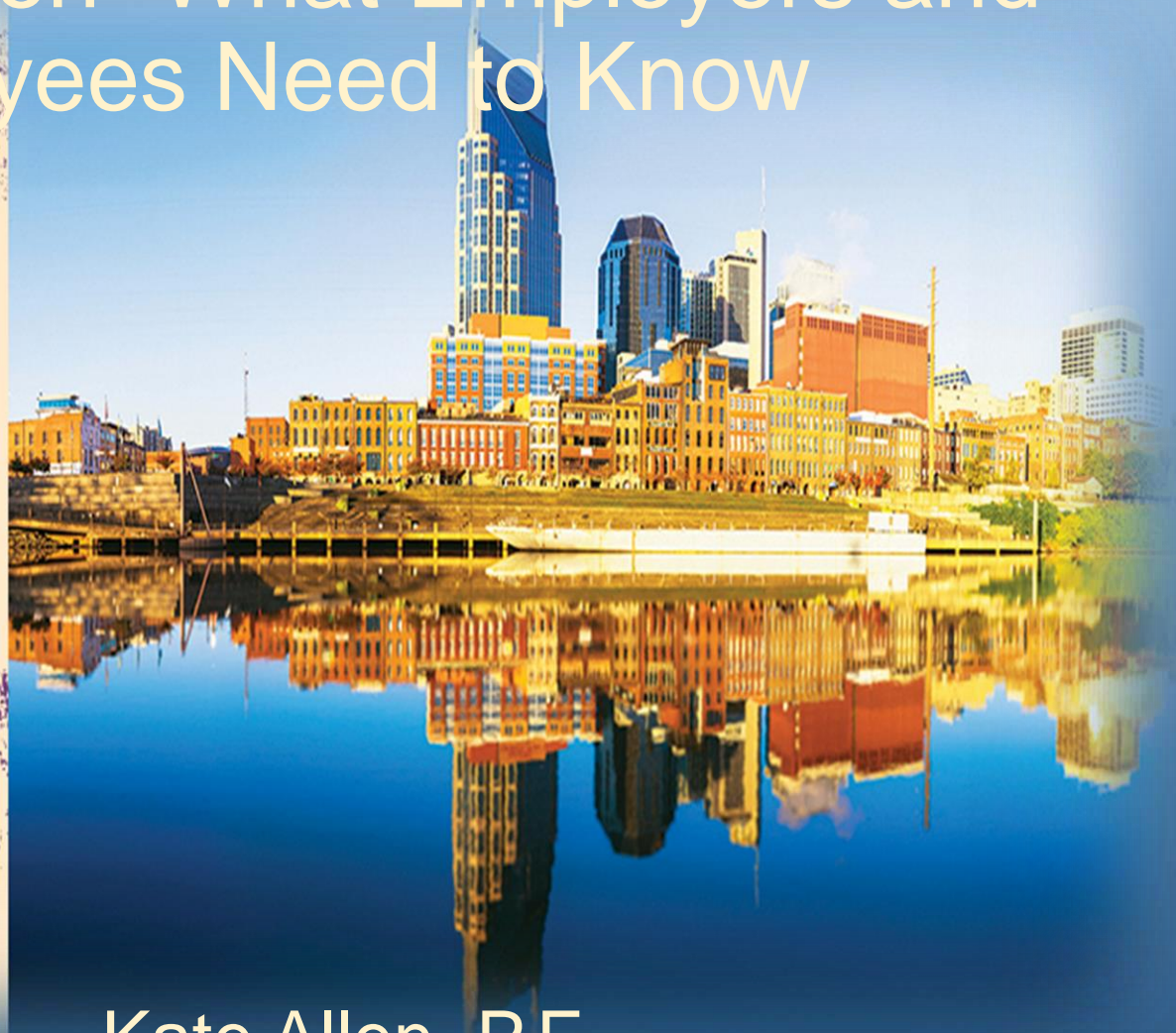


Business Breakout Compensation- What Employers and Employees Need to Know



Kate Allen, P.E.

Friday, April 15 – 1:45 -3:00 p.m.

Kate Allen, P.E.



- PSMJ's Director of A/E/C Surveys
- Affiliated with PSMJ since 2005
- Education:
 - B.A. Psychology
 - B.S. Mechanical Engineering
 - MBA
- Background:
 - Engineer/Associate with MKK Engineers
 - Co-Founder of Caveo Consulting Engineers
 - Constructive Technologies Group



Economic Trends

Compensation Trends

Bringing It All Into Focus - Revenue Forecasting

Summary

Discussion

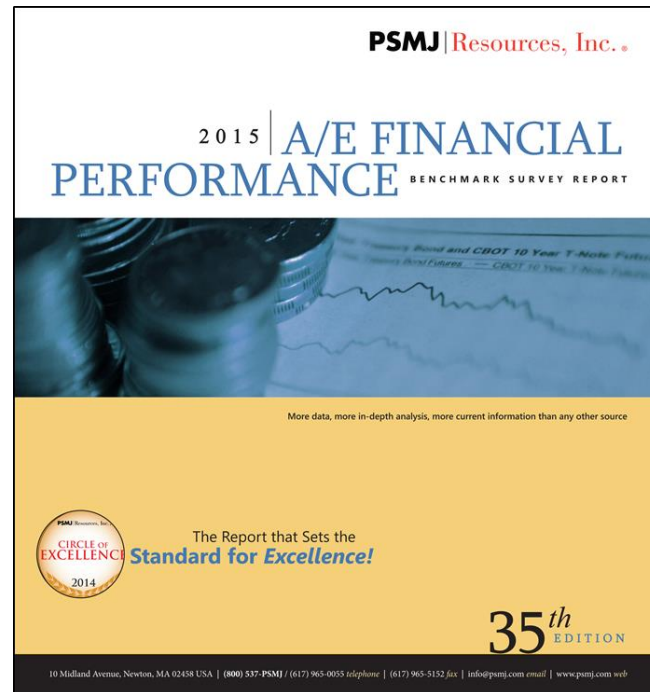
Are you making good data-driven decisions?



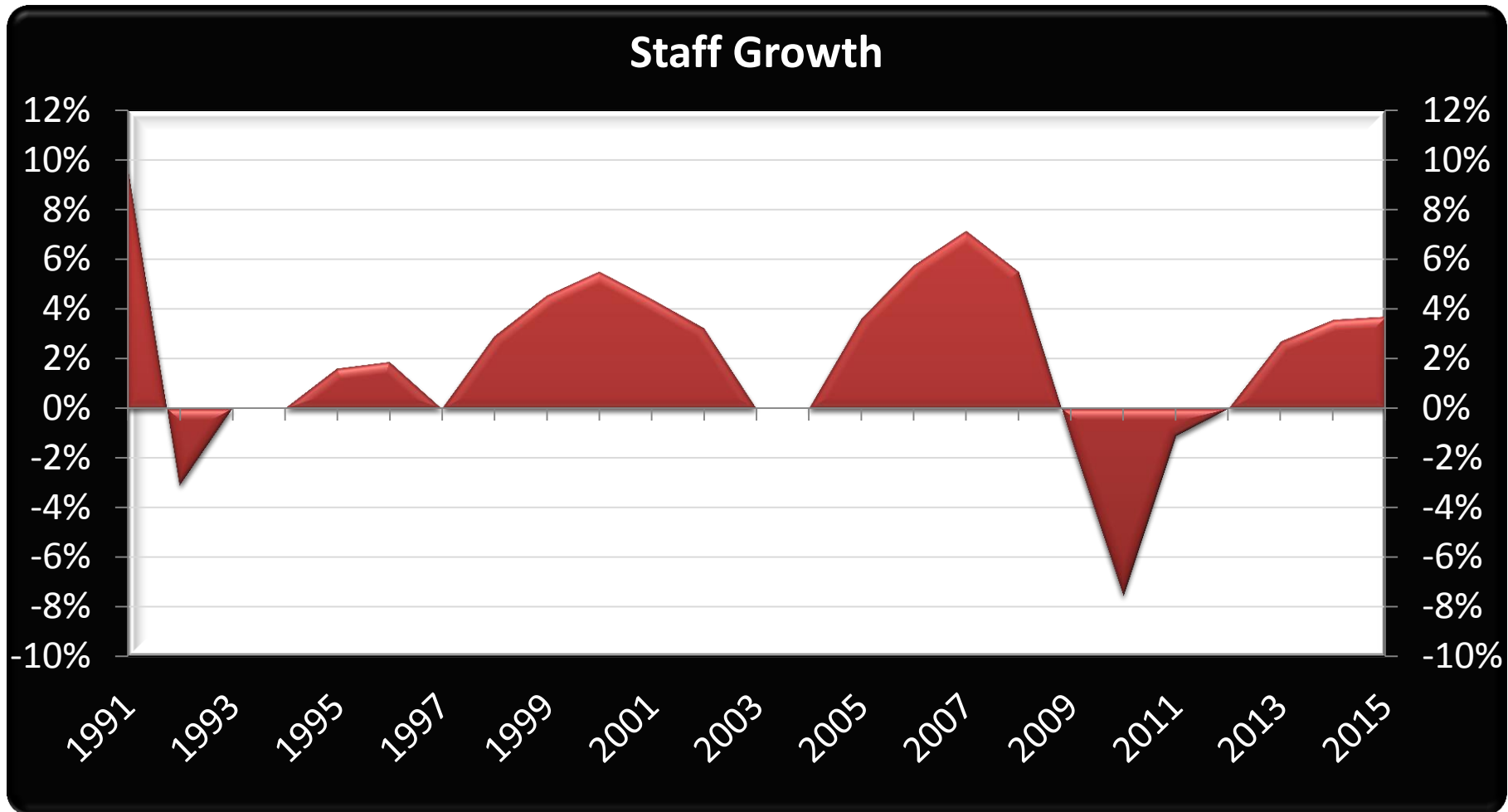
Economic Trends



This Data Comes From...

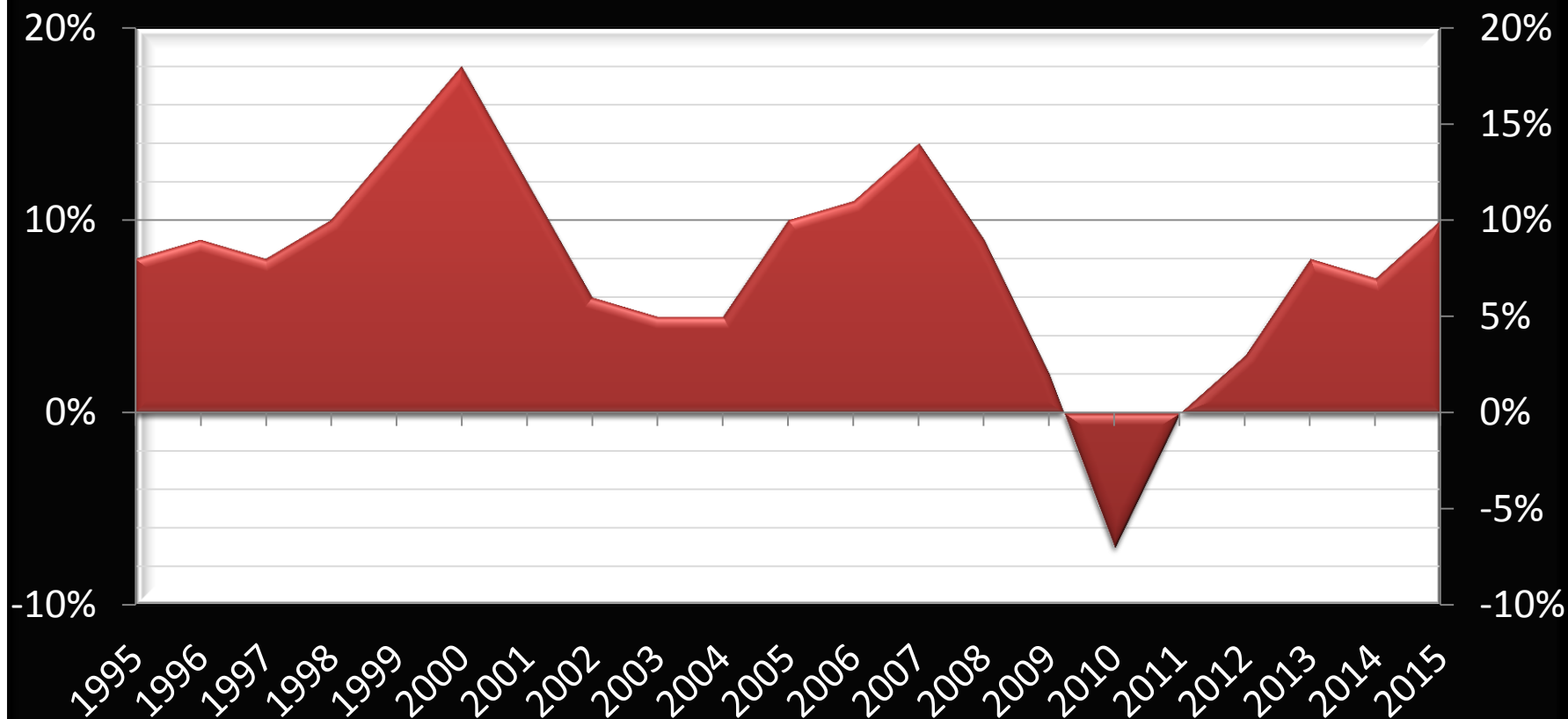


U.S. and Canadian Firms Are Hiring



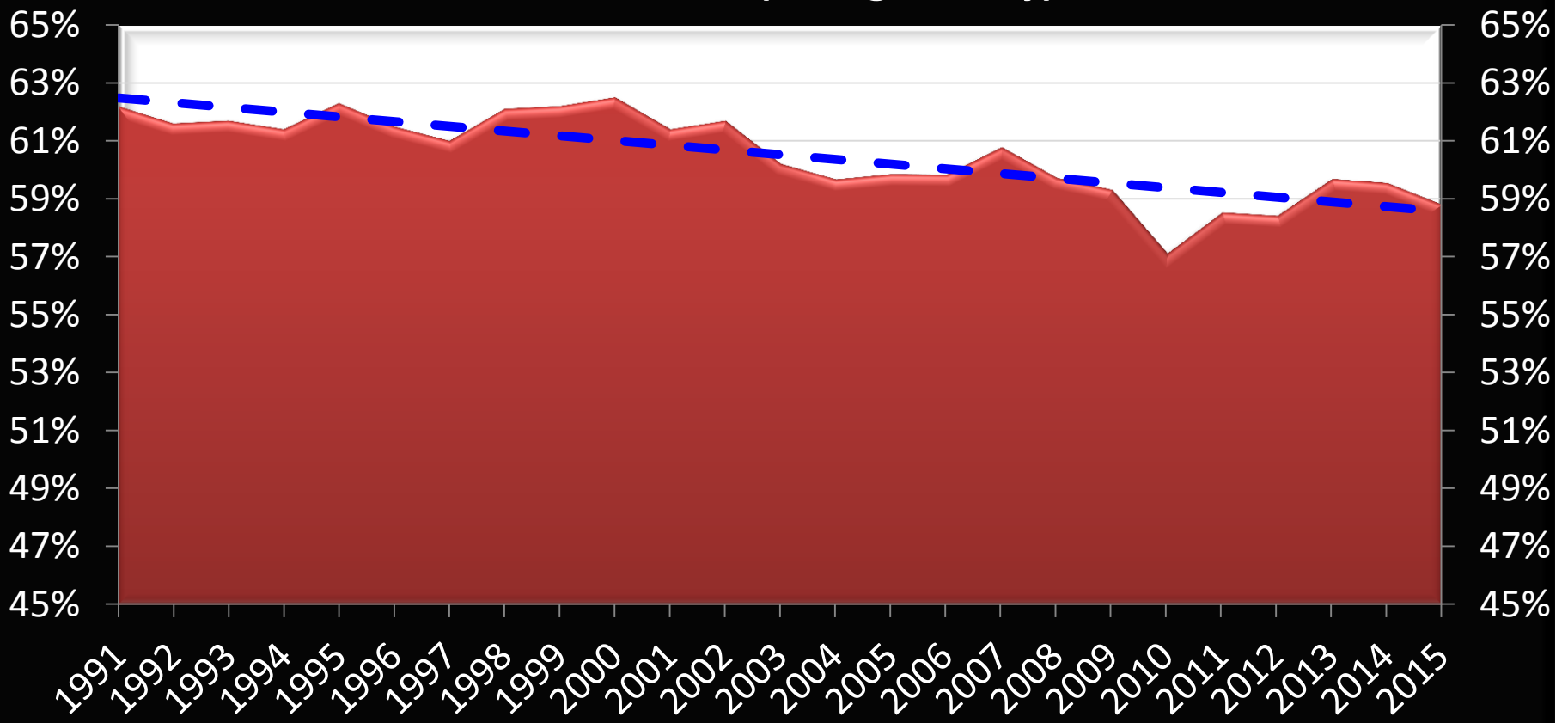
Revenue Continues to Grow

Gross Revenue Increases

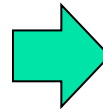


The Long-Term Decline in Utilization Has Resumed

Labor Utilization (Chargeability)



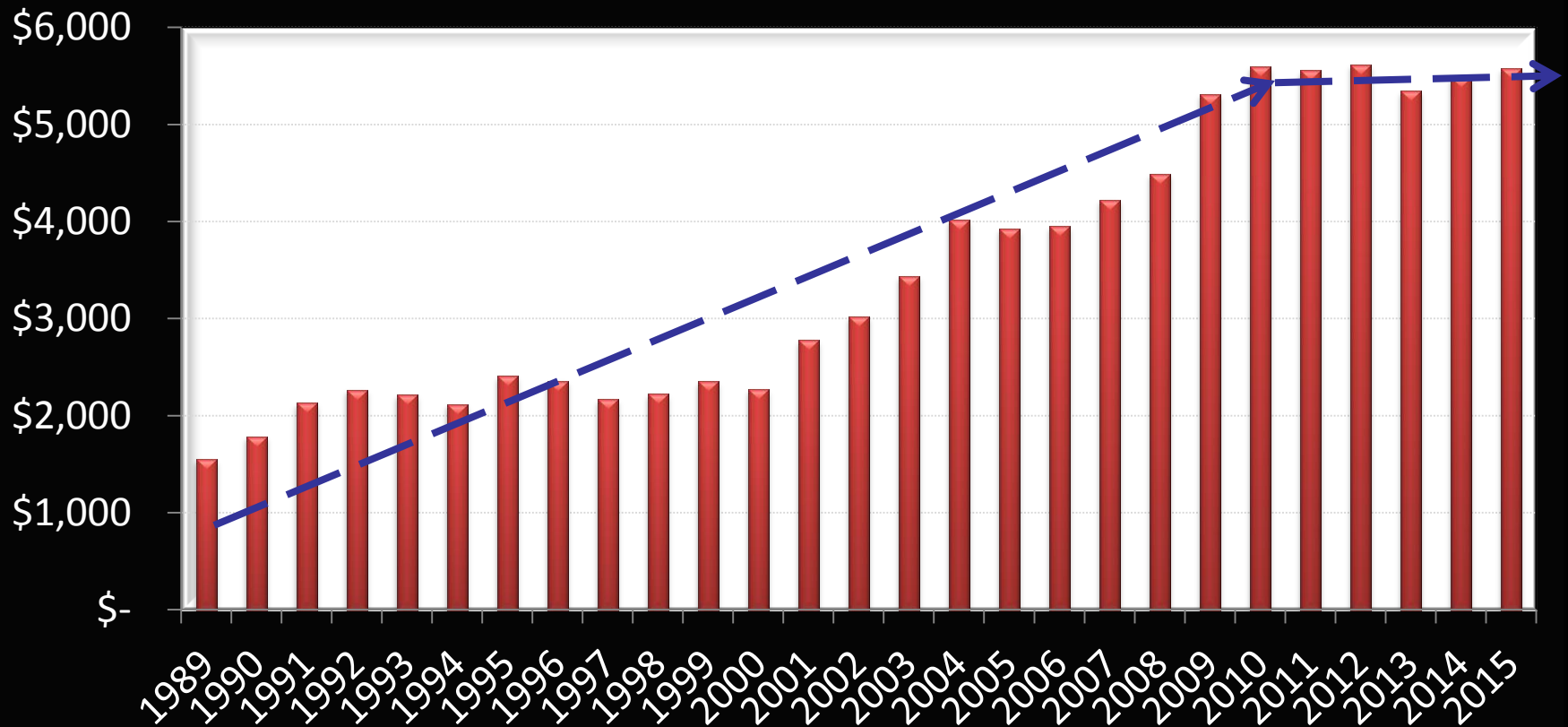
This Has Happened Because...



This

Group Benefit Insurance Costs Have Levelled Off

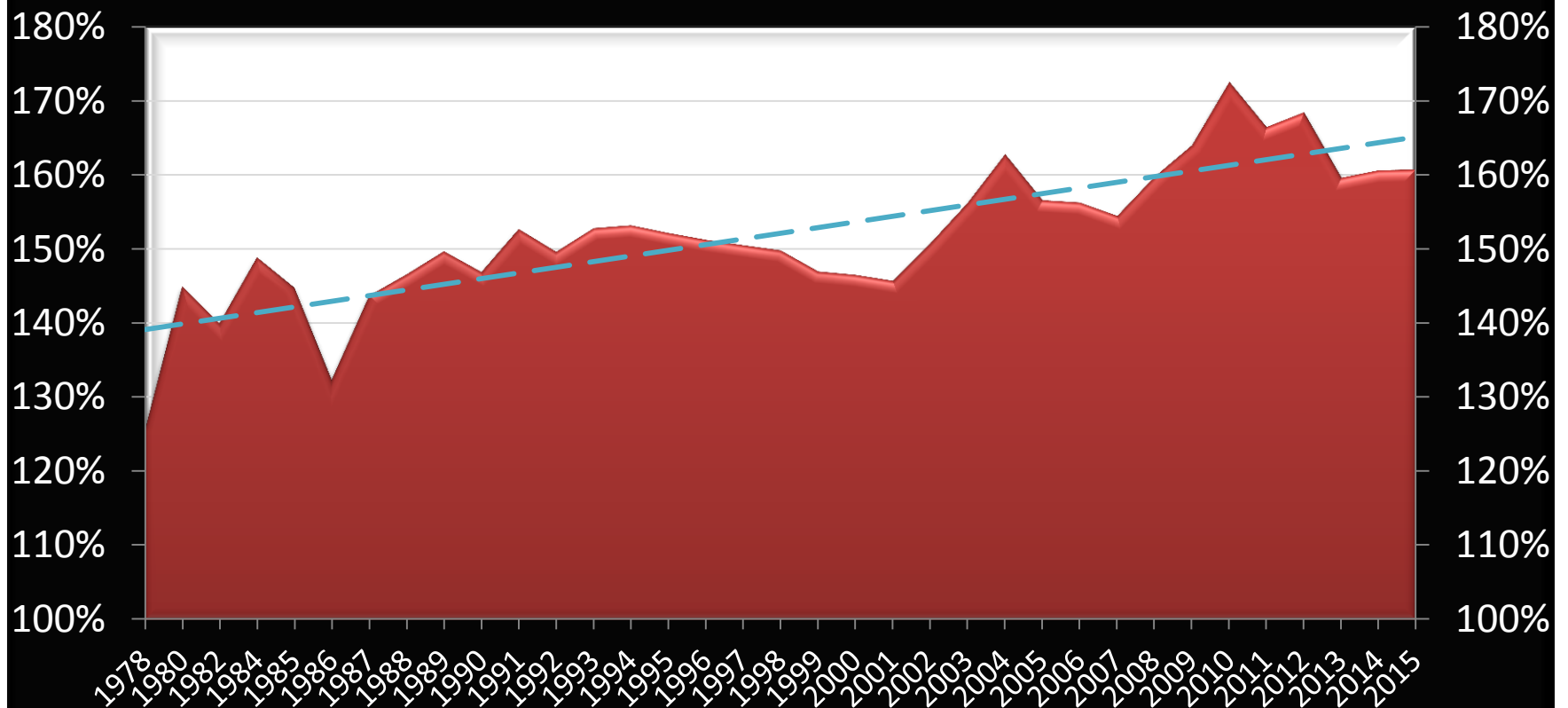
Group Insurance Costs per Staff



Source: PSMJ's 2015 Bonus & Benefits Survey Report

Overhead Rates Are Creeping Back Up

Overhead Rate

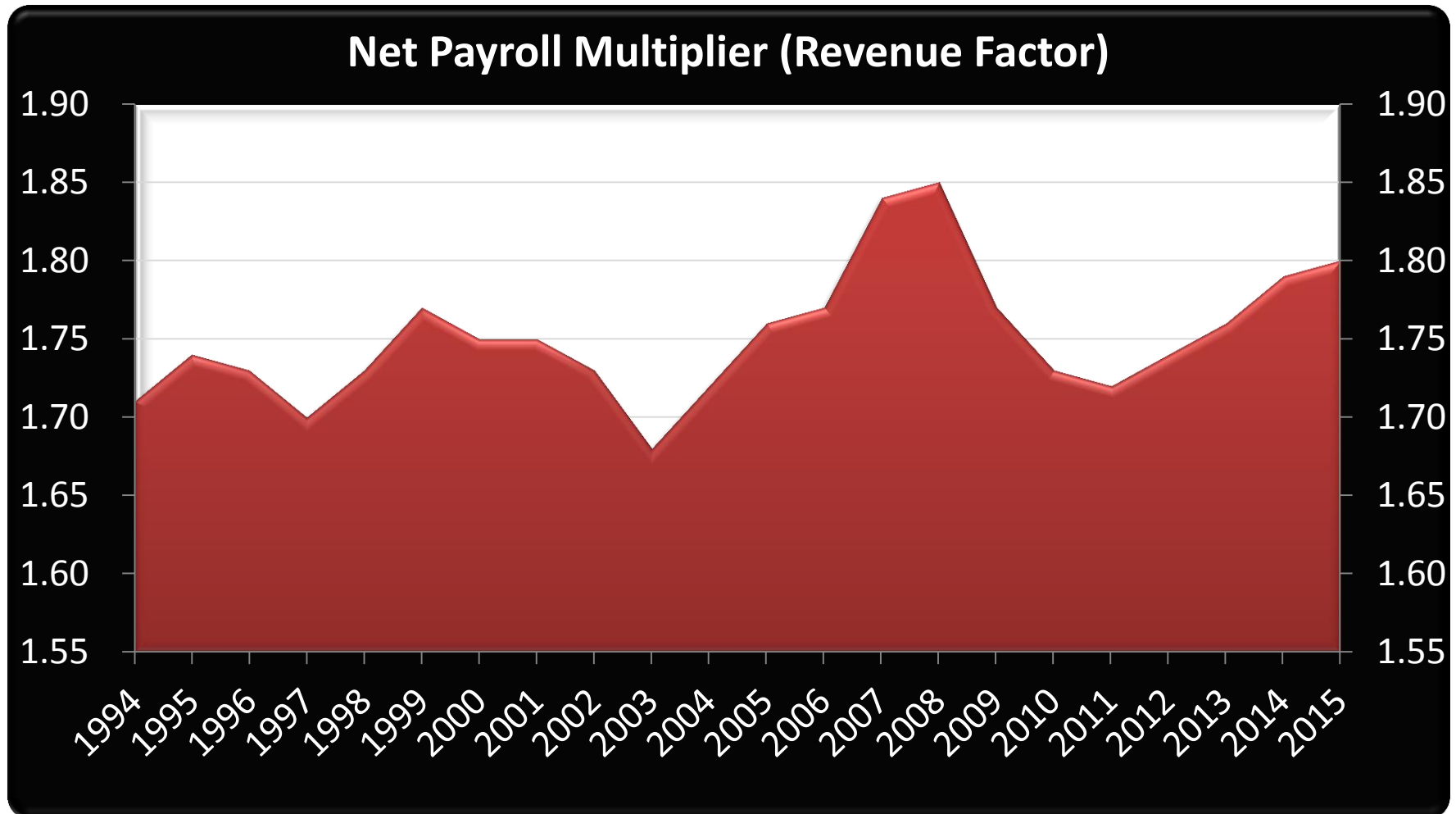


But We Are Getting Better at Managing Projects

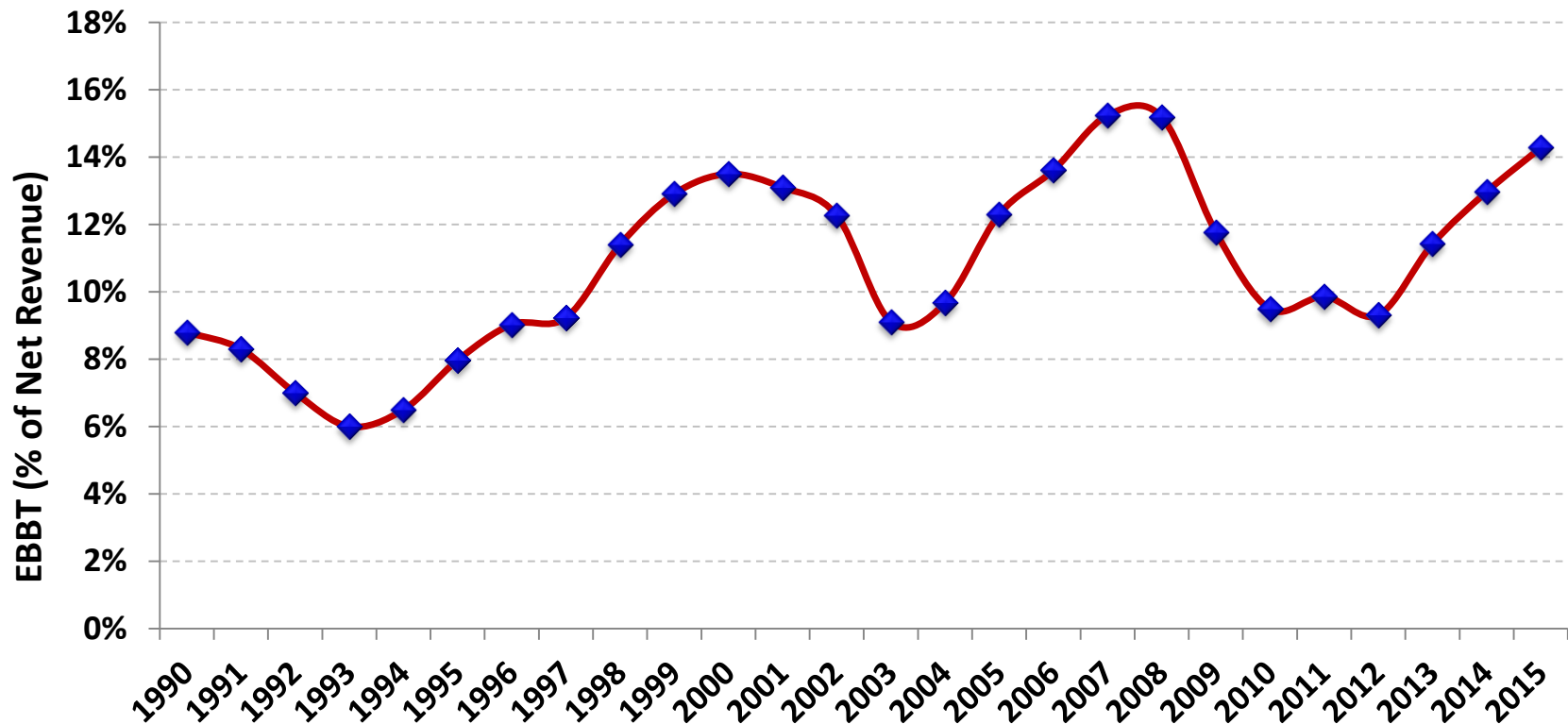
Target to Achieved Multiplier



Net Payroll Multiplier Is Improving

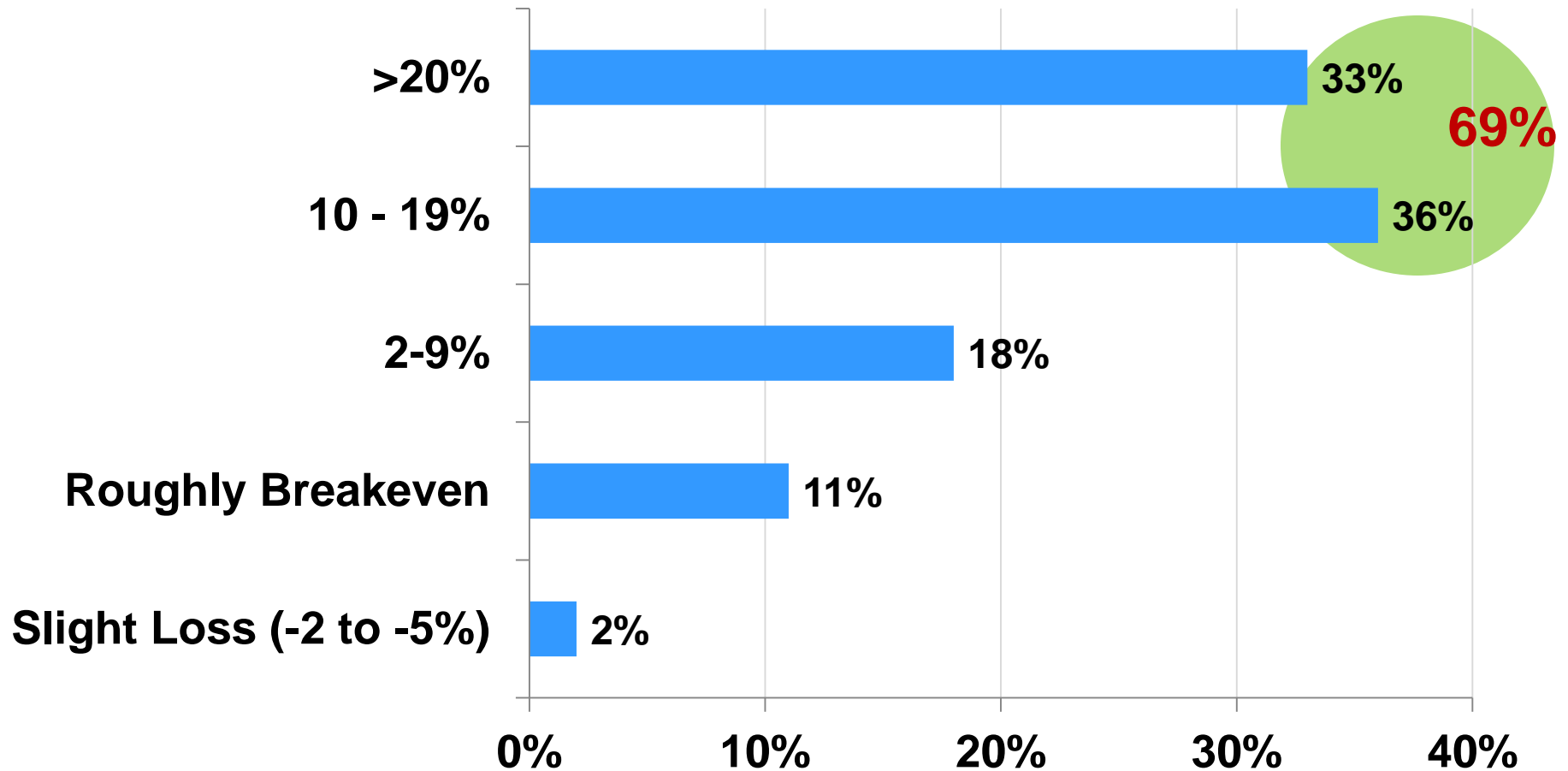


Operating Profits as a Percentage of Net Revenues

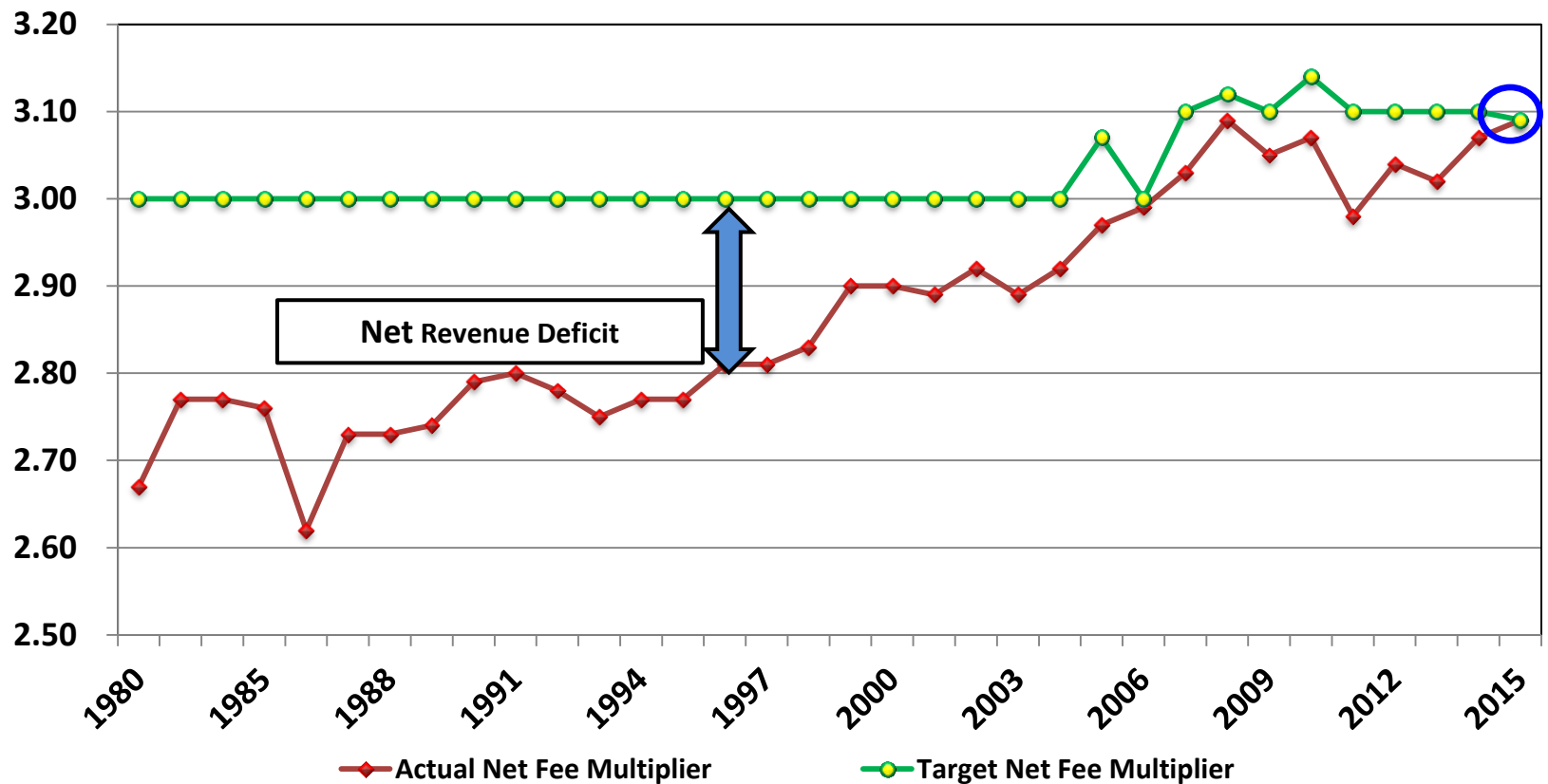


Source: PSMJ's 2015 Financial Performance Benchmark Survey Report

2015 Profit Margin – FCSI Survey



Target versus Achieved Direct Labor Multiplier

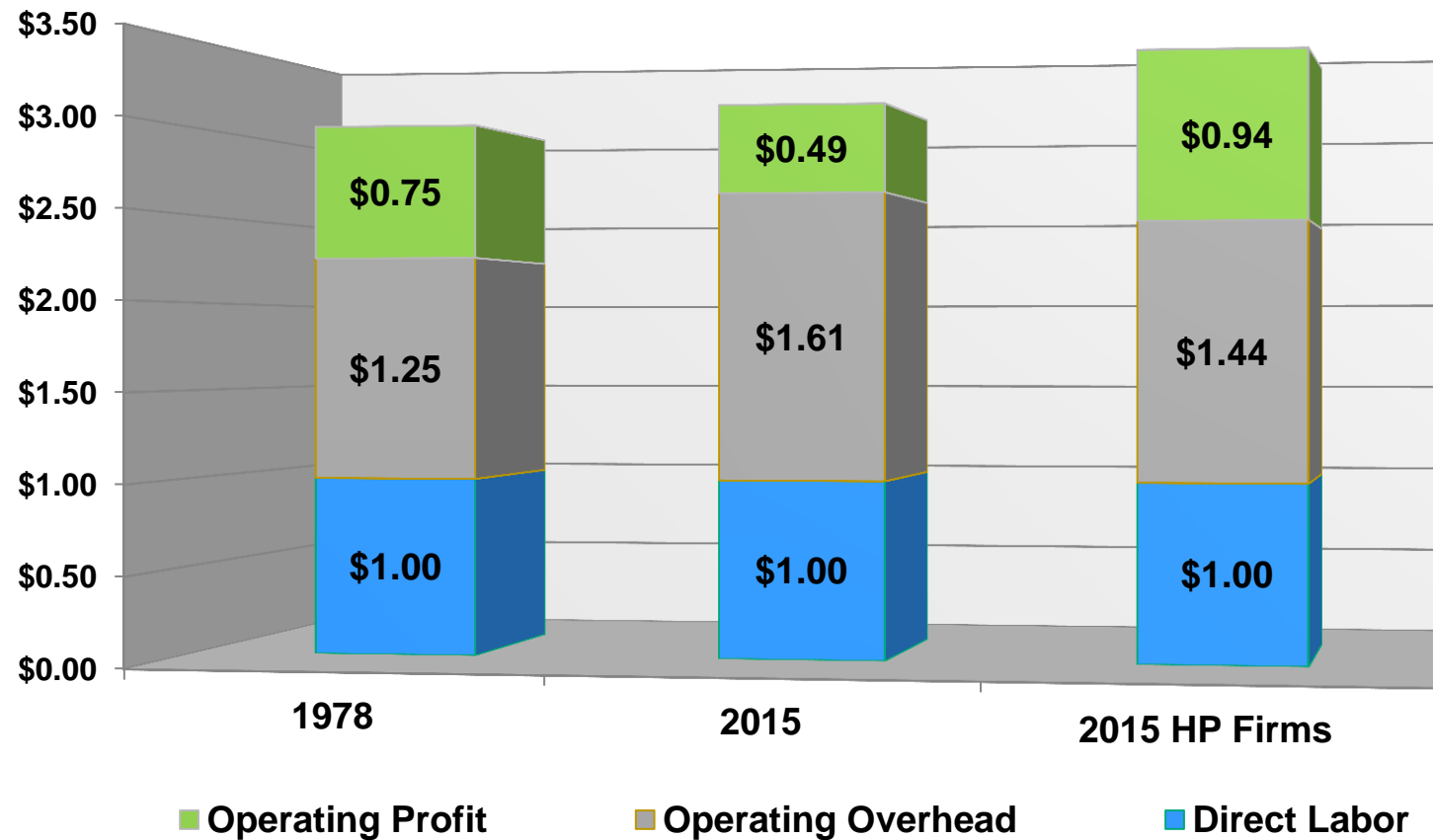


Source: PSMJ's 2015 Financial Performance Benchmark Survey Report

PSMJ's 2015 Circle of Excellence

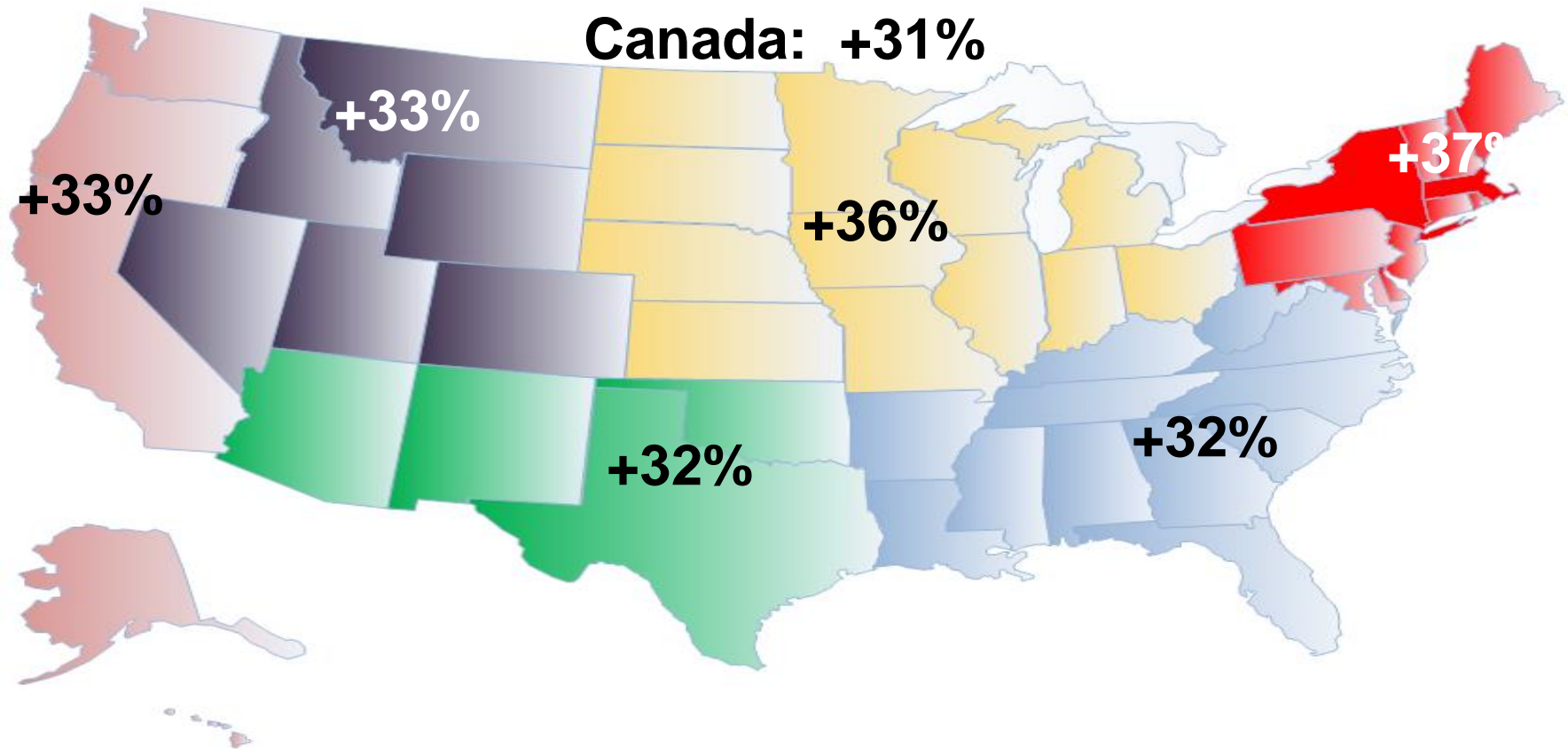
2015 Circle of Excellence Firms (66 firms) in BOLD & 2015 Overall Survey Results (328 firms)					
BENCHMARK	10 th	25 th	50 th	75 th	90 th
Net Direct Labor Multiplier (Achieved)	2.85	3.11	3.38	3.69	4.06
	2.59	2.80	3.09	3.42	3.78
Operating Profits (EBBT) (% of Net Revenues)	20.7%	23.4%	28.4%	33.4%	36.9%
	3.8%	8.2%	14.3%	23.0%	29.8%
Operating Profits (EBBT) per Total Staff	\$27,367	\$34,499	\$42,669	\$53,073	\$64,569
	\$4,194	\$9,998	\$19,212	\$31,276	\$47,313
Staff Size Change	0.0%	4.8%	11.8%	20.3%	28.1%
	-6.6%	-1.2%	3.7%	11.1%	23.0%
Return on Overhead	12.9%	27.4%	43.2%	69.6%	91.6%
	-0.4%	3.4%	10.9%	27.0%	51.9%
Labor Utilization Rate (Payroll Dollars)	55.4%	58.5%	63.6%	68.5%	72.9%
	49.3%	54.9%	58.8%	64.6%	70.0%
Operating Overhead Rate Before Bonus/Distribution	101.0%	120.3%	144.6%	157.9%	182.2%
	112.8%	136.7%	160.7%	186.3%	212.3%
A/R Collections (Days)	36	47	58	77	111
	42	52	67	83	106
Net Revenues Backlog (% of Annual Net Revenues)	28.8%	53.1%	79.6%	104.4%	134.7%
	26.7%	47.5%	74.5%	101.2%	141.7%
Return on Working Capital Assets	19.2%	35.8%	57.8%	93.2%	122.6%
	-0.7%	5.6%	17.9%	41.5%	72.4%
Gross Revenues Change (Growth Rate)	3.3%	11.1%	18.5%	31.0%	70.3%
	-8.9%	0.0%	10.0%	18.0%	40.0%
Staff Turnover Rate	4.2%	6.2%	10.2%	13.8%	17.1%
	3.8%	7.8%	13.4%	19.7%	28.7%
Net Revenues per Total Staff	\$123,380	\$138,619	\$156,003	\$168,905	\$182,560
	\$105,173	\$118,240	\$134,839	\$154,653	\$171,356

Margin Comparison



All Regions Are Showing Solid Proposal Activity

Proposal Plus/Minus Index (Q4 2015)



Our Latest Prioritization

Markets	Short-Term Prospects (-2 to +2)	Long-Term Prospects (-2 to +2)	Relative Profitability (-2 to +2)	Total Points (-6 to +6)
Housing	+2.0	+2.0	+0.5	+4.5
Commercial	+1.5	+1.5	+1.0	+4.0
Water/Wastewater	+1.5	+1.0	-	+2.5
Govt. Buildings	+0.5	+1.0	+1.0	+2.5
Environmental	+1.0	+1.0	-	+2.0
Education	+1.5	+1.5	-	+2.0
Industrial	-0.5	+1.0	+1.5	+2.0
Transportation	+1.0	+1.5	-1.0	+1.5
Health Care	+1.5	+1.5	-1.5	+1.5
Energy/Utilities	+1.0	-1.0	-0.5	-0.5

Things Sure Have Changed Since 2012!

Markets	Short-Term Prospects	Long-Term Prospects	Relative Profitability	Total Points
	(-2 to +2)	(-2 to +2)	(-2 to +2)	(-6 to +6)
Energy/Utilities	+2.0	+2.0	+2.0	+6.0
Industrial	+1.0	+2.0	+1.5	+4.5
Housing	+1.0	+2.0	+0.5	+3.5
Water/Wastewater	+1.0	+1.0	+1.0	+3.0
Environmental	+1.0	+1.0	+1.0	+3.0
Health Care	+1.0	+1.0	0.0	+2.0
Commercial	+1.0	+1.5	-1.0	+1.5
Transportation	+1.0	+1.0	-1.0	+1.0
Education	0.0	-1.0	0.0	-1.0
Govt. Buildings	-2.0	-2.0	+1.0	-3.0

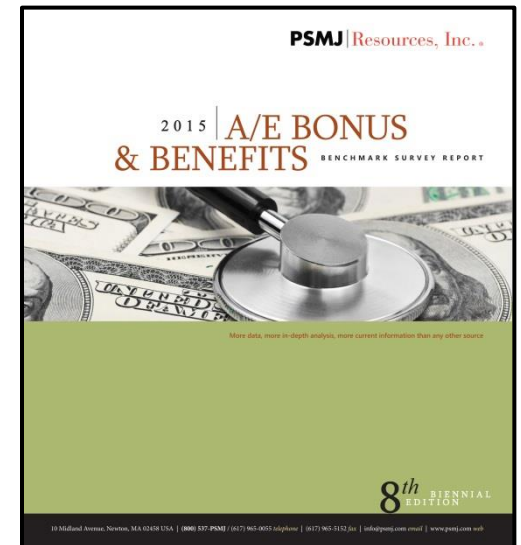
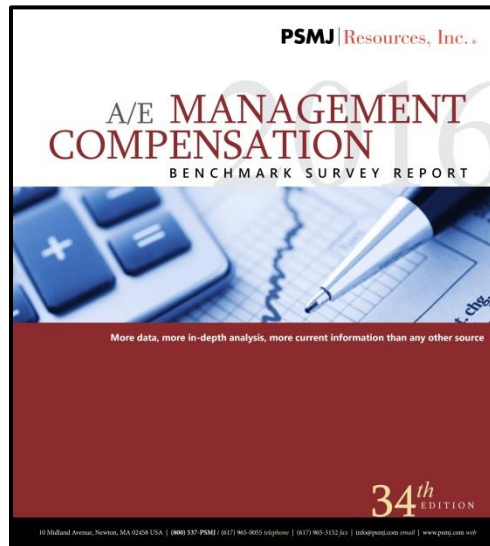
Cash Compensation Trends



This Data Comes From...



FCSI -The Americas Compensation Survey 2015 Report

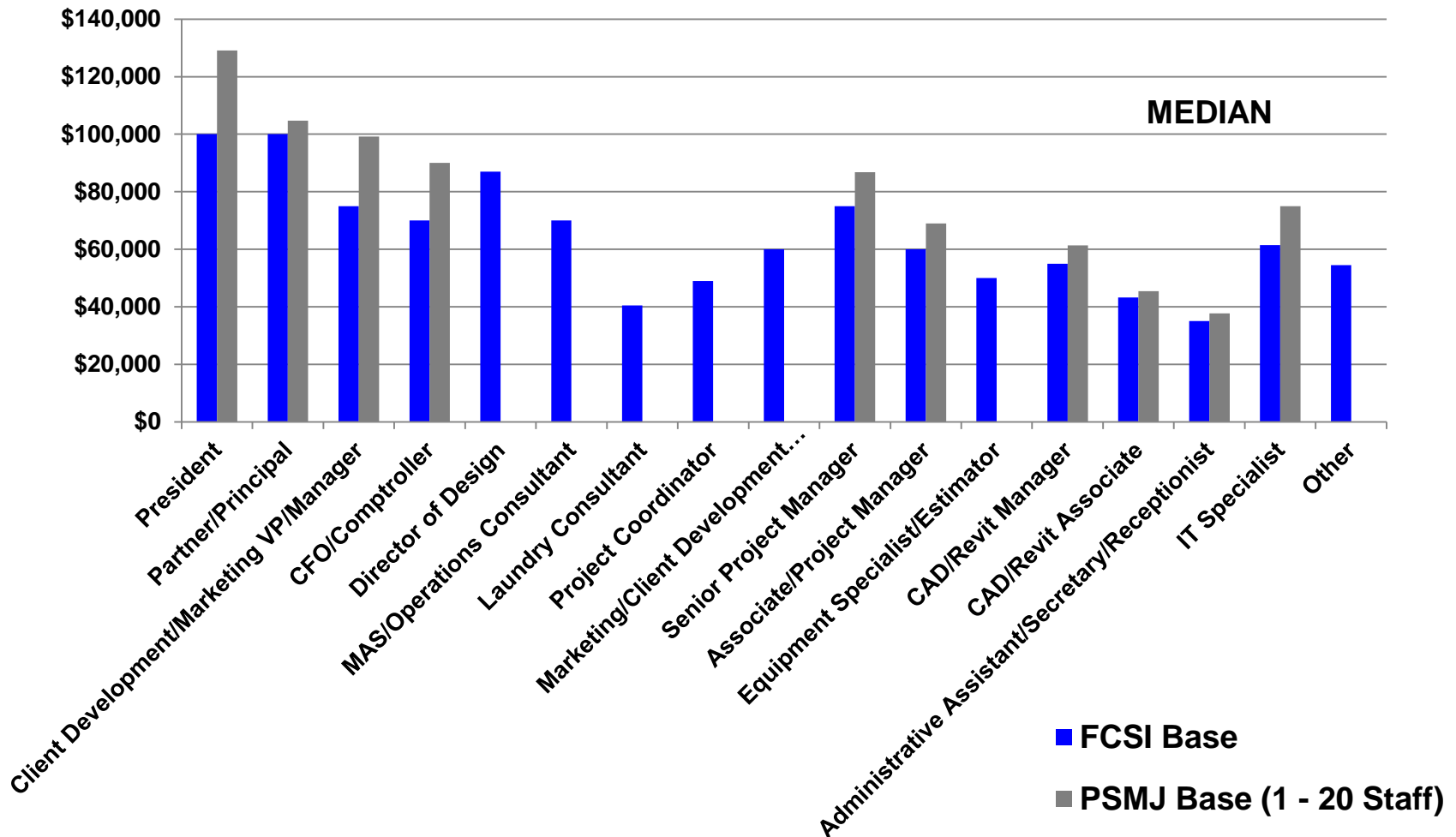


Base Salary Results

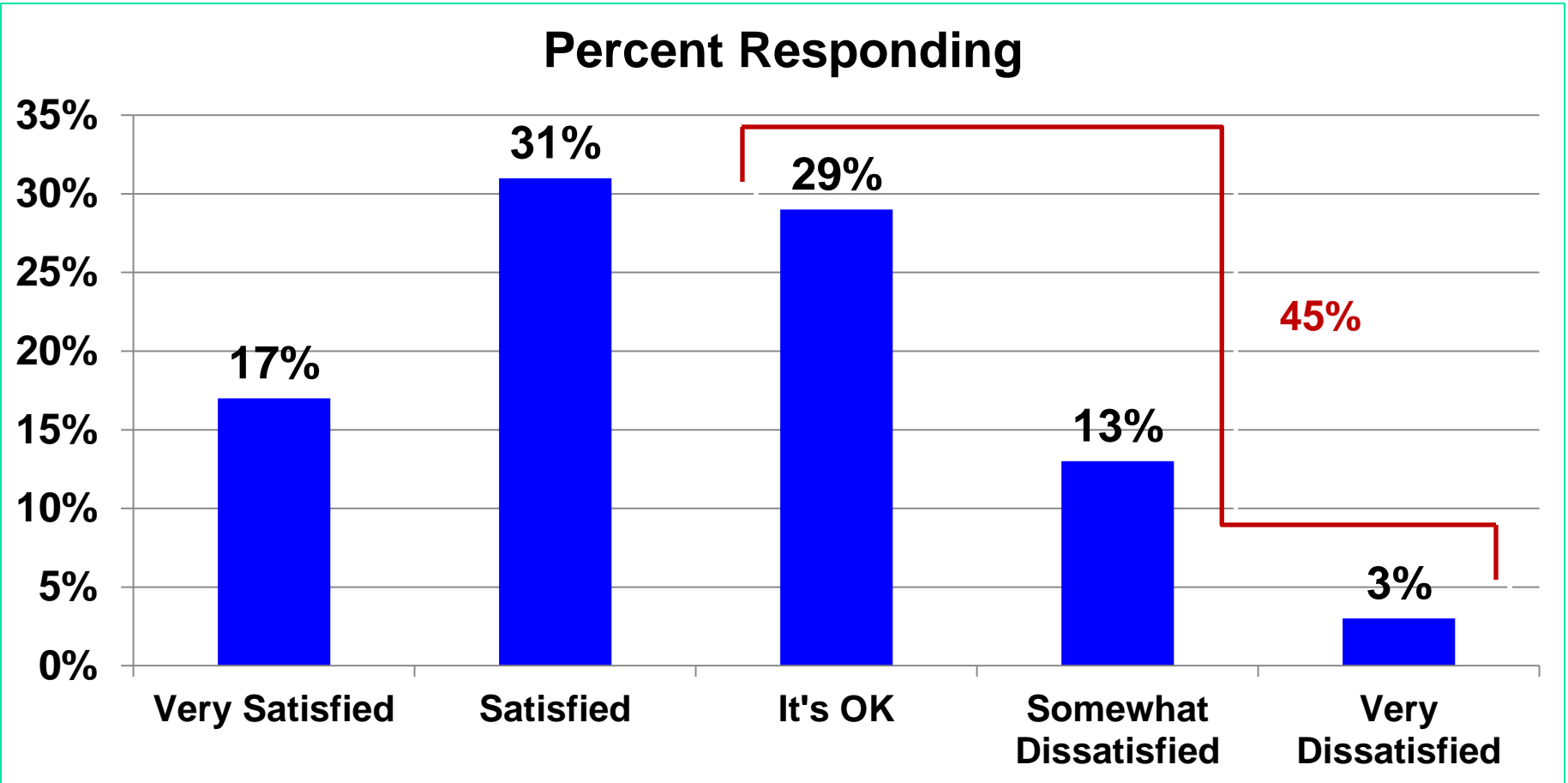
	2016	2015	2014	2013	2012	2011
Chairman of the Board	\$177,672	\$161,703	\$171,130	\$162,052	\$159,952	\$180,000
Chief Executive Officer	181,000	180,000	175,400	190,000	173,194	173,120
COO/Executive VP	160,846	172,000	153,201	162,962	164,307	152,500
Senior VP/Senior Principal	153,659	154,500	148,860	159,242	162,132	154,276
Other Principals/Partners	130,000	127,700	126,000	126,000	123,000	125,113
CFO/Director of Finance	148,013	144,248	135,000	145,000	142,314	136,000
Controller	97,864	96,350	91,291	93,643	90,000	87,500
Business Manager	74,344	73,692	63,440	75,000	67,000	78,000
Director of Administration	79,920	95,490	79,869	105,508	88,979	72,761
Director of Operations	127,000	141,000	132,000	131,300	129,000	118,982
Director of BD	120,800	120,000	115,376	118,600	109,374	100,000
Director of Marketing	85,750	89,625	85,000	N/A	N/A	N/A
Director of Human Resources	97,000	93,808	87,215	98,954	92,560	84,642
Director of Computer Ops	103,500	99,454	95,007	98,266	91,341	88,486
Branch Office Manager	115,000	116,950	115,000	111,153	115,000	114,015
Department Head	108,500	111,937	112,197	113,218	110,000	105,248
Senior Project Manager	101,709	100,000	96,667	95,000	91,750	92,430
Project Manager	85,000	82,000	78,520	75,959	73,789	71,955

2015/2016 Base Salary Comparison

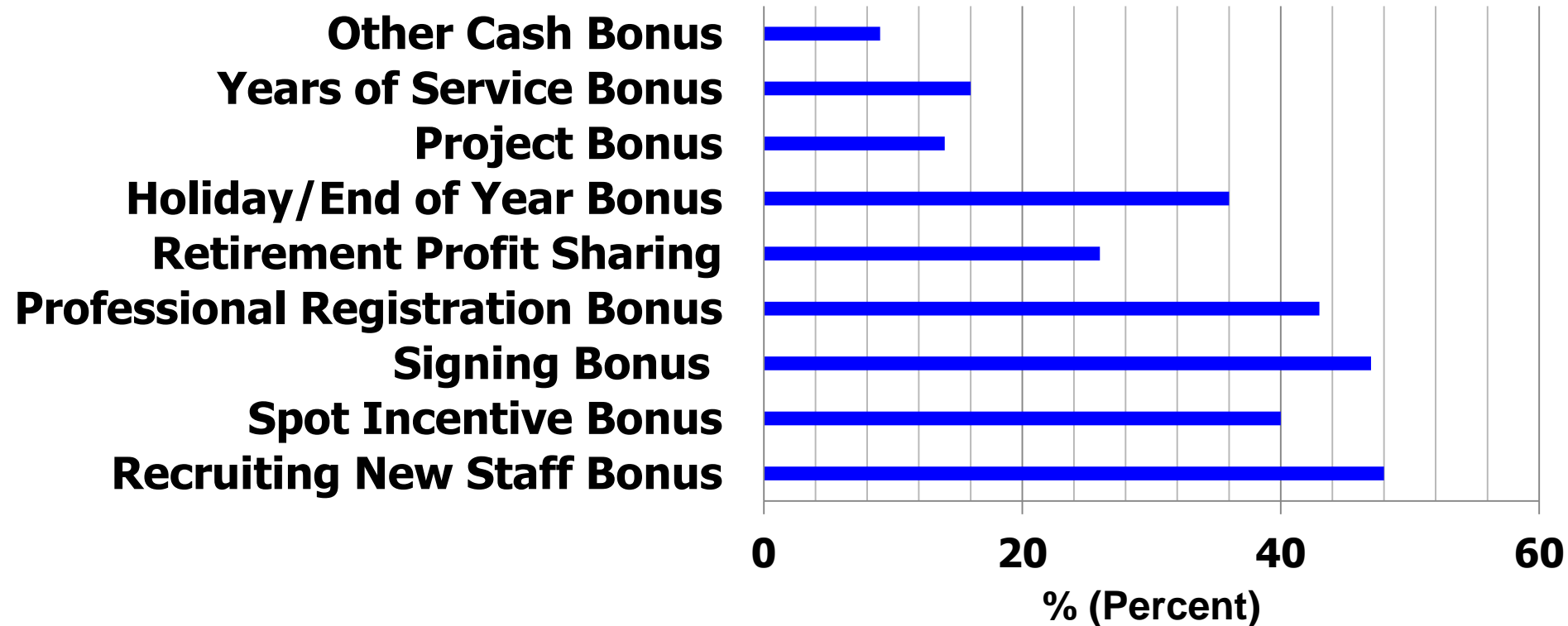
FCSI – PSMJ (A/E)



Does the Bonus Program Reward the Desired Behaviors?

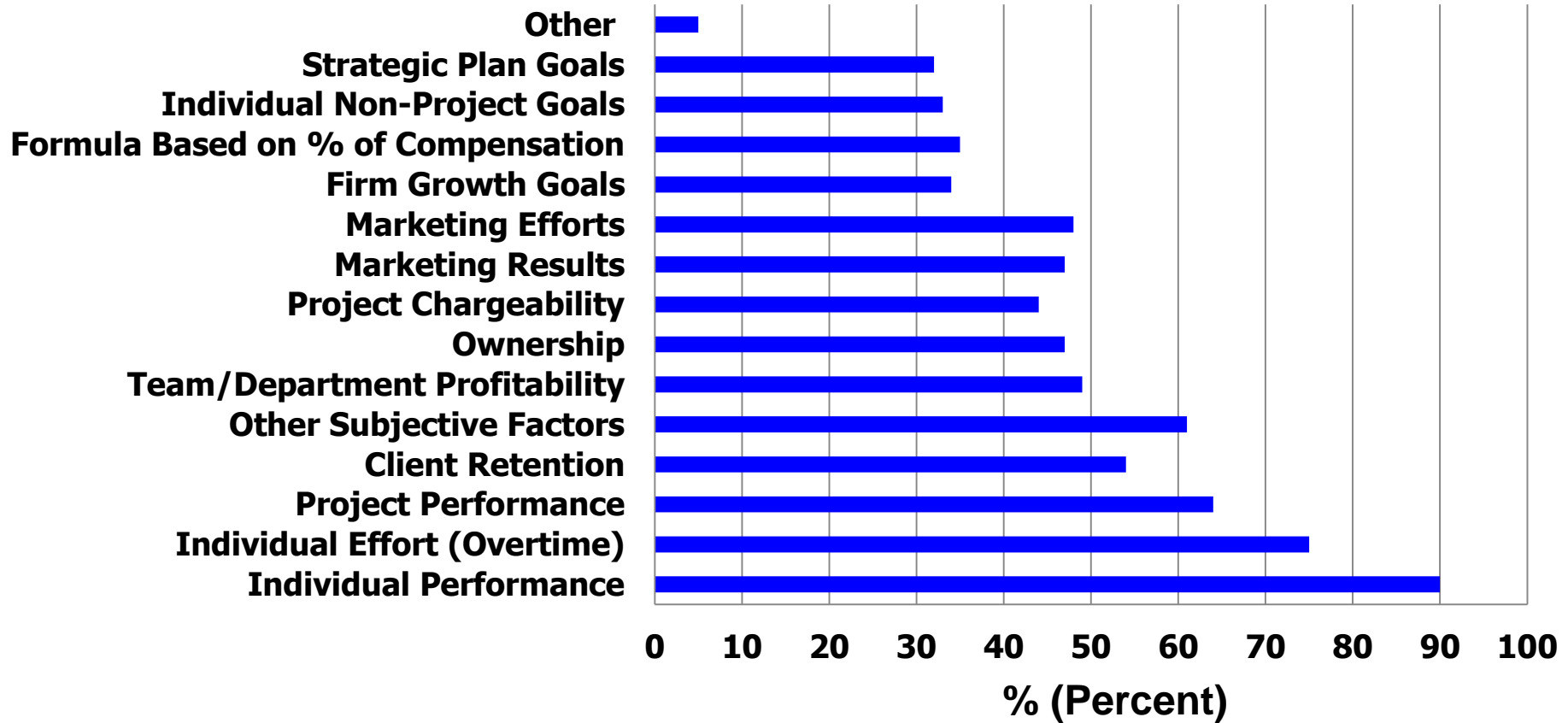


Popularity of Cash Bonus Programs



Source: PSMJ's 2015 Bonus & Benefits Benchmark Survey Report

Factors Used in Deciding on Bonus Payments



Source: PSMJ's 2015 Bonus & Benefits
Benchmark Survey Report

Do Bonuses Reduce Turnover?

	High Turnover Firms (27%)	Low Turnover Firms (2.5%)
Total Bonus Dollars per Staff	\$3,149	\$4,020
Bonus as Percentage of Salary - Low	2%	3%
Bonus as Percentage of Salary - Average	5%	8%
Bonus as Percentage of Salary - High	9%	20%
Percentage of "Very Satisfied" Firms:		
Overall Satisfaction with Bonus Plan	11	31
Bonus Plan Provides Fair Rewards	13	34
Bonus Plan Rewards Desired Performance	13	22
Bonus Plan Motivates the Staff	11	17
Bonus Plan Easy to Administer	19	25
Percentage Paying Bonuses During Each of Last Five Years	47	53

Source: PSMJ's 2015 Bonus & Benefits Benchmark Survey Report

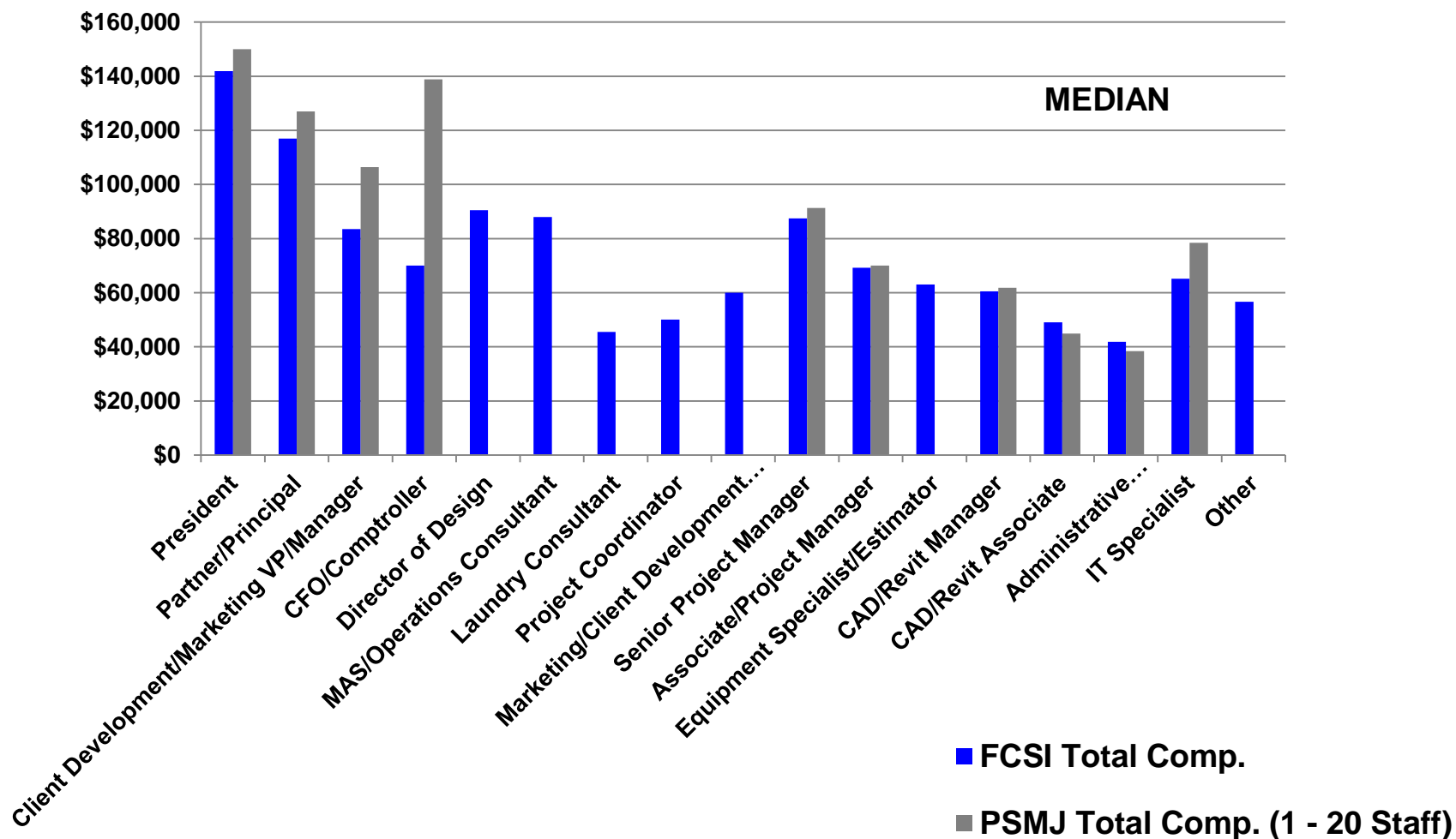
Some Advice Based on Others' Experience

- A good incentive program is better than a reward program
- A poor incentive program is worse than a reward program
- Bonuses based on formulas promote gamesmanship
- **Best practice:** define the behaviors that will create a bonus using quantitative and qualitative measures

Total Compensation Results

	2016	2015	2014	2013	2012	2011
Chairman of the Board	\$213,750	\$191,772	\$201,392	\$215,000	\$212,066	\$233,589
Chief Executive Officer	250,000	235,812	236,700	265,342	233,000	233,216
COO/Executive VP	231,559	206,845	206,560	203,913	221,933	224,133
Senior VP/Senior Principal	199,917	183,748	185,645	198,674	200,000	178,092
Other Principals/Partners	157,500	146,750	144,000	145,000	143,415	150,000
CFO/Director of Finance	180,000	176,250	159,968	175,000	184,538	175,905
Controller	107,000	100,060	100,000	100,807	101,109	96,000
Business Manager	75,344	80,986	64,745	78,972	78,630	82,994
Director of Administration	83,377	103,500	83,500	140,246	128,750	80,528
Director of Operations	141,500	163,500	137,750	146,000	137,510	149,740
Director of BD	139,213	133,000	119,000	135,229	120,800	108,768
Director of Marketing	91,250	95,746	94,000	N/A	N/A	N/A
Director of Human Resources	108,730	97,500	97,314	102,231	100,000	91,655
Director of Computer Ops.	110,100	104,001	104,257	104,589	97,000	96,000
Branch Office Manager	132,736	130,115	123,513	125,521	125,377	118,000
Department Head	121,985	124,163	123,355	120,000	120,560	112,677
Senior Project Manager	111,708	106,823	103,537	102,000	98,315	98,000
Project Manager	91,748	86,000	82,035	78,285	77,000	76,000

2015/2016 Total Compensation Comparison FCSI – PSMJ (A/E)

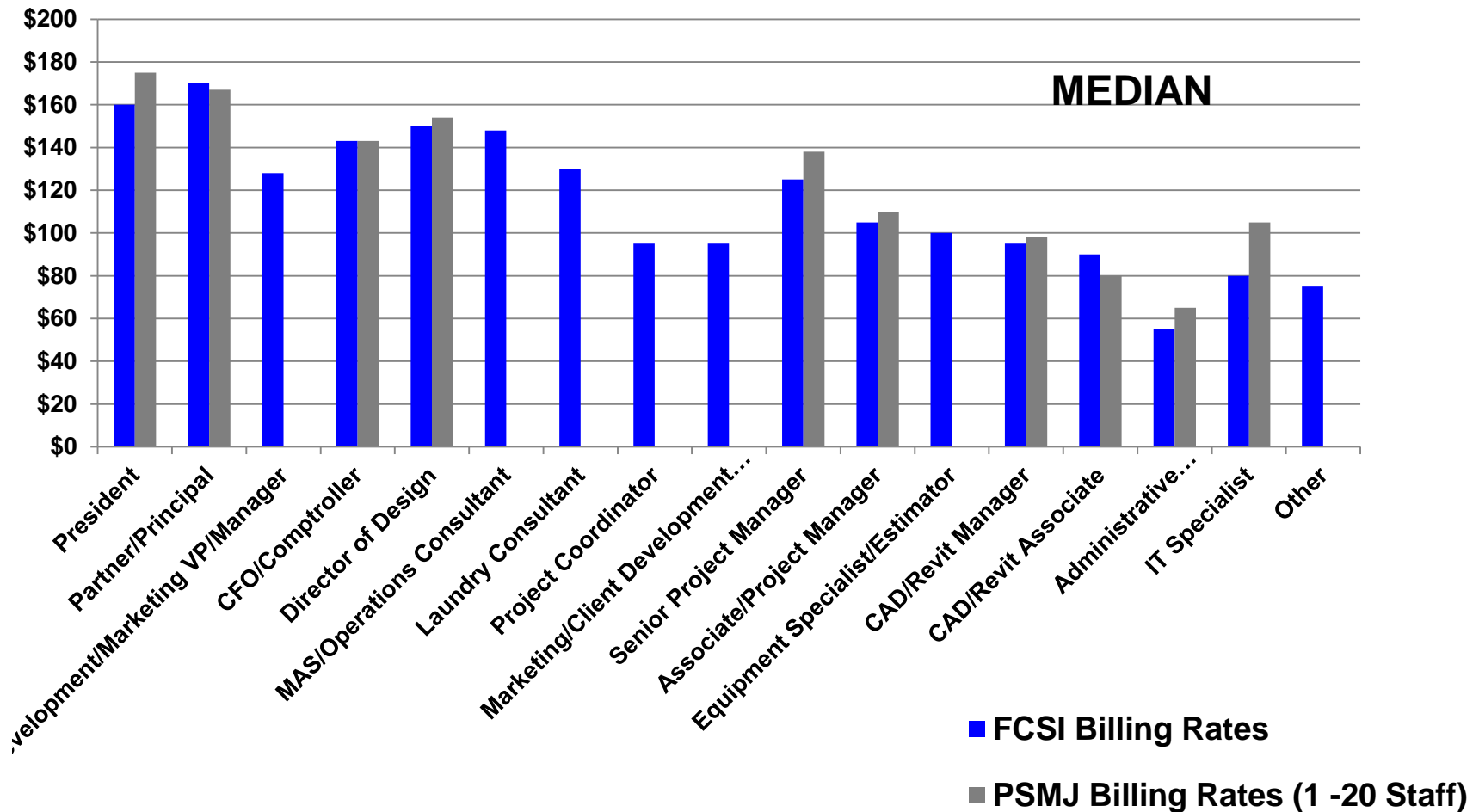


Billing Rate Results


	2016	2015	2014	2013	2012	2011
Chairman of the Board	\$210	\$203	\$205	\$197	\$195	\$200
Chief Executive Officer	205	200	198	200	195	191
COO/Executive VP	190	185	180	185	185	185
Senior VP/Senior Principal	195	195	190	195	190	186
Other Principals/Partners	185	180	180	186	172	172
CFO/Director of Finance	175	160	153	160	175	164
Controller	100	92	100	97	124	109
Business Manager	85	73	73	105	105	97
Director of Administration	82	112	100	95	120	88
Director of Operations	165	174	171	175	170	155
Director of BD	175	163	165	160	150	140
Director of Marketing	95	105	175	NA	NA	NA
Director of Human Resources	152	110	115	112	111	97
Director of Computer Ops	120	125	130	117	125	115
Branch Office Manager	165	165	165	164	154	150
Department Head	153	159	165	157	155	150
Senior Project Manager	154	150	150	144	140	135
Project Manager	130	130	126	122	120	112

Source: PSMJ's 2016 Management Compensation Benchmark Survey Report

2015/2016 Billing Rates Comparison FCSI – PSMJ (A/E)



Senior VP/Senior Principal: Salary

		25 th			75 th	
		Percentile	Median	Mean	Percentile	
Peer Group	Firm Size	Overall	\$130,410	\$153,659	\$155,908	\$177,125
		Staff Size 1 to 20	90,000		127,205	132,412
		Staff Size 21 to 50	126,256		143,335	163,750
		Staff Size 51 to 100	127,125		148,352	175,165
		Staff Size 101 to 250	152,000		170,841	190,000
		Staff Size 251 to 500	137,058		164,374	196,692
		Staff Size 501 to 999	155,850		184,181	212,263
		Staff Size 1,000+	188,404		217,364	242,500
	Practice Area	Architectural	95,450	126,206	140,026	188,250
		Architectural/Interiors	135,000	150,000	149,826	175,000
		Engineering (Prime)	127,504	155,050	154,960	181,854
		Engineering (Subconsultant)	136,000	156,554	172,743	188,000
		Engineering (Survey)	NR	104,000	116,120	NR
A/E		130,006	163,643	158,735	183,815	
A/E/P/I		132,104	151,591	153,408	172,375	

Source: PSMJ's 2016 Management Compensation Benchmark Survey Report

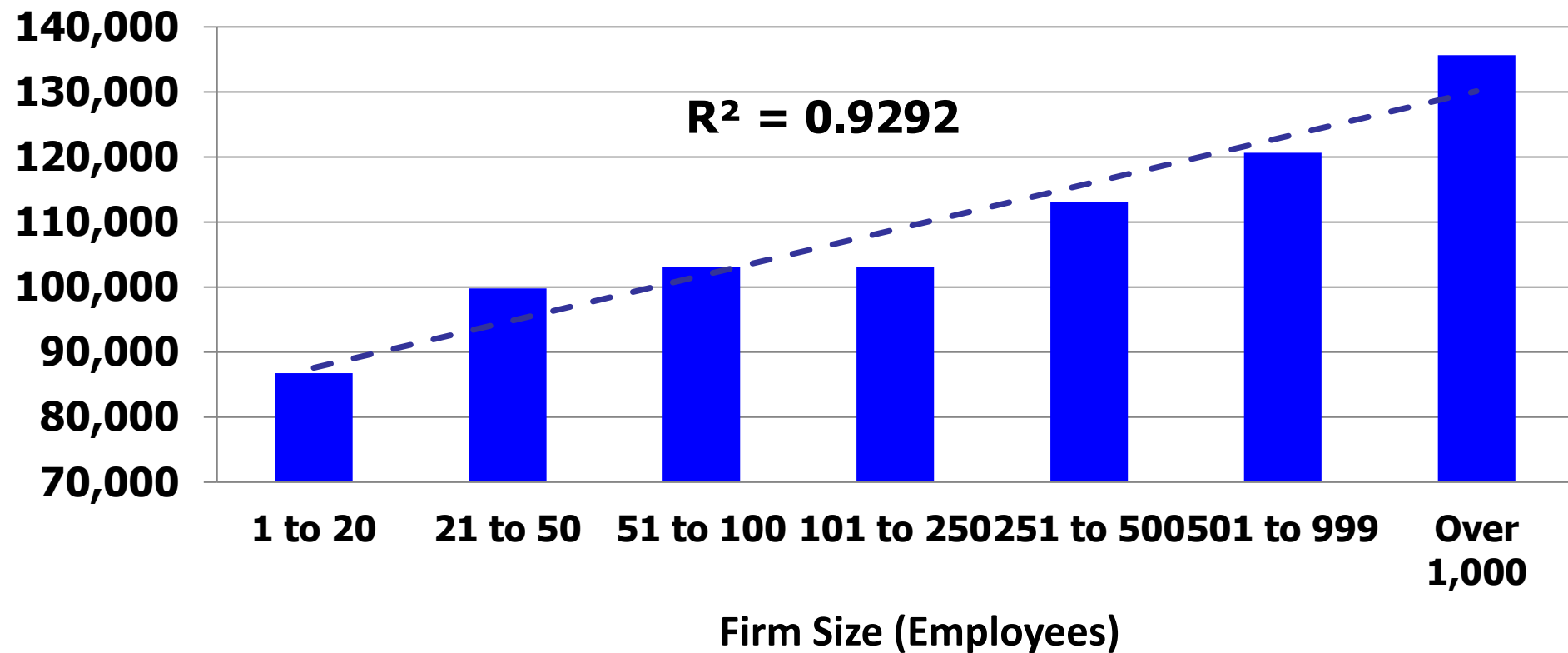
Senior VP/Senior Principal: Total Compensation

		25 th Percentile	Median	Mean	75 th Percentile	
Peer Group	Overall	\$152,922	\$199,917	\$218,788	\$252,085	
	Firm Size	Staff Size 1 to 20	98,000	127,000	143,024	164,115
		Staff Size 21 to 50	145,000	186,895	196,724	226,802
		Staff Size 51 to 100	161,875	191,133	189,404	220,000
		Staff Size 101 to 250	165,000	219,000	270,402	360,500
		Staff Size 251 to 500	228,538	261,876	259,812	289,022
		Staff Size 501 to 999	185,750	225,000	264,887	331,118
		Staff Size 1,000+	247,958	312,750	361,638	499,764
	Practice Area	Architectural	128,353	145,300	155,126	207,000
		Architectural/Interiors	145,000	194,000	223,962	220,000
		Engineering (Prime)	145,571	209,694	229,982	285,257
		Engineering (Subconsultant)	170,062	219,000	230,997	255,584
		Engineering (Survey)	NR	145,600	161,953	NR
A/E		159,119	201,403	207,220	226,625	
A/E/P/I		168,513	188,028	198,059	243,835	

Source: PSMJ's 2016 Management Compensation Benchmark Survey Report


Salaries for Senior PM are Based Mostly on Firm Size

Compensation for Senior PMs



Source: 2016 PSMJ Management Compensation Benchmark Survey Report

Sr. Project Manager: Salary

		25 th			75 th		
		Percentile	Median	Mean	Percentile		
Peer Group	Firm Size	Overall	\$91,980	\$101,709	\$106,539	\$115,986	
		Staff Size 1 to 20	75,000		86,750	88,916	97,500
		Staff Size 21 to 50	93,000		99,782	107,361	107,300
		Staff Size 51 to 100	91,980		103,000	105,408	121,320
		Staff Size 101 to 250	98,432		103,000	107,660	117,502
		Staff Size 251 to 500	101,000		113,071	113,610	130,000
		Staff Size 501 to 999	101,300		120,640	125,263	141,668
		Staff Size 1,000+	118,263		135,658	135,318	152,205
	Practice Area	Architectural	77,500	93,000	91,078	97,368	
		Architectural/Interiors	83,000	96,753	95,763	101,071	
		Engineering (Prime)	97,010	107,420	113,286	125,000	
		Engineering (Subconsultant)	93,150	106,625	111,635	129,750	
		Engineering (Survey)	89,996	95,000	95,073	100,189	
		A/E	94,402	100,028	105,602	125,525	
A/E/P/I		100,750	111,251	114,236	122,188		
Environmental		\$91,980	\$101,709	\$106,539	\$115,986		

Source: PSMJ's 2016 Management Compensation Benchmark Survey Report

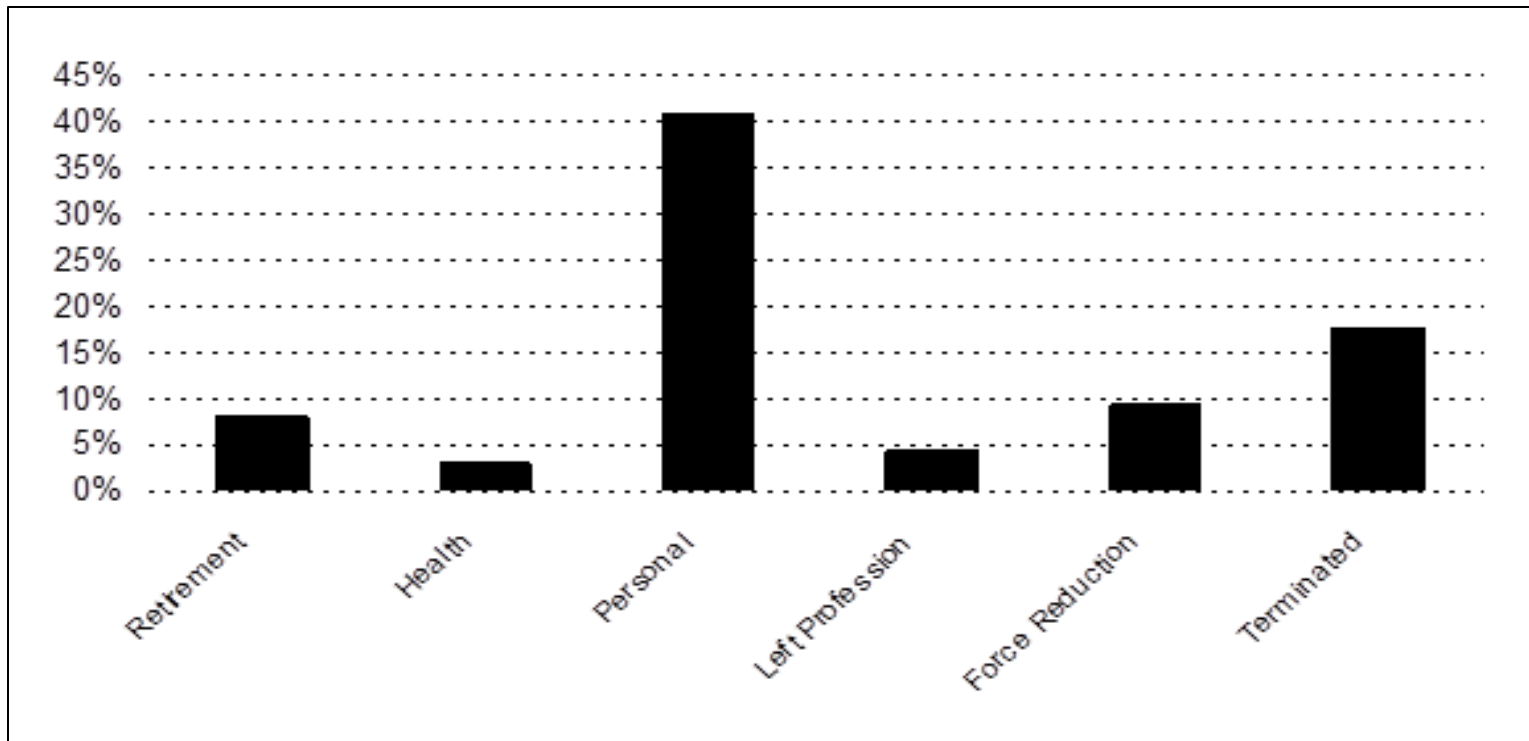
Sr. Project Manager: Total Compensation

		25 th Percentile	Median	Mean	75 th Percentile
Peer Group	Overall	\$97,900	\$111,708	\$119,647	\$131,820
	Staff Size 1 to 20	79,661	91,300	94,739	106,552
	Staff Size 21 to 50	98,822	109,348	127,125	119,750
	Staff Size 51 to 100	101,303	115,000	119,352	138,188
	Staff Size 101 to 250	100,488	112,500	119,498	132,049
	Staff Size 251 to 500	115,785	124,500	120,442	136,000
	Staff Size 501 to 999	111,708	129,519	133,205	147,500
	Staff Size 1,000+	133,637	138,946	150,780	173,841
	Architectural	83,328	95,700	96,473	101,750
	Architectural/Interiors	95,500	105,000	107,316	120,000
	Engineering (Prime)	104,573	117,901	129,380	139,200
	Engineering (Subconsultant)	97,885	114,500	126,484	160,050
	Engineering (Survey)	91,560	100,000	103,213	116,475
	A/E	100,952	120,662	124,802	144,581
	A/E/P/I	110,875	116,536	126,051	130,625

Source: PSMJ's 2016 Management Compensation Benchmark Survey Report

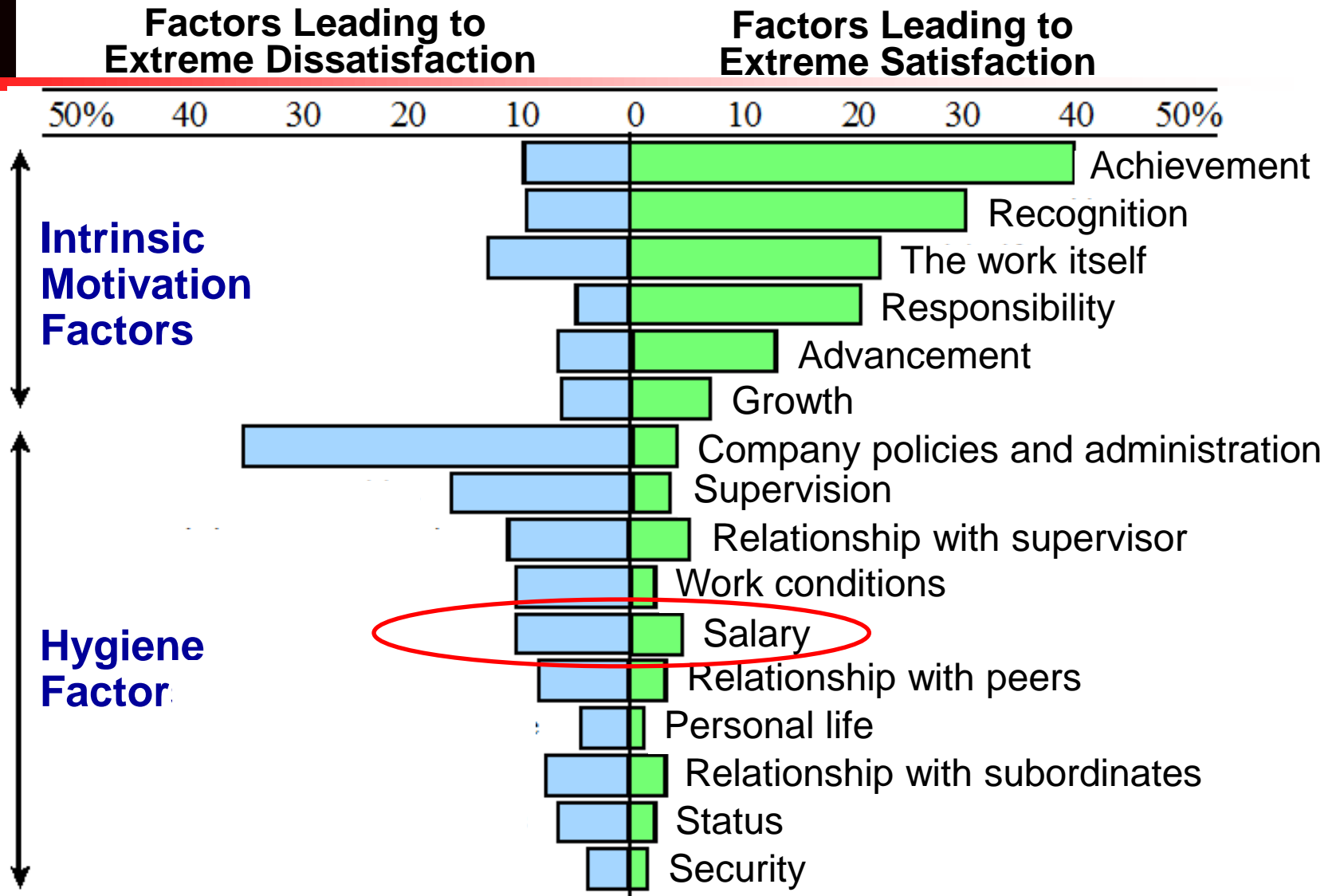
Reasons for Employee Turnover

What's not on this chart?



Source: PSMJ's 2015 Bonus & Benefits
Benchmark Survey Report

According to Frederic Herzberg...



Conclusions on Cash Compensation

- Pay people adequately and fairly and take the concern of money off the table; see Daniel Pink- ***The Surprising Truth About What Motivates Us***: <https://www.youtube.com/watch?v=rrkrvAUbU9Y>
- Do a compensation study periodically to make sure that you are keeping up with market rates – pay appropriately to be in the game of attracting and retaining talent
- Rethink how to best incentivize your staff – we want “consultants” that can best serve our client’s needs
- Next step is to analyze how your compensation strategy fits into your firm’s financial strategy

Bring it All Together – Goal/Target Setting



MODELING (Budgeting)

- Start with a list of employees – all employees, including owners
- Determine if they work full-time or part-time: in U.S. base full-time on 2,080 work hours; in Canada 1,195 per year
- Estimate each person's chargeability
- Input each person's hourly base salary (without burden)
- Input each person's average hourly billing rate

Key Calculations



Target Net Revenue Capacity =

(Total Hours x Chargeability) x Hourly Billing Rate

Target Direct Labor Costs =

(Total Hours x Chargeability) x Hourly Base Salary

Key Calculations

TARGET Direct Labor Multiplier (DLM) =

Target Net Revenue/Target Direct Labor Costs

Chargeability =

Target Direct Labor Costs/Total Payroll





DEMONSTRATION

of

**REVENUE CAPACITY FORECAST
WORKBOOK**

Modeling Results – Key Performance Indicators

TARGETS		TARGETS	
Net Revenue	\$ 3,063,840	Chargeability	62.4%
Direct Labor Costs	\$1,002,764	Direct Labor Multiplier	3.06
Indirect Labor Costs	\$ \$605,139	Estimated FTE	17.5
Total Payroll	\$ \$1,607,902	Net Revenue per Total Staff	\$ \$175,077

If the overhead rate is 175% of direct labor costs then we need a 2.75 direct labor multiplier to break even; a Target DLM of 3.06 provides 10% profit margin

$$(3.06 - 2.75) = 0.31$$

$$0.31/3.06 = 10\% \text{ Profit}$$

Analyzing ACTUAL (ACHIEVED)

Financial Performance



EXAMPLE

EXAMPLE INCOME STATEMENT

INCOME

NET REVENUE	\$2,900,000
REIMBURSABLE EXPENSES	\$250,000
REIMBURSABLE SUBS	<u>\$500,000</u>
GROSS REVENUE	<u>\$3,650,000</u>

COST OF GOODS SOLD

DIRECT LABOR	\$960,000
REIMBURSABLE EXPENSES	\$250,000
REIMBURSABLE SUBS	<u>\$500,000</u>
TOTAL COST OF GOODS SOLD	<u>\$1,710,000</u>
GROSS MARGIN	\$1,940,000

EXPENSES

OVERHEAD

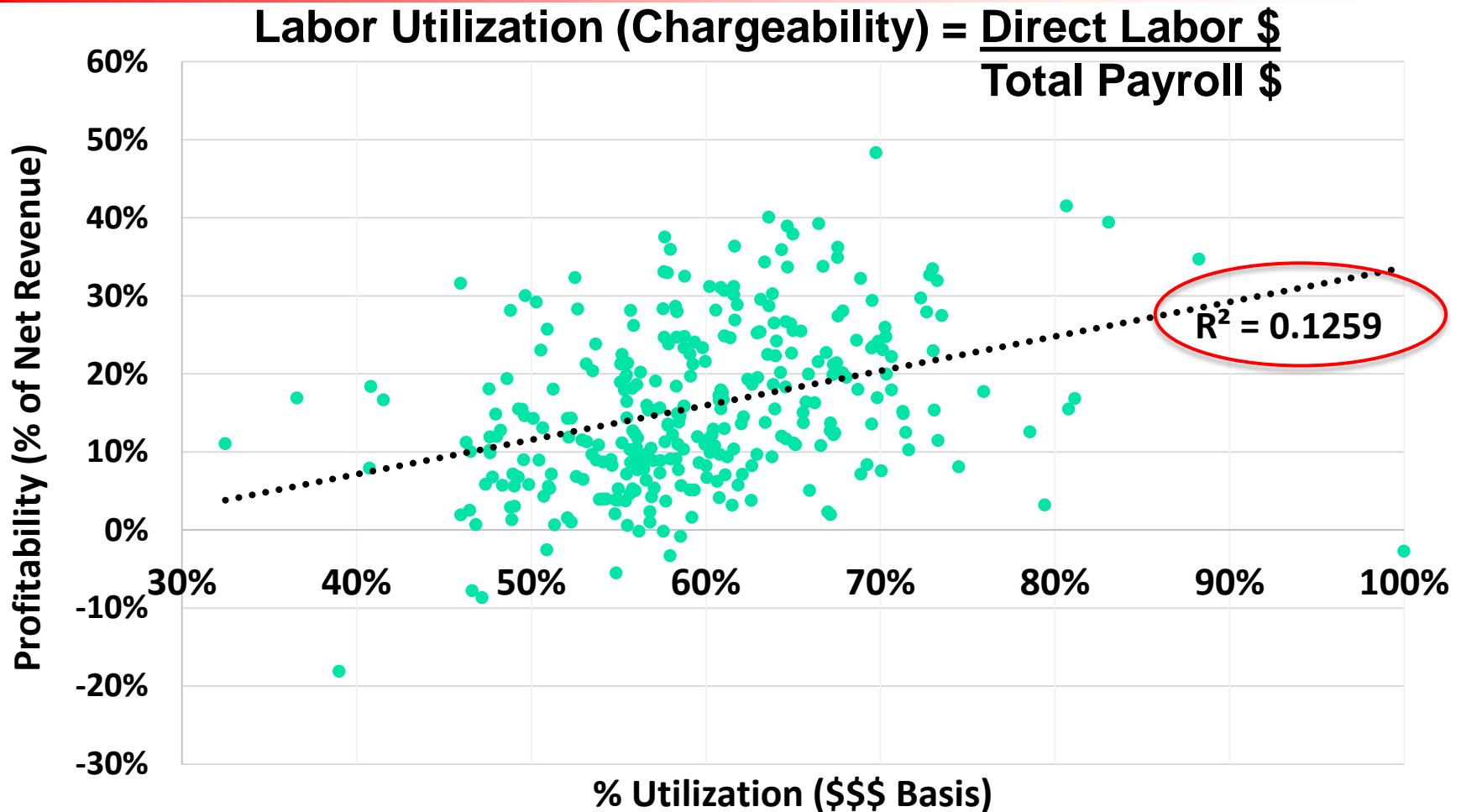
LABOR OVERHEAD	\$550,000
NON-LABOR OVERHEAD	<u>\$1,100,000</u>
TOTAL EXPENSES	<u>\$1,650,000</u>

EARNINGS/PROFIT	\$290,000
% OF NET REVENUE	10%

Actual Results for Firm XYZ – Key Performance Indicators Based on Income Statement

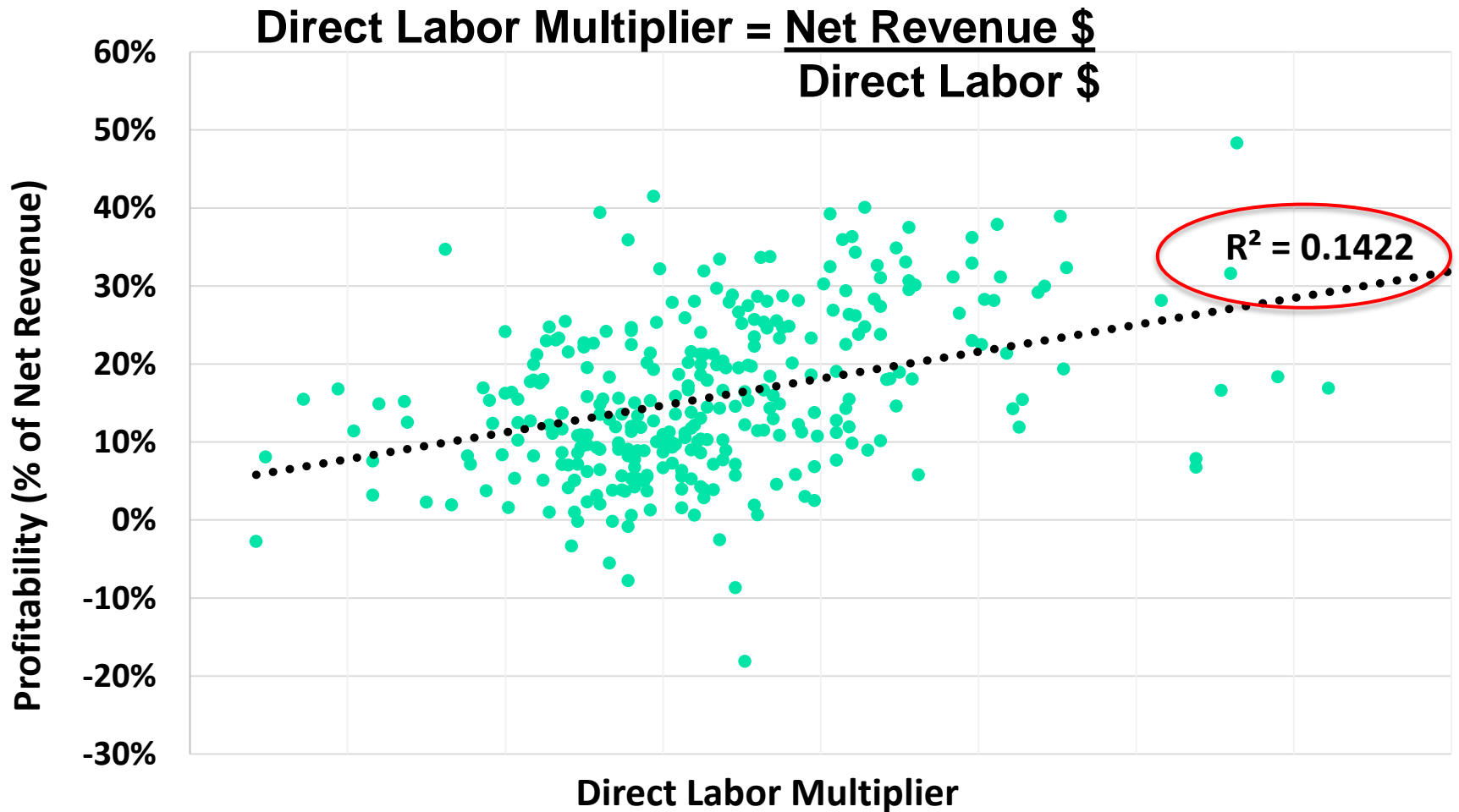
ACHIEVED			ACHIEVED		
Net Revenue	\$	9,000,000	Chargeability		60.0%
Direct Labor Costs	\$	2,400,000	Direct Labor Multiplier		3.75
Indirect Labor Costs	\$	1,600,000	Estimated FTE		58
Total Payroll	\$	4,000,000	Net Revenue per Total Staff	\$	155,000

Most Principals Obsess About Achieving a High Utilization



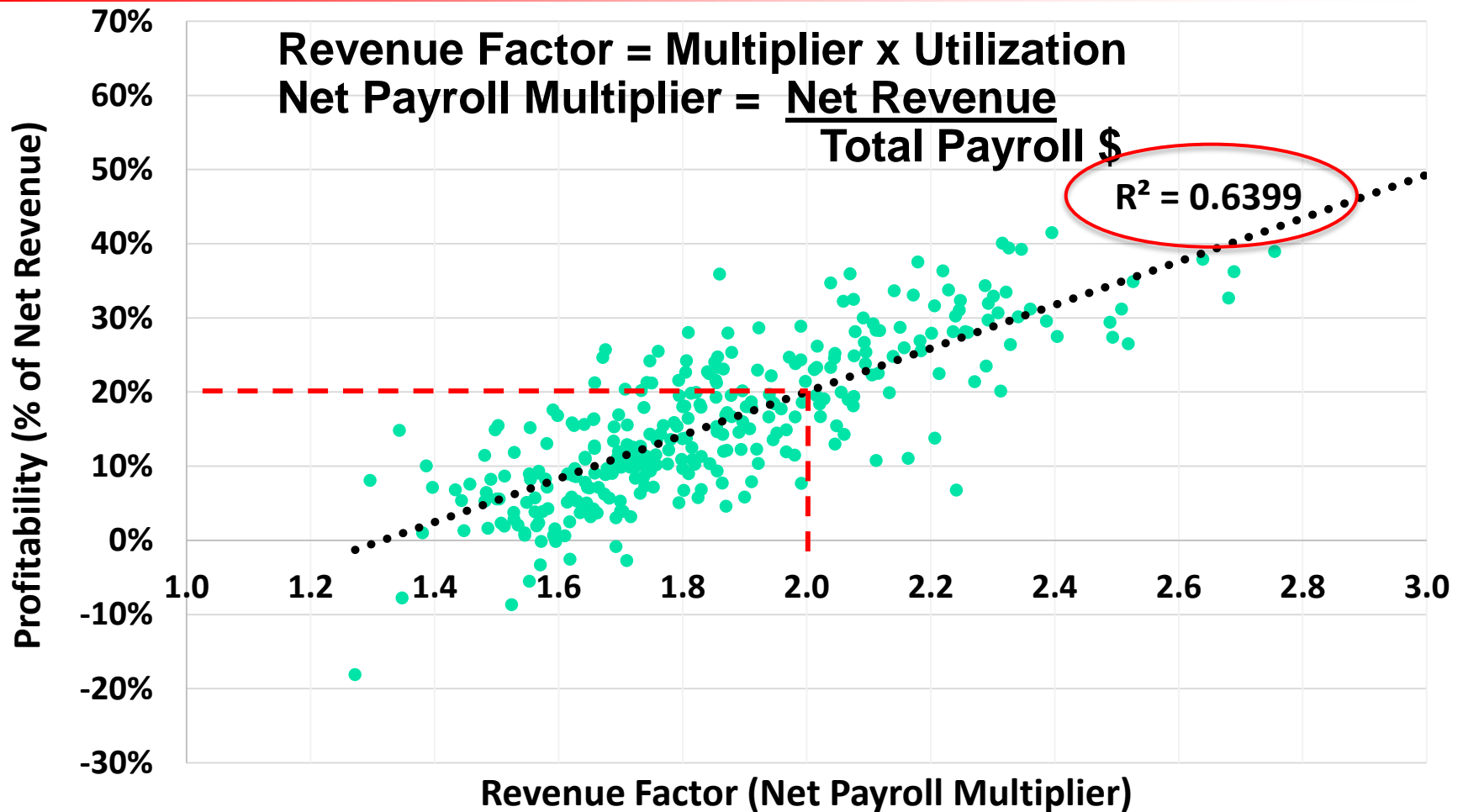
Source: PSMJ's 2015 A/E Financial Performance Benchmark Survey Report

What About Direct Labor Multiplier (DLM)?



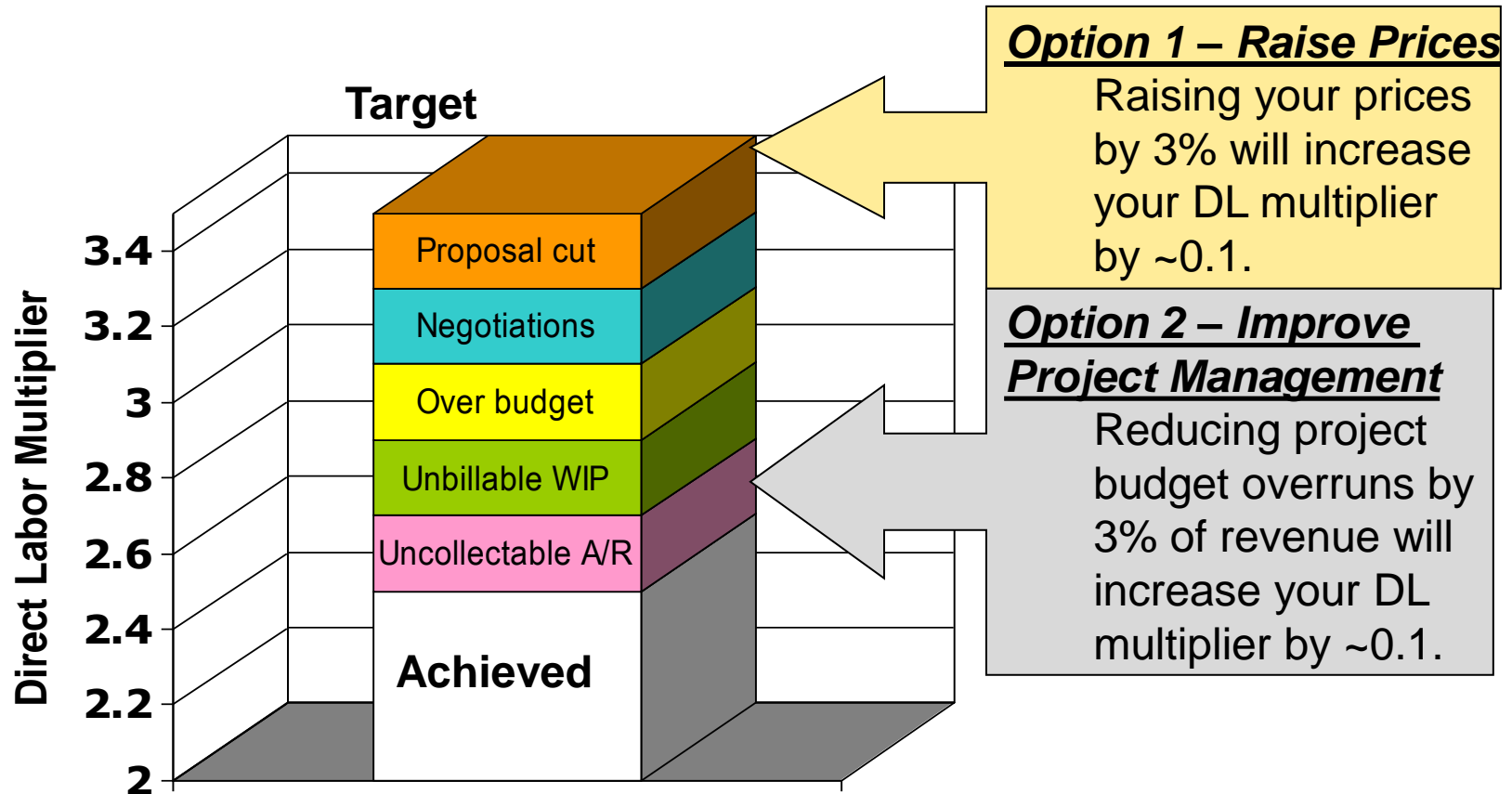
Source: PSMJ's 2015 A/E Financial Performance Benchmark Survey Report

What Really Counts is....



Source: PSMJ's 2015 A/E Financial Performance Benchmark Survey Report

How Do You Raise the Achieved Multiplier?



Summary

- The A/E Industry is doing relatively well
- Net Revenues, Profit, and Direct Labor Multipliers are on the rise
- Base salaries for senior leaders have been slow to recover
- Compensation for the key production roles has grown slowly since 2011
- Consider raising your rates and your cash compensation – but compare it back to financial performance to finalize and set new goals
- Focus on Chargeability & Achieved Direct Labor Multiplier to Maximize Profitability

What's Ahead

PARTICIPATION

FINANCIAL PERFORMANCE

**Deadline for
Participation: 04.15.16**

**Report Available: Late
June**

REPORTS

MANAGEMENT COMPENSATION

Available: Mid-April

STAFF COMPENSATION

Available: Early May

Questions or Comments?

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