | 70% | 129.0 | 0.0 | 348.6 |
| 2011 | 36 | 8 | 37 | 36% | 0% | 59% | 150.1 | 3.3 | 343.4 |
| 2012 | 40 | 10 | 43 | 43% | 0% | 77% | 117.1 | 0.5 | 353.3 |
| 2013 | 45 | 41 | 72 | 27% | 10% | 58% | 107.5 | 10.9 | 432.1 |
| 2014 | 51 | 74 | 81 | 16% | 7% | 57% | 88.7 | 0.0 | 271.0 |
| 2015 | 38 | 42 | 38 | 26% | 0% | 66% | 130.9 | 0.0 | 171.3 |
| 2016 | 21 | 25 | 29 | 29% | 8% | 59% | 108.2 | 0.9 | 645.4 |
| 2017 | 30 | 32 | 44 | 17% | 0% | 42% | 181.5 | 0.0 | 429.5 |
| 2018 | 39 | 58 | 37 | 15% | 0% | 51% | 169.1 | 0.0 | 445.7 |
| 2019 | 37 | 48 | 27 | 30% | 2% | 50% | 182.8 | 0.0 | 149.1 |
| 2020 | 42 | 77 | 45 | 19% | 5% | 47% | 187.5 | 0.0 | 265.6 |
| 2001-20 | 723 | 538 | 996 | 34% | 5% | 65% | 108.2 | 0.0 | 341.5 |
| 1980-2020 | 3,176 | 911 | 4,687 | 49% | 12% | 76% | 37.5 | 2.6 | 112.6 |

Table 4e (MV not adjusted for inflation) Tech IPOs, 1980-2020

| Year | No. of Tech IPOs | Proceeds, \$millions | Number doubling | Market value, at first market price, \$millions | | |
|------------------|---------------------|-------------------------|--------------------|---|--------------|--------------|
| | | | | Total | Mean | Median |
| 1980 | 22 | 378 | 0 | \$3,054 | \$139 | \$64 |
| 1981 | 72 | 838 | 0 | \$4,509 | \$63 | \$42 |
| 1982 | 42 | 648 | 0 | \$3,360 | \$80 | \$30 |
| 1983 | 173 | 3,271 | 2 | \$17,288 | \$100 | \$45 |
| 1984 | 50 | 551 | 1 | \$2,674 | \$53 | \$30 |
| 1985 | 37 | 375 | 0 | \$1,595 | \$43 | \$29 |
| 1986 | 77 | 1,217 | 0 | \$6,163 | \$80 | \$45 |
| 1987 | 58 | 1,330 | 0 | \$7,630 | \$129 | \$58 |
| 1988 | 28 | 888 | 0 | \$5,464 | \$195 | \$102 |
| 1989 | 35 | 748 | 0 | \$3,661 | \$105 | \$65 |
| 1990 | 31 | 764 | 0 | \$3,659 | \$114 | \$83 |
| 1991 | 70 | 2,760 | 0 | \$11,912 | \$168 | \$123 |
| 1992 | 114 | 5,875 | 1 | \$21,928 | \$191 | \$102 |
| 1993 | 127 | 5,715 | 1 | \$30,331 | \$239 | \$86 |
| 1994 | 115 | 3,583 | 1 | \$16,653 | \$145 | \$80 |
| 1995 | 205 | 9,786 | 11 | \$50,090 | \$244 | \$139 |
| 1996 | 276 | 16,256 | 5 | \$98,775 | \$358 | \$138 |
| 1997 | 174 | 7,479 | 2 | \$45,962 | \$264 | \$113 |
| 1998 | 113 | 8,118 | 12 | \$64,221 | \$568 | \$234 |
| 1999 | 370 | 33,512 | 114 | \$449,091 | \$1,214 | \$493 |
| 2000 | 260 | 42,442 | 69 | \$516,963 | \$1,988 | \$702 |
| 2001 | 23 | 5,773 | 0 | \$27,365 | \$1,190 | \$367 |
| 2002 | 20 | 2,587 | 0 | \$12,340 | \$617 | \$339 |
| 2003 | 18 | 2,242 | 0 | \$9,340 | \$519 | \$422 |
| 2004 | 61 | 9,064 | 0 | \$59,399 | \$974 | \$325 |
| 2005 | 45 | 6,994 | 0 | \$26,149 | \$581 | \$307 |
| 2006 | 48 | 4,873 | 0 | \$23,820 | \$496 | \$352 |
| 2007 | 76 | 12,572 | 0 | \$89,729 | \$1,181 | \$560 |
| 2008 | 6 | 1,194 | 0 | \$5,756 | \$959 | \$813 |
| 2009 | 14 | 4,126 | 0 | \$16,311 | \$1,165 | \$646 |
| 2010 | 33 | 4,347 | 0 | \$24,833 | \$753 | \$548 |
| 2011 | 36 | 9,412 | 1 | \$83,415 | \$2,317 | \$824 |
| 2012 | 40 | 20,887 | 1 | \$125,817 | \$3,145 | \$686 |
| 2013 | 45 | 8,662 | 1 | \$76,923 | \$1,709 | \$812 |
| 2014 | 51 | 9,551 | 2 | \$79,706 | \$1,563 | \$715 |
| 2015 | 38 | 10,087 | 0 | \$74,811 | \$1,969 | \$815 |
| 2016 | 21 | 2,510 | 1 | \$23,056 | \$1,098 | \$841 |
| 2017 | 30 | 7,844 | 0 | \$64,715 | \$2,157 | \$1,129 |
| 2018 | 39 | 12,246 | 1 | \$94,325 | \$2,419 | \$1,928 |
| 2019 | 37 | 22,881 | 0 | \$223,971 | \$6,053 | \$2,175 |
| 2020 | 42 | 28,269 | 12 | \$446,261 | \$10,625 | \$4,319 |
| 1980-2020 | 3,176 | 332,655 | 238 | \$2,953,024 | \$930 | \$199 |

Table 4h (updated December 31, 2020)
Technology Company IPO Underpricing, 1980-2020

IR is the initial return (underpricing), measured as the equally weighted average of the first-day return from the offer price to close. The screens described in Table 1 apply

| Year | Number of IPOs | | | EW mean 1 st -day Return,% | | |
|------------------|----------------|--------------|--------------|---------------------------------------|--------------|--------------|
| | Total | Tech | NonTech | Total | Tech | NonTech |
| 1980 | 71 | 22 | 49 | 14.3% | 21.7% | 10.9% |
| 1981 | 192 | 72 | 120 | 5.9% | 7.0% | 5.2% |
| 1982 | 77 | 42 | 35 | 11.0% | 13.6% | 7.9% |
| 1983 | 451 | 173 | 278 | 9.9% | 13.9% | 7.5% |
| 1984 | 171 | 50 | 121 | 3.7% | 5.5% | 2.9% |
| 1985 | 186 | 37 | 149 | 6.4% | 6.1% | 6.5% |
| 1986 | 393 | 77 | 316 | 6.1% | 7.2% | 5.9% |
| 1987 | 285 | 59 | 226 | 5.6% | 7.3% | 5.2% |
| 1988 | 105 | 28 | 77 | 5.5% | 5.5% | 5.5% |
| 1989 | 116 | 35 | 81 | 8.0% | 11.9% | 6.3% |
| 1990 | 110 | 32 | 78 | 10.8% | 14.9% | 9.1% |
| 1991 | 286 | 71 | 215 | 11.9% | 17.3% | 10.1% |
| 1992 | 412 | 115 | 297 | 10.3% | 14.4% | 8.7% |
| 1993 | 510 | 127 | 383 | 12.7% | 17.8% | 11.1% |
| 1994 | 402 | 115 | 287 | 9.6% | 14.1% | 7.8% |
| 1995 | 462 | 205 | 257 | 21.4% | 30.8% | 14.0% |
| 1996 | 677 | 276 | 401 | 17.2% | 20.2% | 15.2% |
| 1997 | 474 | 174 | 300 | 14.0% | 16.9% | 12.4% |
| 1998 | 281 | 113 | 168 | 21.9% | 39.1% | 10.3% |
| 1999 | 476 | 370 | 106 | 71.2% | 86.7% | 17.2% |
| 2000 | 380 | 260 | 120 | 56.3% | 68.8% | 29.4% |
| 2001 | 80 | 23 | 57 | 14.0% | 23.5% | 10.2% |
| 2002 | 66 | 20 | 46 | 9.1% | 8.6% | 9.3% |
| 2003 | 63 | 18 | 45 | 11.7% | 17.4% | 9.5% |
| 2004 | 173 | 61 | 112 | 12.3% | 16.6% | 10.0% |
| 2005 | 159 | 45 | 114 | 10.3% | 10.8% | 10.1% |
| 2006 | 157 | 48 | 109 | 12.1% | 15.3% | 10.8% |
| 2007 | 159 | 76 | 83 | 14.0% | 18.8% | 9.6% |
| 2008 | 21 | 6 | 15 | 5.7% | 2.6% | 7.0% |
| 2009 | 41 | 14 | 27 | 9.8% | 16.9% | 6.2% |
| 2010 | 91 | 33 | 58 | 9.4% | 15.5% | 5.9% |
| 2011 | 81 | 36 | 45 | 13.9% | 20.2% | 9.0% |
| 2012 | 93 | 40 | 53 | 17.7% | 23.4% | 13.3% |
| 2013 | 158 | 45 | 113 | 20.9% | 26.7% | 18.5% |
| 2014 | 206 | 51 | 155 | 15.5% | 25.2% | 12.2% |
| 2015 | 118 | 38 | 80 | 19.2% | 18.8% | 19.4% |
| 2016 | 75 | 21 | 54 | 14.5% | 32.4% | 7.5% |
| 2017 | 106 | 30 | 76 | 12.9% | 21.1% | 9.6% |
| 2018 | 134 | 39 | 95 | 18.6% | 32.3% | 13.0% |
| 2019 | 112 | 37 | 75 | 23.5% | 28.6% | 21.0% |
| 2020 | 165 | 42 | 123 | 41.6% | 63.7% | 34.0% |
| 1980-2020 | 8,775 | 3,176 | 5,599 | 18.4% | 31.2% | 11.1% |

Table 9 (updated December 28, 2020)**Fraction of IPOs with Negative Earnings, 1980-2020**

IPOs with an offer price below \$5.00 per share, unit offers, ADRs, closed-end funds, partnerships, acquisition companies, REITs, bank and S&L IPOs, and firms not listed on CRSP within six months of the offer date are excluded. When available, I use the earnings per share for the most recent twelve months (commonly known as LTM for last twelve months) prior to going public. When a merger is involved, we use the pro forma numbers (as if the merger had already occurred). I am not completely consistent in the use of earnings before or after extraordinary items. Some extraordinary items are associated with the IPO, including gains or losses on conversion of convertible securities at the time of the IPO, or writeups or writedowns associated with mergers. I usually use the before extraordinary items EPS if the one-time charges are associated with the IPO. When the trailing twelve months EPS number is unavailable, I use the most recent fiscal year EPS number. Missing numbers are supplemented by direct inspection of prospectuses on EDGAR, EPS information from Dealogic for IPOs after 1991, and Howard and Co.'s *Going Public: The IPO Reporter* from 1980-1995. Remaining missing numbers have been found in the Graeme Howard-Todd Huxster collection of IPO prospectuses and the Stanford Business School microfiche collection of prospectuses from the 1980s. Don Patton of UC-Davis has tracked down a couple of remaining missing numbers. Tech stocks are defined as internet-related stocks plus other technology stocks, not including biotech. Loughran and Ritter (2004) list the SIC codes in their appendix 3 and sources of founding dates in appendix 1.

| Year | Number of IPOs | No. with missing EPS | Percentage Tech Stocks | Percentage of IPOs with EPS<0 | Mean First-day Returns | |
|------------------|----------------|----------------------|------------------------|-------------------------------|------------------------|--------------|
| | | | | | EPS<0 | EPS≥0 |
| 1980-1989 | 2,047 | 1 | 29% | 19% | 9.2% | 6.8% |
| 1990-1998 | 3,614 | 0 | 34% | 32% | 16.0% | 14.3% |
| 1999-2000 | 856 | 0 | 74% | 78% | 71.1% | 41.6% |
| 2001-2020 | 2,258 | 0 | 32% | 59% | 18.1% | 14.6% |
| 1980-2020 | 8,775 | 1 | 36% | 40% | 26.3% | 12.9% |

(year-by-year on the next page)

| Year | Number of IPOs | No. with missing EPS | Percentage Tech Stocks | Percentage of IPOs with EPS<0 | Mean First-day Returns | |
|------------------|----------------|----------------------|------------------------|-------------------------------|------------------------|--------------|
| | | | | | EPS<0 | EPS≥0 |
| 1980 | 71 | 0 | 31% | 24% | 7.1% | 16.5% |
| 1981 | 192 | 0 | 38% | 17% | 8.0% | 5.4% |
| 1982 | 77 | 0 | 55% | 19% | 6.4% | 12.1% |
| 1983 | 451 | 0 | 38% | 22% | 14.0% | 8.8% |
| 1984 | 171 | 0 | 29% | 16% | 11.1% | 2.2% |
| 1985 | 186 | 0 | 20% | 15% | 5.2% | 6.6% |
| 1986 | 393 | 1 | 20% | 21% | 8.8% | 5.4% |
| 1987 | 285 | 0 | 20% | 17% | 5.1% | 5.8% |
| 1988 | 105 | 0 | 27% | 18% | 6.0% | 5.3% |
| 1989 | 116 | 0 | 30% | 22% | 8.3% | 7.9% |
| 1990 | 110 | 0 | 28% | 15% | 9.5% | 11.0% |
| 1991 | 286 | 0 | 24% | 24% | 9.4% | 12.7% |
| 1992 | 412 | 0 | 28% | 29% | 10.2% | 10.3% |
| 1993 | 510 | 0 | 25% | 28% | 12.6% | 12.8% |
| 1994 | 402 | 0 | 29% | 26% | 8.0% | 10.2% |
| 1995 | 462 | 0 | 44% | 30% | 22.5% | 21.0% |
| 1996 | 677 | 0 | 40% | 41% | 16.7% | 17.6% |
| 1997 | 474 | 0 | 36% | 36% | 12.6% | 14.9% |
| 1998 | 281 | 0 | 40% | 46% | 32.2% | 13.2% |
| 1999 | 476 | 0 | 78% | 76% | 81.0% | 40.2% |
| 2000 | 380 | 0 | 68% | 81% | 59.4% | 43.8% |
| 2001 | 80 | 0 | 29% | 49% | 15.3% | 12.8% |
| 2002 | 66 | 0 | 30% | 45% | 5.6% | 12.0% |
| 2003 | 63 | 0 | 29% | 44% | 10.0% | 13.2% |
| 2004 | 173 | 0 | 35% | 50% | 11.9% | 12.7% |
| 2005 | 159 | 0 | 28% | 45% | 7.3% | 12.8% |
| 2006 | 157 | 0 | 31% | 40% | 7.3% | 15.4% |
| 2007 | 159 | 0 | 48% | 55% | 13.8% | 14.3% |
| 2008 | 21 | 0 | 29% | 43% | 1.8% | 8.7% |
| 2009 | 41 | 0 | 34% | 29% | 12.8% | 8.6% |
| 2010 | 91 | 0 | 36% | 41% | 6.9% | 11.1% |
| 2011 | 81 | 0 | 44% | 57% | 11.0% | 17.7% |
| 2012 | 93 | 0 | 43% | 46% | 22.4% | 13.7% |
| 2013 | 158 | 0 | 29% | 63% | 20.2% | 21.9% |
| 2014 | 206 | 0 | 25% | 71% | 17.1% | 11.4% |
| 2015 | 118 | 0 | 32% | 70% | 19.1% | 19.6% |
| 2016 | 75 | 0 | 28% | 67% | 13.2% | 17.0% |
| 2017 | 106 | 0 | 28% | 77% | 12.4% | 14.8% |
| 2018 | 134 | 0 | 29% | 81% | 20.4% | 10.5% |
| 2019 | 112 | 0 | 32% | 77% | 25.2% | 17.9% |
| 2020 | 165 | 0 | 25% | 80% | 45.3% | 26.9% |
| 1980-2020 | 8,775 | 1 | 36% | 41% | 26.3% | 12.9% |

Table 16c (updated March 10, 2020)
Long-run Returns Measured from the Offer Price on Tech and non-Tech Stock IPOs
Excluding the Internet Bubble, 1980-2018

Panel A: IPOs from 1980-2018, excluding 1999-2000, categorized by industry

| Industry | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|----------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Tech | 2,460 | 18.4% | 77.0% | 28.3% | 48.2% |
| Non-Tech | 5,181 | 9.9% | 34.6% | -11.4% | 1.7% |
| All | 7,641 | 12.6% | 48.2% | 1.4% | 16.6% |

Panel B: Categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 1,804 | 18.9% | 70.3% | 18.4% | 42.9% |
| Non-Tech | 2,715 | 10.9% | 20.9% | -26.5% | -7.3% |
| Sales > \$100 million | | | | | |
| Tech | 656 | 17.0% | 95.5% | 55.4% | 62.9% |
| Non-Tech | 2,466 | 8.9% | 49.6% | 5.3% | 11.5% |

Panel C: Profitable issuers, categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 1,012 | 17.5% | 70.8% | 15.1% | 43.1% |
| Non-Tech | 1,470 | 10.6% | 28.8% | -22.9% | -0.6% |
| Sales > \$100 million | | | | | |
| Tech | 410 | 15.0% | 106.0% | 59.4% | 71.4% |
| Non-Tech | 2,058 | 9.0% | 51.4% | 5.8% | 13.7% |

Panel D: Unprofitable issuers, categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 792 | 20.7% | 69.7% | 22.6% | 42.5% |
| Non-Tech | 1,245 | 11.1% | 11.6% | -30.8% | -15.2% |
| Sales > \$100 million | | | | | |
| Tech | 246 | 20.4% | 78.1% | 48.7% | 48.8% |
| Non-Tech | 408 | 8.0% | 40.3% | 2.7% | 0.2% |

Table 16d (updated March 10, 2020)

Long-run Returns Measured from the First Closing Market Price on Tech and non-Tech Stock IPOs Excluding the Internet Bubble, 1980-2018

Panel A: IPOs from 1980-2018, excluding 1999-2000, categorized by industry

| Industry | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|----------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Tech | 2,460 | 18.4% | 46.1% | -2.7% | 17.2% |
| Non-Tech | 5,181 | 9.9% | 23.7% | -22.2% | -9.2% |
| All | 7,641 | 12.6% | 30.9% | -15.9% | -0.7% |

Panel B: Categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 1,804 | 18.9% | 39.3% | -12.6% | 11.9% |
| Non-Tech | 2,715 | 10.9% | 10.9% | -36.5% | -17.3% |
| Sales > \$100 million | | | | | |
| Tech | 656 | 17.0% | 64.6% | 24.4% | 31.9% |
| Non-Tech | 2,466 | 8.9% | 37.7% | -6.5% | -0.3% |

Panel C: Profitable issuers, categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 1,012 | 17.5% | 42.6% | -13.1% | 15.0% |
| Non-Tech | 1,470 | 10.6% | 18.3% | -33.4% | -11.1% |
| Sales > \$100 million | | | | | |
| Tech | 410 | 15.0% | 74.6% | 28.0% | 40.0% |
| Non-Tech | 2,058 | 9.0% | 39.3% | -6.3% | 1.6% |

Panel D: Unprofitable issuers, categorized by sales and industry

| LTM Sales | Number of IPOs | Average First-day Return | Average 3-year Buy-and-hold Return | | |
|-----------------------|----------------|--------------------------|------------------------------------|-----------------|----------------|
| | | | IPOs | Market-adjusted | Style-adjusted |
| Sales < \$100 million | | | | | |
| Tech | 792 | 20.7% | 35.1% | -11.9% | 7.9% |
| Non-Tech | 1,245 | 11.1% | 2.2% | -40.2% | -24.5% |
| Sales > \$100 million | | | | | |
| Tech | 246 | 20.4% | 47.8% | 18.4% | 18.4% |
| Non-Tech | 408 | 8.0% | 30.2% | -7.5% | -9.9% |

Table 23 (updated Dec. 28, 2020)**Dual Class IPOs**

This table lists the number of IPOs each year that have dual class shares among tech IPOs and among non-tech IPOs. The sample is IPOs with an offer price of at least \$5.00, excluding ADRs, unit offers, closed-end funds, REITs, natural resource limited partnerships, small best efforts offers, banks and S&Ls, and stocks not listed on CRSP (CRSP includes Amex, NYSE, and NASDAQ stocks).

| | Tech IPOs | | | Non-tech IPOs | | | All IPOs | | |
|---------|-----------|-------|-------|---------------|-------|-------|----------|-------|-------|
| | Dual | Total | % | Dual | Total | % | Dual | Total | % |
| 1980 | 0 | 22 | 0% | 1 | 49 | 2.0% | 1 | 71 | 1.4% |
| 1981 | 2 | 72 | 2.8% | 4 | 120 | 3.3% | 6 | 192 | 3.1% |
| 1982 | 0 | 42 | 0% | 0 | 35 | 0.0% | 0 | 77 | 0.0% |
| 1983 | 3 | 173 | 1.7% | 4 | 278 | 1.4% | 7 | 451 | 1.6% |
| 1984 | 2 | 50 | 4.0% | 5 | 121 | 4.1% | 7 | 171 | 4.1% |
| 1985 | 1 | 37 | 2.7% | 6 | 149 | 4.0% | 7 | 186 | 3.8% |
| 1986 | 3 | 77 | 3.9% | 21 | 316 | 6.6% | 24 | 393 | 6.1% |
| 1987 | 1 | 59 | 1.7% | 23 | 226 | 10.1% | 24 | 285 | 8.4% |
| 1988 | 3 | 28 | 10.7% | 6 | 77 | 7.8% | 9 | 105 | 8.6% |
| 1989 | 1 | 35 | 2.9% | 6 | 81 | 7.4% | 7 | 116 | 6.0% |
| 1990 | 0 | 32 | 0% | 7 | 78 | 8.9% | 7 | 110 | 6.4% |
| 1991 | 7 | 71 | 9.9% | 16 | 215 | 7.4% | 23 | 286 | 8.0% |
| 1992 | 2 | 115 | 1.7% | 16 | 297 | 5.4% | 18 | 412 | 4.4% |
| 1993 | 3 | 127 | 2.4% | 30 | 383 | 7.8% | 33 | 510 | 6.5% |
| 1994 | 7 | 115 | 6.1% | 26 | 287 | 9.1% | 33 | 402 | 8.2% |
| 1995 | 8 | 205 | 3.9% | 22 | 257 | 8.6% | 30 | 462 | 6.5% |
| 1996 | 16 | 276 | 5.8% | 45 | 401 | 11.2% | 61 | 677 | 9.0% |
| 1997 | 10 | 174 | 5.7% | 41 | 300 | 13.6% | 51 | 474 | 10.8% |
| 1998 | 8 | 113 | 7.1% | 21 | 168 | 12.4% | 29 | 281 | 10.3% |
| 1999 | 22 | 370 | 5.9% | 19 | 106 | 18.7% | 41 | 476 | 8.6% |
| 2000 | 19 | 260 | 7.3% | 7 | 120 | 5.8% | 26 | 380 | 6.8% |
| 2001 | 2 | 23 | 8.7% | 6 | 57 | 10.5% | 8 | 80 | 10.0% |
| 2002 | 2 | 20 | 10.0% | 12 | 46 | 26.1% | 14 | 66 | 21.2% |
| 2003 | 3 | 18 | 16.7% | 5 | 45 | 11.1% | 8 | 63 | 12.7% |
| 2004 | 3 | 61 | 4.9% | 10 | 112 | 8.9% | 13 | 173 | 7.5% |
| 2005 | 9 | 45 | 20.0% | 13 | 114 | 11.4% | 22 | 159 | 13.8% |
| 2006 | 1 | 48 | 2.1% | 10 | 109 | 9.2% | 11 | 157 | 7.0% |
| 2007 | 5 | 76 | 6.6% | 13 | 83 | 15.7% | 18 | 159 | 11.3% |
| 2008 | 0 | 6 | 0% | 3 | 15 | 20.0% | 3 | 21 | 14.3% |
| 2009 | 2 | 14 | 14.3% | 3 | 27 | 11.1% | 5 | 41 | 12.2% |
| 2010 | 2 | 33 | 6.1% | 7 | 58 | 11.9% | 9 | 91 | 9.9% |
| 2011 | 5 | 36 | 13.9% | 8 | 45 | 17.8% | 13 | 81 | 16.0% |
| 2012 | 6 | 40 | 15.0% | 10 | 53 | 18.9% | 16 | 93 | 17.2% |
| 2013 | 5 | 45 | 11.1% | 24 | 113 | 21.2% | 29 | 158 | 18.4% |
| 2014 | 3 | 51 | 5.9% | 18 | 155 | 11.6% | 21 | 206 | 10.2% |
| 2015 | 14 | 38 | 36.8% | 8 | 80 | 10.0% | 22 | 118 | 18.6% |
| 2016 | 5 | 21 | 23.8% | 4 | 54 | 7.4% | 9 | 75 | 12.0% |
| 2017 | 13 | 30 | 43.3% | 17 | 76 | 22.4% | 30 | 106 | 28.3% |
| 2018 | 13 | 39 | 33.3% | 13 | 95 | 12.6% | 26 | 134 | 19.4% |
| 2019 | 13 | 37 | 35.1% | 12 | 75 | 15.8% | 25 | 112 | 22.3% |
| 2020 | 18 | 42 | 42.9% | 14 | 123 | 12.6% | 32 | 165 | 19.4% |
| '80-'20 | 242 | 3,176 | 7.6% | 536 | 5,599 | 9.6% | 778 | 8,775 | 8.9% |

Figure 2: See Table 9 for details.

