Kauffman Fellows Report Submission Guidelines

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Citations and Sources

Footnote citations are required for all statistics and quotations. Such citations must either include a page number (for journal articles or books) or a URL linking to the exact web page that provided the information. An example page from the 2010 journal is provided on p. 2 as an example.

All graphs and charts must be cited with a footnote.

Wherever you can add sources to support your claims, you enhance the validity of your article for the reader.

Provide full names for authors (or organizations), rather than initials, wherever possible.

Chicago style will be applied by the managing editor.

As long as healthcare costs continue to rise, someone has to pay the bill. Money is going to come out of our paychecks to pay an ever increasing healthcare bill, whether it be through reduced wages in employer-based insurance, higher taxes in government sponsored programs (Medicare, Medicaid), or higher out of pocket costs. Worse yet, the higher healthcare costs could result in loss of jobs because a higher relative cost of U.S. employees, which includes healthcare costs, drives business overseas.

What is behind this dramatic rise in healthcare costs? Medical technology has been blamed as a driver of the increase. It is difficult to calculate this cost directly, but one analysis estimates that advances in medical innovation and the care it enables (including drugs, medical technology, and all related patient care) accounts for as much as 50% of the increase in healthcare cost.[11] Of course, medical technology is not simply a cost driver; it has been contributing to a steady rise in longevity and quality of life. Slowing innovation would likely result in a trade-off in the advancement of medical care.

Two major demographic trends are also driving healthcare costs: the aging population and the obesity epidemic. Annual healthcare expenditures are $8,776 for someone over 65, compared to $2,330 for someone between ages 25 and 44.[12] This cost differential will become even more important as the first Baby Boomers turn 65 this year; by 2030, the population over 65 is projected to rise to 20% of the total population, up from just 12% in 2000.[13] The future cost implications are staggering.

The obesity epidemic is having perhaps the most significant impact on healthcare costs. Obesity is clearly implicated in diabetes and in cardiovascular and orthopedic costs. The annual cost of obesity nearly doubled between 1998 and 2008, from $78.5B to $147B.[14] Between 1987 and 2001, the rise in U.S. obesity was responsible for more than a quarter of the increase in healthcare spending;[15] during that same time, obese people cost the healthcare system an average of $1,429 more per year (**Figure 7**). Given that a third of U.S. adults[16] and 17% of U.S. children[17] are obese, the aggregate cost to our system is evident.

A Different Problem Altogether

I originally got into reimbursement to understand how to get medical devices reimbursed and how much that would cost our companies, so I could add value and differentiate myself within venture. I took the job no one wanted because I realized how important it was becoming to our portfolio.

Ultimately, I came away with a new investment thesis: removing costs from our healthcare system. Limiting rising healthcare costs will be an imperative to our economy and therefore could represent the next big wave of healthcare investment.

Cost reduction is a path fraught with political landmines, as evidenced by our healthcare reform debate. Little progress has been made on the cost control aspect of healthcare; the larger effort focused on increased access. Our current systems, as detailed above, do not reward

[11] Congressional Budget Office, *Technological Change and the Growth of Health Care Spending*, January 2008, quoting data from a study by Smith, Heffler, and Freeland, "The Impact of Technological Change on Health Care Cost Increases: An Evaluation of the Literature," 2000.

[12] Henry J. Kaiser Foundation, *Healthcare Costs*.

[13] Credit Suisse, "Eye on the Election," July 10, 2008, quoting figures from the U.S. Census Bureau.

[14] Eric A. Finkelstein et al., "Annual Medical Spending Attributable To Obesity: Payer-And Service-Specific Estimates," *Health Affairs* (2009, July 27): w822—31, doi 10.1377/hlthaff.28.5.w822.

[15] K. E. Thorpe et al., "The Impact of Obesity on Rising Medical Spending," *Health Affairs (Millwood) 23*(2004): w480—86.

[16] Katherine M. Flegal et al., "Prevalence and Trends in Obesity Among US Adults, 1999—2008," *JAMA 303*, no. 3 (2010): 235-41, doi 10.1001/jama.2009.2014.

[17] Centers for Disease Control, "2007-2008 National Health and Nutrition Examination Survey (NHANES)," http://www.cdc.gov/nchs/nhanes/nhanes2007-2008/current_nhanes_07_08.htm.

Graphs and Charts

Clean lines, and spare use of fill and color are desired.

Software:

Word or Excel only. PowerPoint will not be accepted.

Size:

One-column width: 3" wide, height flexible
Two-column width: 6.6" wide, height flexible

Font:

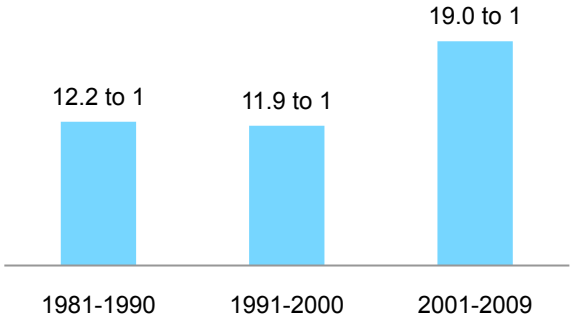
Arial 9 or 10—use the larger size that fits, black

Color codes:

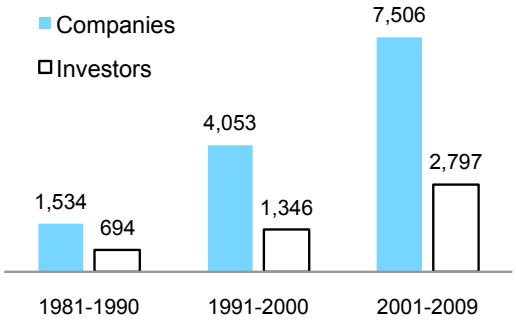
Light blue: 200, 241, 255
Medium blue: 102, 204, 255
Dark blue: 0, 102, 204

Use of colors in bar graphs:

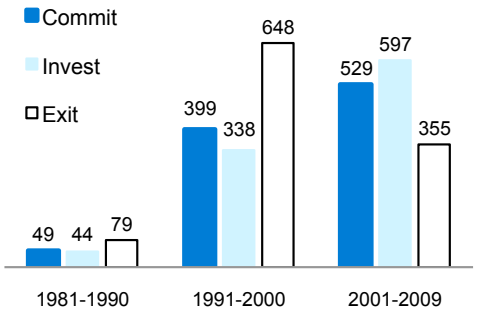
Black plus one color: medium blue, no border:



Black plus two colors: white with a black border, and medium blue with no border:



Black plus three colors: dark blue no border, light blue no border, white with a black border:



Axes:

Use an X axis and label it.
No Y axis if possible—if the reader can understand without the Y axis, leave it out. If a Y axis is necessary, label it. An example of a useful Y axis:

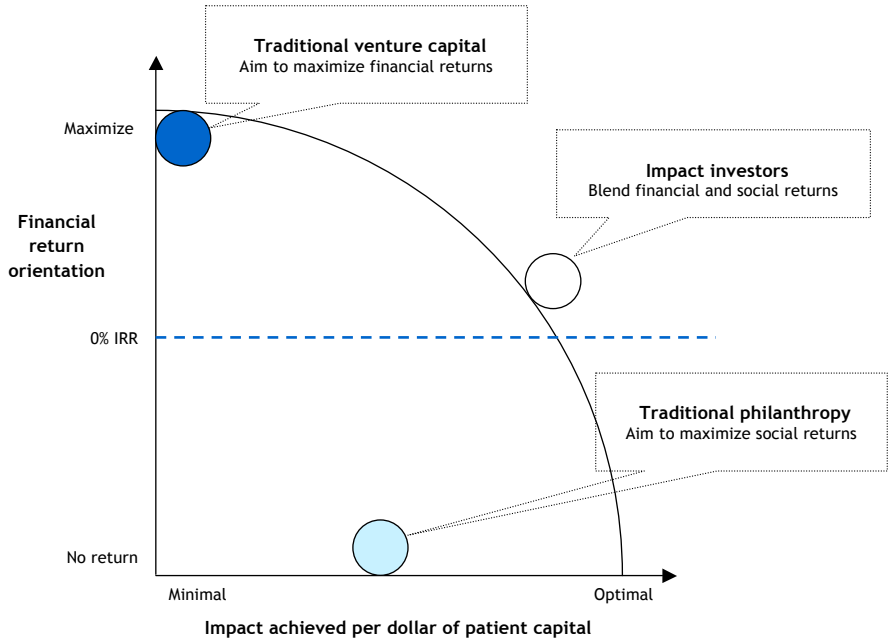
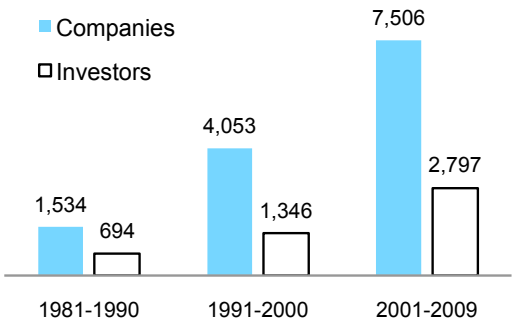
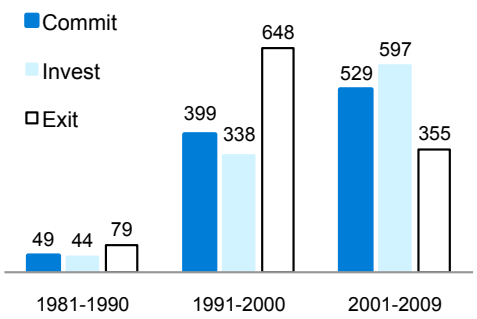


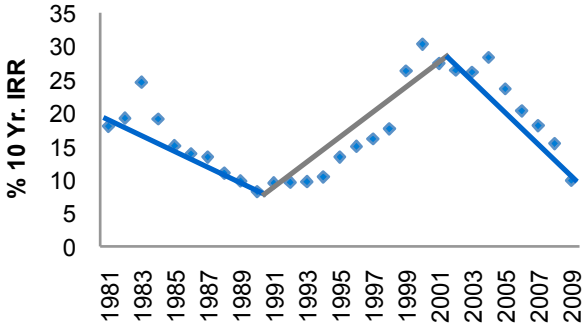
Figure 1. A Spectrum of Capital.

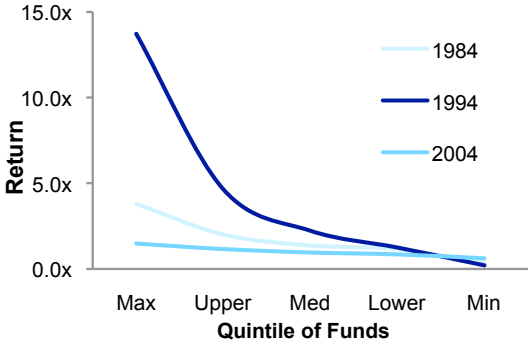
Instead of a Y axis, it is better to put the numbers on top of the bars:





Example layout and colors for trend graphs:





Illustrations

Clean lines, and spare use of fill and color are desired.

Software:

Word, Excel, or TIFF/JPG at 350dpi only. PowerPoint will not be accepted.

Size:

One-column width: 3" wide, height flexible
Two-column width: 6.6" wide, height flexible

Font:

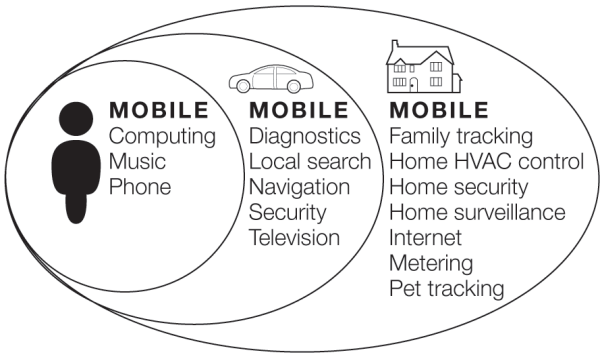
Arial 9 or 10, or Trebuchet MS 8-11
Black or one of the three blues listed below

Color codes:

Light blue: 200, 241, 255
Medium blue: 102, 204, 255
Dark blue: 0, 102, 204

Use of color:

All black is acceptable:



Black plus one color: light blue:

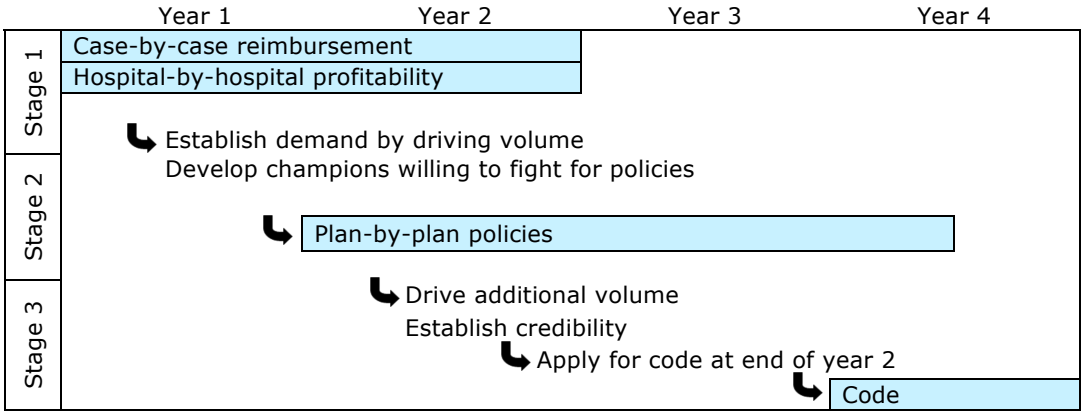


Figure 1. Reimbursement: A Three-Stage Process.

Black plus two colors: light blue and dark blue *or* light blue and medium blue:

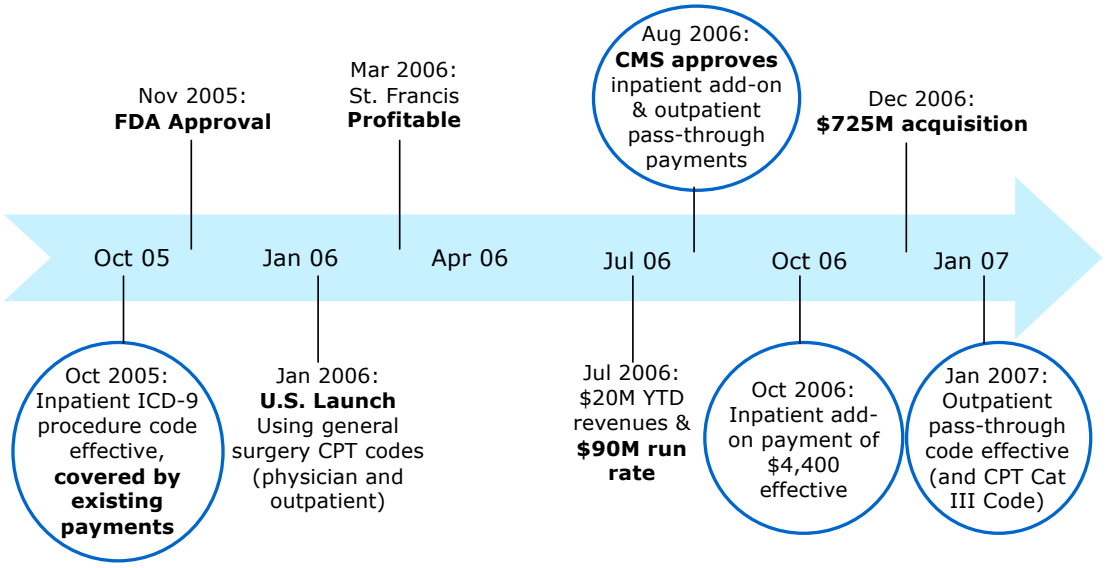


Figure 4. Reimbursement Timeline for St. Francis Hospital.

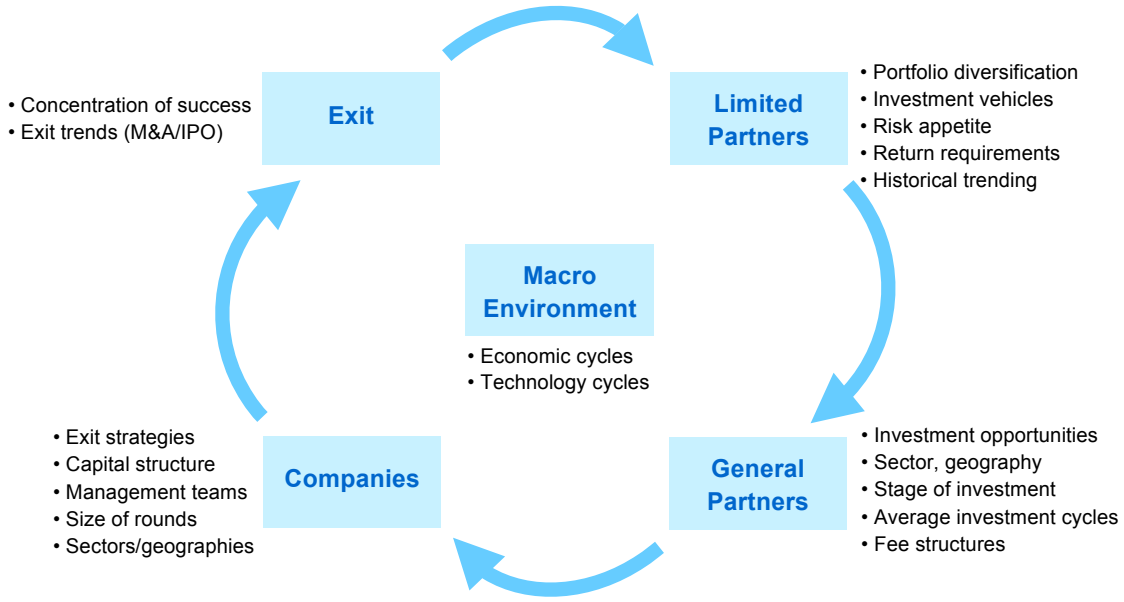


Figure 1. The Virtuous Cycle of Venture.

Tables

Clean lines, and spare use of fill and color are desired.

Software:

Word or Excel only. PowerPoint will not be accepted.

Size:

One-column width: 3" wide, height flexible
Two-column width: 6.6" wide, height flexible

Font:

Trebuchet MS 8-11, black
Use **bold** for row and column headings

Color codes:

Light blue: 200, 241, 255
Medium blue: 102, 204, 255
Dark blue: 0, 102, 204

Use of color:

Instead of horizontal lines, use shading of alternate rows—see examples below. One row with no shading (i.e., white), and the next with light blue shading.

Vertical and horizontal lines:

Do not use.

	Low	**High**
Reimbursement Support	8 field support (3 ramping to 10) $120K per year per FTE 3 years = $2.9M	8 field support (3 ramping to 10) $120K per year per FTE 5 years = $4.8M
Clinical Trials	300 patients $10K per patient = $3.0M	500 patients $15K per patient = $7.5M
Revenue Ramp	40% of unconstrained demand $400K per month average additional burn 18 months = $7.2M	33% of unconstrained demand $700K per month average additional burn 18 months = $12.6M
Total	= $ 13M	= $25M

	Concept	Translational Research/ Pre-commercialization	Pre-Seed/ Seed	Early-Stage	Growth
Activities	Conduct R&D Identify discoveries with possible commercial potential	Assess potential of technology Identify market Develop prototype Test and validate Demonstrate proof-of-concept at lab scale Protect IP Optimize engineering License or form business	Establish business function Secure initial financing	Prepare business strategy Put serial management team in place Secure follow-on financing Begin initial sales and marketing	Begin full-scale production Staff-up for sales and marketing
Financing Sources	Conventional peer-reviewed federal grant support	Within university: Grants funded with university, state, or industry dollars Non-university: Grants funded by public and philanthropic support SBIR I	Friends and family Pre-seed/ seed funds Angel investors SBIR II	Early seed-stage venture capital Publicly-supported investment funds	Venture funds Equity Commercial debt Industry: strategic alliances, mergers and acquisitions
Invest-ment	Varies	$50,000 – $500,000	< $1 million	$1-2 million	>$2 million

Figure 1. Bioscience Startup Company Growth Stages and Funding Requirements.[11]