

# Trends Affecting The A/E Industry



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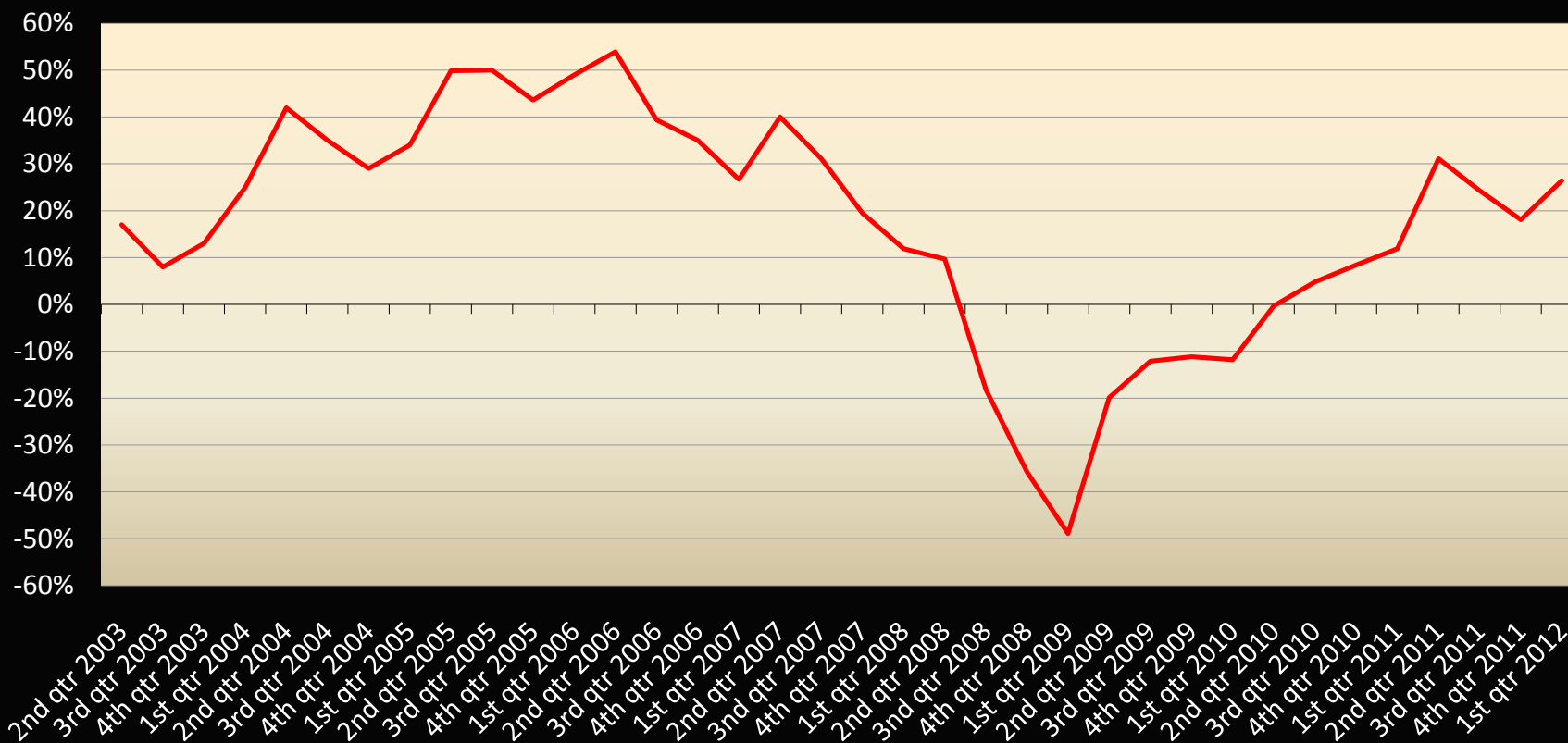
# Are You Feeling Better Yet?



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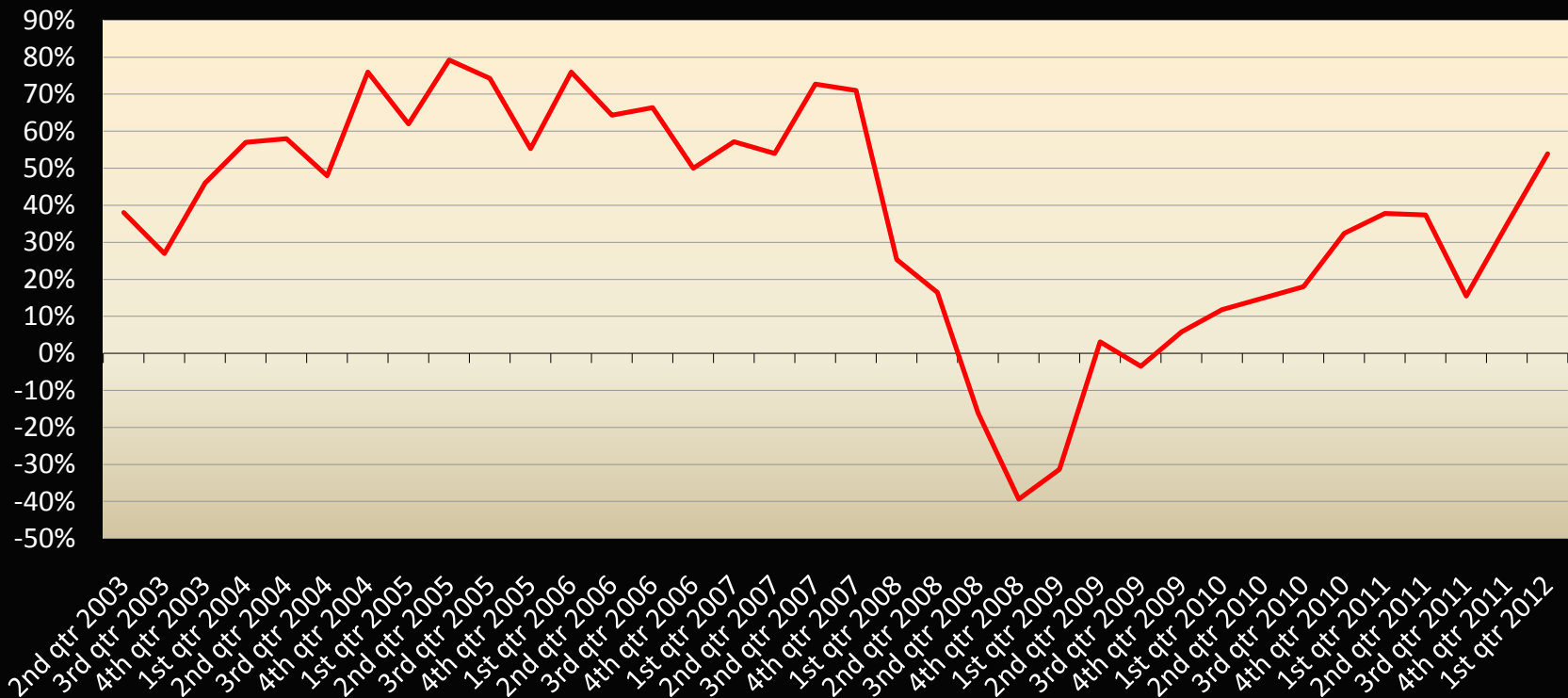
# Revenue Trend

Revenue to Prior Quarter Plus/Minus Trends



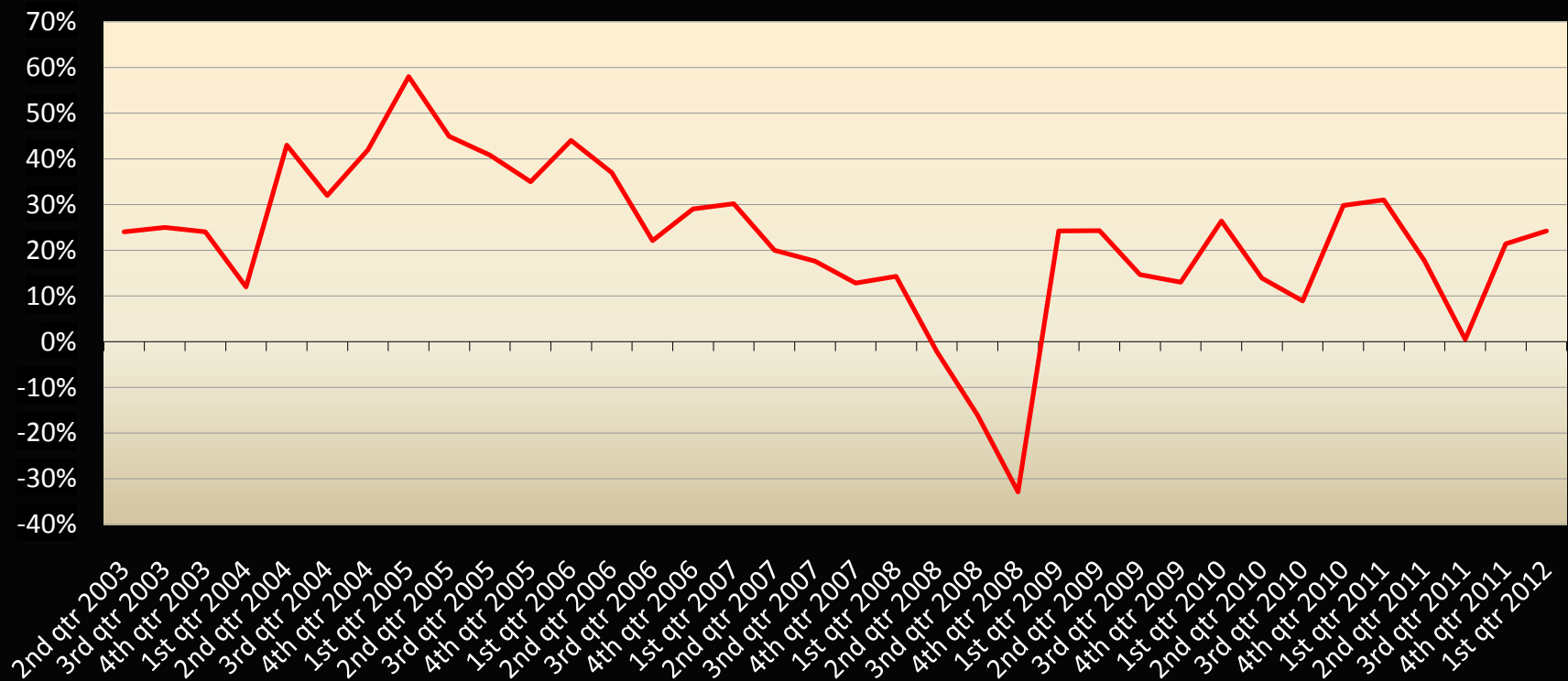
# Revenue Projection

Revenue Projection Plus/Minus Trends



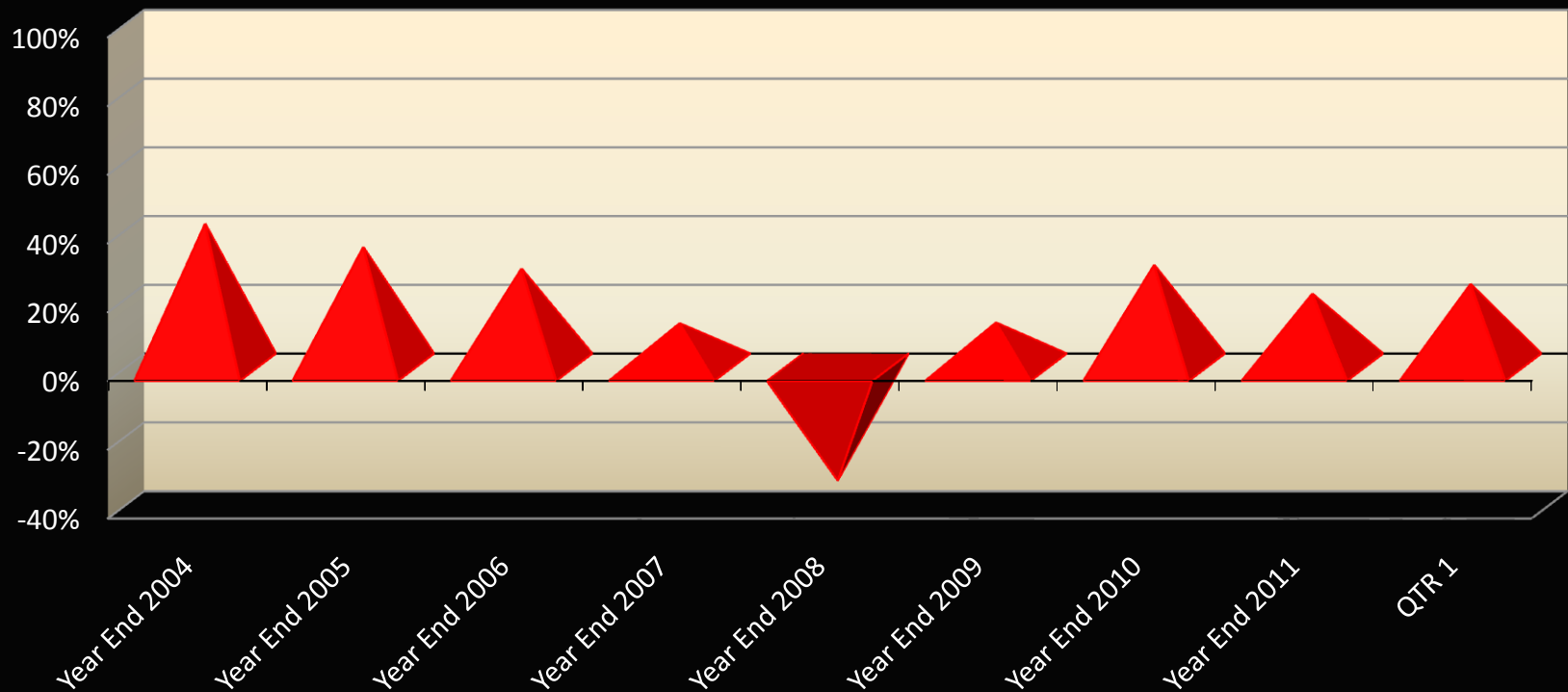
# Proposal Opportunities

Proposal Opportunities Plus/Minus Trends



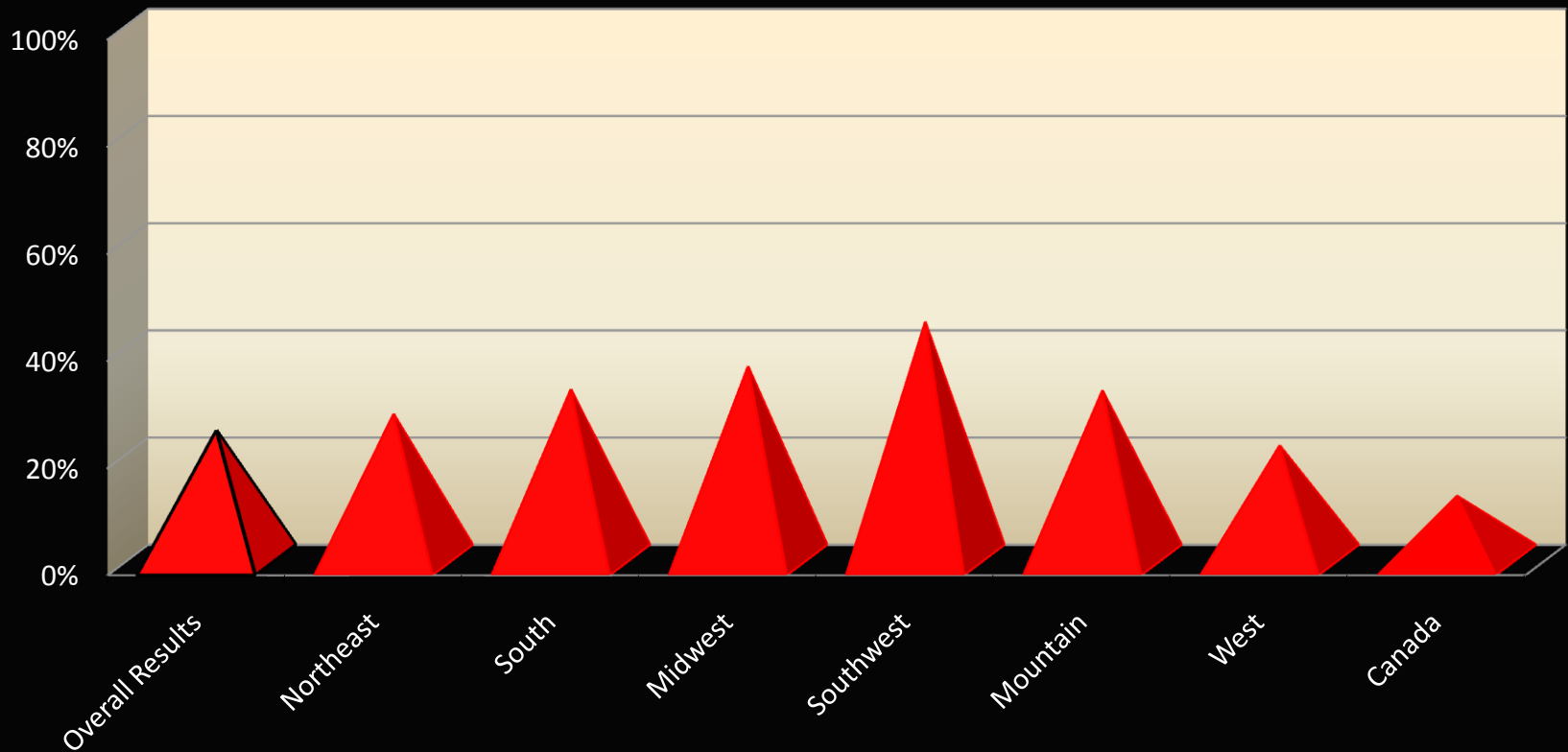
# Proposal Activity Trend

Proposal Opportunities Plus/Minus Trends



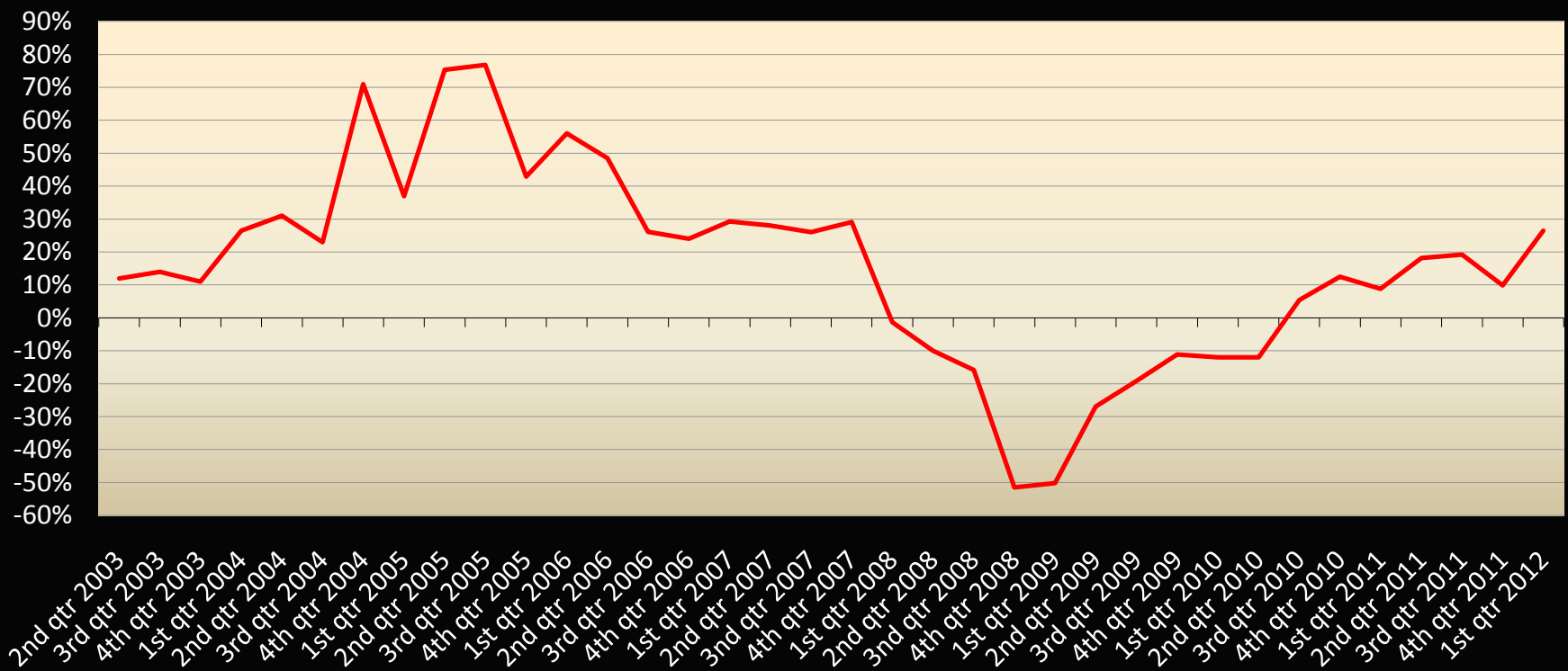
# Proposal Activity by Region

Proposal Opportunities by Geographic Areas



# Backlog

Backlog Comparisons Plus/Minus Trends





# Worker Trends in 2012

## **Workers will seek new opportunities**

- **34% of employers surveyed said that voluntary turnover was higher in 2011 than in 2010, and 43 % are concerned that it will continue to rise in 2012.**

## **Employers will ramp up efforts to keep their current employees and attract new ones**

- **62 % reported plans to increase employee compensation next year. Payouts will also be extended to new hires; 32 % plan to increase starting salary offers to new workers.**
- **Jobs most likely to command a raise next year are those that affect the bottom line. Employers said they'd most likely offer raises in sales, information technology, engineering and business development, in that order.**

# Worker Trends in 2012

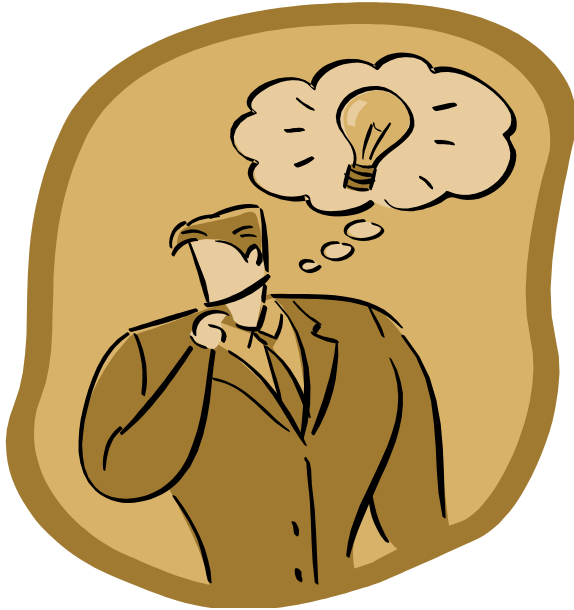
## **The recovery will continue to be uneven**

- **Certain industries, job functions and geographic areas will recover faster than others. Jobs in engineering and IT will be plentiful in the coming year. Similarly, more employers in the West reported plans to hire in 2012 than did employers in the Northeast, Midwest and South.**

## **Employers will try to close the skills gap**

- **The skills gap will continue to be an issue in 2012. To meet growing needs for employees in high-skills areas, 38 % of employers will provide workers and new hires with on-the-job training.**

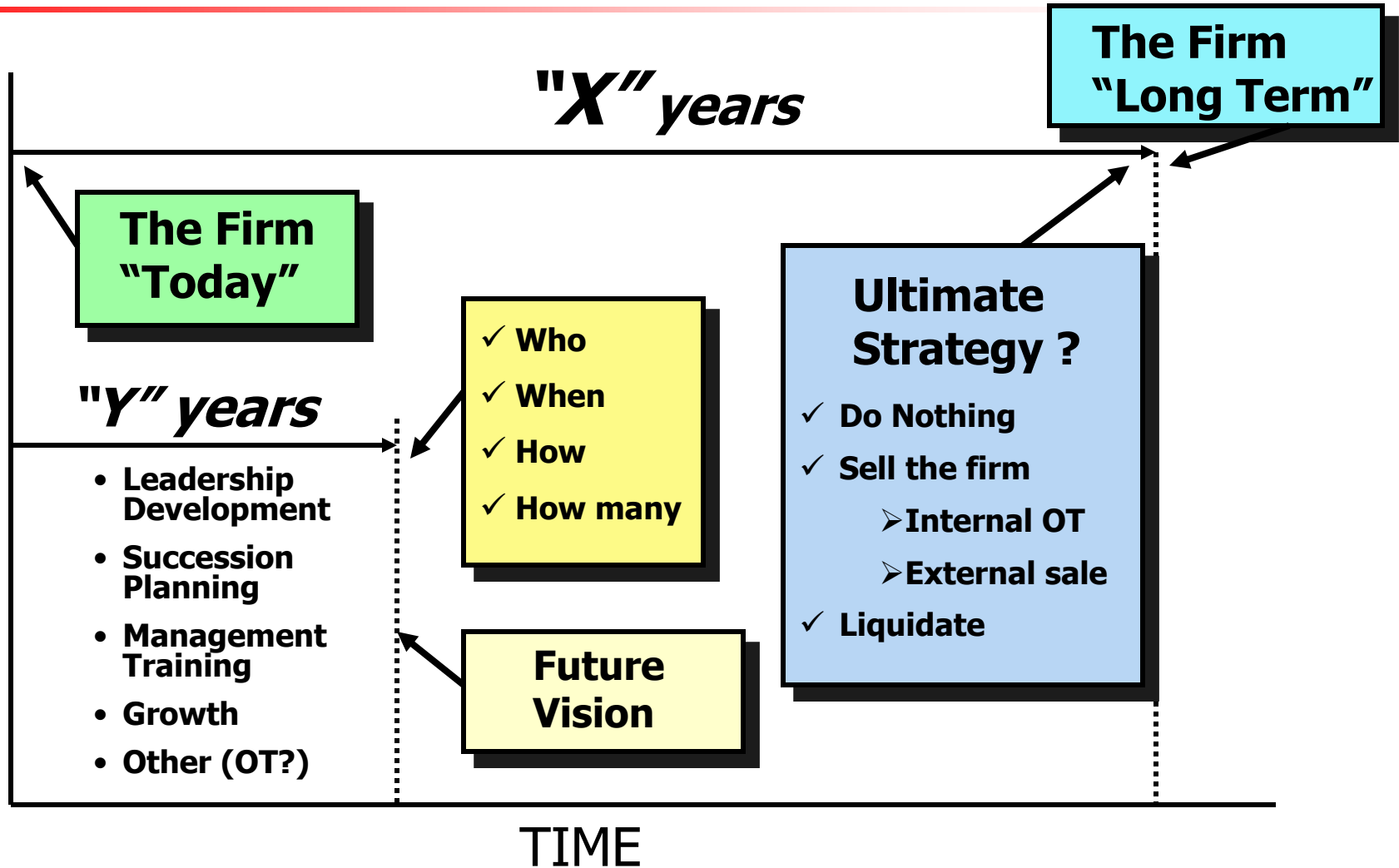
# If I were starting my business today...



## What would I need?

- A Vision
- Business Plan
- Financial Plan
- Operations Plan
- Transition Plan
- Strategic Plan
- Leadership Development Plan
- Exit Strategy

# Establish an "Exit Strategy"



# Decide on Growth

- **Growth**

- **Profits**
- **Headcount**
- **Locations**
- **Services**
- **Clients**

- **Status Quo**

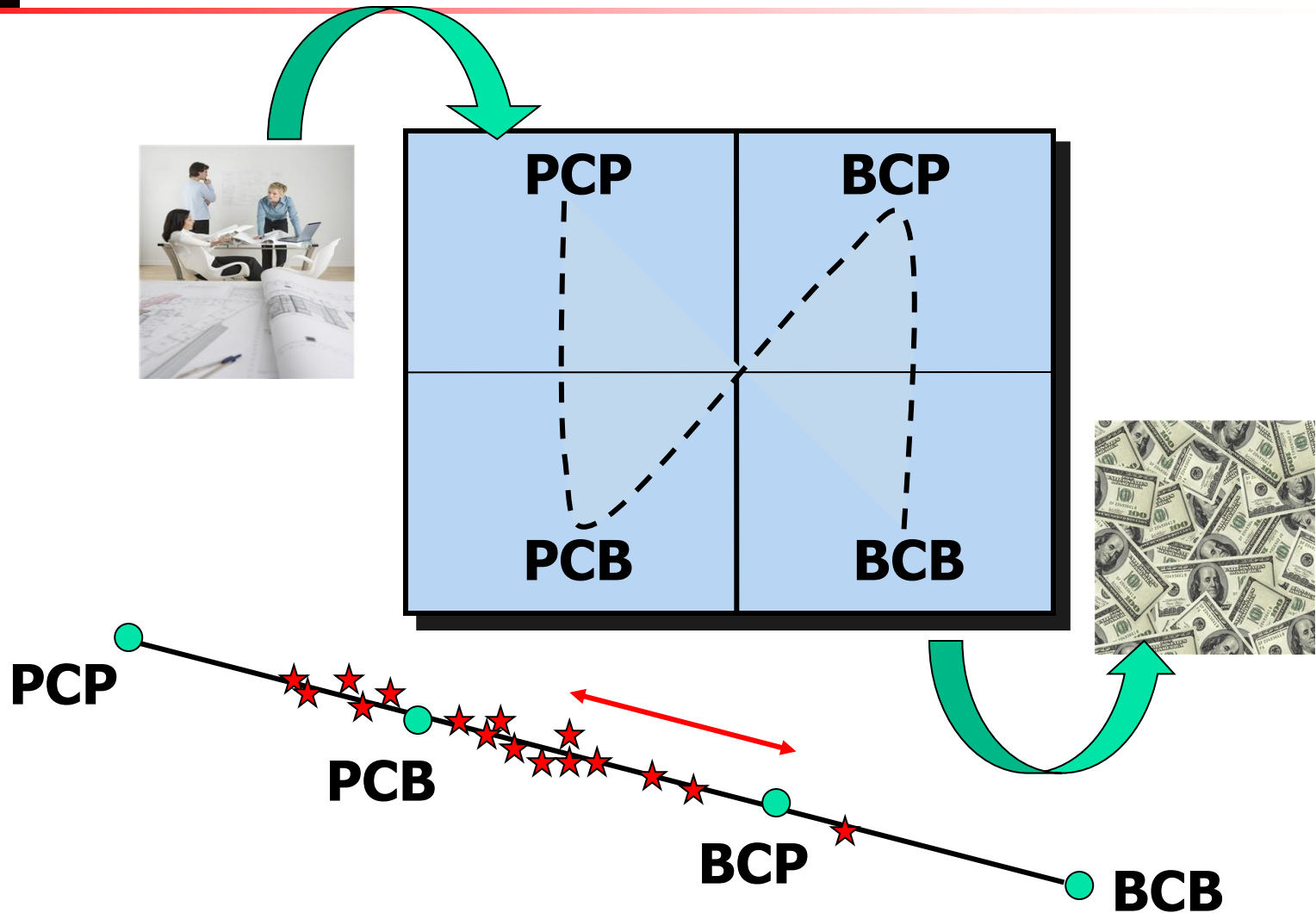
- **Challenge**
- **Development**
- **Recruitment**
- **Retention**



# The Squeeze Is On!



# Know Your Culture, Purpose, and Alignment

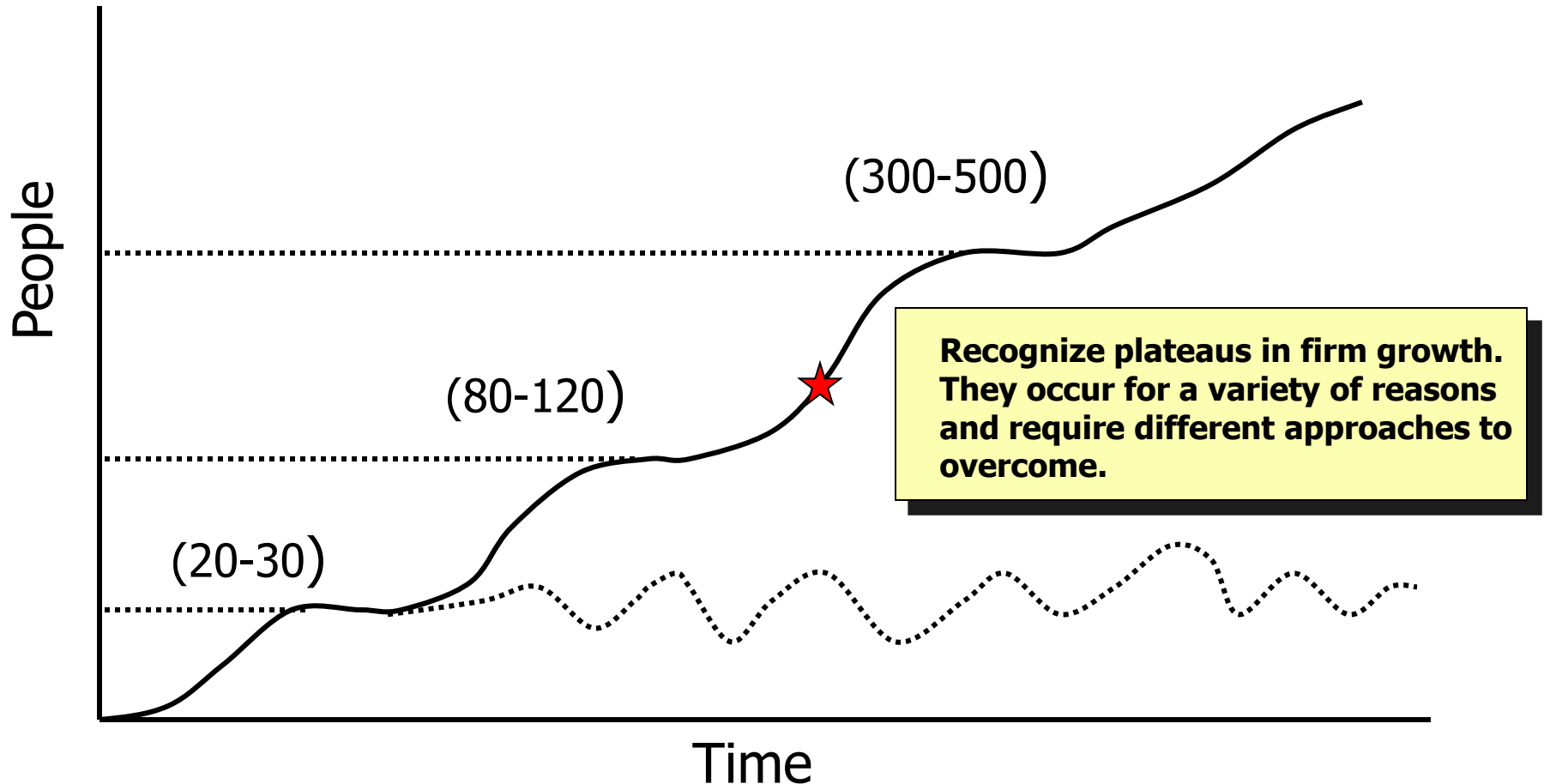


# PCP VS BCB

<b>PCP</b>	<b>BCP</b>
<ul style="list-style-type: none"><li>• Primary/secondary practice focus</li><li>• Generally a niche based firm</li><li>• High “value”</li><li>• Not differentiated on price</li><li>• Generally high multiplier on DL</li><li>• Tend to be smaller firms</li><li>• Business focus (\$\$) <u>may</u> be present, but is not a driver</li><li>• Quality is very high and part of value proposition</li></ul>	<ul style="list-style-type: none"><li>• Primary focus is business (\$\$)</li><li>• Practice question is still asked, but is not the driver</li><li>• Specialty possible, but generally not a niche based firm</li><li>• Value differentiator still exists</li><li>• Price differentiation occurs</li><li>• Lower multipliers on DL</li><li>• Tend to be larger firms</li></ul>
<ul style="list-style-type: none"><li>• Primary focus is practice</li><li>• Secondary focus is business (\$\$)</li><li>• Generally has niche like qualities</li><li>• “Value proposition” is high</li><li>• Not solely differentiated on price</li><li>• Generally high multiplier on DL</li><li>• Business focus (\$\$) <u>is</u> present, but is not the primary driver</li></ul>	<ul style="list-style-type: none"><li>• Primary/secondary focus is business (\$\$)</li><li>• Niche capabilities generally gone</li><li>• “Value proposition” is “cheapest”</li><li>• Differentiated solely on price</li><li>• Generally low multiplier on DL</li><li>• Tend to be larger, public firms</li><li>• Practice focus is not the driver</li><li>• Quality is “just enough”</li></ul>
<b>PCB</b>	<b>BCB</b>



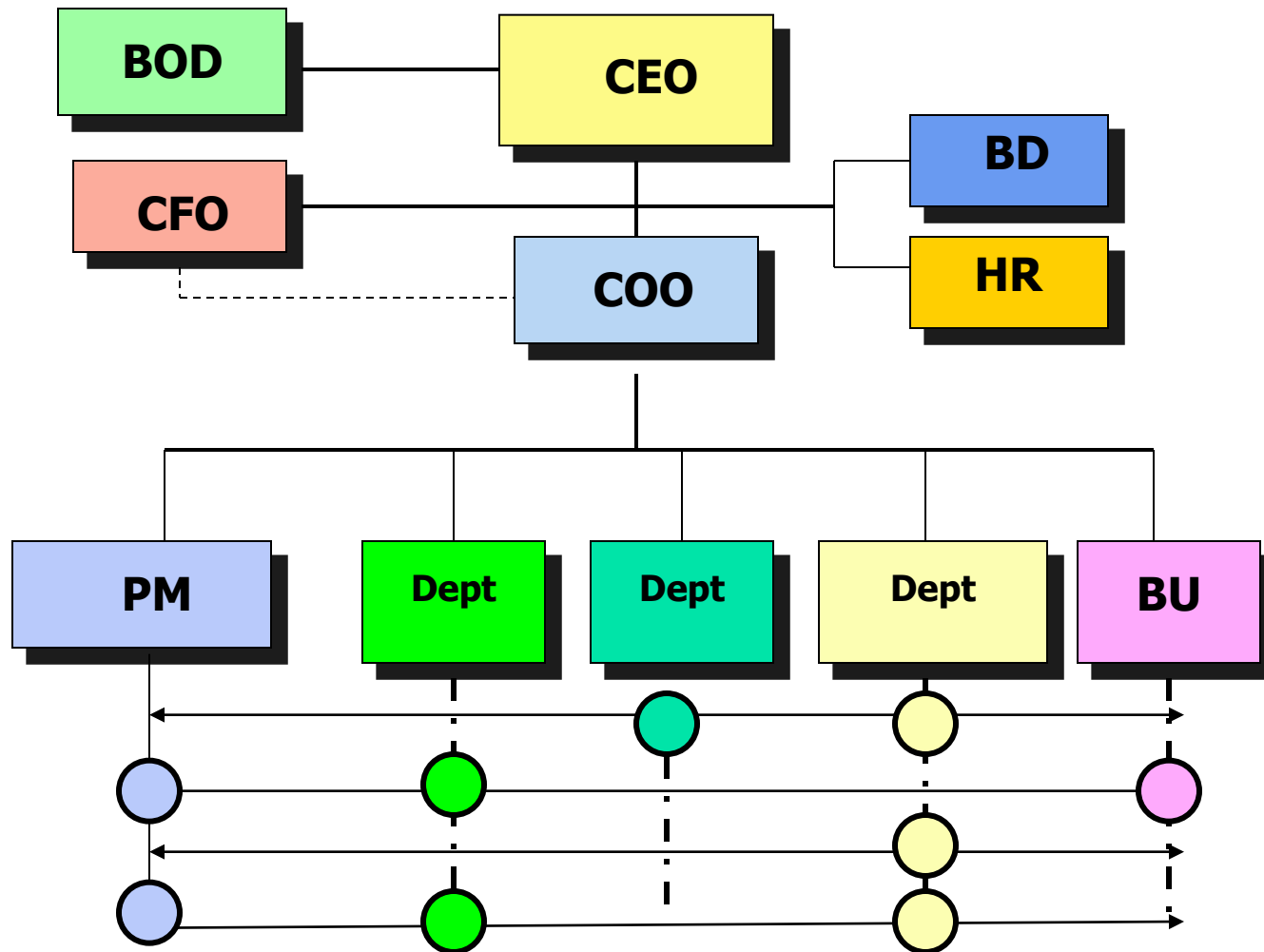
# Recognize Growth Plateaus



# Understand the 1<sup>st</sup> Plateau

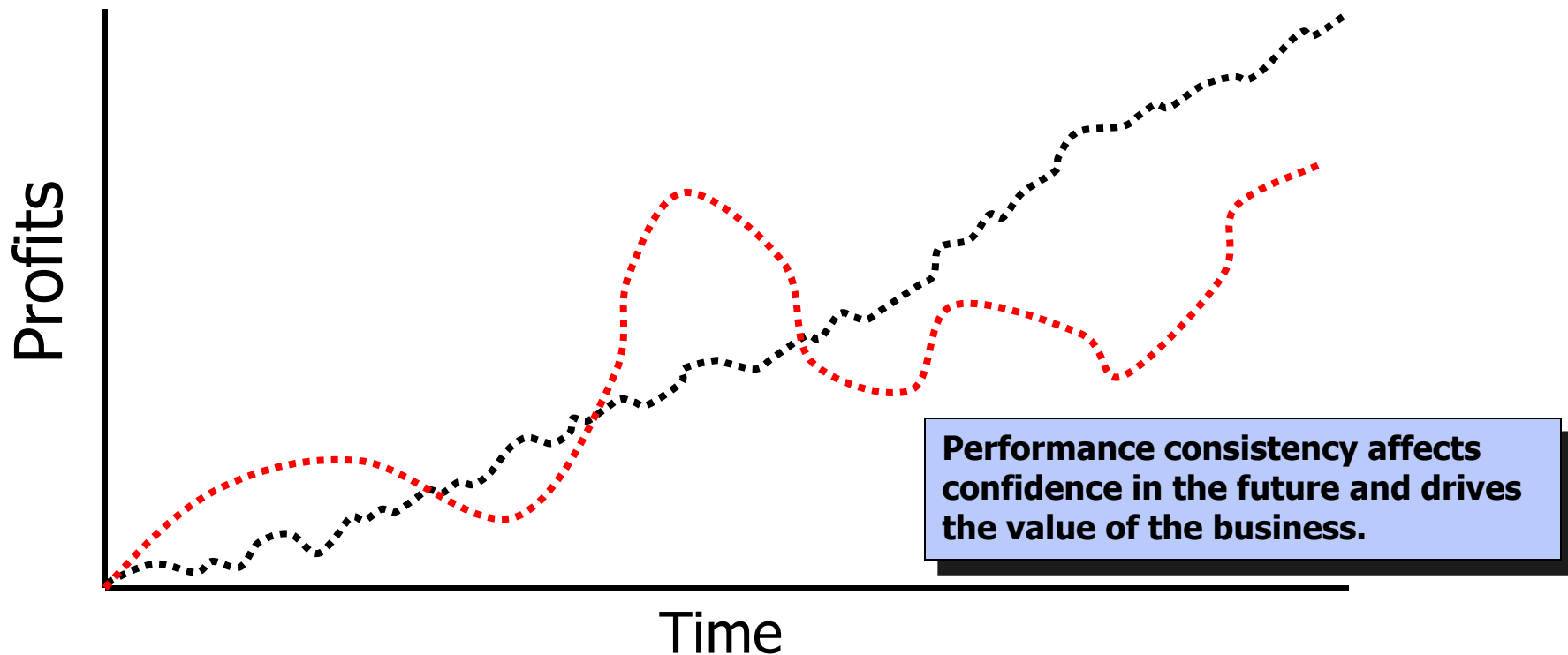
- Span of control
- Control tendencies/reluctance to let go
- Founder syndrome
- Trust breakdown
- Team dysfunction
- Leadership style (coach, delegate, micro manage, abandon)
- Project size
- Alignment issues around Purpose and Culture
- Organizational structure/formalization
- Sell-do traps
- Lack of investment in BD and other necessary “infrastructure”

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# If You Care About the Future...

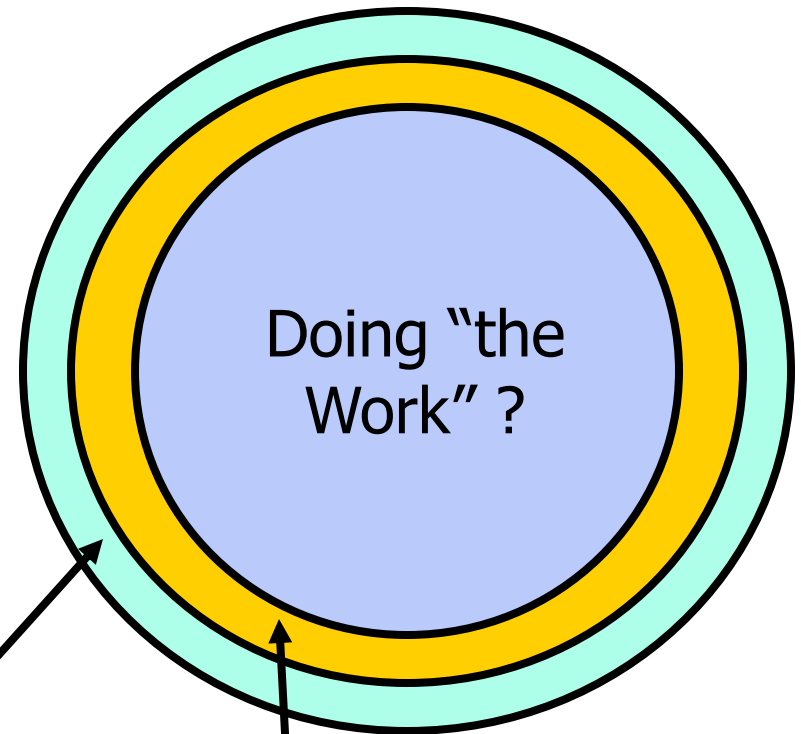
Manage Firm Growth to Fit Your Transition Plan and Financial Vision.



# As a Firm Leader, Know Where You Add Best Value



**75% Utilization??**



Managing and leading  
“the business” ?

Managing “the  
Work” ?

# Establish Clearly Defined Participation Criteria

## Management

- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx

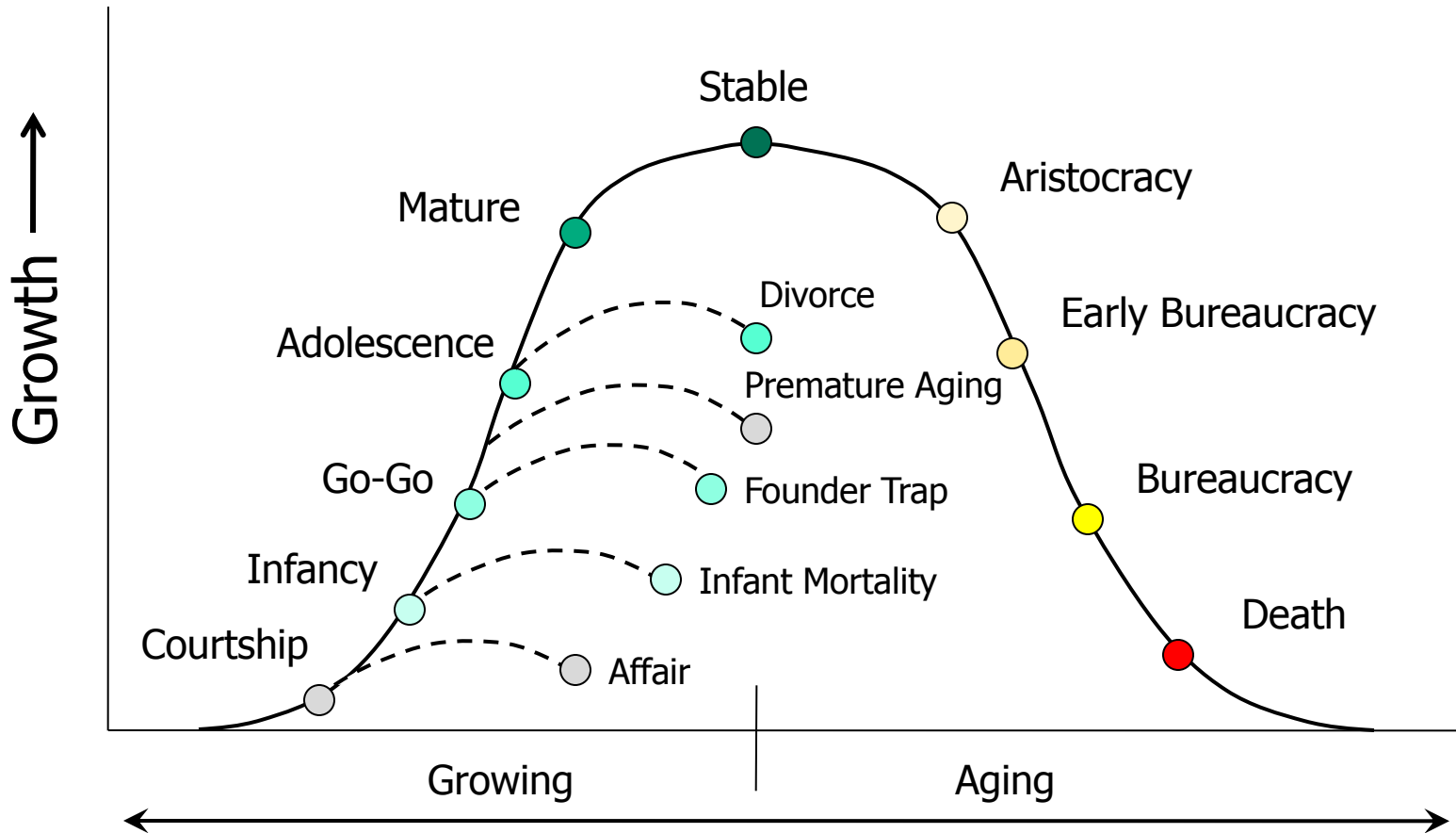
## Leadership

- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx

## Ownership

- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx
- xxxxxxx

# Know Your Organizational Life Cycle



# Understand the Generation Gap

<b>You're a...</b>	<b>Veteran, Traditionalist, Mature, Silent Generation</b>	<b>Baby Boomer, Boomer</b>	<b>Generation X</b>	<b>Millennial, Generation Y, Gen Why?, "Nexter", Echo Boomer</b>
<b>If you were born...</b>	before 1945	between 1946 and 1964	between 1964 and 1980	since 1980
<b>You're shaped by...</b>	World War II, the Depression, traditional family	television, the Cold War, student activism, youth culture, feminism, space travel, stay-at-home moms	the energy crisis, technology's first wave, fall of the Berlin Wall, music videos, AIDS, working mothers (latchkey kids), rising divorce rates	explosion of technology and media, 9-11, Columbine shootings, multiculturalism, variety of family structures
<b>You value...</b>	respect, loyalty, experience	standing out, recognition	flexibility, honesty, feedback work-life balance	strong leadership, concern for community, structure, fair play, diversity



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<b>On the job you are...</b>	a disciplined, hard worker who appreciates order and a job well done	a driven, service-oriented team player who doesn't want to be micro-managed. You live to work.	independent, self-reliant, unimpressed by authority and focused on self-development. You work to live.	self-confident, competent, optimistic, out-spoken and collaborative
<b>Your career motto is...</b>	Seek job security.	Education plus hard work equals success.	Invest in portable career skills.	Multi-track or die!

# The Implications of Generational Shift

- Millenials are THE replacement generation for you
- As a demographic group, they:
  - Are highly talented and are therefore quite valuable
  - Will be high maintenance
  - Believe they have “paid their dues” in 2 years or less
  - Do expect you to GIVE them your firm
  - Are projected to hold 26 different jobs over the span of their career
  - Require strong leadership and collaborative environments

***So what are you going to do?***

# Operate With An “Open-Book” Approach

- **Management team level**

Be fairly open, consistently sharing at least the key measures of (1) Sales, (2) Revenue, and (3) Profit on an EBBT basis (Earnings Before Bonus and Taxes)

- **Ownership level (or with those being extended ownership)**

Share the above 3 measures, plus expose individuals to numbers related to cash flow, debt/borrowings, profit allocation, company capitalization, share valuation, etc.

- **General rank and file**

Disclose general financial information about the company sufficient to convey the state of the company and the business outlook for the future.

# Create Your Firm Financial Vision

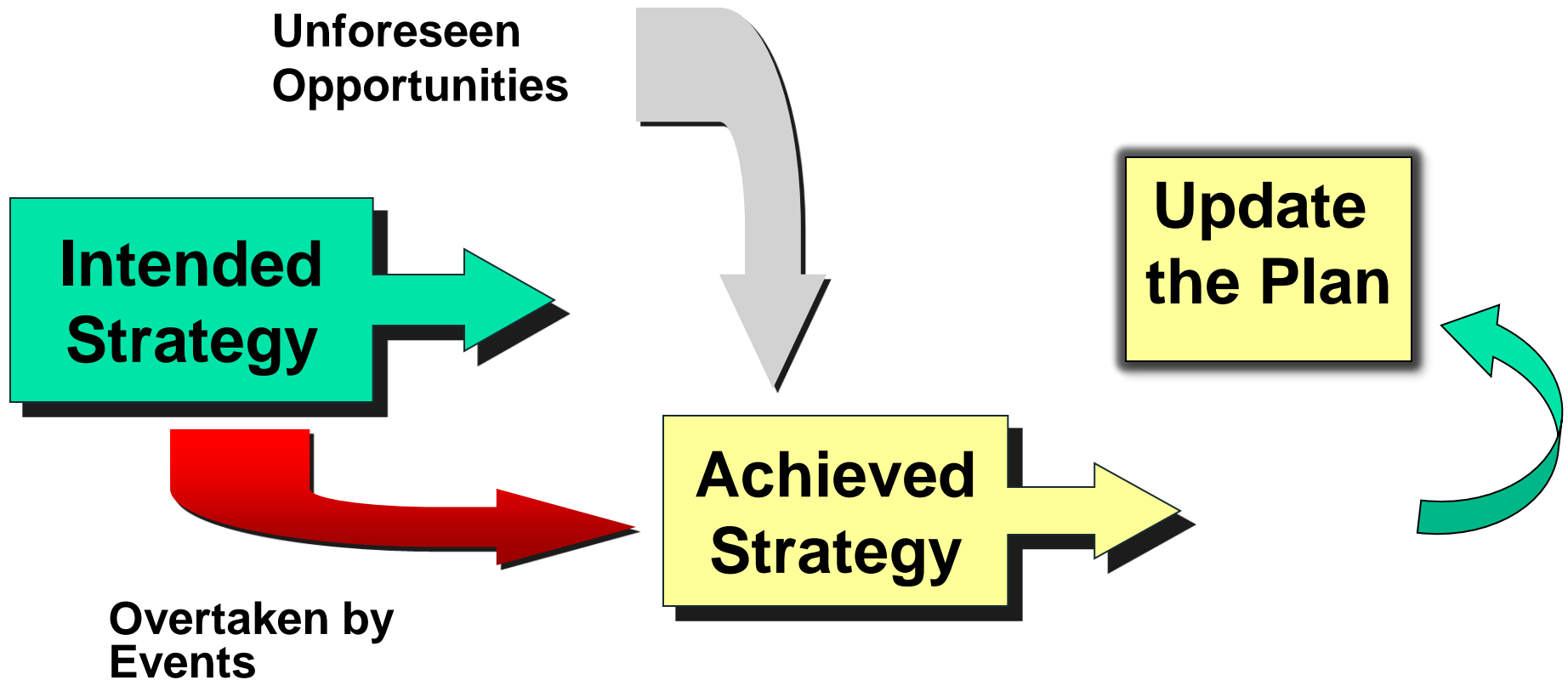
Financial Metric	FY 2007	FY 2008	25th %ile	Median	75th %ile	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total (Gross) Revenue	\$19,920	\$20,956				\$23,000	\$25,453	\$28,350	\$31,335	\$35,225
Net Revenue	\$16,231	\$17,636				\$20,000	\$22,144	\$24,098	\$26,635	\$29,941
Net/Gross Revenue Ratio	0.81	0.84				0.87	0.87	0.85	0.85	0.85
Operating Profit (Pre-Bonus, Pre-Tax)	\$2,153	\$2,493				\$2,050	\$1,971	\$2,583	\$2,756	\$3,010
Profitability (% of Net Revenue)	13.3%	14.1%	6.7%	13.8%	19.5%	10.3%	8.9%	10.7%	10.3%	10.1%
Total Direct Labor Hours	233,868	237,810				260,467	272,110	274,028	291,253	314,857
Total Hours (all staff)	333,238	340,873				368,687	387,121	406,477	426,801	448,141
Total Staff (Full Time Equivalents)	160	164				177	186	195	205	215
No. Employees Departing During Year	29	40				26	26	25	25	26
Staff Turnover Rate (per FTE)	18.1%	24.4%	8.0%	14.1%	21.5%	14.7%	14%	13%	12%	12%
Staff Growth Rate (per FTE)	-2.6%	2.3%	0.0%	5.1%	11.7%	8.2%	5%	5%	5%	5%
New Hires Needed (FTEs)	25	44				39	35	35	34	36
Net Revenue per FTE	\$101	\$108	\$92	\$100	\$115	\$113	118.9814	\$123	\$130	\$139
Direct Labor Rate (\$/hour)	\$28.38	\$29.45				\$30.11	\$31.30	\$32.57	\$33.87	\$35.22
Total Direct Labor Costs	\$6,637	\$7,004				\$7,843	\$8,517	\$8,925	\$9,865	\$11,089
Total Payroll (excluding fringes)	\$9,580	\$10,004				\$11,141	\$12,167	\$13,125	\$14,507	\$15,842
Average Hourly Rate (\$/hour)	\$28.75	\$29.35				\$30.22	\$31.43	\$32.29	\$33.99	\$35.35
Target Direct Labor Multiplier	2.50	2.50	2.97	3.00	3.20	2.50	2.55	2.60	2.65	2.70
Achieved Direct Labor Multiplier	2.45	2.52	2.71	2.99	3.19	2.55	2.60	2.70	2.70	2.70
Labor Overhead	\$2,943	\$3,000				\$3,298	\$3,650	\$4,200	\$4,642	\$4,753
Labor OH Rate (% of D.L.)	44%	43%				42%	43%	47%	47%	43%
Non-labor Overhead (excl. bonus)	\$6,740	\$5,268				\$7,144	\$8,006	\$8,390	\$9,372	\$11,089
Non-labor OH Rate (% of D.L.)	102%	75%				91%	94%	94%	95%	100%
Total Overhead (excl. bonus)	\$9,683	\$8,268				\$10,442	\$11,656	\$12,590	\$14,014	\$15,842
Total OH Rate (before Incentive/Bonus)	146%	118%	141%	158%	176%	133%	137%	141%	142%	143%
Operating Return on Overhead (ROO)	22%	30%	12%	25%	41%	20%	17%	21%	20%	19%
Chargeability (Based on \$ of Labor)	69.3%	70.0%	56.5%	59.8%	63.5%	70.4%	70.0%	68.0%	68.0%	70.0%
Chargeability (Based on hours)	70.2%	69.8%				70.6%	70.3%	67.4%	68.2%	70.3%
Net Payroll Multiplier (Revenue Factor)	1.69	1.76	1.62	1.76	1.91	1.80	1.82	1.84	1.84	1.89

# Instill a Strategic Planning Process and Culture

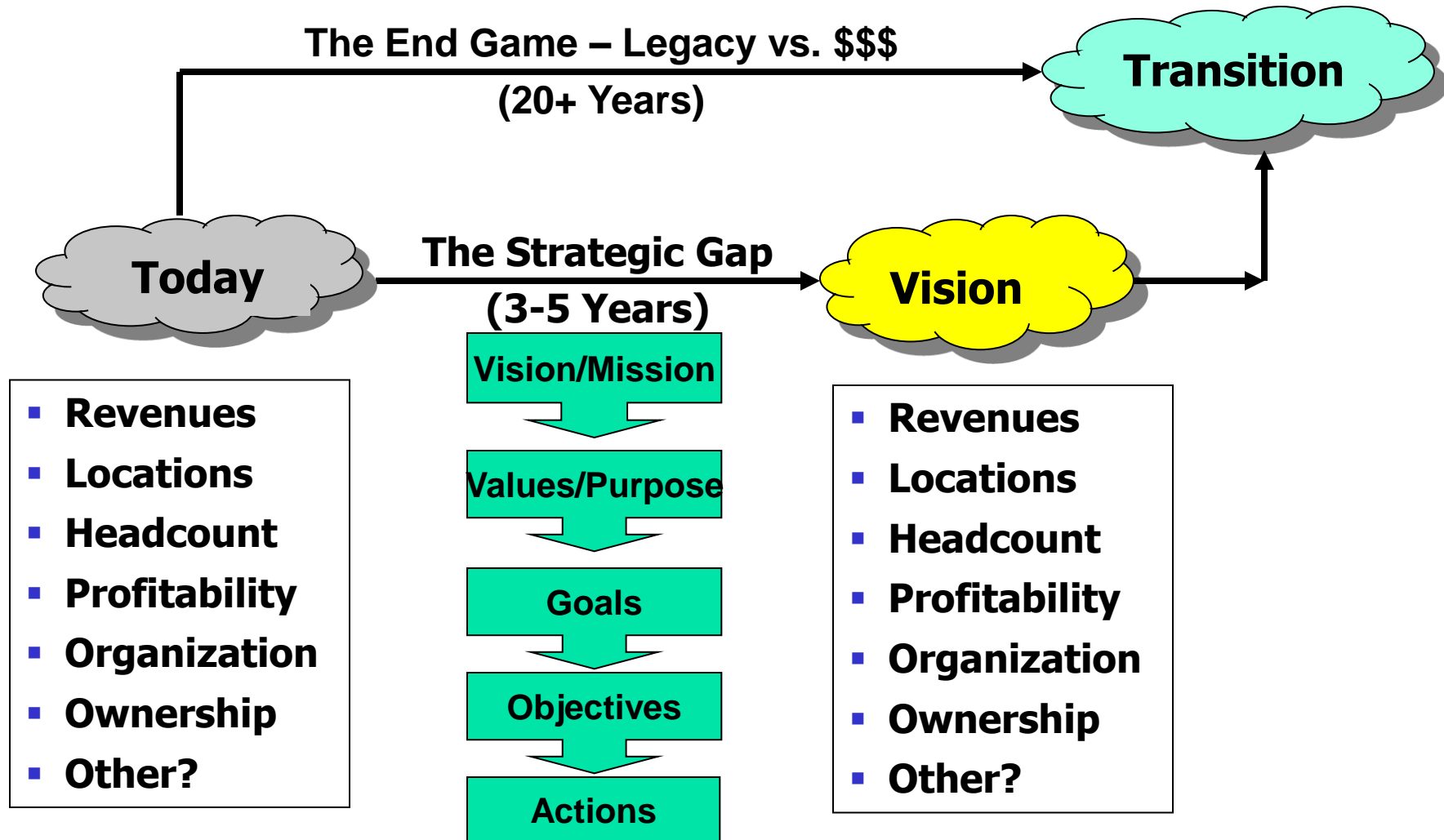
## The Business Continuum



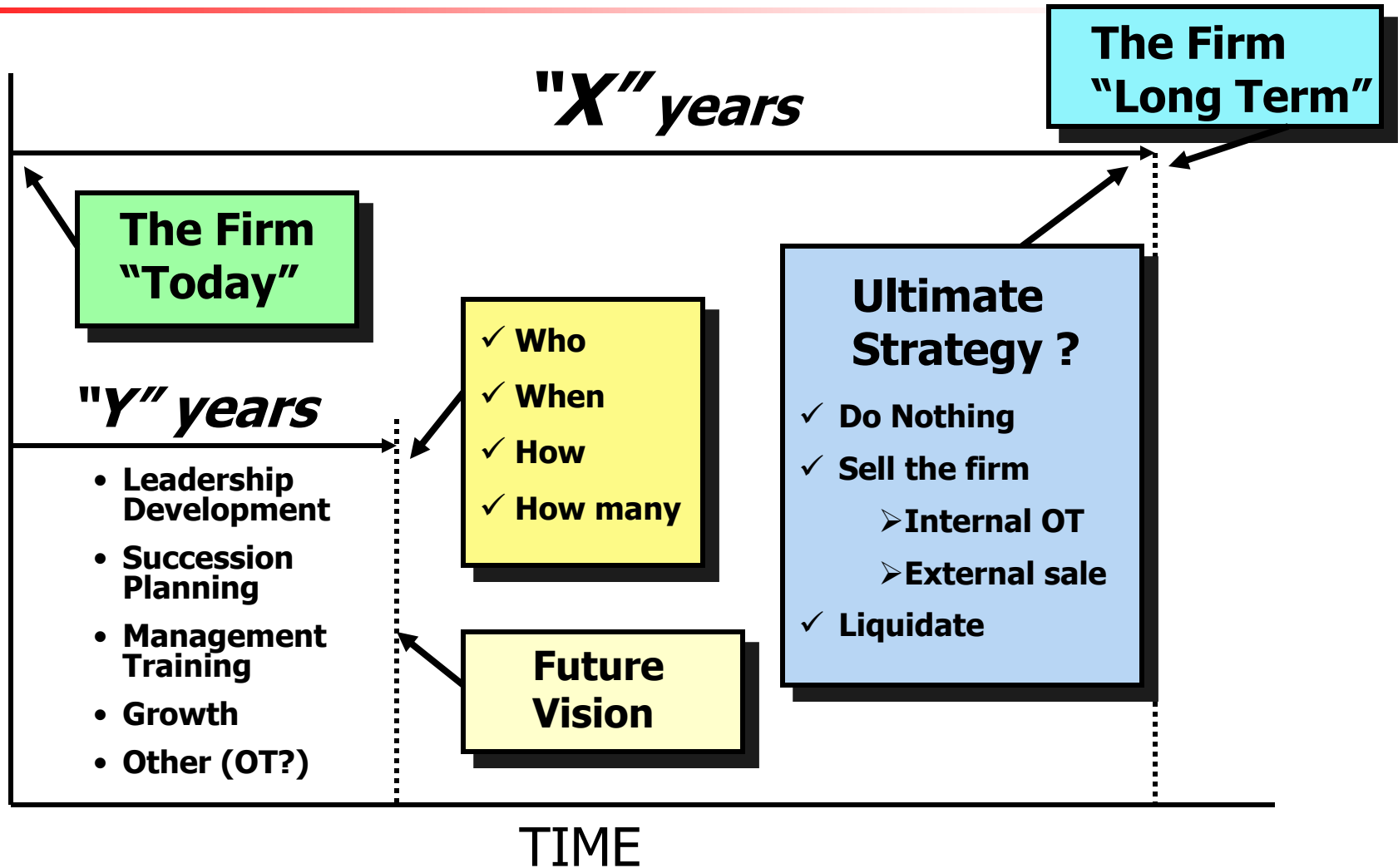
# Treat Planning As a Core Business Process



# Close the "Vision Gap"



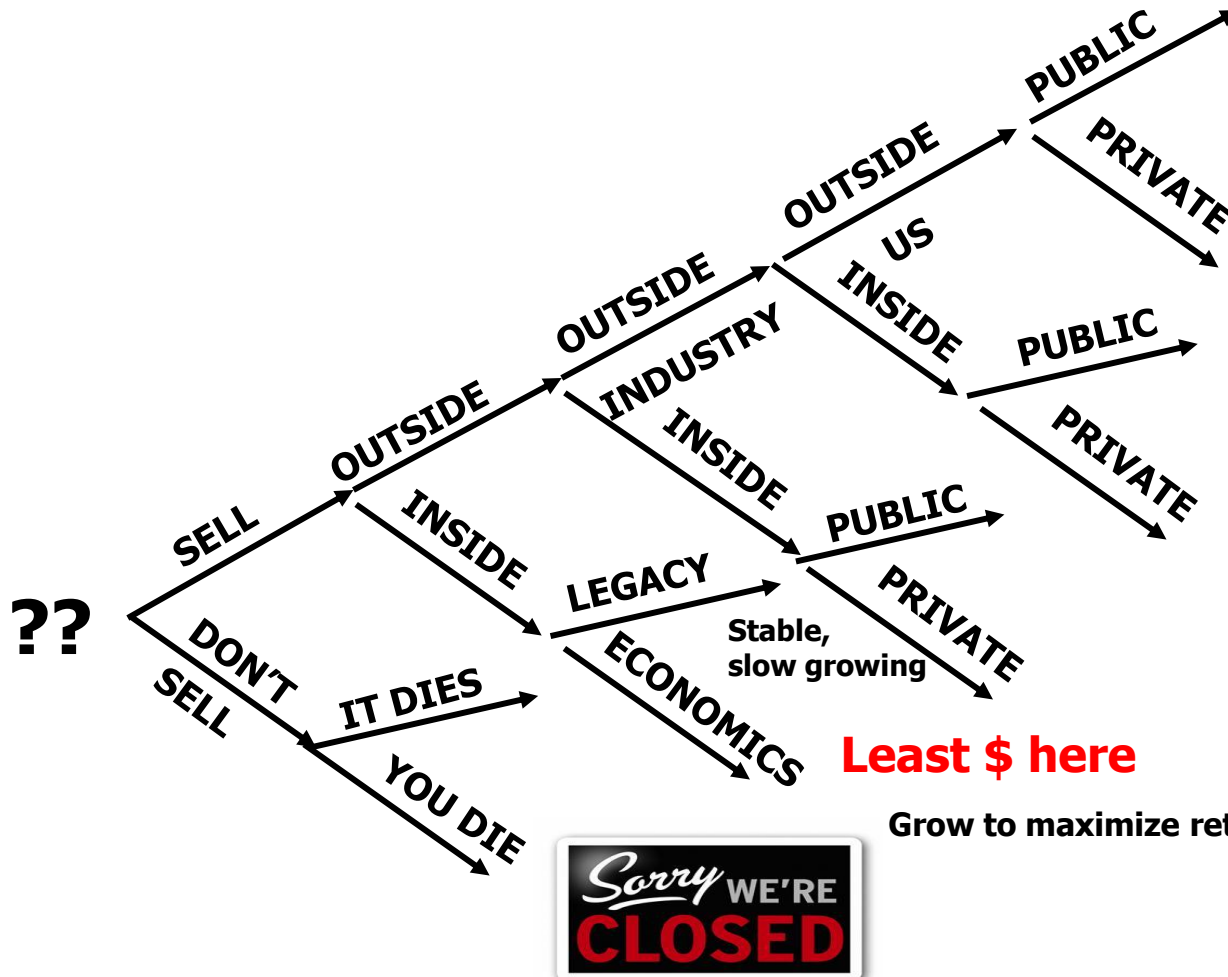
# Revisit Your "Exit Strategy"





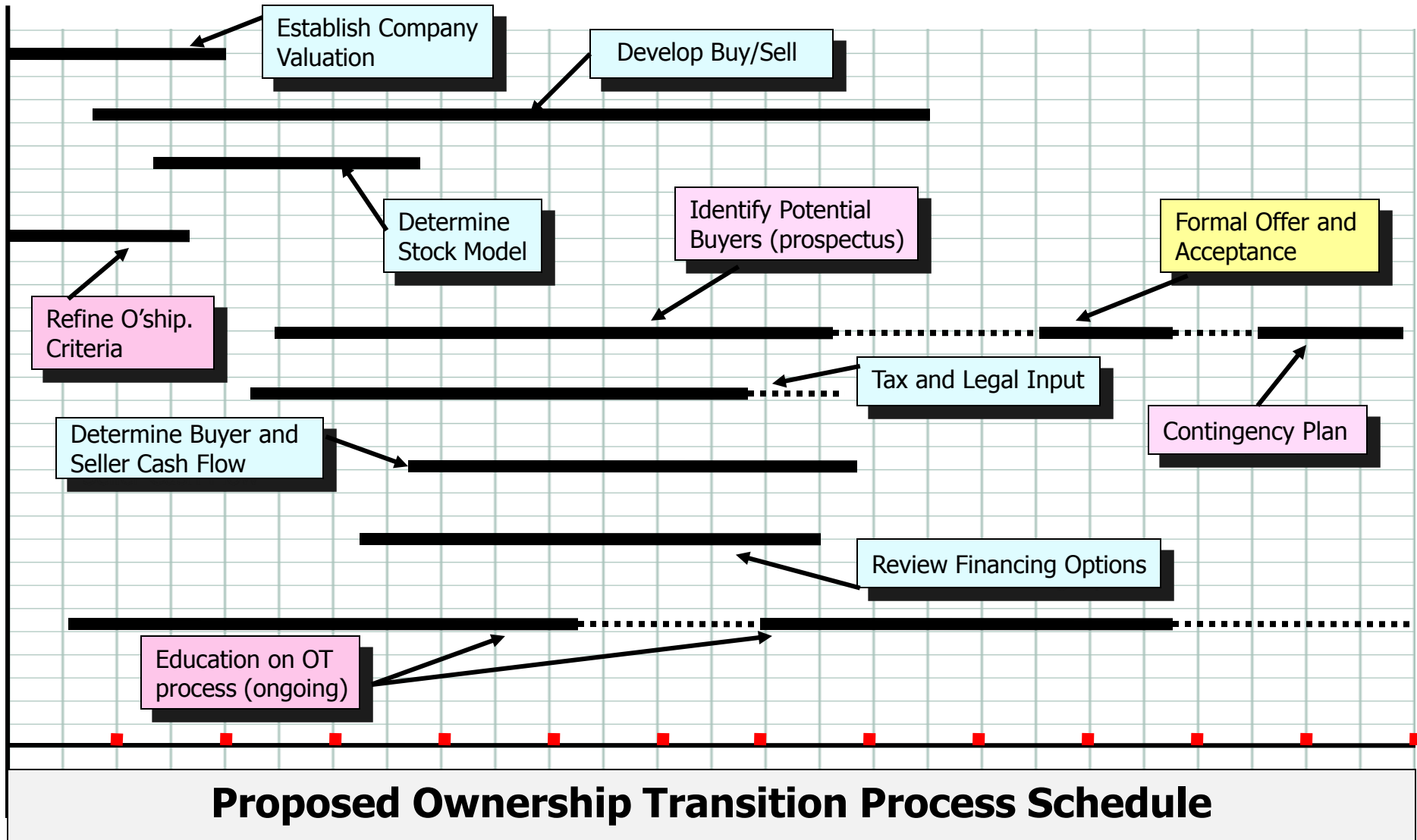
# Where's the Beef?

Most \$ here

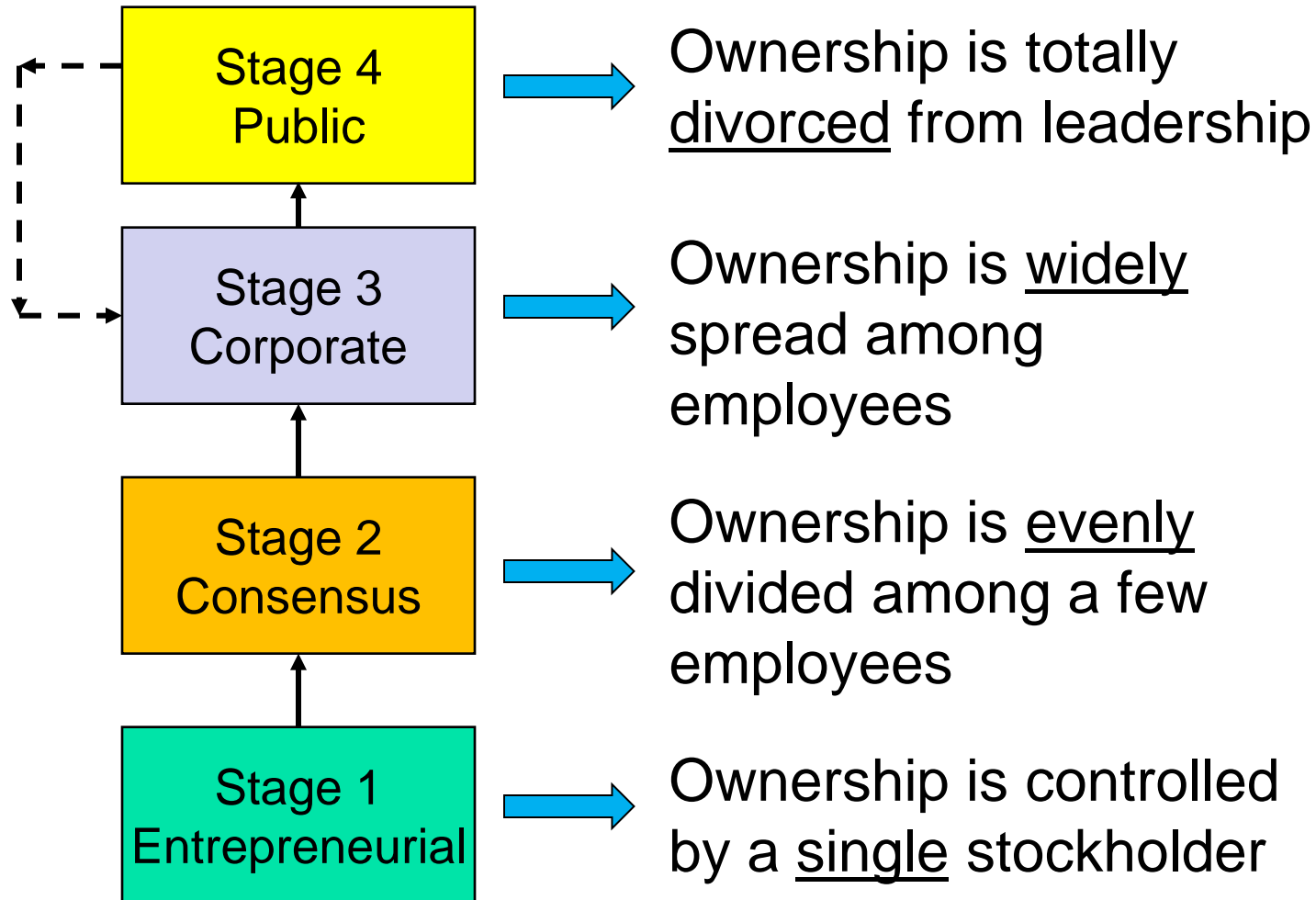


Least \$ here

# Internal Transition Steps



# Stages of Ownership



# Leadership Development and Transition



80% of the initiative for leadership development should come from the individual who wants to become a leader.

# I'm Indispensable...

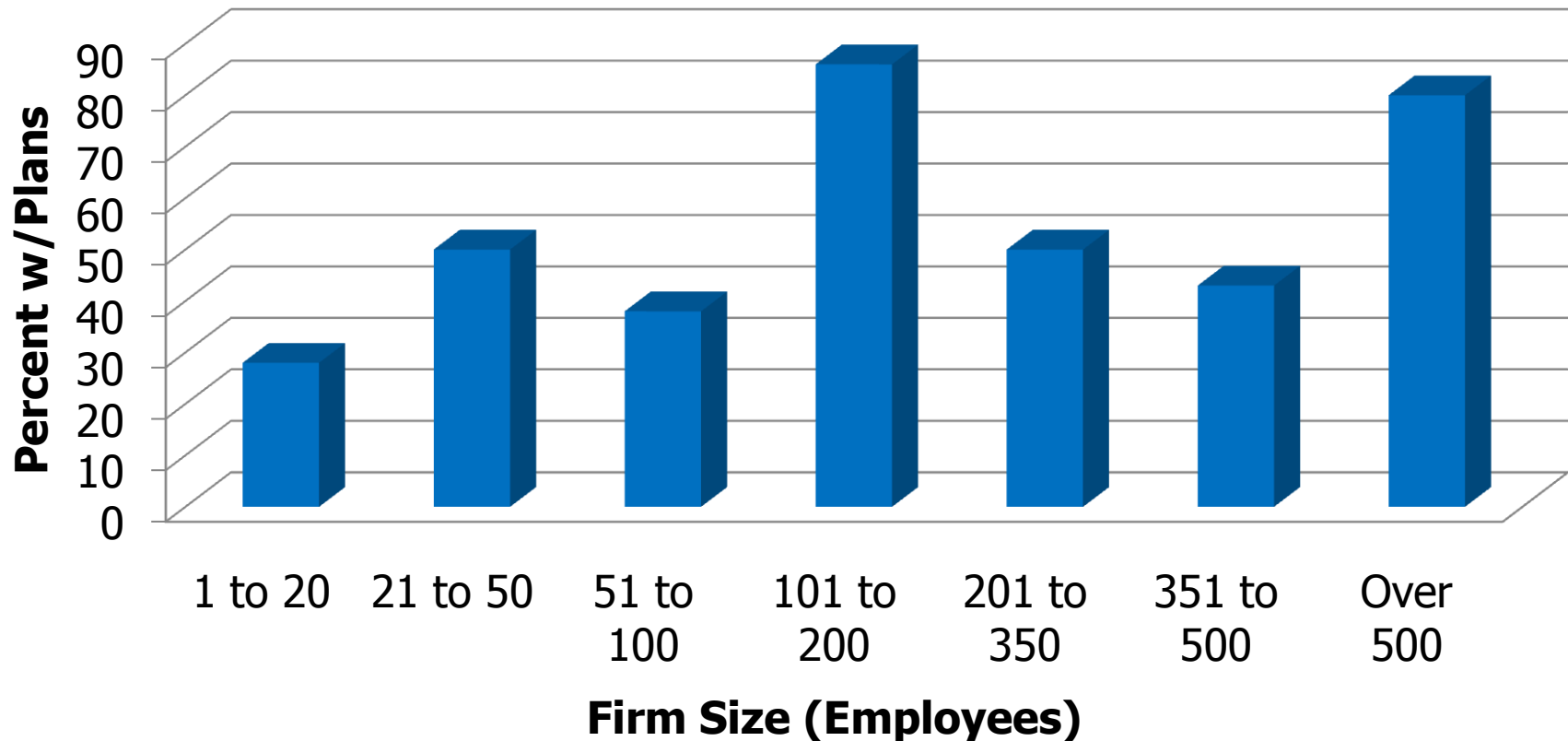


Who could possibly fill  
“MY” shoes?

- Dealing with “control”
- Confronting fear of “letting go”
- Achieving a level of trust
- Addressing a power shift in the Buy/Sell Agreement

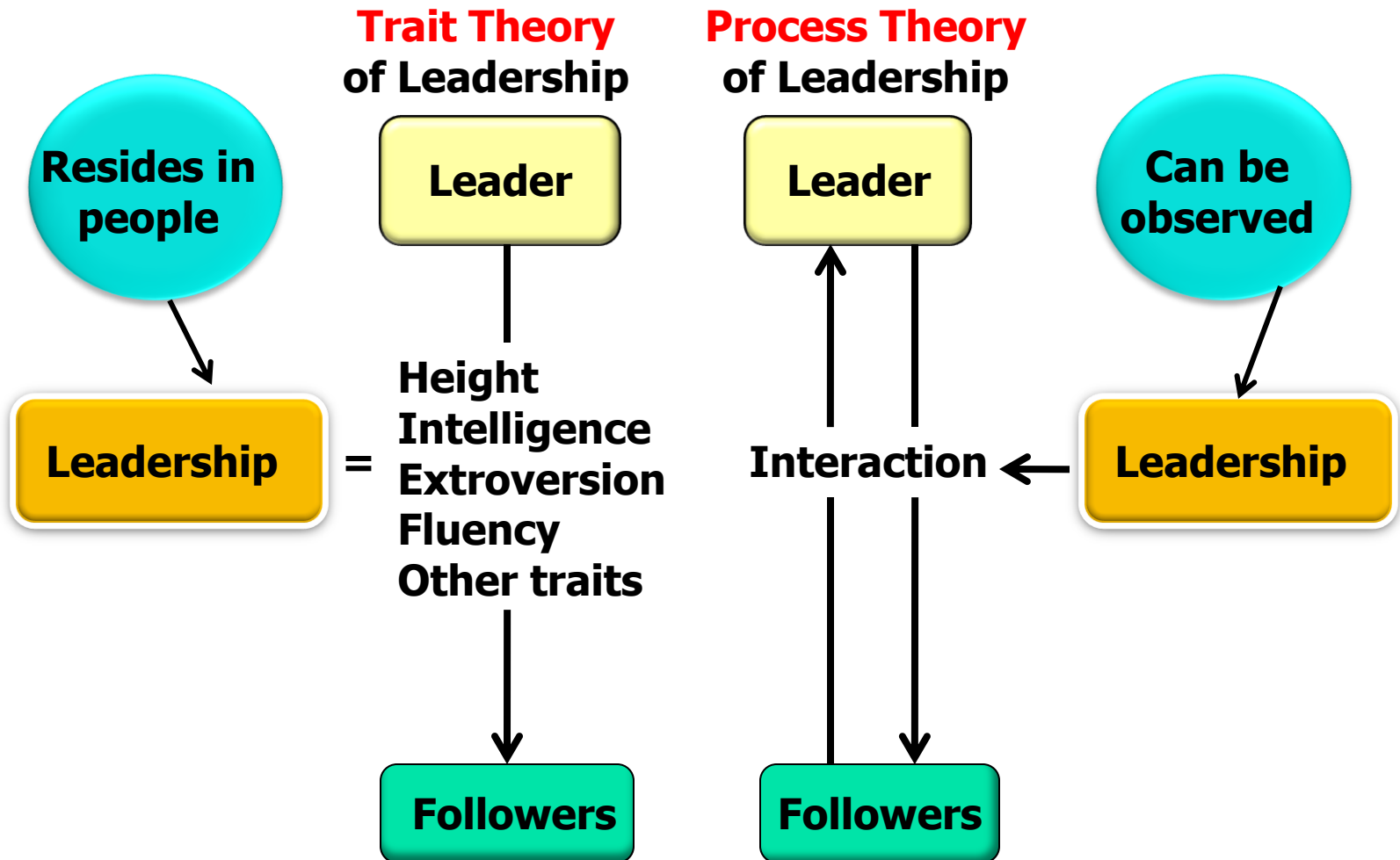
# Most Firms Tend To Ignore Leadership Transition

## Firms with Succession Plans



Source: 2009 Survey

# Leadership Theory



# Leadership Theory

According to Bass\*, there are **three basic ways** to explain how people become leaders:

- Some personality traits may lead people naturally into leadership roles. This is the **Trait Theory**.
- A crisis or important event may cause a person to rise to the occasion, which brings out extraordinary leadership qualities in an ordinary person. This is the **Great Events Theory**.
- People can choose to become leaders and learn leadership skills. This is the **Transformational or Process Leadership Theory**, which is the most widely accepted theory today.





# Leadership Defined

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*“The True Measure of Leadership Is Influence  
– Nothing More, Nothing Less”*

John C. Maxwell's 2<sup>nd</sup> Law of Leadership

# Leaders vs. Managers

## ■ The Leader

- Does the right things
- Creates a better system
- Motivates people
- Focuses on achieving the vision
- Looks for long-term effectiveness

## ■ The Manager

- Does things right
- Improves the system
- Directs peoples' activities
- Focuses on the job at hand
- Looks for short-term achievements

# Ownership vs. Leadership

**Ownership** is a financial state. It requires:

- \$\$\$ to invest
- Judgment when voting shares
- Judicious use of power

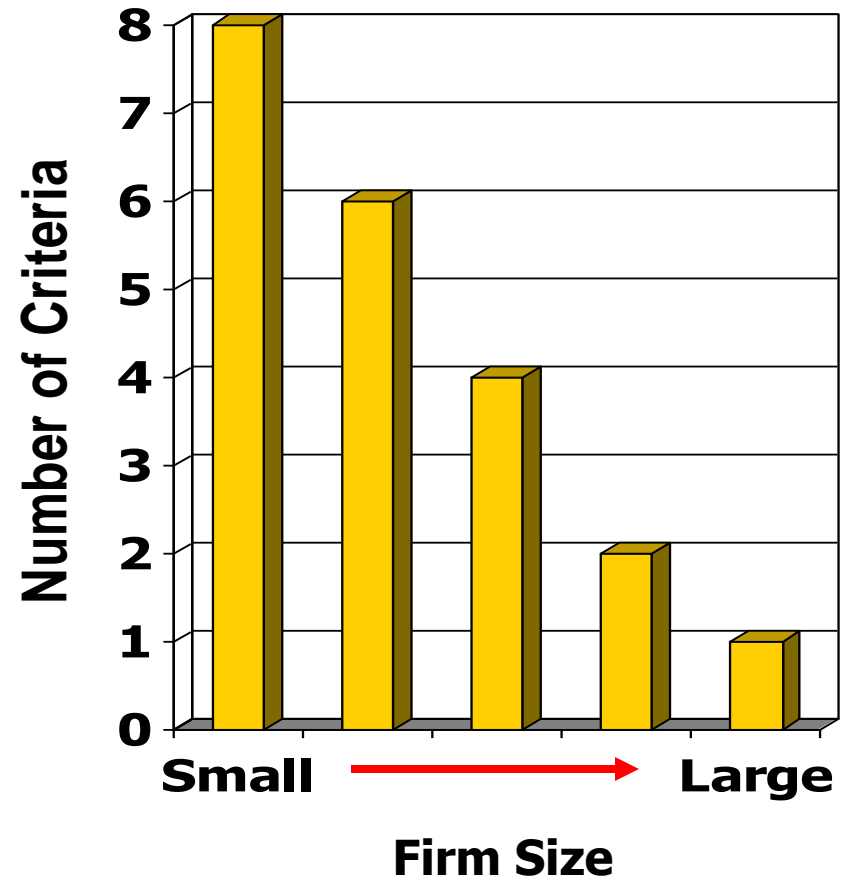
**Leadership** is an attribute of employment:

- “The ability to get others to support your ideas”
- Absolutely nothing to do with \$\$\$ or title
- Provides a good foundation for being an owner – but not a guarantee

# Ownership Criteria Varies by Firm Size

## Ownership Criteria

- Bring in work
- Maintain clients
- Enhance firm's reputation
- Technical/design expertise
- Manage projects
- Manage money
- Manage a business unit
- Manage support functions



# Linking Leadership and Ownership

## Levels of Ownership

**Senior Principal**  
**(largest ownership)**

**Principal**  
**(mid-level ownership)**

**Associate**  
**(minor ownership)**

## Leadership Position

### **Governance**

- Board
- CEO
- COO

### **Senior Management**

- Business Unit Leaders
- Practice Area Leaders

### **Middle Management**

- Project Managers
- Department Heads

# One Firm's Ownership Criteria

<b><i>Qualifications</i></b>	<b><i>Associate</i></b>	<b><i>Principal</i></b>	<b><i>Senior Principal</i></b>
Education	4-year degree	4-year degree	4-year degree
Registration Required	If available	If available	If available
Years Relevant Experience	5	10	10
Years With the Firm	1	2	2
Years as an Associate		1	1
Years as a Principal			1
Minimum Annual Workload	\$200,000	\$300,000	\$700,000
Minimum Marketing Results		\$300,000	700,000
Investment Required	30% of Salary	100% of Salary	150% of Salary

# Workforce Trends

- Over the next 8 years, 15% decline in 35-44 year olds
- More Millennials, fewer Boomers
- Psychological contract is changing – less loyalty, limited mobility
- Smaller companies attracting talent – equity and opportunity
- Fewer people entering the A/E profession

# No One Wants to Be an Engineer



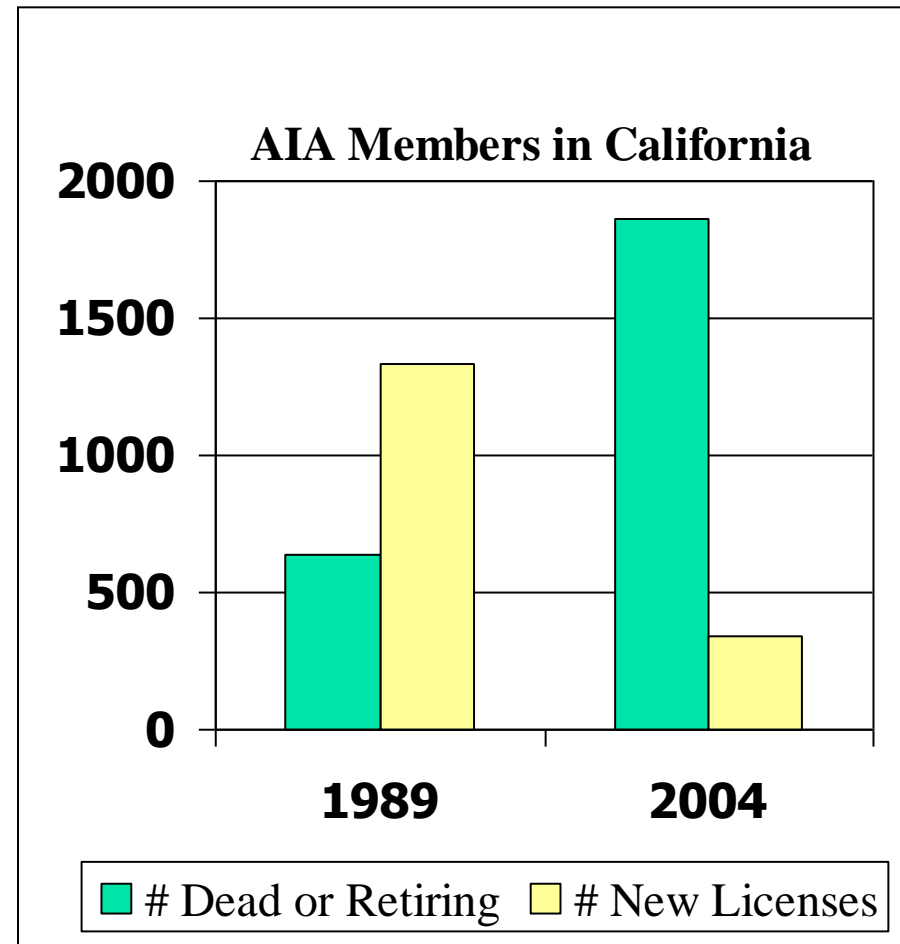
“85% of kids ages 8-17 say they aren’t interested in engineering as a future career and their parents aren’t encouraging it either.”

-- National survey of youth and adults conducted by Harris Assoc.



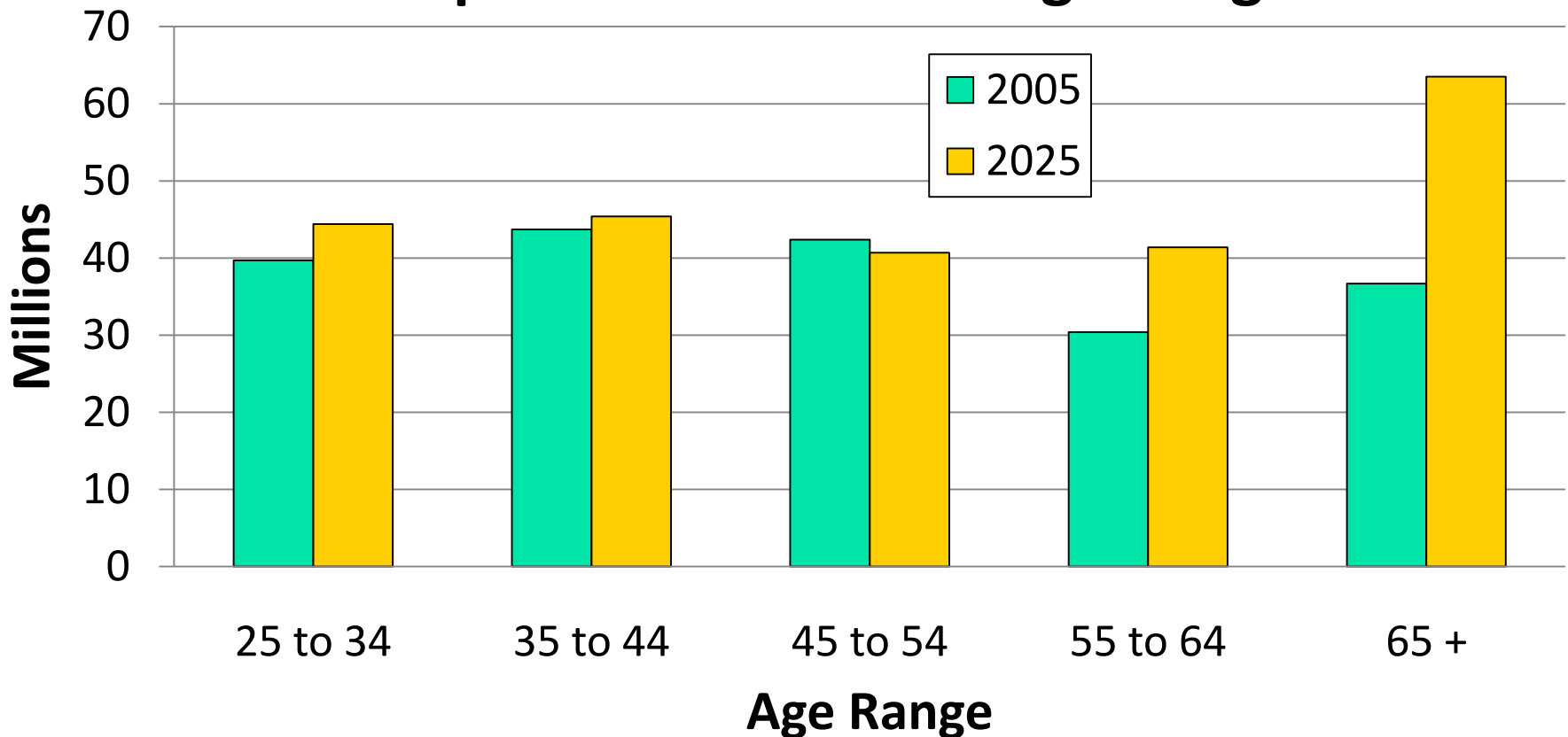
# Mass Retirement of Senior Principals

- Leading edge of baby-boomers now hitting early 60's
- Many are senior principals
- Few have developed long-term ownership transition plans
- Even fewer have developed the next generation of leaders
- Result will be many failed ownership transitions
- There will also be many more acquisitions

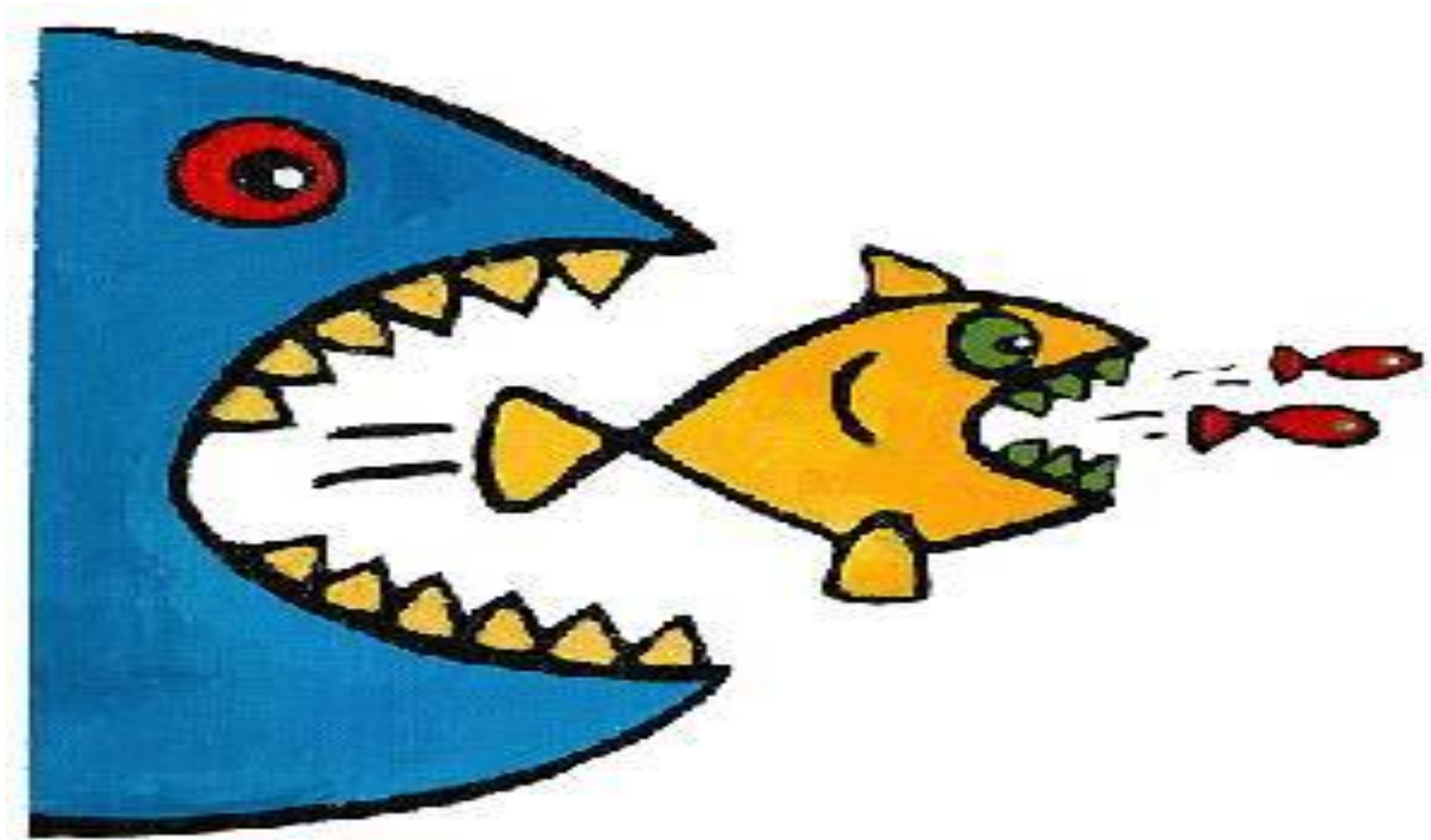


# There Are Going to Be More Sellers Than Buyers

## U.S. Population in Various Age Ranges



# Creating an Increasing Number of Acquisitions

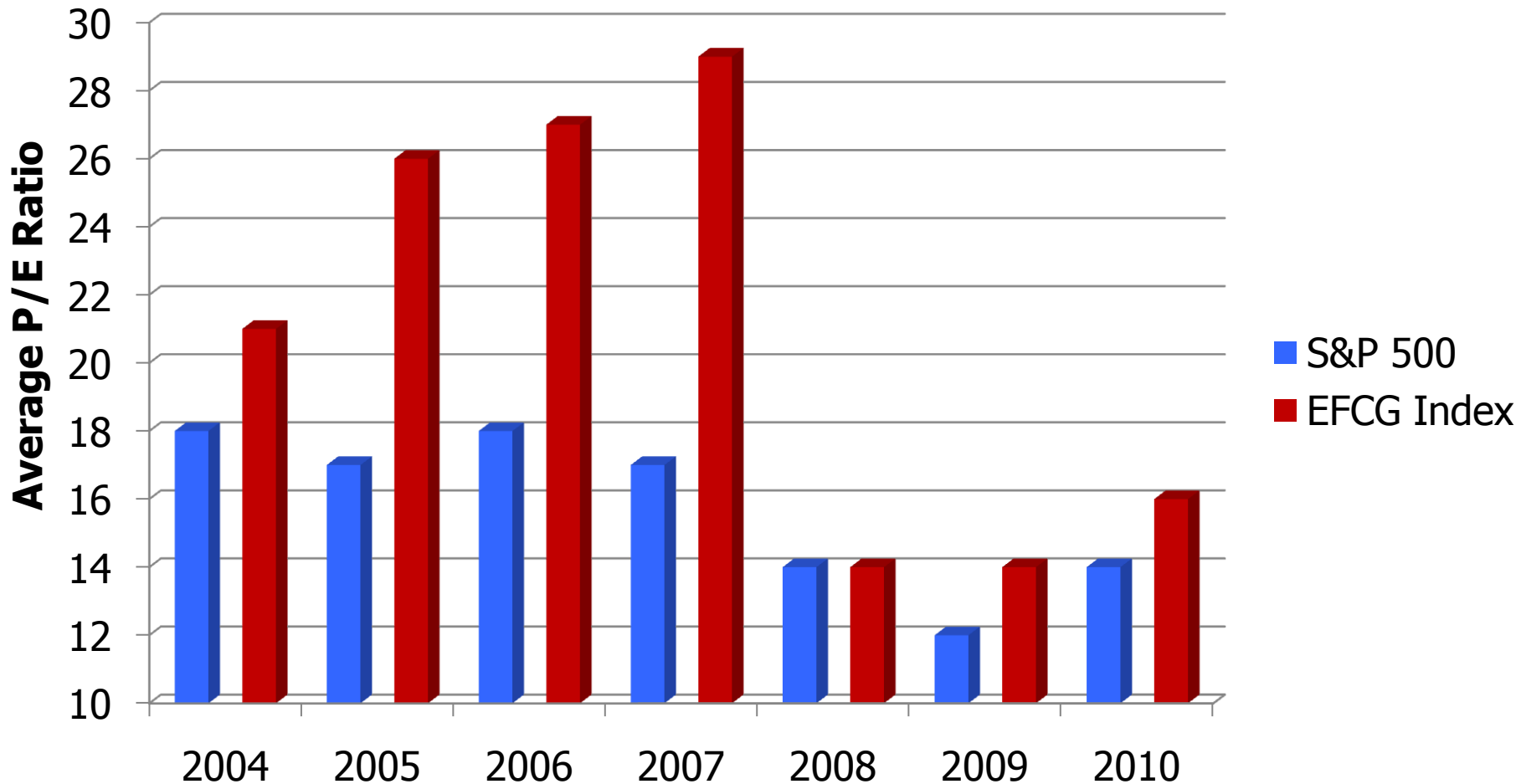


# According to the Law of Supply and Demand...



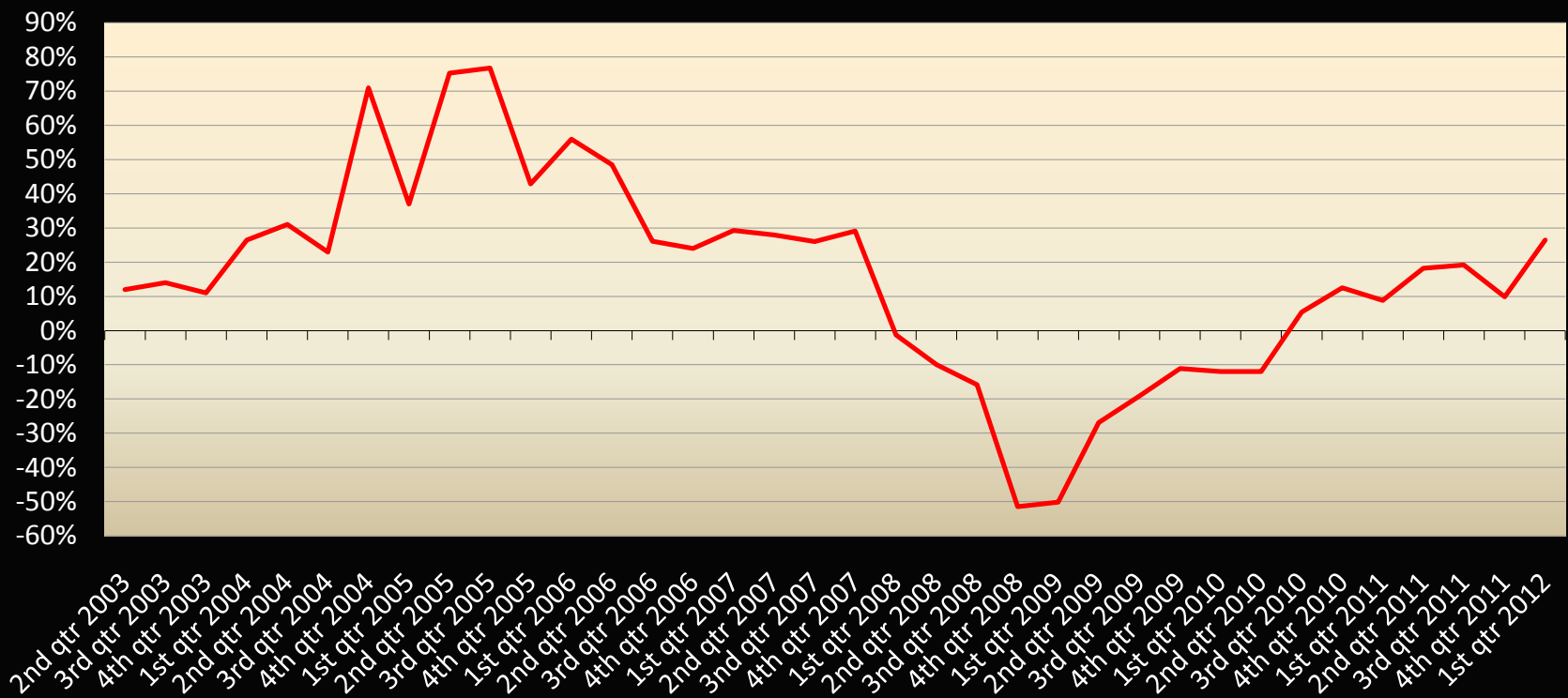
**This glut of firms seeking to be acquired will reduce their value.**

# Valuations Have Come Back to Earth



# This Is Likely a Factor

Backlog Comparisons Plus/Minus Trends



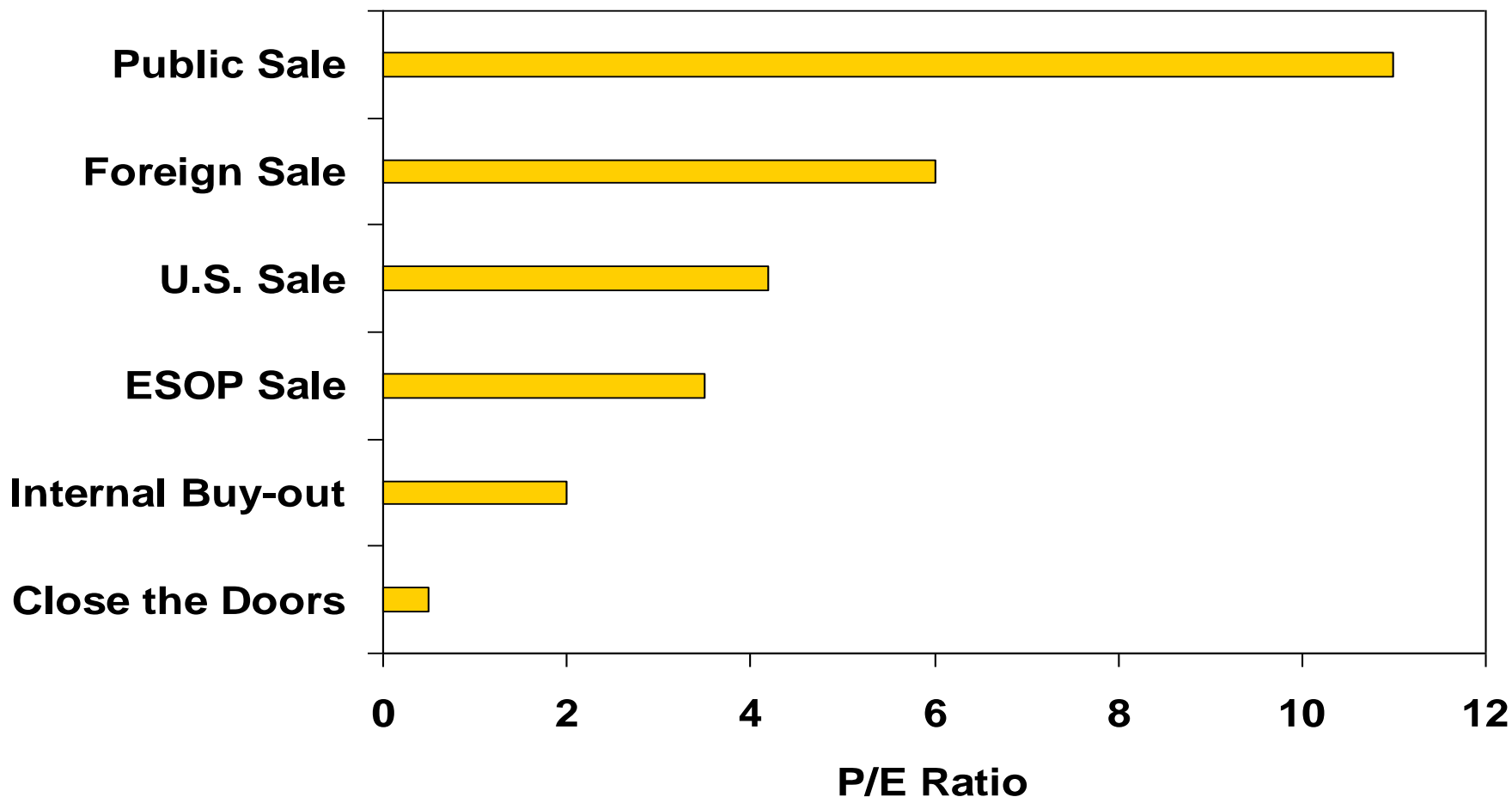


# What Impact Does This Have?

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1. Valuations and expectations are down but improving.
2. It is definitely time to check your own valuation.
3. Big firms are being very selective – much harder to do deals with stock.

# Typical Price/EBBT (P/E) Multiples

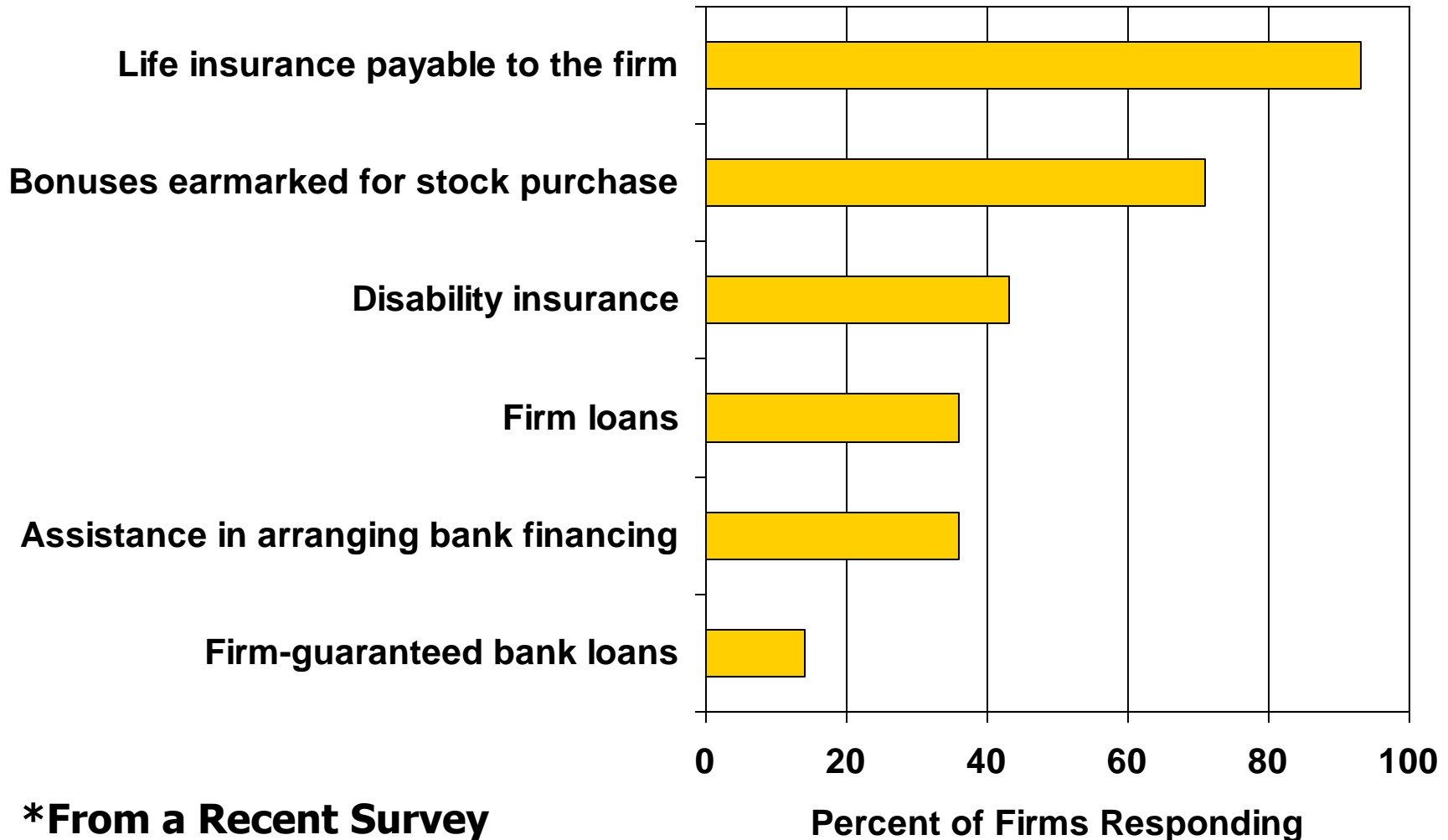




# The “REALLY BIG” Challenge



# How Firms Are Confronting the Challenge\*



# Other Financing Options

- Be born rich, inherit \$ from a rich aunt, or win the lottery
- Gradual share buy-out from bonus money
- Escrow account from bonuses (e.g., Rabbi Trust)
- Employee Stock Ownership Plan (ESOP)
- Pledge future profits to departing owner (s)
- Borrow the money
- Life insurance
- Find an equity partner
- If all else fails, sell outside

# Link Your Firm Financial Plan To Your Transition Plan

**It is critical that the Plan for transition be compatible with the firm financial vision and Strategic Plan.**

Financial Metric	FY 2007	FY 2008	25th %ile	Median	75th %ile	FY 2009				
Total (Gross) Revenue	\$19,920	\$20,956				\$23,000				
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Total Hours (all staff)	333,238	340,873				368,687				
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Net Revenue per FTE	\$101	\$108	\$92	\$100	\$115	\$113	\$118.98	\$123	\$130	\$139
Direct Labor Rate (\$/hour)	\$28.38	\$29.45				\$30.11	\$31.30	\$32.57	\$33.87	\$35.22
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Average Hourly Rate (\$/hour)	\$28.75	\$29.35				\$30.22	\$31.43	\$32.29	\$33.99	\$35.35
Target Direct Labor Multiplier	2.50	2.50	2.97	3.00	3.20	2.50	2.55	2.60	2.65	2.70
Achieved Direct Labor Multiplier	2.45	2.52	2.71	2.99	3.19	2.55	2.60	2.70	2.70	2.70
Labor Overhead	\$2,943	\$3,000				\$3,298	\$3,650	\$4,200	\$4,642	\$4,753
Labor OH Rate (% of D.L.)	44%	43%				42%	43%	47%	47%	43%
Non-labor Overhead (excl. bonus)	\$6,740	\$5,268				\$7,144	\$8,006	\$8,390	\$9,372	\$11,089
Non-labor OH Rate (% of D.L.)	102%	75%				91%	94%	94%	95%	100%
Total Overhead (excl. bonus)	\$9,683	\$8,268				\$10,442	\$11,656	\$12,590	\$14,014	\$15,842
Total OH Rate (before Incentive/Bonus)	146%	118%	141%	158%	176%	133%	137%	141%	142%	143%
Operating Return on Overhead (ROO)	22%	30%	12%	25%	41%	20%	17%	21%	20%	19%
Chargeability (Based on \$ of Labor)	69.3%	70.0%	56.5%	59.8%	63.5%	70.4%	70.0%	68.0%	68.0%	70.0%
Chargeability (Based on hours)	70.2%	69.8%				70.6%	70.3%	67.4%	68.2%	70.3%
Net Payroll Multiplier (Revenue Factor)	1.69	1.76	1.62	1.76	1.91	1.80	1.82	1.84	1.84	1.89

# Assess Your Leadership Capacity

Some other quantitative assessment tools

- Blanchard Situational Leadership
- Predictive Index (*piprofilext*)
- Harrison Assessment
- LMap
- Numerous other tools

# Develop Your Transition Model of Buyer/Seller – EARLY!

- Determine the sellers
  - Who
  - When (dates)
  - How much (shares to sell)
- Identify the buyers
  - Who
  - When (dates)
  - How much (shares to buy)
  - How (Where's the \$\$)
- Create the cash flow model and financing means
- Have a Contingency Plan



# Other Things You Should Do

- Have a Strategic Plan
- Know your Purpose
- Achieve alignment
- Involve NexGen's in planning process
- Operate with open-book management
- Treat planning as a core business process

# Keep An Eye Out the Window!







Thank You!

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Questions?

# A/E Firm Risk Factors

Team Risk	→ strength of leadership team
Strategy Risk	→ direction of the firm
Product Risk	→ niche vs. commodity
Market Risk	→ strength of clients
Operations Risk	→ strong project management culture
Financial Risk	→ capital structure & earnings volatility
Entrepreneurial Risk	→ understanding of risk vs. reward

# Recommended Approach

<b>Balance Sheet Net Worth</b>	\$1,200,000
Net Worth Adjustments	<u>\$ 200,000</u>
Adjusted Net Worth	\$1,400,000

<b>Annual Earnings (5-year weighted EBBT)</b>	\$ 400,000
Earnings Adjustments	<u>\$ 100,000</u>
Adjusted Annual Earnings	\$ 500,000

## Multiplier Calculation (0 - 5)

Team Risk =	2.0
Strategy Risk =	2.5
Product Risk =	3.0
Market Risk =	2.0
Operations Risk =	2.5
Financial Risk =	3.5
Entrepreneurial Risk =	<u>2.0</u>
Weighted Multiplier =	2.5

## Risk Factors

0 – 1 = Bankrupt  
1 – 2 = Below  
average  
2 – 3 = Average  
3 – 4 = Above  
average  
4 – 5 = Outstanding

**Value of Firm = \$1,400,000 + (2.5 x \$500,000) = \$2,650,000**