

# Managing Escalation

Peter Morris

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## **AECOM**

National Practice Leader  
Construction Cost Consulting,  
Economics and Cost Analysis

### **Education**

Reading University, Bachelor of Science, Building Surveying, 1976  
Certificate Diploma, Business Accounting & Finance

### **Memberships**

Royal Institution of Chartered Surveyors  
Past Chair, USGBC Research Advisory Committee

### **Professional History**

With AECOM: 37 years  
With other firms: 5 years

- Joined AECOM in California in 1980
- Principal with AECOM since 1986
- Leads AECOM Program and Cost Consultancy group across the Americas
- Nationally recognized expert in Construction Economics and Research
  - General Services Administration (GSA)
  - National Institute of Building Sciences (NIBS)
  - American Institute of Architects (AIA)
  - US Green Building Council (USGBC)
  - University of California

# Managing Escalation

- Escalation Drivers
  - What makes up the cost of a project
  - Why do costs change, and how do we forecast?
- Current Markets and Prospects
  - What's happening now – and where are we going?
- Strategic Escalation Management
  - What can I do about it?

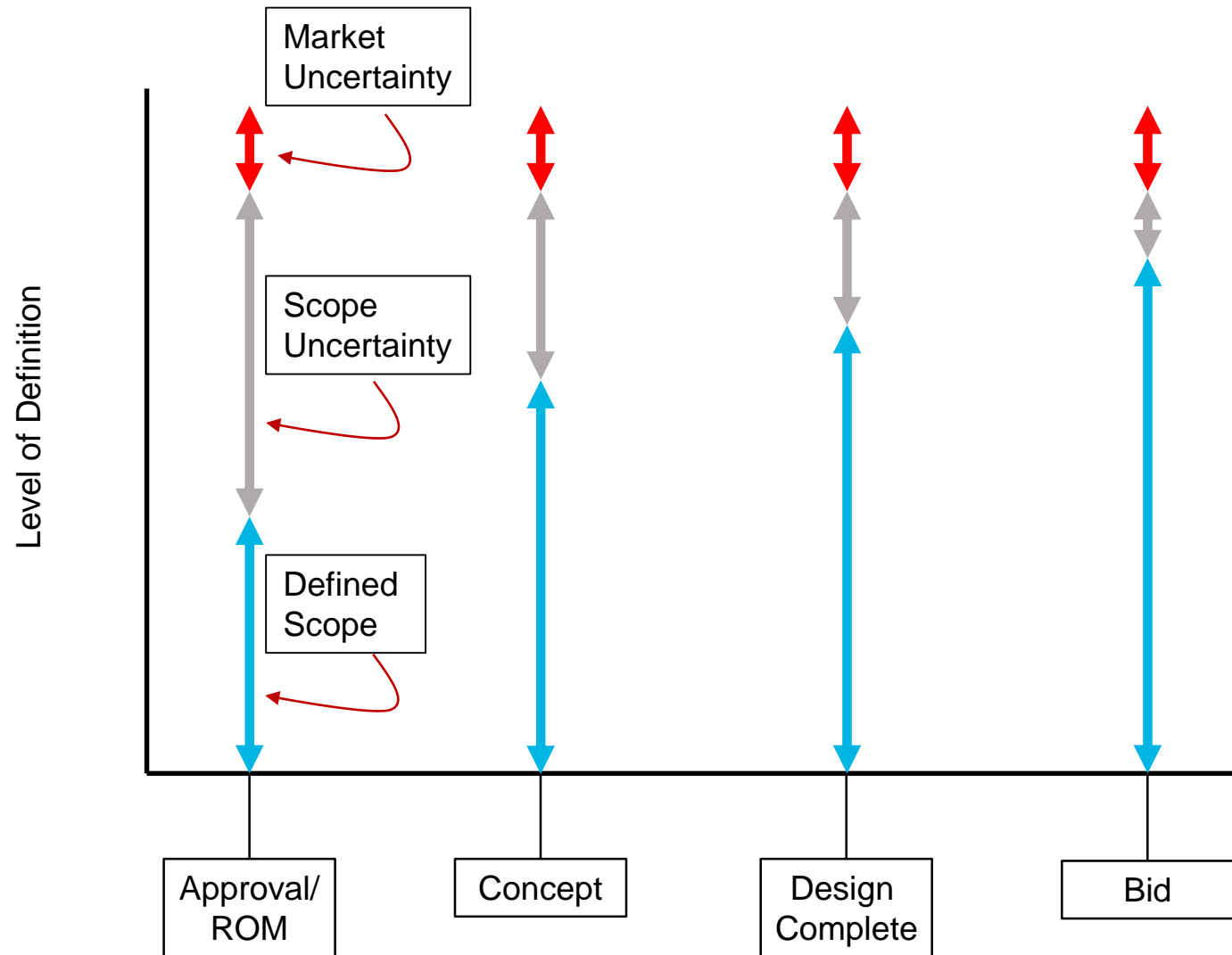
Why?

To keep every dollar working as hard as it can  
and to deliver as much as we can

# Escalation Drivers

Why do costs change, and how do we forecast?

# Project Definition over Time



# Cost Push Inflation



- Labor
  - Direct wages
  - Benefit costs
  - Productivity Changes/Regulation
- Materials
  - Material Costs
  - Transportation
  - Regulation
- Code and Practice
  - Changes in Code
  - Changes in Practice
- Financial
  - Taxes
  - Interest Rates



# Cost Push Inflation



- “Normal” Inflation
  - Prevails in “normal” markets
- Usually driven by demand elsewhere
  - (Think steel in 2004)
- Easy to Measure
  - ENR/Means/Marshall & Swift
- Usually relatively stable
- Usually relatively predictable
- Lots of charts showing “trends”

*Generally runs at 2 – 4% per annum, plus 1% per annum for Code & Practice*

# Demand Pull Inflation

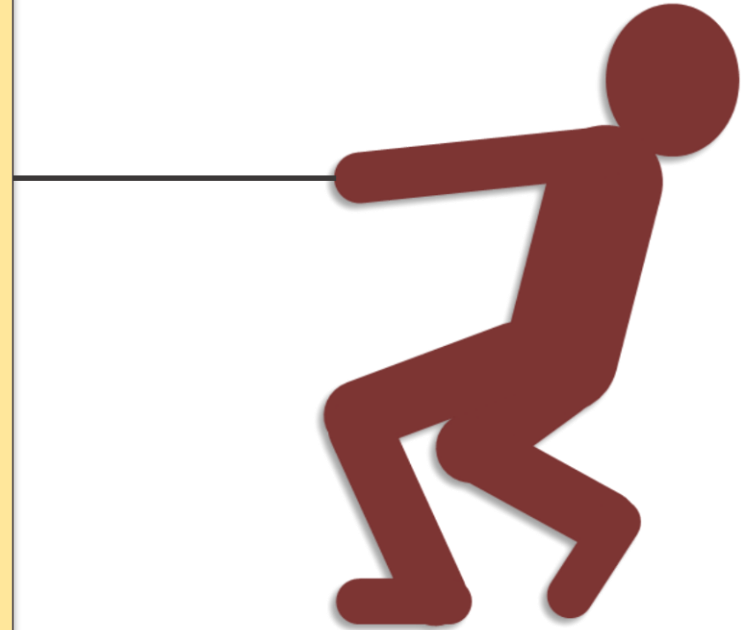
- Supply/Demand Balance
  - Total Construction Demand
  - School Specific Capacity
  - Capacity of Individual Trades
- Market Elasticity
  - Size of market
  - Ability to expand/pull in capacity
- Owner Profile
  - Ease of doing business
  - Payment record





# Demand Pull Inflation

- “Excess” Inflation
  - Prevails in “stressed” markets
- Driven by demand locally
  - (Think CA in 2004 - 2007)
- Very hard to measure
  - No systematic indexes
- Very volatile/non-linear
- Very un-predictable
- Employment activity a useful proxy



*Can run at over 10% per annum: can spike erratically*

# Risk Inflation

- Total Risk Assigned
  - How much risk is transferred
  - What is risk profile (long tail?)
- Level of Control
  - How manageable is risk
  - Is management and impact aligned
- Asymmetry of Risk
  - Are the upside and downsides balanced



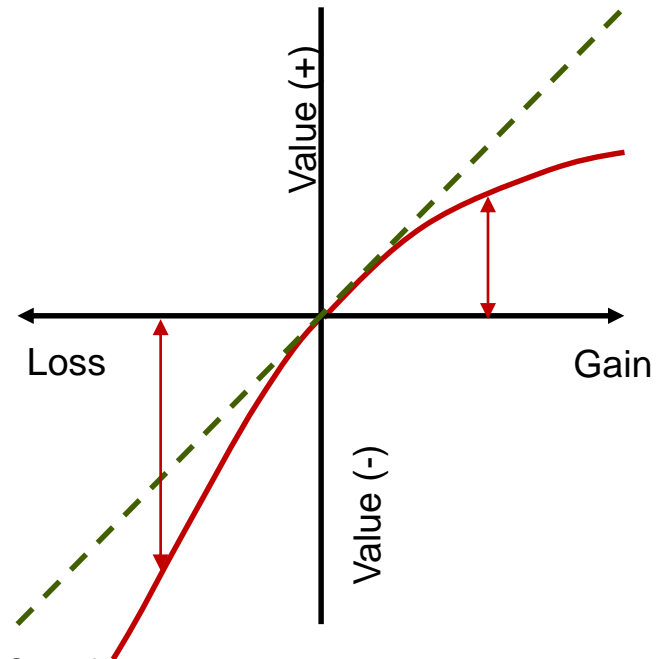
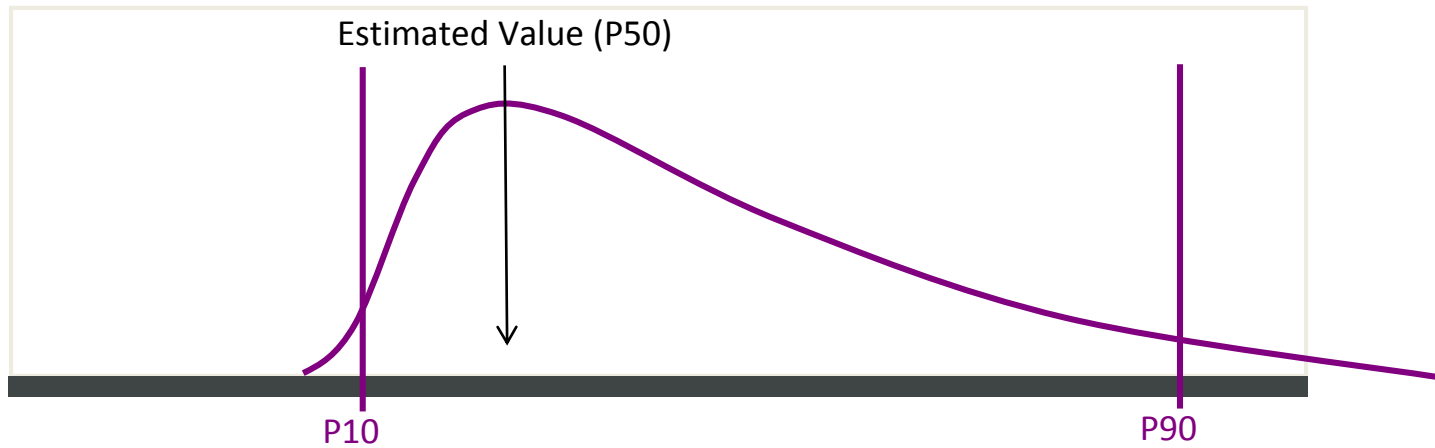
# Risk Inflation

- “Excess” Inflation
  - Prevails in “risky” markets
- Amplified by uncertainty and poor risk allocation
  - (Think tariffs)
- Very hard to measure
  - No systematic indexes
- Very volatile/non-linear

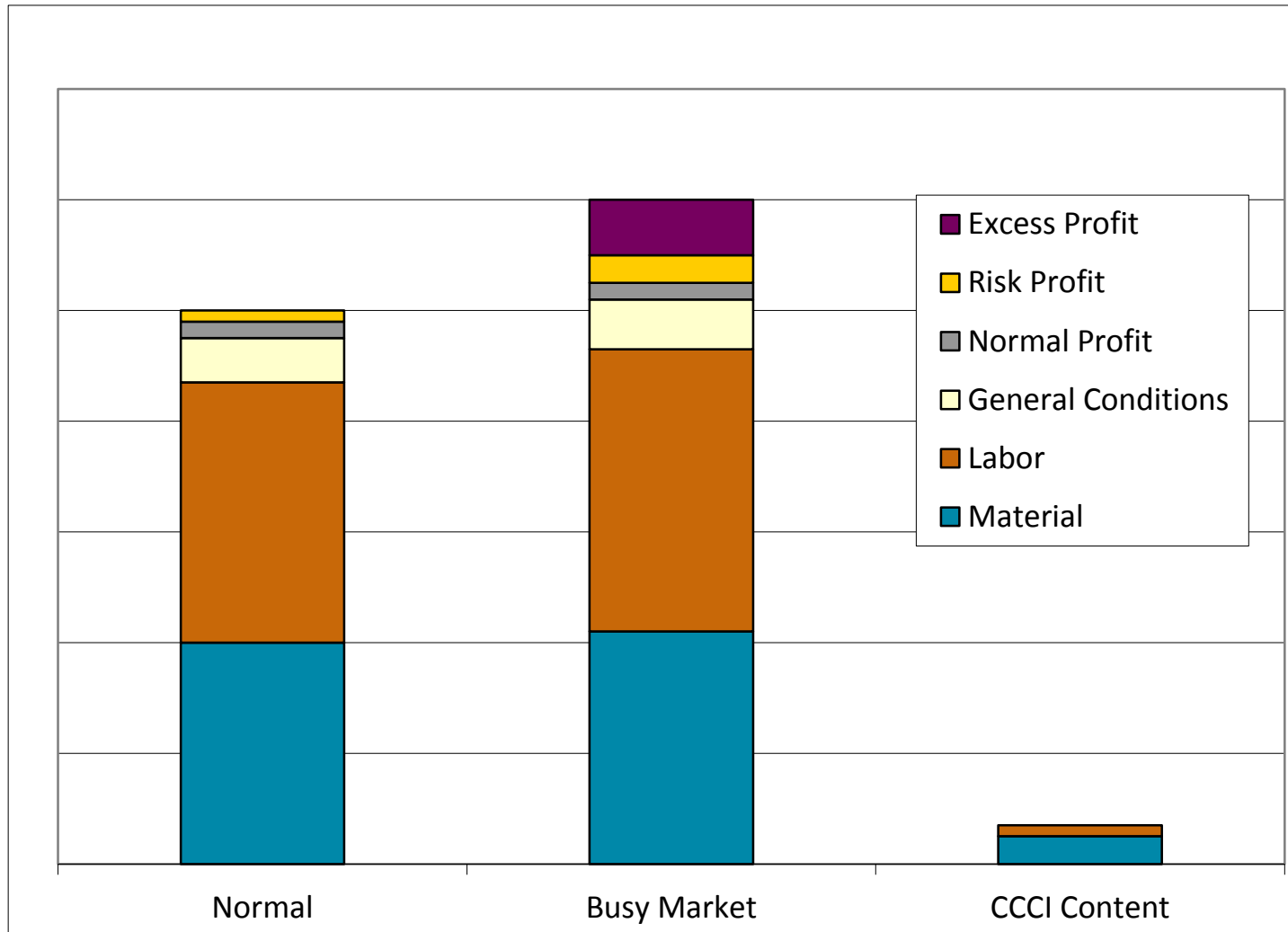


*Non-linear: can spike erratically*

# Risk Inflation

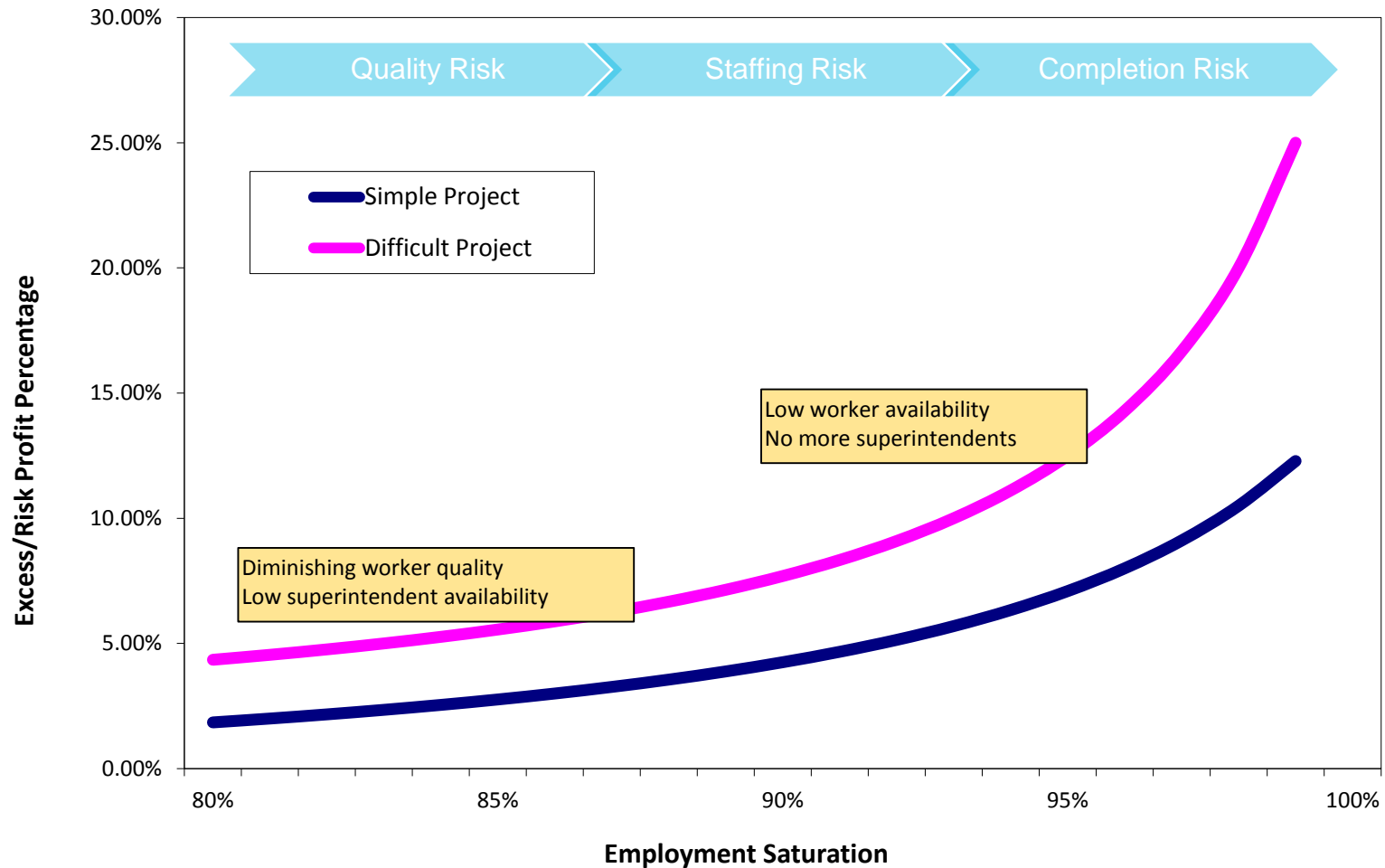


# Demand Pull/Risk Inflation



\* CCCI – California Construction Cost Index, used by State Department of Finance

# Demand Pull/Risk Inflation

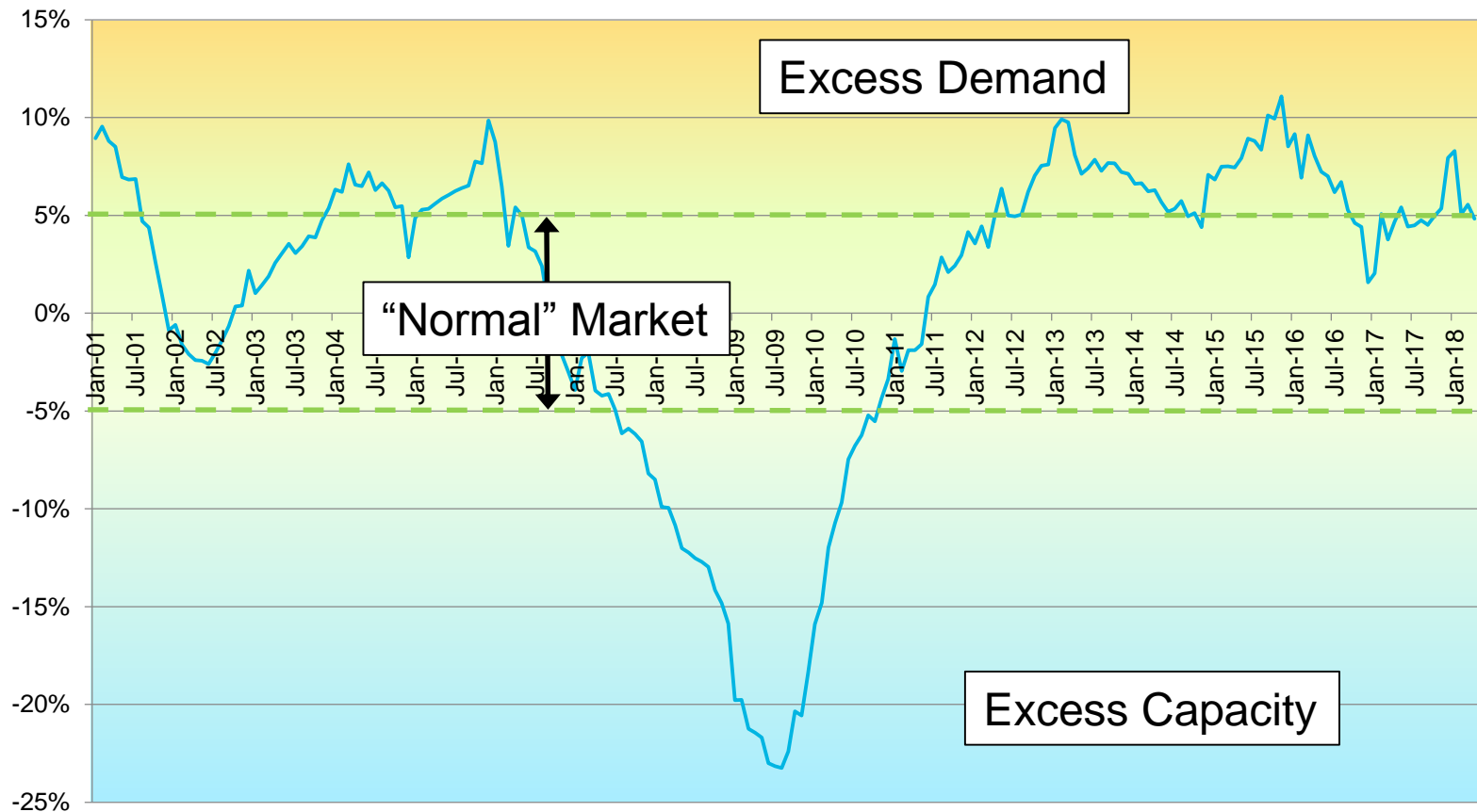


# California Markets

What's happening now – and where are we going?



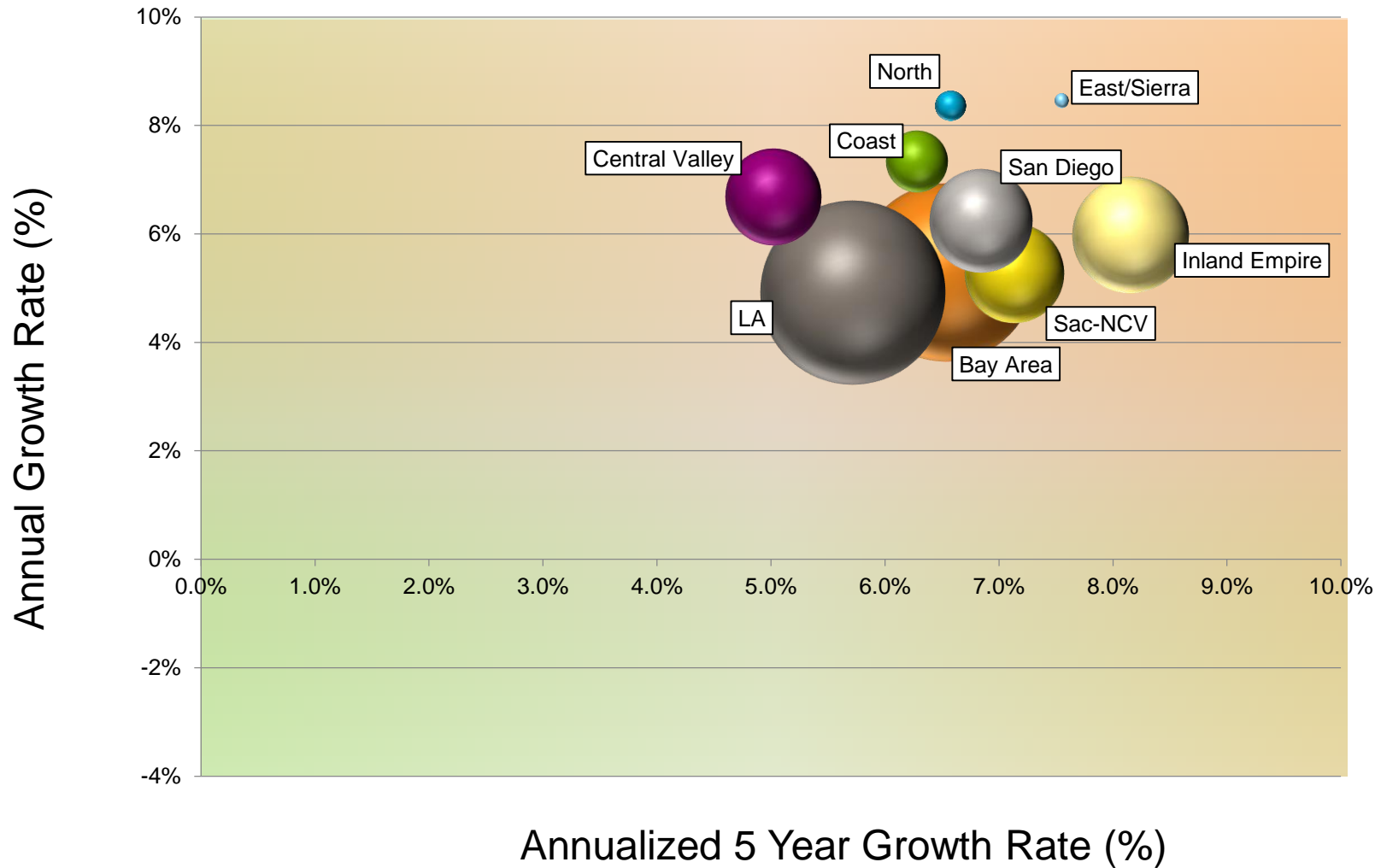
# California Markets



## Construction Employment – Rate of Change

Managing Escalation: September 20, 2018

# California Markets



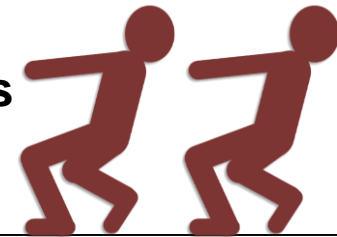
# California Markets

## Los Angeles

*Los Angeles, Orange, Ventura*

- Strong short term growth after lengthy strong growth
- Elasticity
  - Very large market
  - High labor rates
  - Can pull labor from other markets, but limited capacity elsewhere
- Very high level of Demand Pull and Risk Inflation
- Escalation high across the market
- Poor bid coverage / Occasional bid spikes

**Escalation: 6% to 9%, with spikes**



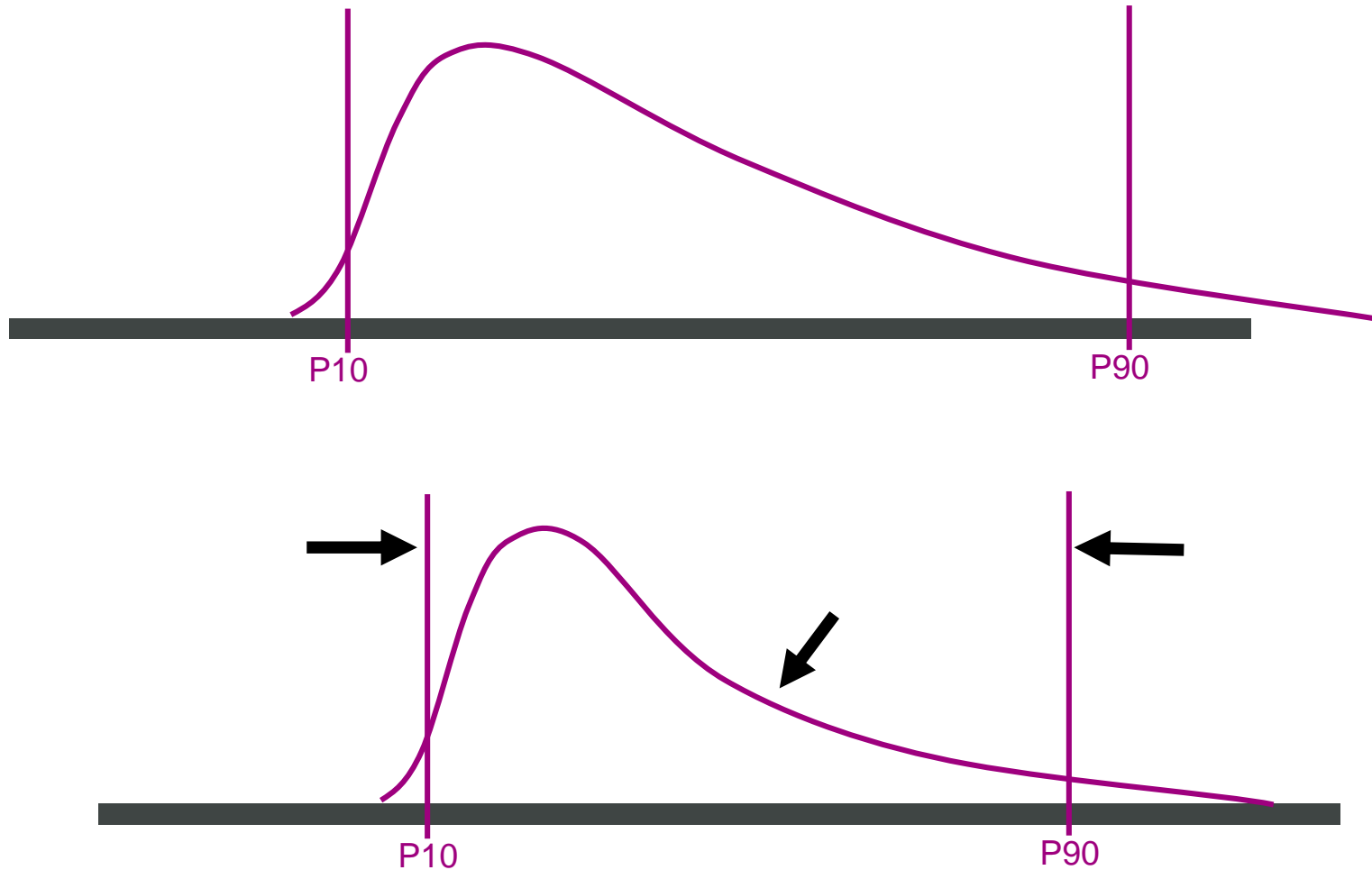
# California Markets

North	3 – 5%
<i>Colusa, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity</i>	
Sacramento/Northern Central Valley	4 – 6%
<i>Amador, El Dorado, Nevada, Placer, Sacramento, Sutter, Yolo, Yuba</i>	
Bay Area	6 – 9%
<i>Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma</i>	
Central Coast	5 – 7%
<i>Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz</i>	
San Joaquin Valley	5 – 7%
<i>Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare</i>	
Sierra/East	3 – 5%
<i>Alpine, Calaveras, Inyo, Mariposa, Mono, Tuolumne</i>	
Los Angeles	6 – 9%
<i>Los Angeles, Orange, Ventura</i>	
Inland Empire	6 – 9%
<i>Imperial, Riverside, San Bernardino</i>	
San Diego	4 – 6%
<i>San Diego</i>	

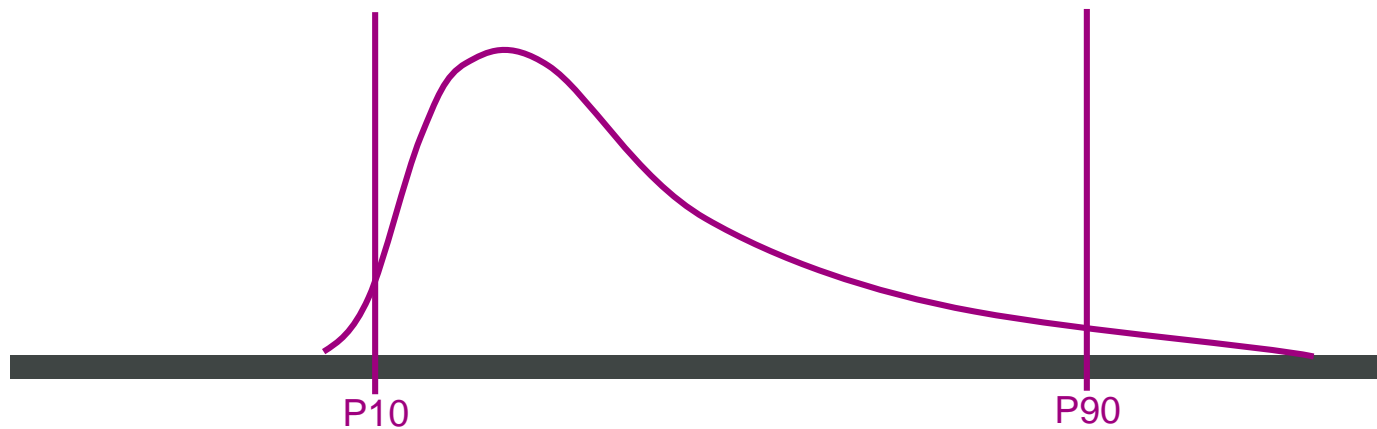
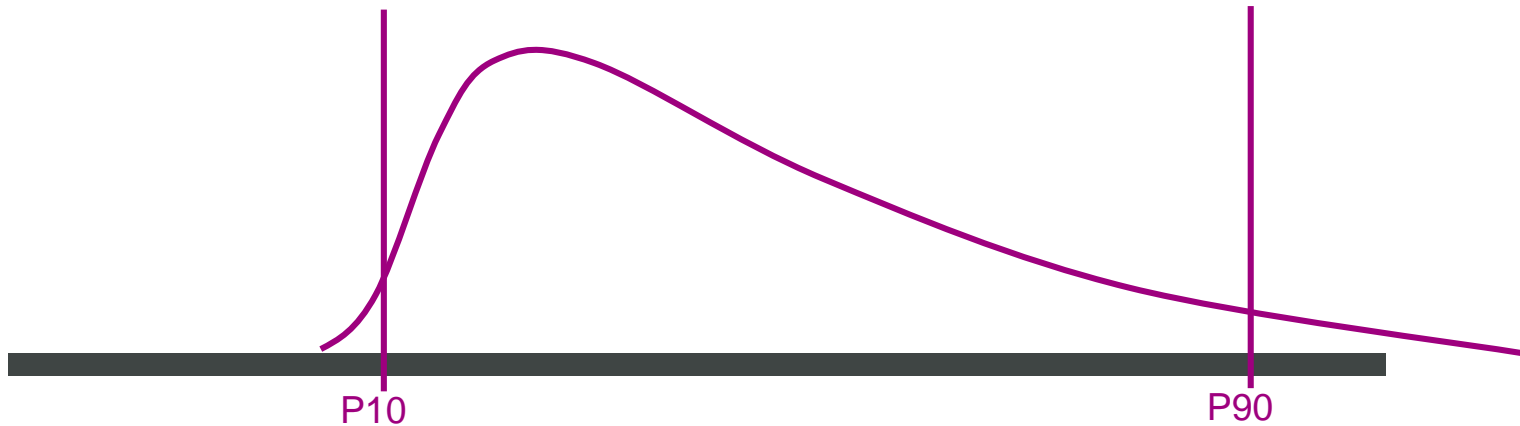
# Strategic Escalation Management

What can I do about it?

# Strategic Inflation Management - Reduce

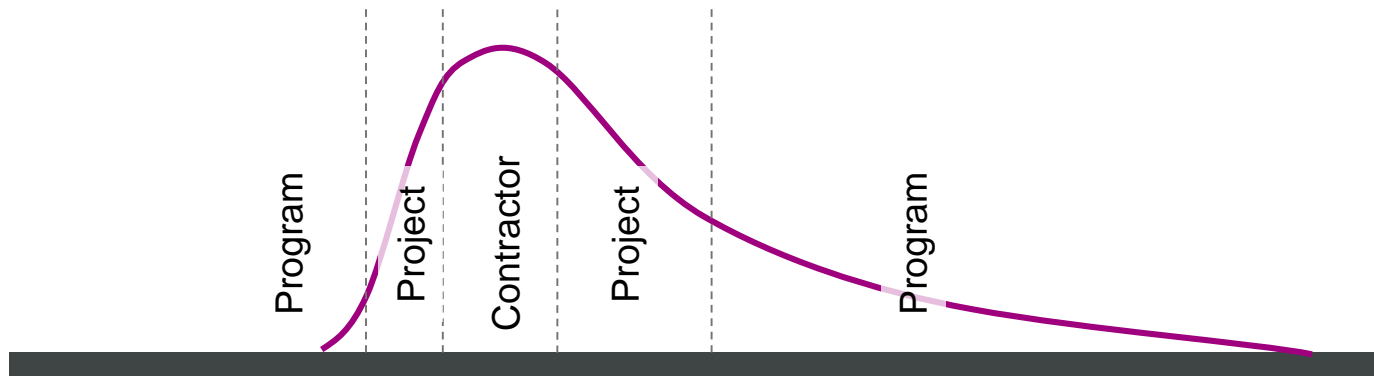


# Strategic Inflation Management - Allocate





# Strategic Inflation Management - Allocate



# Strategic Inflation Management

1. Document and characterize uncertainty/risk
  - “Lessons Learned”
  - Risk workshop
  - Risk and contingency register
2. Reduce uncertainty/risk
  - Keep the project simple, clean, winnable
  - Have a clear scope: minimize uncertainty
  - Keep the proposal simple, limit bid alternates
  - Be a good owner: prompt pay, good management
  - Plan Ahead: Time bids, outreach and marketing
3. Allocate (Retain) Risk
  - Allocate risk to the entity best suited to manage it (and survive it)
  - Retain irreducible risk
  - Establish appropriate contingencies/reserves
  - Establish good/fair contract terms

# Questions