

# Highway Contractors Financial Reporting, Taxation & Best Practices

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## And Other Good Stuff to Know

Carolina Asphalt Pavement Association

Belmond Charleston Place - Charleston, South Carolina

April 4, 2019

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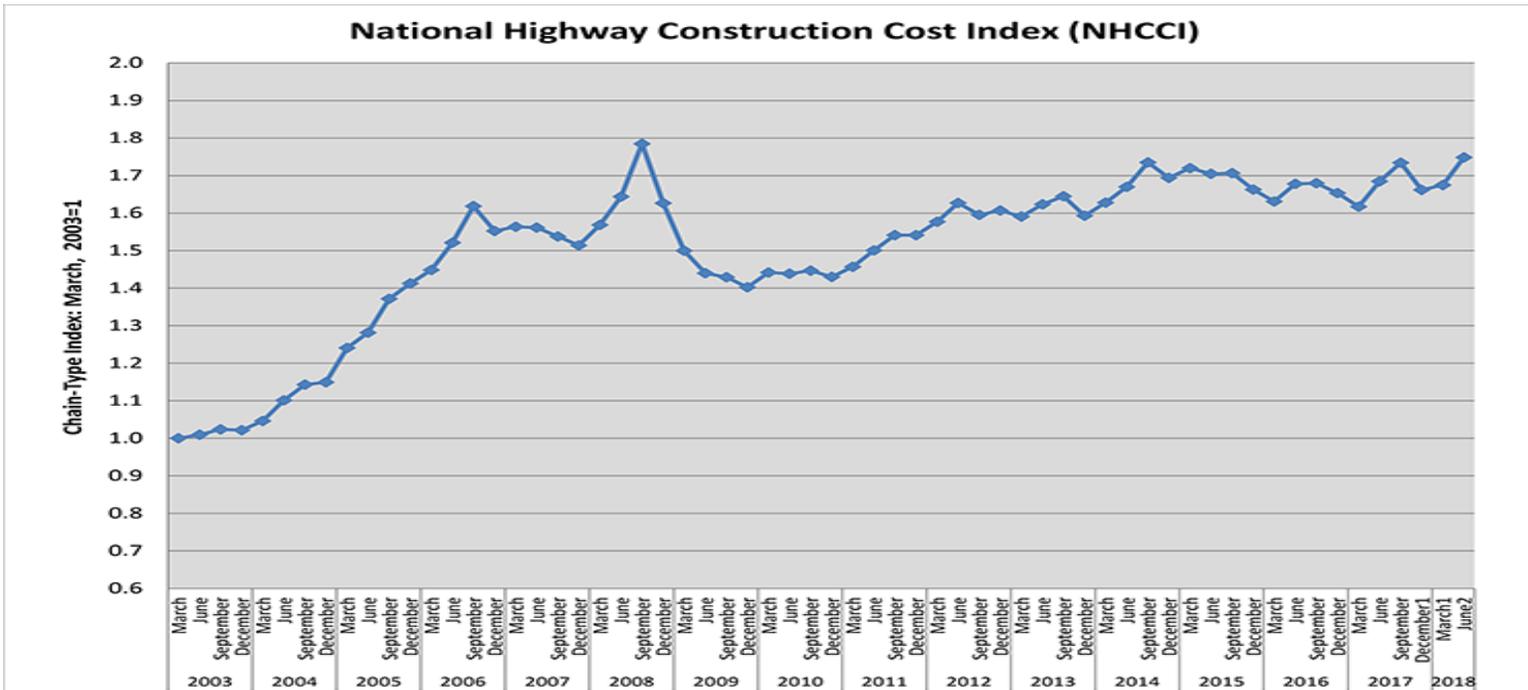
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# Highway Construction Industry Overview & Trends

# 1. Current trends, observations and “ignorant” predictions

- a. Construction economy is good but always practice “cautious optimism”
  - 2017 and 2018 were the best years since 2007 - most contractors reported good profits and increased backlog for 2019-20
  - About 10% of heavy highway contractors still reporting an operating loss (per Travelers database)
  - Government budget issues are still looming - 12 States and Federal government are “technically insolvent”
  - Construction industry generally has a recession every 5 to 7-year period - plan for a slow-down in 2020-2021?
  - Housing prices vs. wages have reached 2007 bubble level

- b. Heavy highway, asphalt paving, utility and infrastructure contractors continue to do better than other construction specialties
- Profit margins are tight in some regions, but better than general contractor building industry
  - Bid prices remain low and competitive in certain areas - foreign contractors have kept prices tighter in some states (NC, TX, FL, CA)
  - FHWA statistics released in June 2019 report highway construction costs are up 74.8% (1.7485 index) from 2003 through 2018



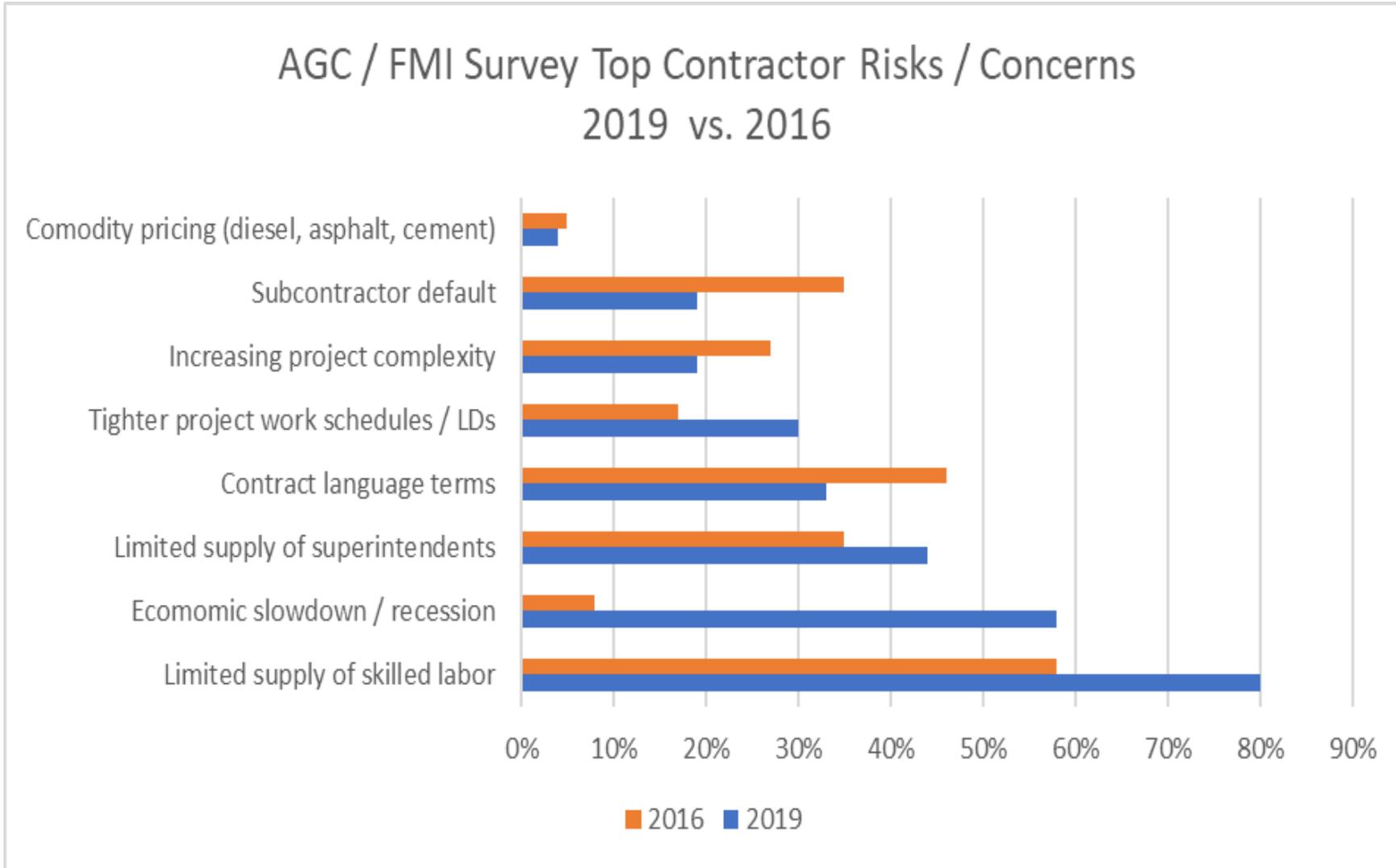
- Significant components of 74.8% NCCI Index increase - percent change in cost from 2003 through 2018 (Federal Reserve Data)

Federal Highway Administration	
National Construction Cost Index - 2003-2018	
15-Year Costs of Construction Index	
	% Increase
	in Costs
National Highway Construction Cost Index	74.8%
Key cost components:	
Wages	42.6%
Liquid asphalt	106.4%
Diesel #2	97.6%
Cement	63.8%
Crushed limestone	95.8%
Construction equipment index	44.2%

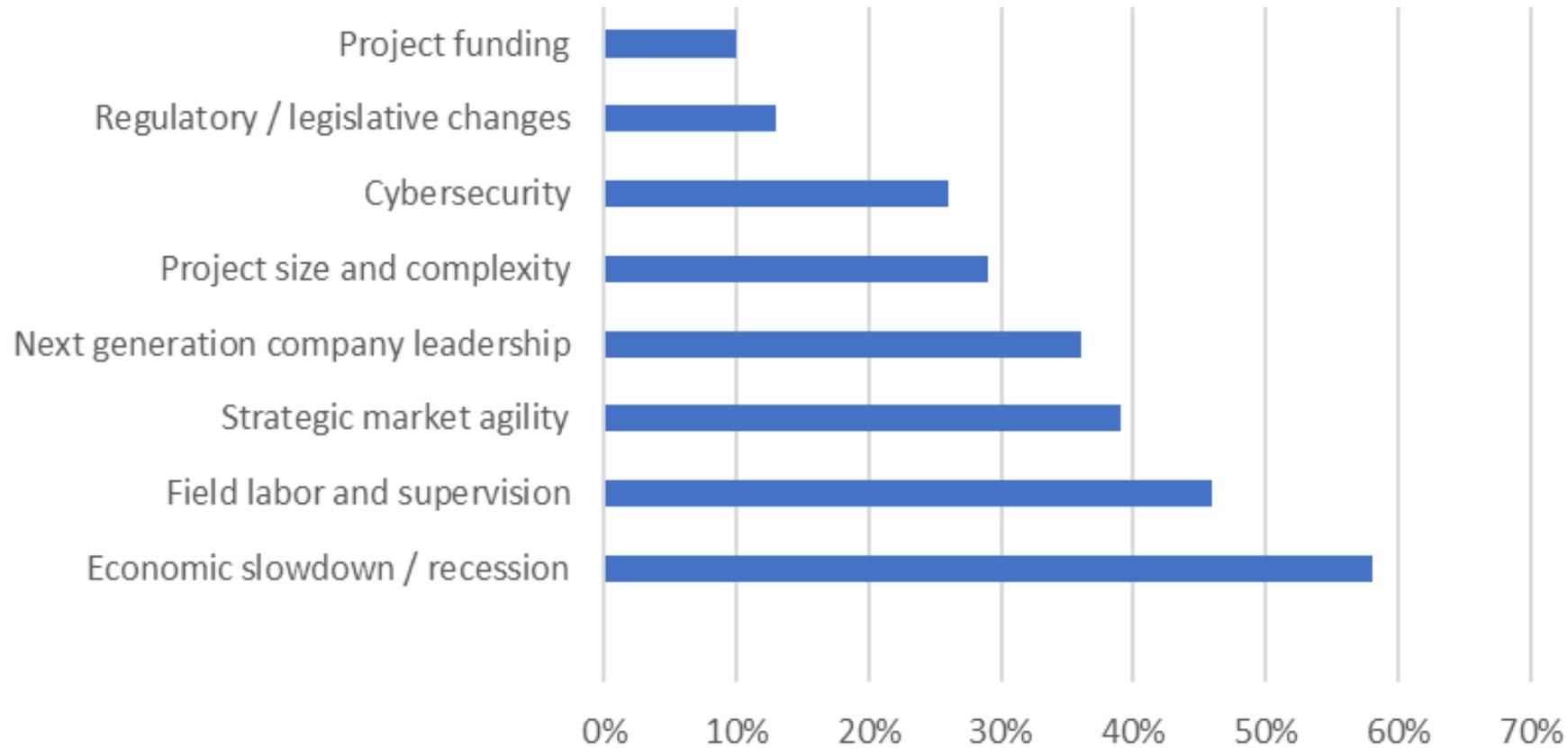
- Federal gas tax of 18.4 cents has not increased since 1993

- Adjusted for the 74.8% NCCI index - 15-years - since 2003:
  - Federal gas tax of 18.4 cents should be 32.16 cents
  - Tennessee gas tax of 20 cents should be 34.96 cents (increased to 26 cents in 2019)
  - South Carolina gas tax of 16 cents should be 27.9 cents (increase to 28 cent by 2023)
  - North Carolina gas tax of 35 cents is highest in Southeast
- Vehicle mpg efficiency has reduced gas consumption and gas tax per mile by about 29% in 15 years
- Combined federal and state gas tax - “user fees” to ride on the highway is at least 50% cheaper per mile than it was in 2003

c. AGC / FMI Contractor Survey



## AGC / FMI Survey Top Contractor Risks / Concerns in 2020 and Beyond



- d. Surety bond credit is more difficult, but not as tough as it should be
- Several significant contractor failures/surety claims reported in 2014-18 - recent failures in NC, FL, MS, TN, TX & GA
  - Zurich is reporting a \$400 million bond loss in Canada for 2018-19
  - Big 6 sureties write 55% of surety bonds - Travelers, Liberty, Zurich, CNA, Chubb & Hartford - loss ratio under 20% in 2017; Zurich 71% in 2019

<b>Travelers Surety</b>		
<b>Highway and Bridge Contracts - 2017</b>		
	Highways	Bridge
Number of contractors	349	186
Number of contracts	1,959	868
Total contract value	\$ 34,000,000,000	\$ 11,600,000,000
Average contract amount	\$ 17,355,794	\$ 13,364,055
Median contract amount	\$ 5,000,000	\$ 3,000,000
Average gross profit %	9.7%	11.1%
Contracts reporting profit gain	40%	41%
Contracts reporting profit fade	39%	38%
Contracts > \$100MM reporting fade	54%	66%
Contract reporting gross loss	12%	11%

e. Industry consolidation is trending up

- CFMA Survey in 2017 - 70% are considering strategic mergers, acquisition, sale or diversification
- Market share ENR Top 100 Contractors in 2003 = 18%
- Market share ENR Top 100 Contractors in 2017 = 30%
- US has 120,000 fewer contractors in 2017 than 2007

f. More self-performed work - less subcontracting specialty items

- Industry-wide trend to increase revenue and margins
- Main driver of consolidation trend

- g. Larger single job sizes - CMGC and design/build projects
  - State DOTs are trending toward “mega projects”
  - Some contracts require contractor provided construction period financing - payment after completion
  - Joint ventures are common for these projects
- h. Other contract trends:
  - Extended period warranties - liability issues - 5 to 7 years
  - Contractor “Gap” financing - contractor must finance part of the work - 30%-50% is common with payment 1-year after completion
- i. Since my first year in 1976, the contractors that didn't change, improve and plan are no longer around

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# Best Practices for Heavy Highway Infrastructure Contractors

# 1. Learn & Understand Construction Accounting & Taxation Basics

- a. Accounting is the language of business
- b. Percentage of completion - only method allowed by GAAP for Contractors
  - Understand the contract “WIP” schedules - Surety and IRS do
  - Required cost to cost measurement of % complete
  - Tracks the financial progress of the job with the original cost budget
- c. Learn the “healthy contractor benchmarks” for your Company (#2 below)
  - How does your surety rate your company’s financial status?

- d. Develop a working knowledge about construction taxation
  - Tax exemptions for contractors under \$25 million in annual revenue
  - Cash basis method for non-long-term contracts - exempt from POC method
  - New Section 199 deduction for pass-through entities
    - LLCs and S-Corp pay effective max Federal tax rate of about 29%
    - C-Corporation pay effective max Federal tax rate of 21%
  - Consider significant impact of \$10,000 limit on state income tax deduction on Federal tax return
  - Understand lookback calculation
  - Depreciation deduction - 100% for both new and used equipment
  - Contractors must understand multi-state tax laws and apportionment rules - BEFORE bidding the job in a new state
  - Travel reimbursement tax savings for employees working out of town requiring overnight travel

## 2. Evaluate the Financial Strength of your Company - set conservative benchmarks and financial goals

- a. Cash balances greater than 5% of annual revenue (non-borrowed)
  - \$100 million in revenue requires a minimum of \$5 million in excess cash
- b. Tangible equity of 10% to 15% of annual revenue
  - Deduct bad assets like goodwill, uncollectible receivables & bad investments
  - Deduct off balance sheet tax liabilities (LLC and S-Corp)

- c. Tangible working capital of at least 5% to 10% of annual revenue
  - More contractors fail due to insufficient working capital than any other reason - running out of cash is #1 reason for failure
  - Reduced by bad receivables, old inventories (i.e. unusable RAP), under-billings, prepaid expenses, etc.
  - Don't forget to deduct income taxes owed after year-end
- d. No significant under billings (Costs & estimated earnings in excess of billings)
  - Usually a loss or fade - *“Is it dumb or dishonest?”*
  - Most dangerous balance sheet account - high under-billings indicate poor cash/job management and potential overstatement of profit
  - Under-billings are taxable. Don't send the IRS 30% tax on money you don't have!

- e. Over-billings of at least 2% of annual contract revenue (Billings in excess of costs & estimated earnings) - But 5% is best-of-class
  - Completion costs and punch list items
  - Warranty and call back work
  - Profit fade and collectability (bad debt) reserve
  - High % indicates conservative job reporting
  - Tax deductible - keep your 30% until earned!
  - Must exceed non-borrowed cash balances
  - ***“Under-billing is bad... Over-billing should be in the bank”***

Construction Company Inc.		Exhibit A - Page 1 of 2			
Benchmarking Analysis					
Discretionary Pre-Tax Income and EBITDA					
	12/31/2018	12/31/2017	12/31/2016		
Net income (pre-tax)	\$ 7,000,000	\$ 2,200,000	\$ 5,400,000		
Adjustments:					
Owner bonus - profit distributions	2,200,000	1,700,000	1,200,000		
Gain on sale of equipment	(225,000)	(200,000)	(320,000)		
Adjustments to revenue for:					
POC increase (decrease) - deferred revenue	2,588,000	(200,000)	2,550,000		
Insurance reserve (decrease)	(150,000)	50,000	100,000		
<b>Discretionary pre-tax income</b>	<b>11,413,000</b>	<b>3,550,000</b>	<b>8,930,000</b>		
EBITDA adjustments:					
Depreciation	5,500,000	5,200,000	4,900,000		
Interest expense	500,000	450,000	400,000		
<b>Discretionary EBITDA</b>	<b>\$ 17,413,000</b>	<b>\$ 9,200,000</b>	<b>\$ 14,230,000</b>		
Equipment purchases - Cap-Ex	(5,800,000)	(6,200,000)	(6,000,000)		
Net cash provided - net of Cap-Ex	<b>11,613,000</b>	<b>3,000,000</b>	<b>8,230,000</b>		
Valuation at 5x EBITDA, net of cap-ex	\$ 87,065,000	\$ 46,000,000	\$ 71,150,000		
Valuation at 5x Average EBITDA (3-year)	\$ 68,071,667				
Total equipment purchased since 2016 - Cap-Ex	\$ 18,000,000				
Key ratios and benchmarks		Goal	12/31/2018	12/31/2017	12/31/2016
Balance Sheet					
Cash and equivalents		\$ 19,500,000	\$ 18,000,000	\$ 13,800,000	
Cash to revenue percentage	>5%	10.7%	11.0%	9.5%	
Working capital		25,000,000	18,000,000	17,700,000	
Working capital to revenue	>10.0%	13.7%	11.0%	12.1%	
Tangible working capital		21,500,000	14,500,000	14,200,000	
Tangible working capital to revenue	>7.5%	11.8%	8.9%	9.7%	
Tangible WC to self performed revenue	>10%	13.9%	11.5%	13.3%	
Stockholders equity		44,000,000	38,000,000	36,000,000	
Stockholders equity to revenue	>10%	24.2%	23.3%	24.7%	
Tangible Stockholders equity		40,000,000	34,000,000	32,000,000	
Tangible equity to revenue	>15%	22.0%	20.9%	21.9%	
Tangible equity to self-performed revenue	>15%	0.0%	0.0%	0.0%	
Total related party receivables		1,100,000	2,000,000	1,800,000	
Underbillings		612,000	1,100,000	500,000	
Overbillings (job borrow)		9,300,000	7,200,000	6,800,000	
<b>Net overbilling</b>		<b>8,688,000</b>	<b>6,100,000</b>	<b>6,300,000</b>	
Net overbilling to revenue	> 2.0%	4.77%	3.74%	4.32%	
Cash to net overbilling ratio	>150%	224.45%	295.08%	219.05%	
Total interest bearing debt		5,600,000	7,600,000	5,600,000	
Interest debt to equity ratio	< 50%	12.7%	20.0%	15.6%	
Interest debt to tangible equity ratio	< 80%	14.0%	22.4%	17.5%	

Construction Company Inc.		Exhibit A - Page 2 of 2		
Benchmarking Analysis				
Operations				
	Goal	12/31/2018	12/31/2017	12/31/2016
Revenues		\$ 182,000,000	\$ 163,000,000	\$ 146,000,000
Subcontract expense		(27,000,000)	(37,000,000)	(39,000,000)
Revenues - self performed - net of subs		155,000,000	126,000,000	107,000,000
Gross profit		17,600,000	16,500,000	15,400,000
Gross profit percentage	> 8%	9.7%	10.1%	10.5%
GP % - net of subs	>10%	11.4%	13.1%	14.4%
General and administrative		10,600,000	14,300,000	10,000,000
G & A to revenue	<7%	5.8%	8.8%	6.8%
G & A before mgmt fees & profit bonus		8,400,000	12,600,000	8,800,000
G & A to rev. before mgmt fees	<3%	4.6%	7.7%	6.0%
Net income		7,000,000	2,200,000	5,400,000
Net income before profit bonus		9,200,000	3,900,000	6,600,000
Net income % before fees & bonus	> 2%	5.1%	2.4%	4.5%
Net income before mgmt & profit bonus & deprec		14,700,000	9,100,000	11,500,000
Cash flow coverage - over 40% of debt	> 200%	656.3%	299.3%	513.4%
Contract backlog revenue		90,000,000	86,000,000	64,000,000
Contract backlog - estimated gross profit		8,100,000	7,600,000	6,900,000
Contract backlog - estimated gross profit %	>10%	9.0%	8.8%	10.8%
Contract backlog - gross profit to G&A	> 50%	76.4%	53.1%	69.0%
Contract backlog - gross profit to revenue	> 60%	49.5%	52.8%	43.8%
Equipment and Shop				
	Goal	12/31/2018	12/31/2017	12/31/2016
Original cost of equipment and plants		\$ 53,000,000	\$ 51,000,000	\$ 41,000,000
Book value of equipment and plants, net		27,000,000	22,000,000	18,000,000
Newness ratio (BV / cost)	> 40%	51%	43%	44%
Average age of rolling stock		4.80	5.10	5.20
Average age of vehicles		3.80	4.50	3.50
Number of equipment pieces (rolling stock only)		248	231	226
Mechanics - average number employed		11	10	12
Equipment pieces per mechanic	< 24>	22.5	23.1	18.8
Total budgeted hours per piece @ 1200		297,600	277,200	271,200
Hours charged to plants and job cost		244,000	211,000	185,000
Utilization rate - company average	> 80%	82%	76%	68%
Employment benchmarks				
		12/31/2018	12/31/2017	12/31/2016
Total persons employed - total for the year		399	422	421
Average full time employees - weekly		343	341	312
Turnover amount		56	81	109
Turnover rate	< 25%	16.33%	23.75%	34.94%
1st year (rookie) employees on year-end payroll		28	35	41
Percentage 1st year employees	< 10%	8.16%	10.26%	13.14%
Self performed Revenue per employee (average full time)		\$ 451,895	\$ 369,501	\$ 342,949
Pieces of equipment per employee	< .80	0.72	0.68	0.72

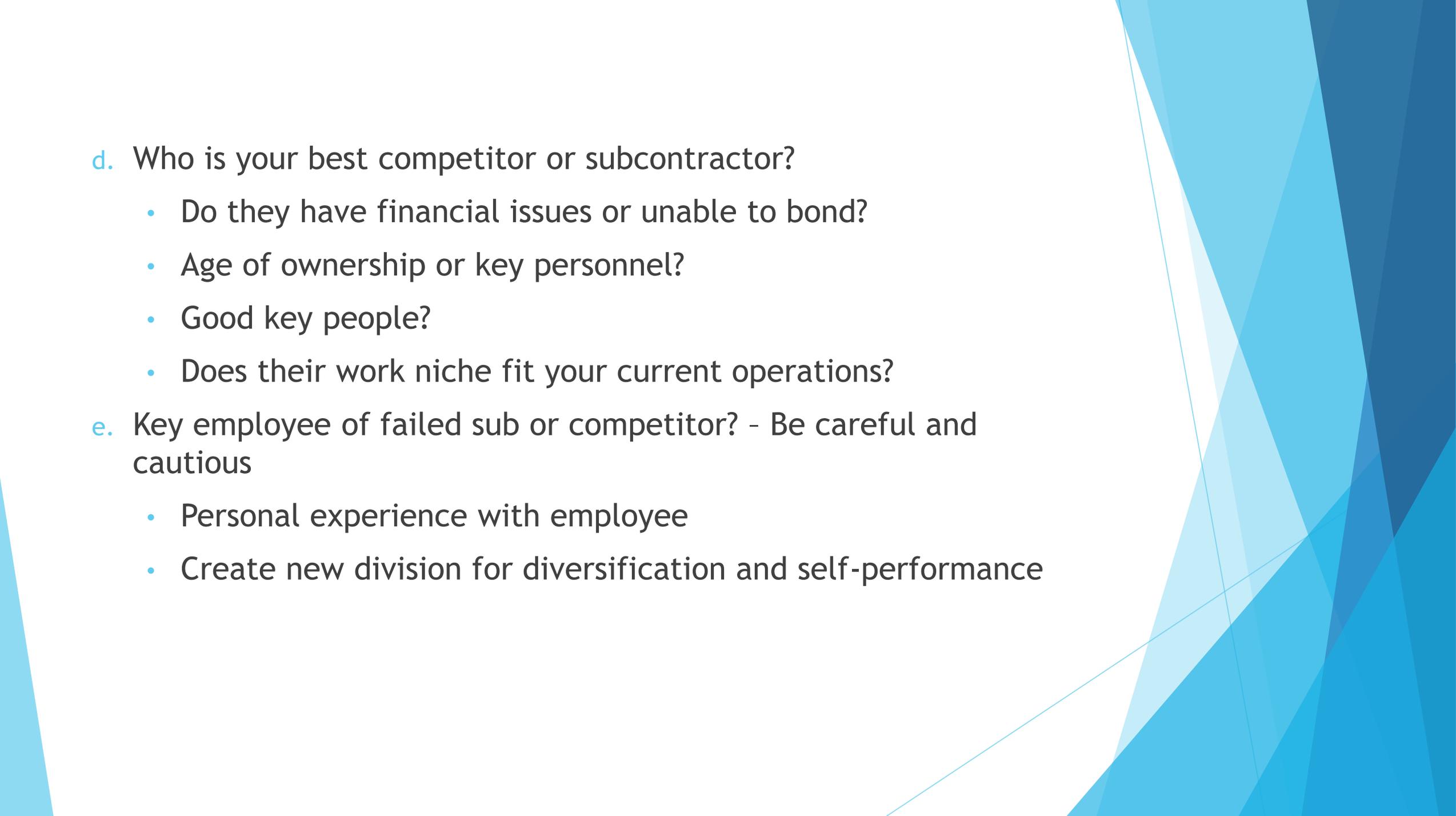


### 3. Re-Think Your Business Mix - evaluate the types of work you perform and consider divestiture or diversification on a regular basis

- a. Prepare and maintain a 5-year schedule segregating contracts by customer, type, location, project manager, superintendent:
  - Called a “FADE / GAIN ANALYSIS”
  - Show original bid and final profit/loss (contract fade/gain)
  - What jobs make money...lose money? Customer, type, location, etc.
  - Do some project managers/superintendents consistently have jobs that fade? Gain?
  - Include bid spread comparison on fade/gain schedule: large bid spreads = less profit 90% of the time

## 4. Stay Alert for Merger or Acquisition Opportunities - diversification or expansion of current operations

- a. Be proactive - don't wait for them to call you
- b. Some competitors or subcontractors are still struggling and need an exit strategy
- c. Some competitors or subcontractors are doing much better in 2019, but would like to quit “while on top” before the next recession
  - Health issues, retirement age, personal liability issues
  - No succession plan and no family in the business

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- d. Who is your best competitor or subcontractor?
    - Do they have financial issues or unable to bond?
    - Age of ownership or key personnel?
    - Good key people?
    - Does their work niche fit your current operations?
  - e. Key employee of failed sub or competitor? - Be careful and cautious
    - Personal experience with employee
    - Create new division for diversification and self-performance

f. Valuations are still low compared to 2006 levels

- Earnings capitalization method: 4x-5x EBIT (earnings before interest and taxes)
  - Grading, excavation, utility 4x-5x (adjusted book value is more common than earnings cap method)
  - Bridges and structures 5x-6x with earn-out contingency
  - Asphalt paving 6x-8x EBIT
  - Aggregates 8x-12x EBIT
- EBIT is “normalized” for addbacks and deductions for non-recurring expenses, income and owner profit distributions
- Depreciation is not free cash flow in construction valuations, so EBIT is most common measurement. If EBITDA used, it is adjusted for annual cap-ex
- Earn-out purchase clause is conditional on revenue, profit, tonnages, key employee retentions, etc. Seller retains an incentive to transfer ownership successfully
- It is still a buyer’s market - guaranteed values are moderate

## 5. Manage Your Equipment - generally the most significant cost for heavy highway contractors

- a. Analyze equipment usage and equipment “P&L” reports for 5 years
  - Compares actual annual hours charges to job against total budgeted hours - “Utilization percentage”
    - 80% + is good
    - Under 50% is bad
  - Compares revenue (internal rate / external rental) with all costs: depreciation, repairs, maintenance, tires, insurance, shop overhead
    - Break-even is good; small profit better
    - Loss for class of equipment indicates low rates
    - Profit for class of equipment indicates excessive rates
    - Standard budgeted hours for equipment is 1000 to 1200 hours, but varies for specialty pieces

- b. Do you have excessive idle equipment costs even in good years?
  - Do you have good controls over hourly equipment field reporting?
    - Automatic GPS hour reporting?
    - Hour meter reported daily by field superintendent?
  - Are hourly equipment rates calculated and updated annually?
  - Are dry rates too low compared to actual costs?
  - If used, are wet rates (include fuel) adjusted for changes in diesel prices as required?
  - **Best practice: Obtain report comparing direct labor costs to equipment costs on each job. Significant difference in ratio of labor to equipment could indicate error or manipulation**

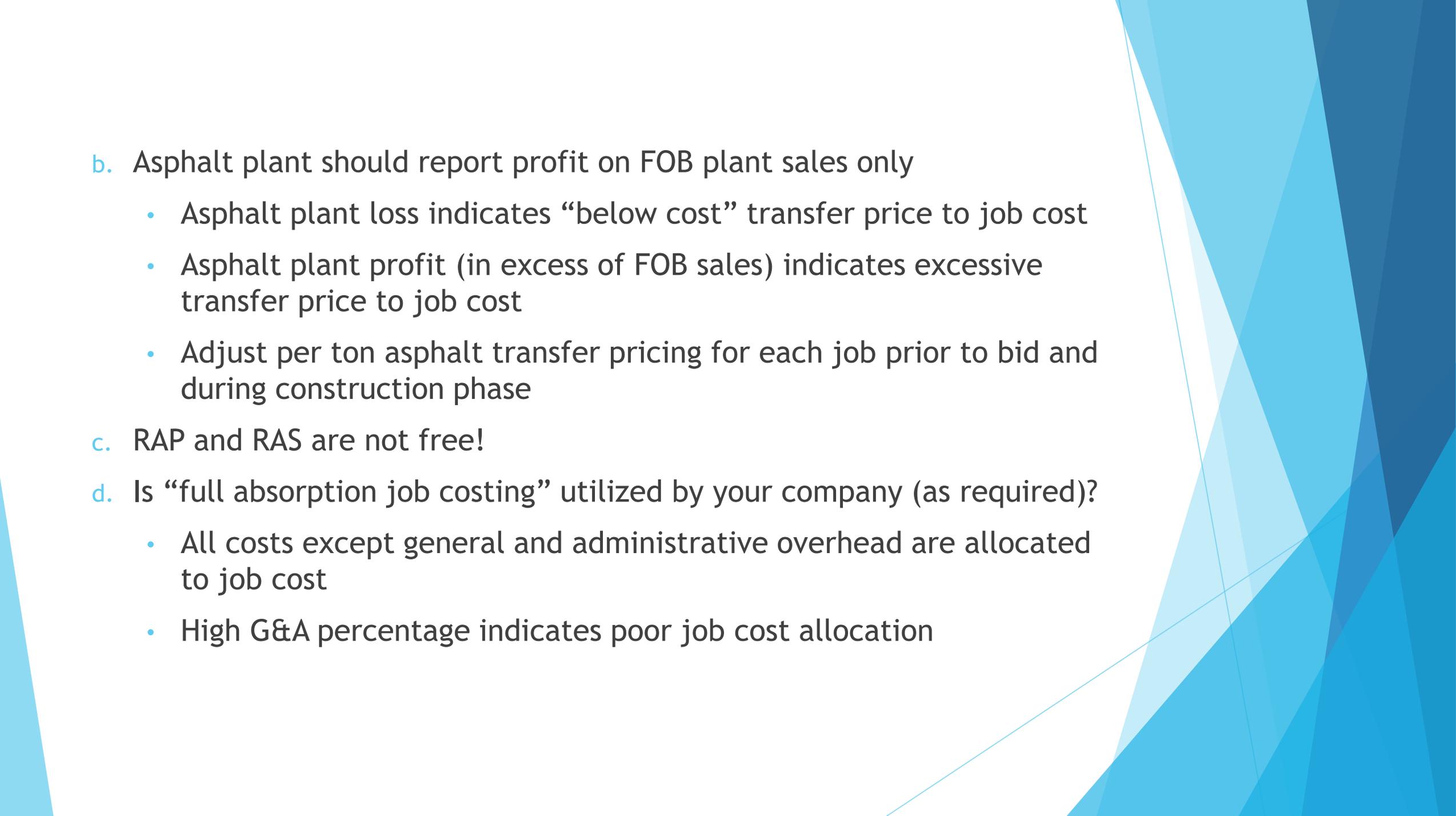
- c. Analyze detailed shop, repair and maintenance costs for past 5 years
  - What would a 5% reduction add to your bottom line? 10% reduction?
  - Are your shop costs out of control?
  - Is it time to consider outsourcing major repairs?
  - Do you control parts and tires? Cost to equipment number?
  - Are mechanics held accountable for repair budget hours?
  - Most common theft in heavy highway contractors:  
Labor, tires, batteries, fuel
  - **Best practice: create work order system for major repairs; cost labor, parts and overhead to repair and compare to budget**

- d. Install and use a fuel management system
  - Calculate mpg for each vehicle and compare to expected rates
  - Monitor fuel tanks and deliveries
- e. Is it a good time to strategically reorganize your equipment operations?
  - Give consideration to the value of a newer and more efficient equipment fleet: What is value of fuel usage savings, reductions in repair costs, less downtime and improved work quality?
  - Tax depreciation is attractive - 100% bonus continues until 2027 on new and used equipment
  - Better investment than the stock market

## 6. Know your True Job Cost - the #1 problem in the construction industry is that some contractors do not know their true job cost

### a. Evaluate and improve your internal control job cost system

- Are direct labor, equipment, materials and subcontracts assigned to correct contracts and cost code?
- Are field personnel trained to charge labor and equipment costs to correct phase code?
- Is your system designed to provide accurate unit costs and compare to bid unit prices?
- Are project managers “blocked” from shifting job costs between different jobs or phase codes?

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- The background of the slide features a complex, abstract pattern of overlapping triangles and polygons in various shades of blue, ranging from light sky blue to deep navy blue. The pattern is concentrated on the right side of the slide, creating a modern, geometric aesthetic.
- b. Asphalt plant should report profit on FOB plant sales only
    - Asphalt plant loss indicates “below cost” transfer price to job cost
    - Asphalt plant profit (in excess of FOB sales) indicates excessive transfer price to job cost
    - Adjust per ton asphalt transfer pricing for each job prior to bid and during construction phase
  - c. RAP and RAS are not free!
  - d. Is “full absorption job costing” utilized by your company (as required)?
    - All costs except general and administrative overhead are allocated to job cost
    - High G&A percentage indicates poor job cost allocation

e. Many contractors erroneously omit these job cost allocations:

- Unallocated equipment costs due to low internal rental rates or incorrect hourly usage reports
- Shop costs and overhead (not fully covered by hourly equipment rates)
- Insurance costs (should be in labor burden rates)
- Technology and computer costs (job management, bidding, software, etc.)
- Human resources - HR department for recruiting, training and retaining employees
- Payroll compliance costs - EEO, safety, retirement plan, field labor reporting, healthcare, etc.
- Legal costs associated with job management issues
- Subcontractor compliance, management and payment process
- Project management and general superintendent compensation, bonuses and benefits

## 7. Review & Implement Internal Controls - to control costs, improve revenue & maximize profits

### a. Manage labor costs

- Utilize electronic daily time sheets and field reporting
- Eliminate 10-10-10-10-10 labor cost - waste and fraud
- Consider thumb or facial recognition technology
- Weekly time sheets cost money

## b. Manage subcontractors

- Run credit report annually on all subcontractors
- If bond is waived, obtain audited or reviewed financial statement
- Bond major subcontractors without exception
  - Verify validity of bonds with agent (and insurance certificate)
- Scrutinize subcontractor quotes that are significantly low
- Be concerned about subcontractor's exposure to price increase
- Set up monthly email verification system with sub suppliers to verify payment - offer to joint check for past due amounts
- **Implement DBE compliance procedures and provide adequate training to project managers**

## 8. Beef Up Bidding & Estimating Controls

- a. Bid smarter: set minimum gross profit goals; know your actual costs
  - Realize you are a “market maker” - the lower you bid, the lower your competitor will bid to catch you
  - Is the problem with bid prices “staring at you in the mirror”?
  - Prepare detailed bid spread analysis each quarter. Compare bid spread amounts to final fade/gain.
    - Create standard bid spread alert amounts
    - Greater than 10% - re-bid to look for error
- b. “Cheap Seat Idea”: Calculate average bid spread over prior 2 years; consider addition of 50% average bid spread to lump sum item (mobilization)

c. Review internal controls over estimators

- Are three quotes obtained and documented?
- Can subcontractor bond the job? Determined before using them?
- Be skeptical of estimator/supplier/sub relationships - scrutinize perks

d. Implement “war room” bidding process and mentality

- **Resist last minute bid cut based on a “whim”**
- Lock down - no cell phones, monitor email - until after bid time

## 9. Have Annual Meeting with Surety, Lenders & Key Advisors

- a. Invest time to develop banking and bonding relationship
- b. Review audited financial statements and 1<sup>st</sup> quarter results
- c. Review and discuss budget for upcoming year
- d. Review and discuss backlog, upcoming bids, equipment needs, key personnel, acquisition opportunities
- e. Discuss continuity / succession plan and other strategies
- f. Listen to input and advice from surety and lenders - they want to loan you money and provide bonding

# 10. Become Recession Proof

- a. Discontinue loans to related parties, outside businesses and employees
- b. Stick with your core business - not a good time for a “restaurant” investment - marinas, hunting lodges, race cars, race horses, gold mines, multiple spouses, etc.
- c. Don't sign bonds for other contractors - Period
  - The professionals said NO
  - In effect, using a “non-bondable” subcontractor is “same as”

- d. Be content with less volume if bid margins are tight
  - *“Profit thrills, but bad revenue kills”*
  - Learn to say “no” to prime contractors/owners asking for a bid cut
  - Don’t be slow to cut overhead and costs
- e. Take care of key employees - your most valuable asset
- f. Develop a recession proof balance sheet:
  - Cash will always be King - maintain excess cash of 10% of annual revenue
  - Get debt under 30% of equity
  - No under-billings
  - Over billings of 5% of backlog
  - No bad receivables and obsolete inventories
  - “Dry powder” to be a buyer during down economy

Questions?

Answers?

Thank you.