

Welcome to the



OCEC Participant Webinar

**If you are experiencing technical difficulties,
please call 800-248-6862 and ask for Customer Service.**

Using the OCEC to improve profitability



John Mackay

Mackay Research Group

Prepared for NTMA

OCEC Overview

- Operating Costs Report
- Executive Compensation Report
- Individual Company Report

Median Results	<u>NTMA</u>
Participants	222
Revenue	\$5,475,045
Gross Margin	21.7%
Profit Margin	4.2%
Return On Assets	8.4%

Two requirements in any business

- **Adequate Salary – Hours Worked**
- **Adequate Profit – Risk Taken**

Why Benchmark?

- Good decisions begin with good information
- What's the standard?
 - Speculate about own performance
 - Identify best practices
 - Performance gap
 - Credible, objective insight
- Identify strengths & weaknesses

What is the OCEC?

□ Operating Costs Report

- Return On Investment
- Economic Value Added
- Product Profile
- Income Statement
- Balance Sheet
- Financial Ratios
- Asset Productivity
- Employee Productivity

□ Executive Compensation Report

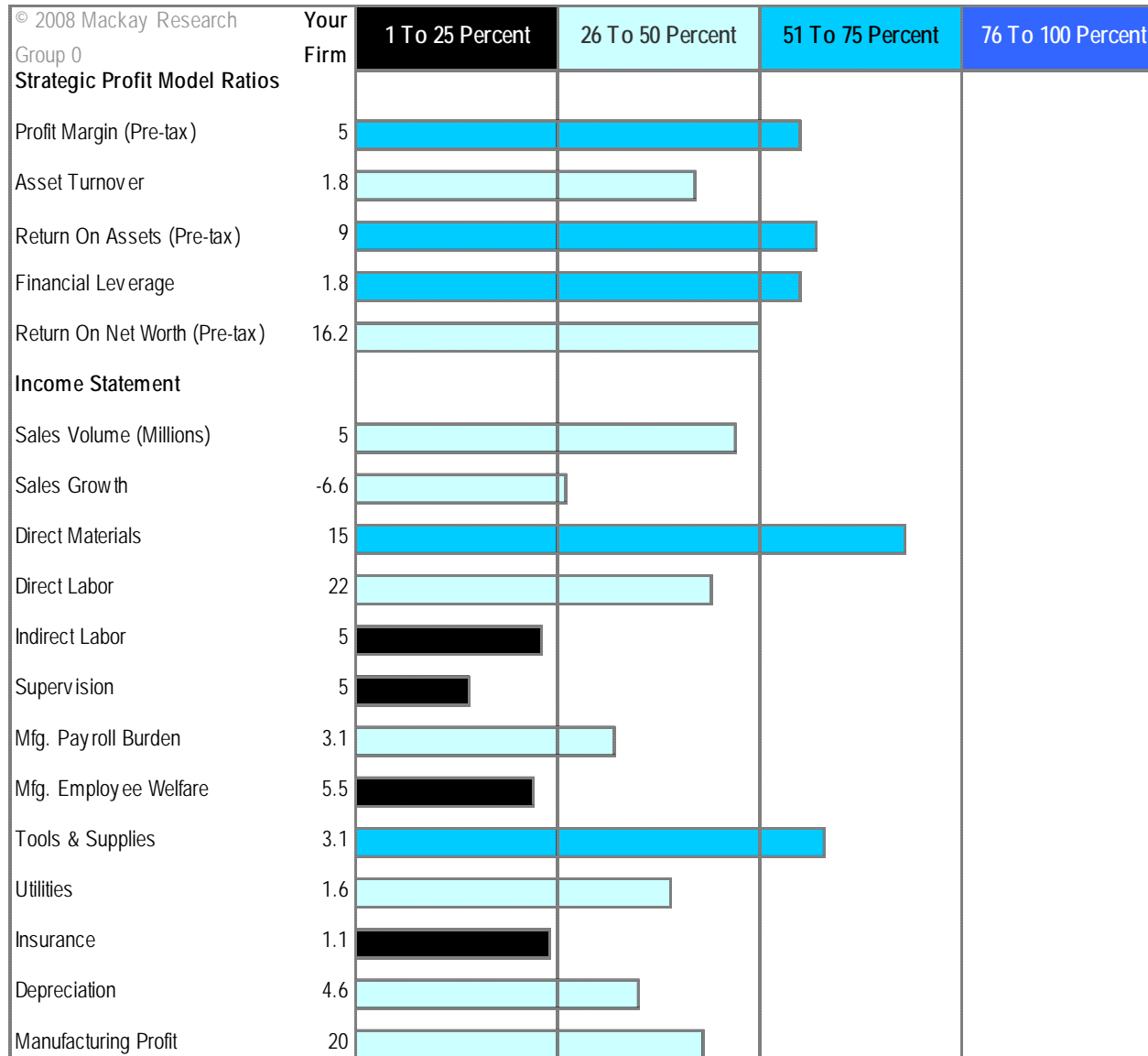
Segmenting the Data

- Typical & High Profit
- Sales Volume Categories
- Line of Business
 - Tools & Dies
 - Molds
 - General Machining
 - Aerospace Machining
 - Special Machines
 - Production Operations
- Exec Compensation by region

What's In It For Me?

- ▣ **Industry Performance Report** — An industry-wide summary report profiling the financial and operating performance of your manufacturers. Management commentary is provided in the report to explain what the various statistics and ratios mean and why they are important.
- ▣ **Financial Performance Report** — Each participant that returns a completed questionnaire will receive an individual Financial Performance Report (FPR) analyzing their company. This report also compares the participant's firm to industry benchmarks and to others in his sales classification. Mackay Research Group sends these reports directly to the survey participants.

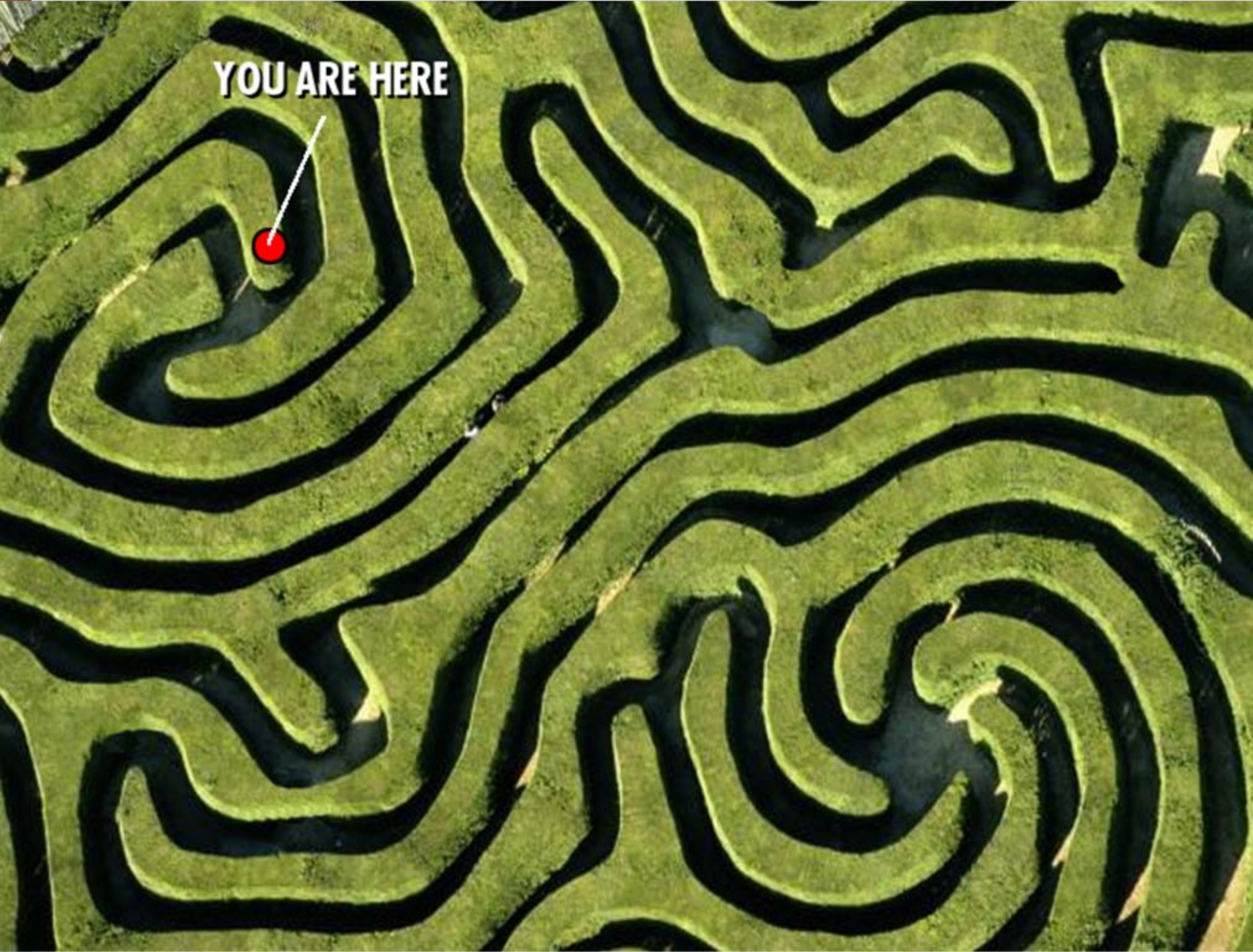
Your Scorecard



Summary Financial Results

	Typical NTMA Mfr	High Profit NTMA	NTMA Mfr \$1.5-\$3 Million	General Precision Machining	Machining \$2 - \$3 Million	Your Firm
Number Of Firms Reporting	203	51	39	74	10	
Typical Sales Volume	\$5,532,407	\$8,364,280	\$2,320,327	\$4,171,849	\$2,503,801	\$2,500,000
Sales Growth (2006 To 2007)	5.9%	14.6%	2.3%	6.4%	7.8%	15.0%
Strategic Profit Model Ratios						
Profit Margin (Pre-tax)	4.2%	11.6%	2.6%	5.8%	6.4%	5.0%
Asset Turnover	2.0	2.3	2.2	2.0	2.4	2.5
Return On Assets (Pre-tax)	8.4%	26.7%	5.7%	11.6%	15.4%	12.5%
Financial Leverage	1.7	1.6	1.9	1.7	2.6	1.8
Return On Net Worth (Pre-tax)	14.3%	42.7%	10.8%	19.7%	40.0%	22.5%
Sales By Industry Classification						
Tools & Dies	15.9%	9.3%	11.3%	4.2%	4.7%	0.0%
Molds	9.3	2.4	9.8	0.8	0.1	0.0
General Precision Machining	36.5	46.6	44.3	79.4	81.0	60.0
Aerospace Machining & Fabrication	14.4	15.4	12.3	8.3	8.9	40.0
Special Machines	7.6	9.1	4.7	3.6	0.0	0.0
Production Operations	4.1	8.0	6.1	1.2	3.3	0.0
Total Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Income Statement						
Net Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost Of Goods Sold						
Direct Materials	22.0	23.0	18.3	21.8	14.9	17.0
Subcontracting	4.6	5.2	4.5	4.2	4.9	2.4
Total Direct Labor	23.0	20.3	23.5	21.7	24.6	28.9
Repairs & Maintenance	1.9	1.6	1.5	1.8	1.6	0.8
Indirect Labor	3.4	3.1	3.6	3.6	3.2	1.6
Supervision	3.1	2.5	3.2	3.0	2.2	5.1
Payroll Burden (Manufacturing Employees)	3.0	2.7	3.3	3.1	3.7	4.4
Employee Welfare (Mfg. Employees)	4.4	4.1	4.5	4.2	4.6	3.6
Tools & Supplies	3.8	3.4	4.0	4.0	4.3	3.9

YOU ARE HERE



YOU ARE HERE



**HERE IS WHERE
YOU WANT TO BE**



Operating Costs Report

Table of Contents

Introduction	1
Executive Summary	2
Detailed Results by Sales Size	
Return On Investment	4
Product/Customer Profile	7
Income Statement	8
Operating Statement as % of Value Added	9
Balance Sheet	10
Financial Ratios	11
Asset Productivity Ratios	12
Employee Productivity	13
Analysis By Industry Class	14
Category Sales Volume Analysis	
Tools & Dies	18
Molds	22
Genl. Precision Machining	26
Aerospace Machining	30
Special Machines	34
Production Operations	38
Trend Analysis	42

Factors for Success

<u>Factors For Success</u>	Typical NTMA <u>Mfr</u>	High Profit <u>NTMA</u>
Income Statement Factors		
Sales Per Employee	\$135,669	\$154,118
Sales Growth	3.9%	12.5%
Manufacturing Profit (Gross Margin)	21.8%	28.4%
Selling & Administrative Expenses	16.9%	14.5%
Balance Sheet Factors		
Inventory Turnover (Times)	8.5	9.0
Average Collection Period (Days)	47.2	42.4
Sales To Fixed Assets	5.3	7.8

High Profit Income Statement

<u>Income Statement</u>	<u>Typical NTMA Mfr</u>		<u>High Profit NTMA</u>	
Net Sales	\$5,475,045	100.0%	\$5,818,000	100.0%
Direct Materials	1,193,560	21.8	1,396,320	24.0
Subcontracting	344,928	6.3	372,352	6.4
Direct Labor	1,160,709	21.2	965,788	16.6
Repairs & Maintenance	109,501	2.0	87,270	1.5
Indirect Labor	164,251	3.0	127,996	2.2
Supervision	158,776	2.9	145,450	2.5
Manufacturing Payroll Burden	153,301	2.8	122,178	2.1
Manufacturing Employee Welfare	224,477	4.1	232,720	4.0
Tools & Supplies	208,052	3.8	238,538	4.1
Utilities (heat, light, power, water)	82,126	1.5	63,998	1.1
Rent/Lease (buildings)	120,451	2.2	116,360	2.0
Rent/Lease (equipment)	0	0.0	0	0.0
Insurance (liability & casualty)	43,800	0.8	29,090	0.5
Taxes (property, business licenses, etc.)	27,375	0.5	17,454	0.3
Depreciation & Amortization	219,002	4.0	197,812	3.4
All Other Manufacturing Expenses	71,176	1.3	52,362	0.9
Burden Differential	<u>0</u>	<u>0.0</u>	<u>0</u>	<u>0.0</u>
Total Cost Of Goods Sold	4,281,485	78.2	4,165,688	71.6
Manufacturing Profit	1,193,560	21.8	1,652,312	28.4
Selling & Administrative Payroll	678,906	12.4	639,980	11.0
Other Selling & Administrative Expenses	<u>246,377</u>	<u>4.5</u>	<u>203,630</u>	<u>3.5</u>
Total Selling & Administrative Expenses	925,283	16.9	843,610	14.5
Operating Profit	268,277	4.9	808,702	13.9
Other Income/Expenses	<u>-49,275</u>	<u>-0.9</u>	<u>-23,272</u>	<u>-0.4</u>
Profit Before Taxes	\$219,002	4.0%	\$785,430	13.5%

High Profit Balance Sheet

Profit Before Taxes	\$219,002	4.0%	\$785,430	13.5%
	<u>Typical NTMA Mfr</u>		<u>High Profit NTMA</u>	
<u>Assets</u>				
Cash & Marketable Securities	\$314,815	11.5%	\$480,617	19.0%
Accounts Receivable	736,394	26.9	693,101	27.4
Inventory	574,880	21.0	485,676	19.2
Other Current Assets	<u>30,113</u>	<u>1.1</u>	<u>27,825</u>	<u>1.1</u>
Current Assets	1,656,201	60.5	1,687,220	66.7
Net Fixed Assets	1,042,996	38.1	827,168	32.7
Other Noncurrent Assets	<u>38,325</u>	<u>1.5</u>	<u>15,177</u>	<u>0.6</u>
Total Assets	\$2,737,522	100.0%	\$2,529,565	100.0%
Return On Assets		8.0%		31.1%

Executive Summary: Part 1

	Typical NTMA <u>Mfr</u>	Tools & <u>Dies</u>	<u>Molds</u>	General Precision <u>Machining</u>	Aerospace Machining & <u>Fabrication</u>	Special <u>Machines</u>	Production <u>Operations</u>
Number Of Firms Reporting	222	28	18	85	31	14	24
Typical Sales Volume (000'S)	\$5,475	\$3,894	\$6,897	\$4,795	\$7,469	\$5,755	\$7,521
Sales Growth (2007 vs. 2006)	3.9%	0.0%	-3.3%	1.2%	12.6%	16.6%	6.8%
Strategic Profit Model Ratios							
Profit Margin (Pre-tax)	4.0%	2.9%	1.3%	4.5%	4.5%	6.6%	3.3%
Asset Turnover	2.0	1.7	1.5	2.0	2.0	1.8	2.0
Return On Assets (Pre-tax)	8.0%	4.9%	1.9%	9.0%	9.0%	11.9%	6.6%
Financial Leverage	1.8	1.6	1.6	2.0	1.8	1.9	1.4
Return On Net Worth (Pre-tax)	14.4%	7.8%	3.0%	18.0%	16.2%	22.6%	9.2%
Sales By Industry Classification							
Tools & Dies	13.6%	78.1%	1.9%	4.0%	1.0%	4.3%	7.7%
Molds	8.4	1.9	87.9	1.7	0.0	0.9	0.2
General Precision Machining	38.4	14.0	5.7	78.7	15.5	9.1	12.5
Aerospace Machining & Fabrication	16.0	1.3	0.6	7.8	78.7	0.0	2.4
Special Machines	7.4	2.0	0.5	2.8	2.6	75.2	1.9
Production Operations	11.2	2.0	2.2	2.7	1.7	4.9	73.4
Other	<u>5.0</u>	<u>0.7</u>	<u>1.2</u>	<u>2.3</u>	<u>0.5</u>	<u>5.6</u>	<u>1.9</u>
Total Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Executive Summary: Part 2

Income Statement	Typical	Tools &		General	Aerospace	Special	Production
	NTMA	Dies	Molds	Precision	Machining &	Machines	Operations
Net Sales	<u>Mfr</u>	<u>Dies</u>	<u>Molds</u>	<u>Machining</u>	<u>Fabrication</u>	<u>Machines</u>	<u>Operations</u>
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost Of Goods Sold							
Direct Materials	21.8	17.1	17.5	21.6	20.5	32.2	32.7
Subcontracting	6.3	4.9	6.5	5.9	10.8	3.4	4.4
Direct Labor	21.2	26.9	26.7	22.4	18.0	17.6	16.7
Repairs & Maintenance	2.0	1.9	2.2	1.5	1.9	1.0	1.7
Indirect Labor	3.0	2.6	2.1	3.1	4.1	1.5	2.9
Supervision	2.9	3.3	3.9	2.6	2.5	2.4	2.6
Manufacturing Payroll Burden	2.8	3.3	3.3	2.7	2.3	2.5	2.6
Manufacturing Employee Welfare	4.1	5.0	6.6	3.9	4.1	3.6	2.9
Tools & Supplies	3.8	3.8	3.1	3.8	4.8	2.1	2.2
Utilities (heat, light, power, water)	1.5	1.6	1.5	1.4	1.4	1.4	1.4
Rent/Lease (buildings)	2.2	2.3	1.4	2.0	1.8	2.7	2.0
Rent/Lease (equipment)	0.0	0.0	0.0	0.0	0.3	0.1	0.0
Insurance (liability & casualty)	0.8	0.8	0.6	0.6	0.5	0.9	0.6
Taxes (property, business licenses, etc.)	0.5	0.5	0.4	0.3	0.5	0.4	0.6
Depreciation & Amortization	4.0	4.6	4.2	4.0	4.1	1.3	3.8
All Other Manufacturing Expenses	1.3	0.6	1.3	1.0	1.6	0.8	1.1
Burden Differential	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Total Cost Of Goods Sold	78.2	79.2	81.3	76.8	79.2	73.9	78.2
Manufacturing Profit	21.8	20.8	18.7	23.2	20.8	26.1	21.8
Selling & Administrative Expenses							
Selling & Administrative Payroll	12.4	14.5	12.3	12.7	10.2	14.0	13.6
Other Selling & Admin. Expenses	<u>4.5</u>	<u>3.1</u>	<u>4.4</u>	<u>5.1</u>	<u>4.8</u>	<u>5.0</u>	<u>4.1</u>
Total Selling & Admin. Expenses	16.9	17.6	16.7	17.8	15.0	19.0	17.7
Operating Profit	4.9	3.2	2.0	5.4	5.8	7.1	4.1
Other Income/ Expenses	<u>-0.9</u>	<u>-0.3</u>	<u>-0.7</u>	<u>-0.9</u>	<u>-1.3</u>	<u>-0.5</u>	<u>-0.8</u>
Profit Before Taxes	4.0%	2.9%	1.3%	4.5%	4.5%	6.6%	3.3%

Executive Summary: Part 3

Financial Ratios	Typical	Tools &		General	Aerospace	Special	Production
	NTMA	<u>Mfr</u>	<u>Dies</u>	<u>Molds</u>	Precision	Machining & Fabrication	Machines
Current Ratio	2.3	1.8	2.3	2.3	2.5	2.0	3.3
Quick Ratio	1.5	1.6	1.6	1.3	1.2	1.2	1.9
Debt To Equity	0.8	0.6	0.6	1.0	0.8	0.9	0.4
EBIT To Total Assets	10.2%	5.9%	4.0%	11.4%	11.8%	13.1%	8.0%
Times Interest Earned	4.6	2.2	1.6	4.1	4.8	8.6	9.0
Average Collection Period (Days)	47.2	55.1	57.3	43.5	50.1	37.5	47.4
Inventory Turnover	8.5	8.0	9.4	7.4	6.3	7.3	8.9
Sales To Fixed Assets	5.3	4.5	4.7	5.5	6.4	5.3	5.9
Sales Per Employee	\$135,669	\$125,698	\$140,689	\$125,657	\$140,171	\$154,202	\$147,750

Financial Results

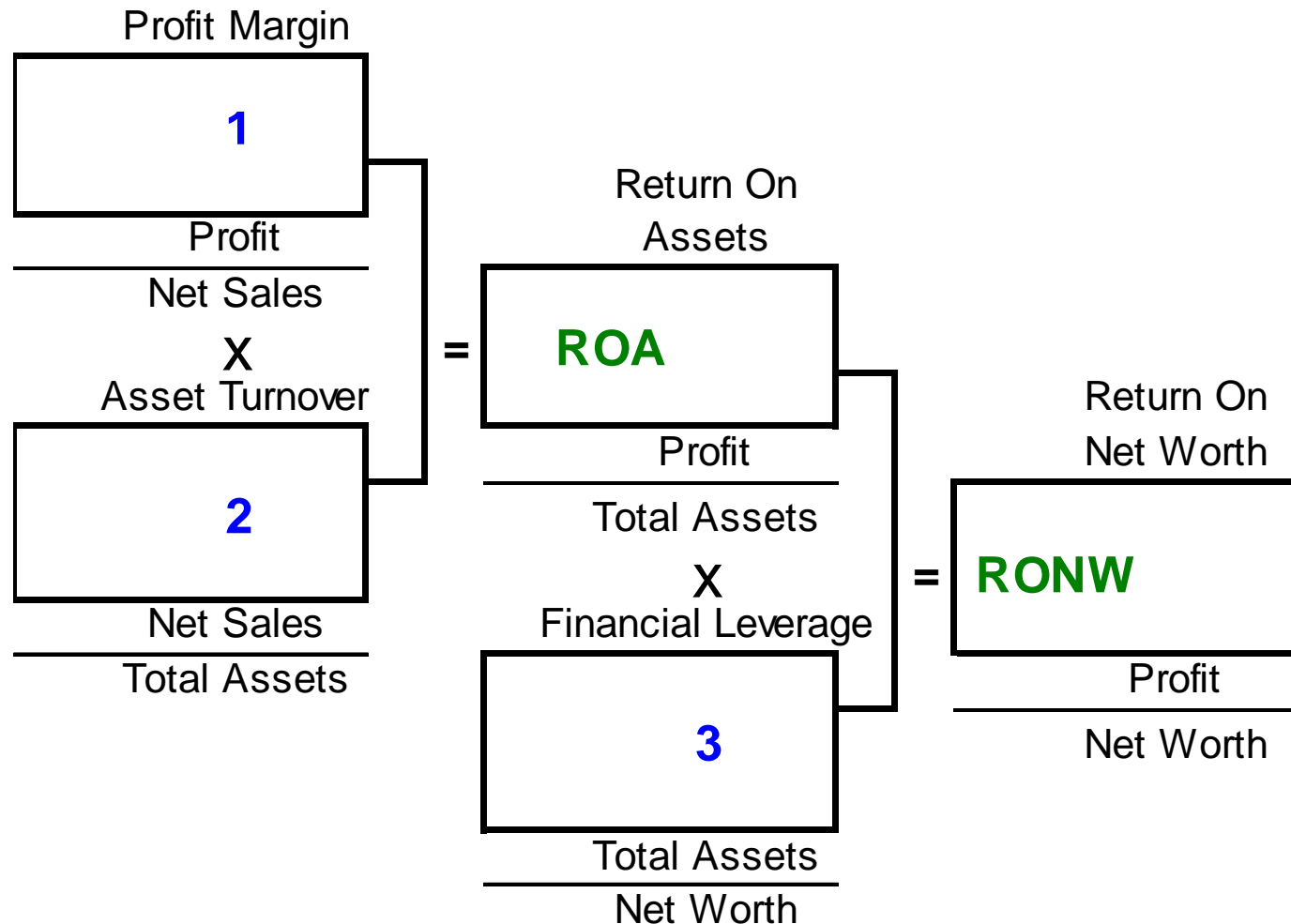
Income Statement

	Dollars	%
Sales	\$5,500,000	100.0%
<u>Cost Of Goods Sold</u>		
Direct Materials	1,463,000	26.6
Direct Labor	1,265,000	23.0
Indirect Labor	462,000	8.4
Plant Depreciation	209,000	3.8
Other Factory Costs	<u>907,500</u>	<u>16.5</u>
Total COGS	\$4,306,500	78.3
Gross Margin	\$1,193,500	21.7
<u>S, G&A Expenses</u>		
Selling Expenses	200,750	3.7
General & Admin.	<u>761,750</u>	<u>13.9</u>
Total S, G&A	962,500	17.5
Profit Before Taxes	231,000	4.2%

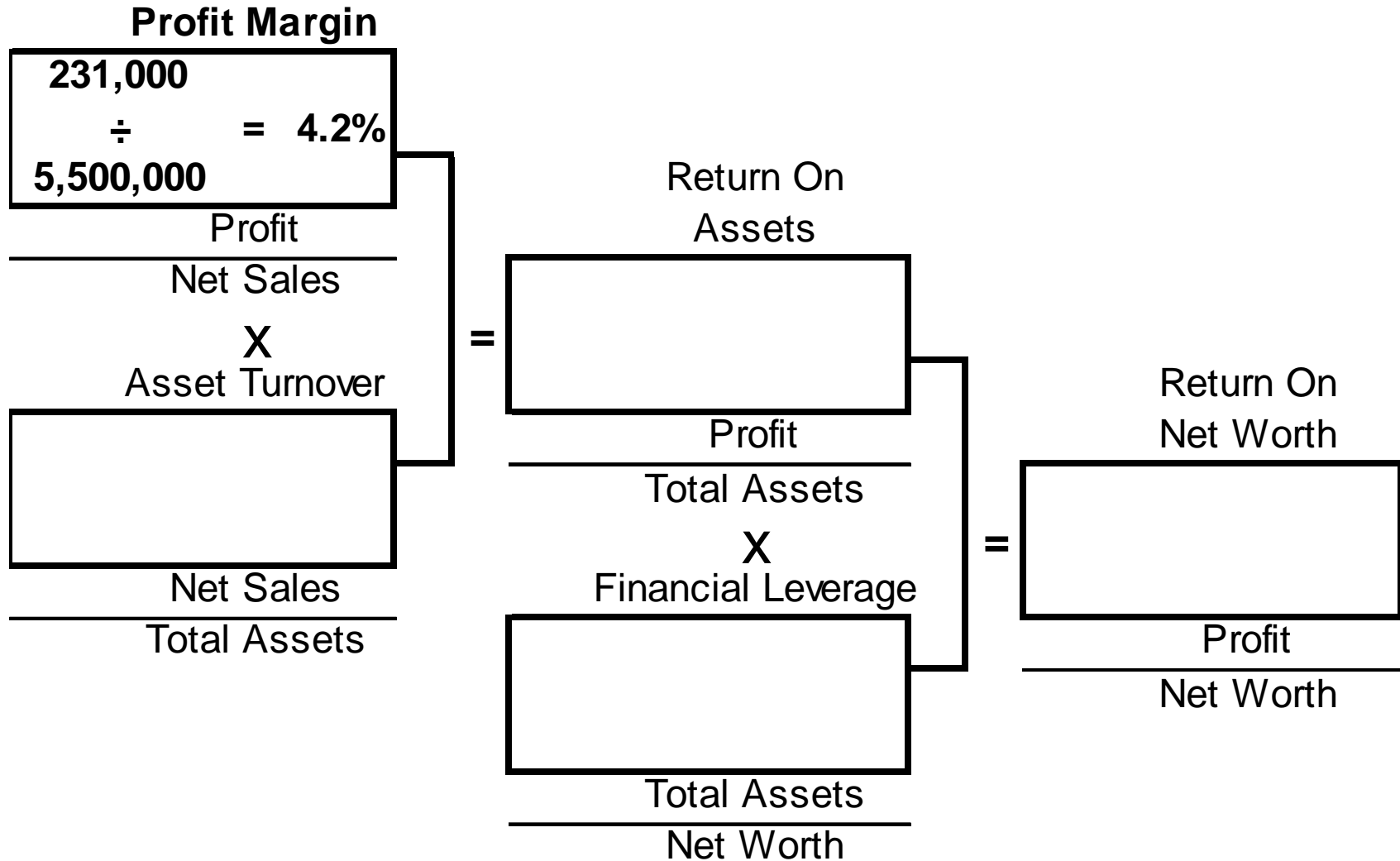
Balance Sheet

	Dollars	%
Assets		
Cash	\$247,500	9.0%
Accounts Receivable	722,000	26.3
Inventory	515,000	18.7
Other Current	<u>165,500</u>	<u>6.0</u>
Current Assets	1,650,000	60.0
Gross Fixed Assets	3,575,000	130.0
Acc. Depreciation	<u>2,612,500</u>	<u>95.0</u>
Net Fixed Assets	962,500	35.0
Other Fixed Assets	<u>137,500</u>	<u>5.0</u>
Total Assets	\$2,750,000	100.0%

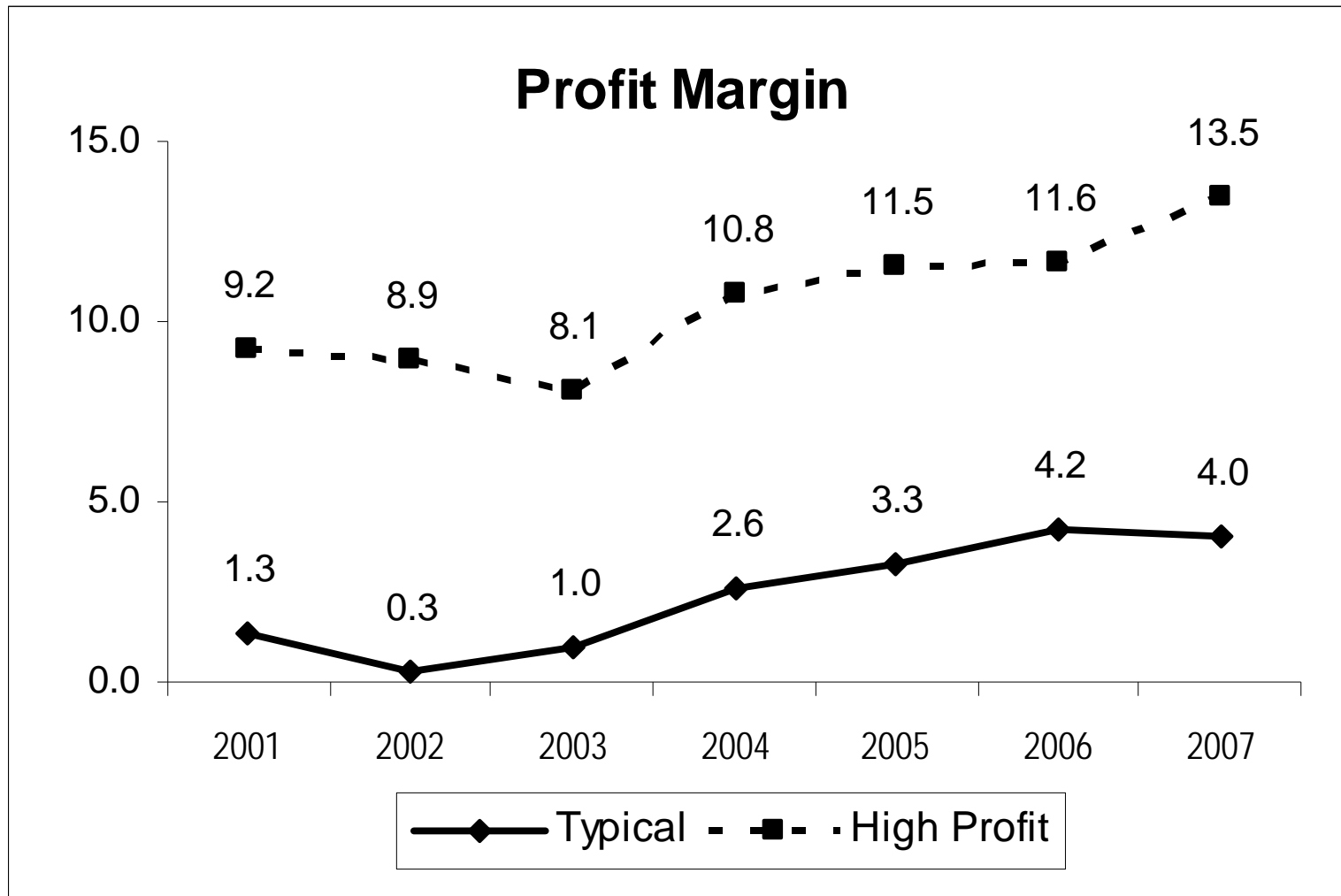
The Strategic Profit Model: A Valuable Management Tool



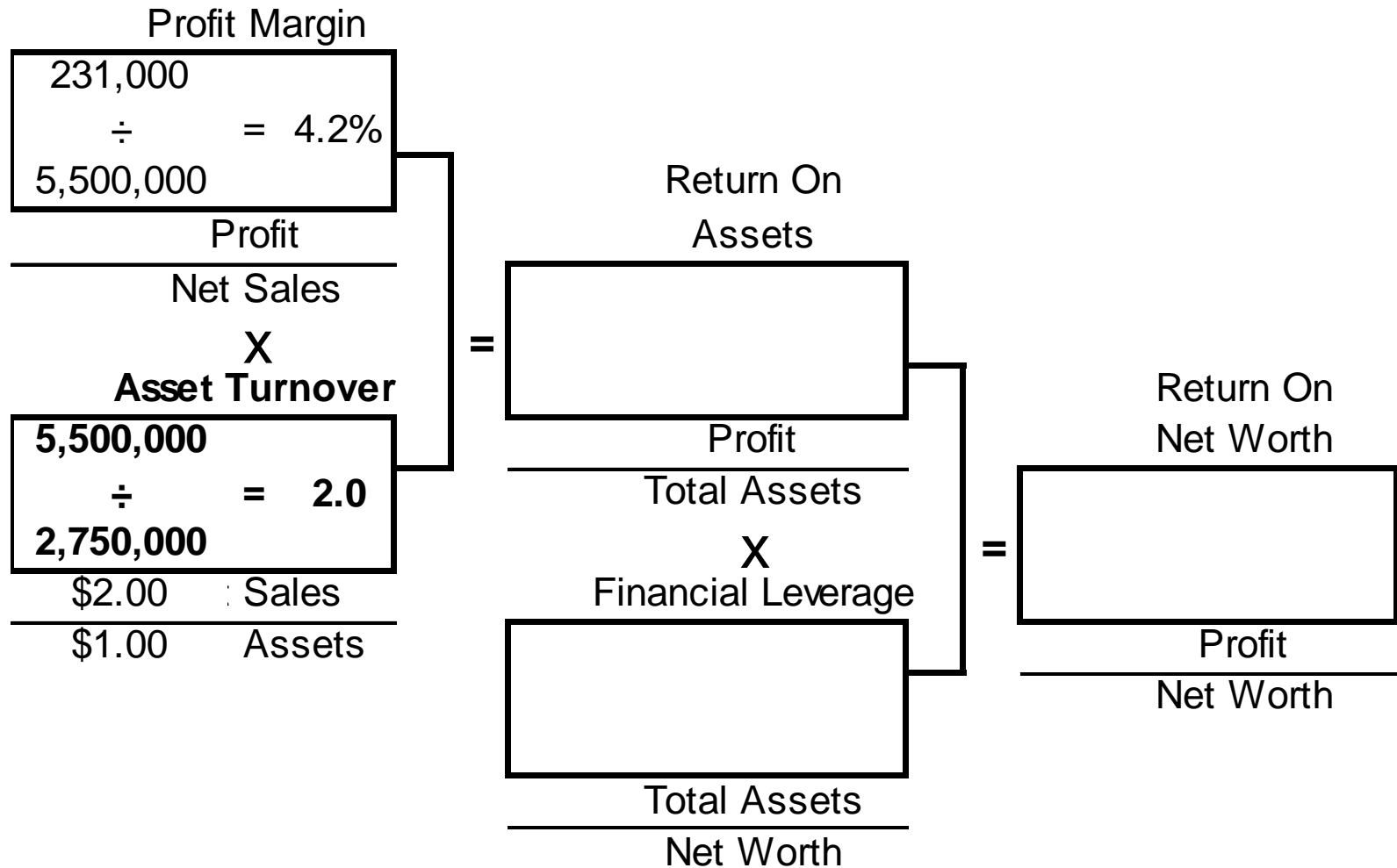
Profit Margin



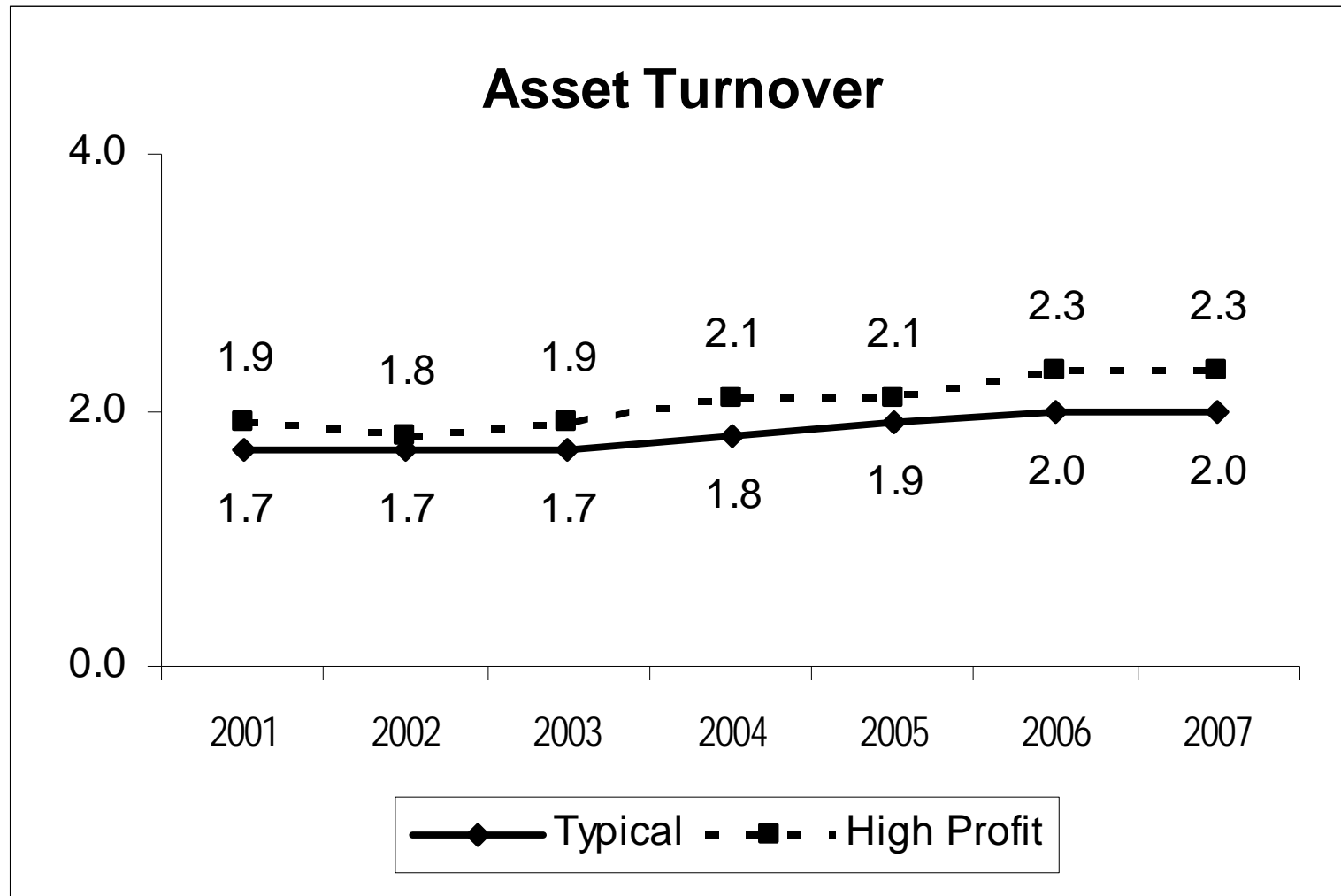
Profit Margin Trend



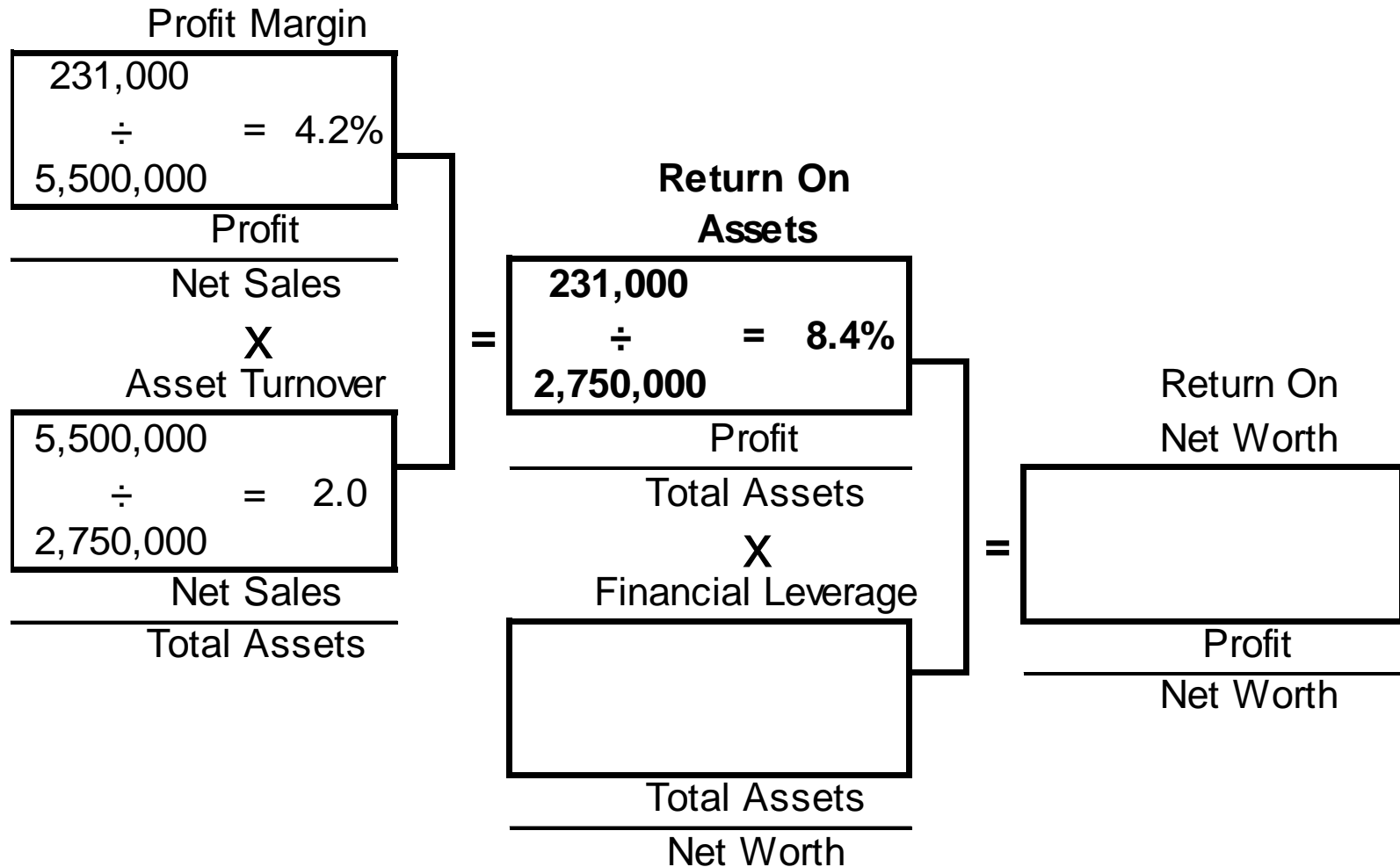
Asset Turnover



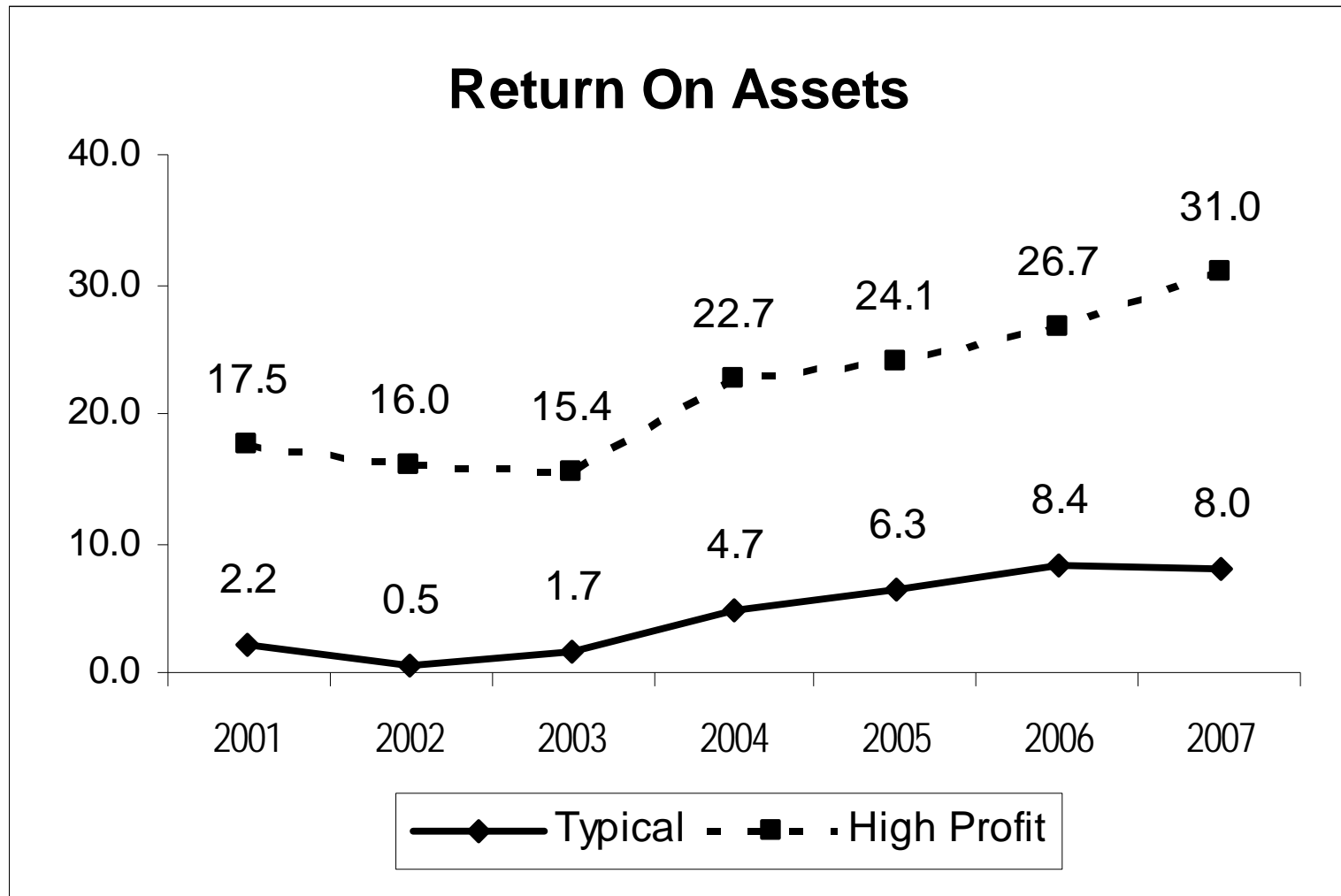
Asset Turnover Trend



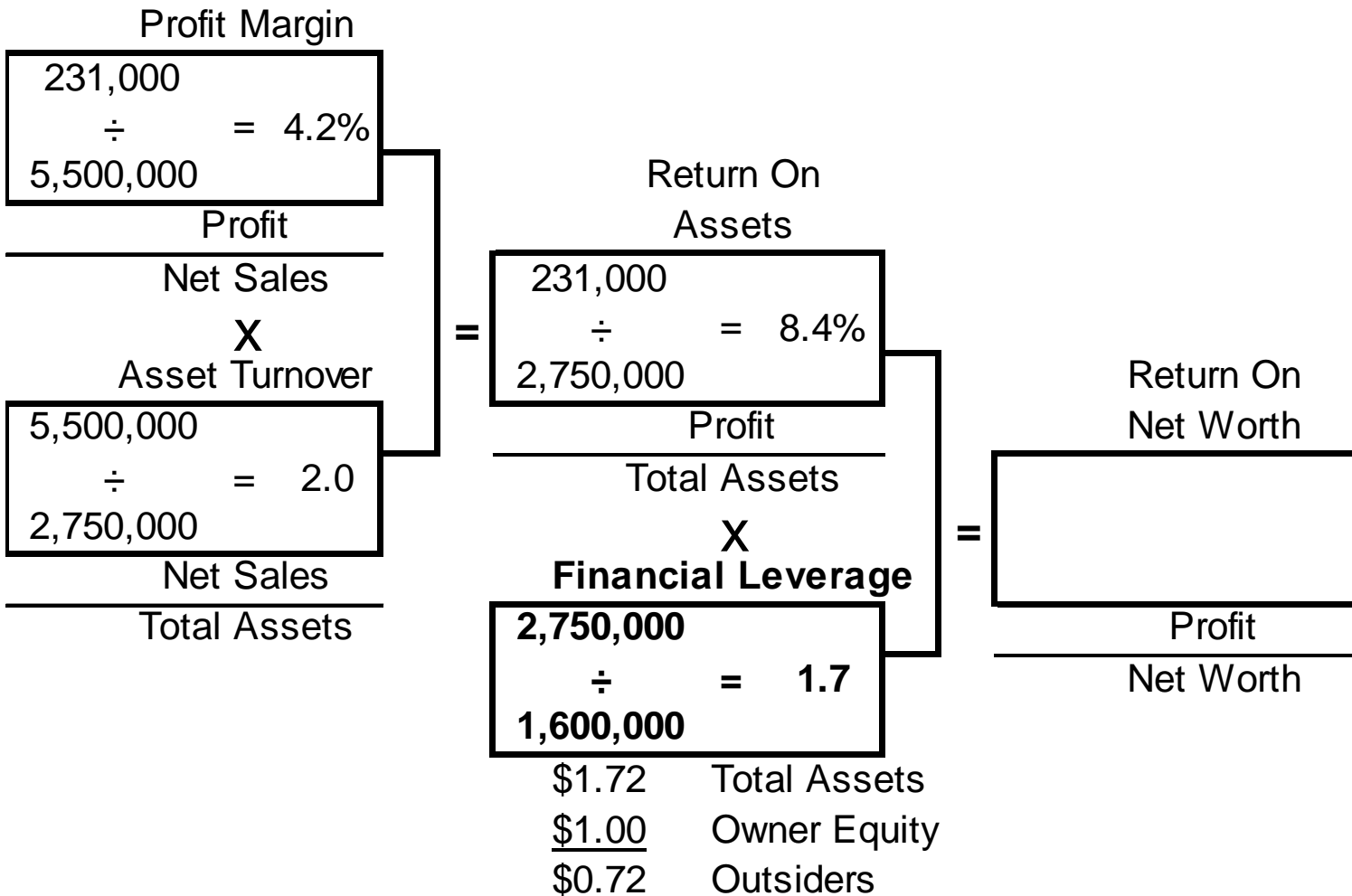
Return On Assets



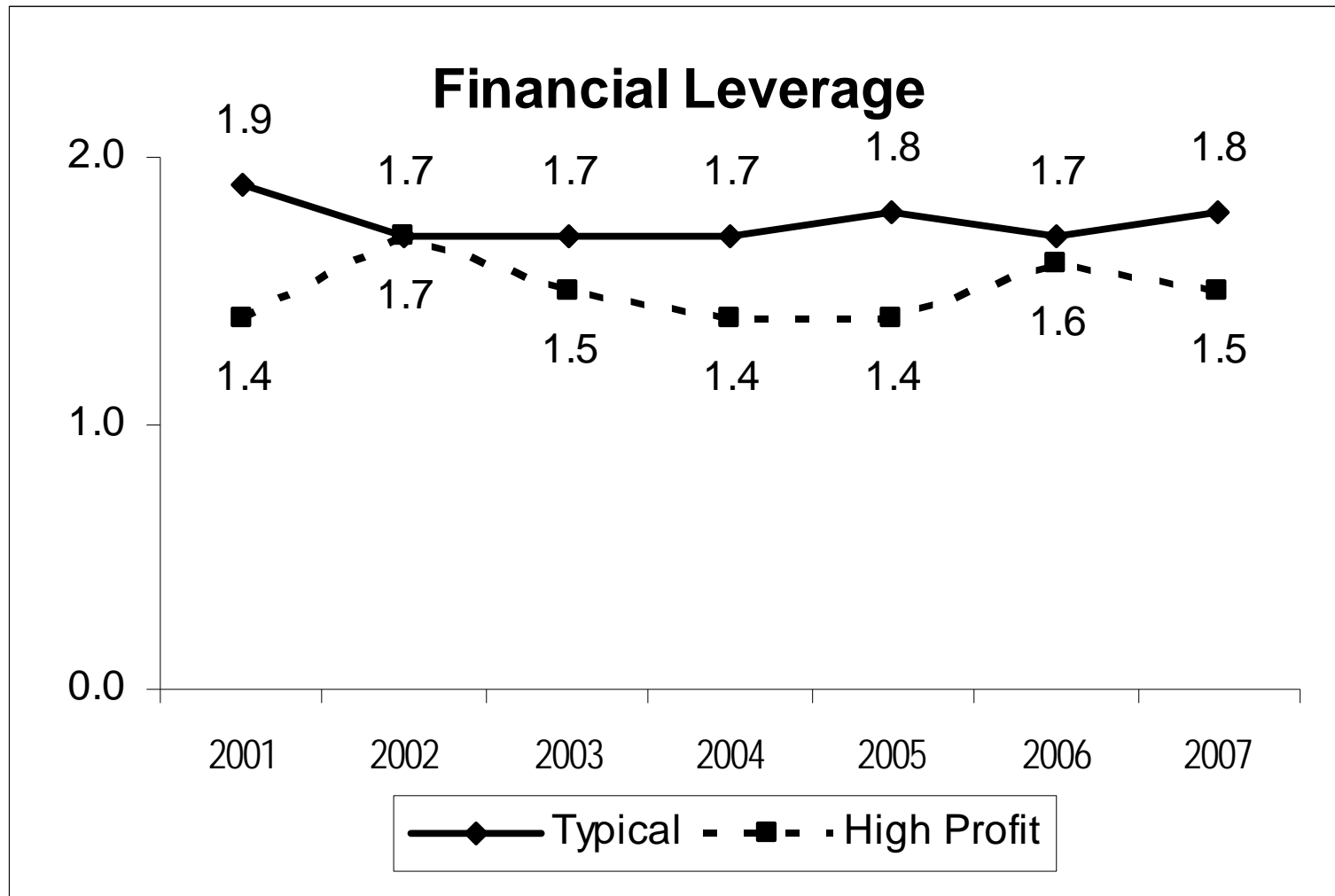
ROA Trend



Financial Leverage



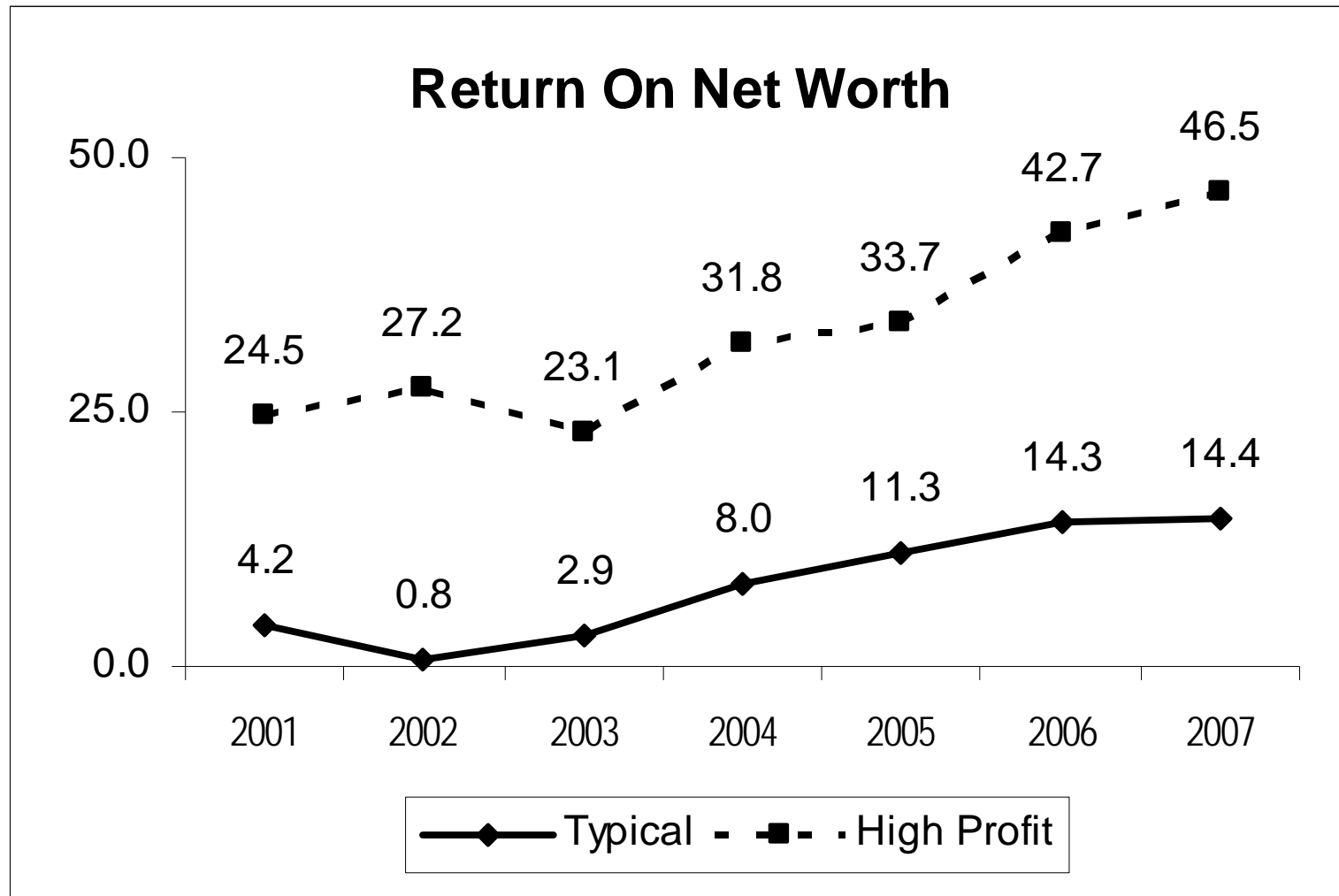
Leverage Trend



Return On Net Worth

<p>Profit Margin</p> $\frac{231,000}{5,500,000} = 4.2\%$ <p>Profit</p> <hr/> <p>Net Sales</p> <p>x</p> <p>Asset Turnover</p>	=	<p>Return On Assets</p> $\frac{231,000}{2,750,000} = 8.4\%$ <p>Profit</p> <hr/> <p>Total Assets</p> <p>x</p> <p>Financial Leverage</p>	=	<p>Return On Net Worth</p> $\frac{231,000}{1,600,000} = 14.4\%$ <p>Profit</p> <hr/> <p>Net Worth</p>
$\frac{5,500,000}{2,750,000} = 2.0$ <p>Net Sales</p> <hr/> <p>Total Assets</p>		$\frac{2,750,000}{1,600,000} = 1.7$ <p>Total Assets</p> <hr/> <p>Net Worth</p>		

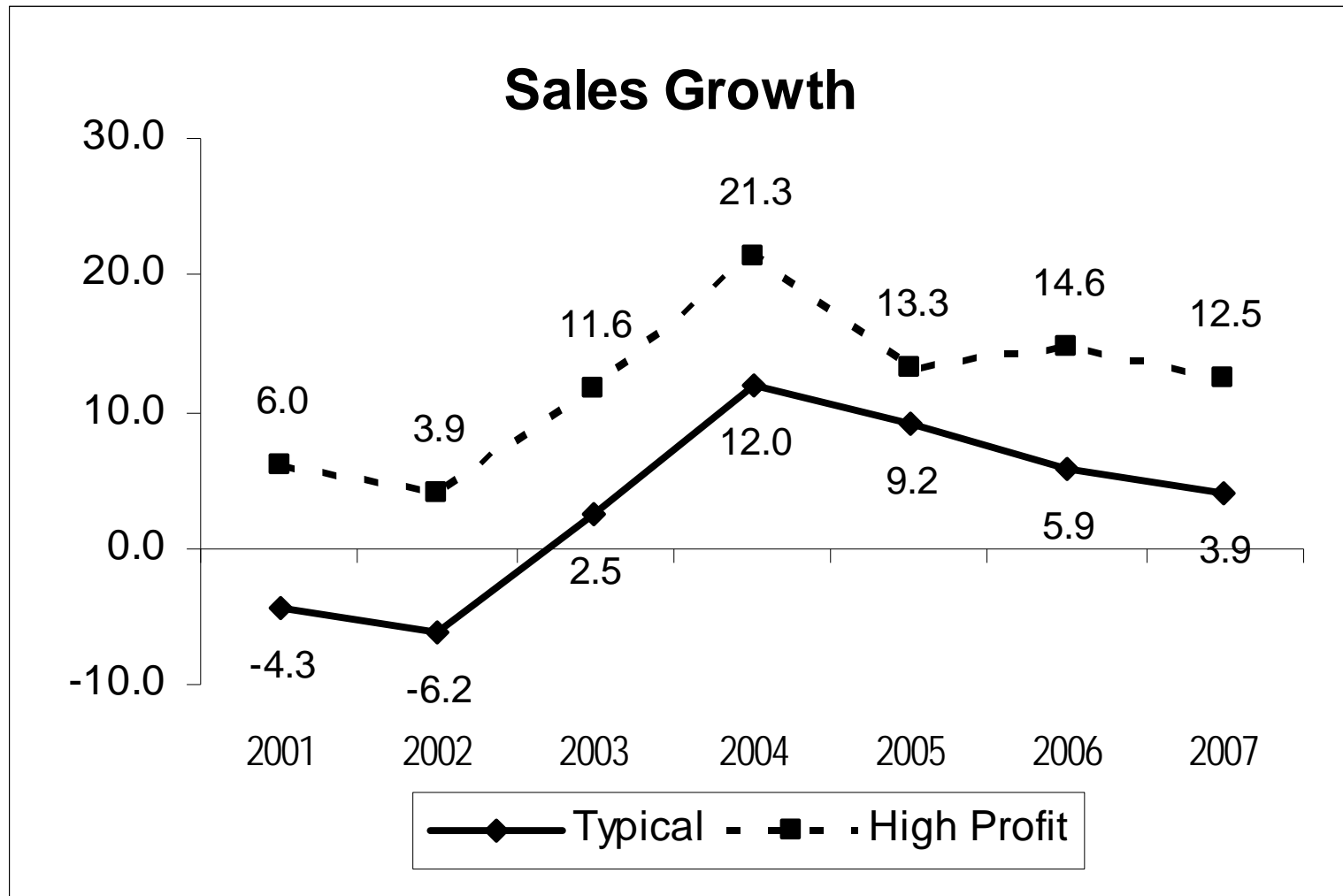
RONW Trend



Factors For Success

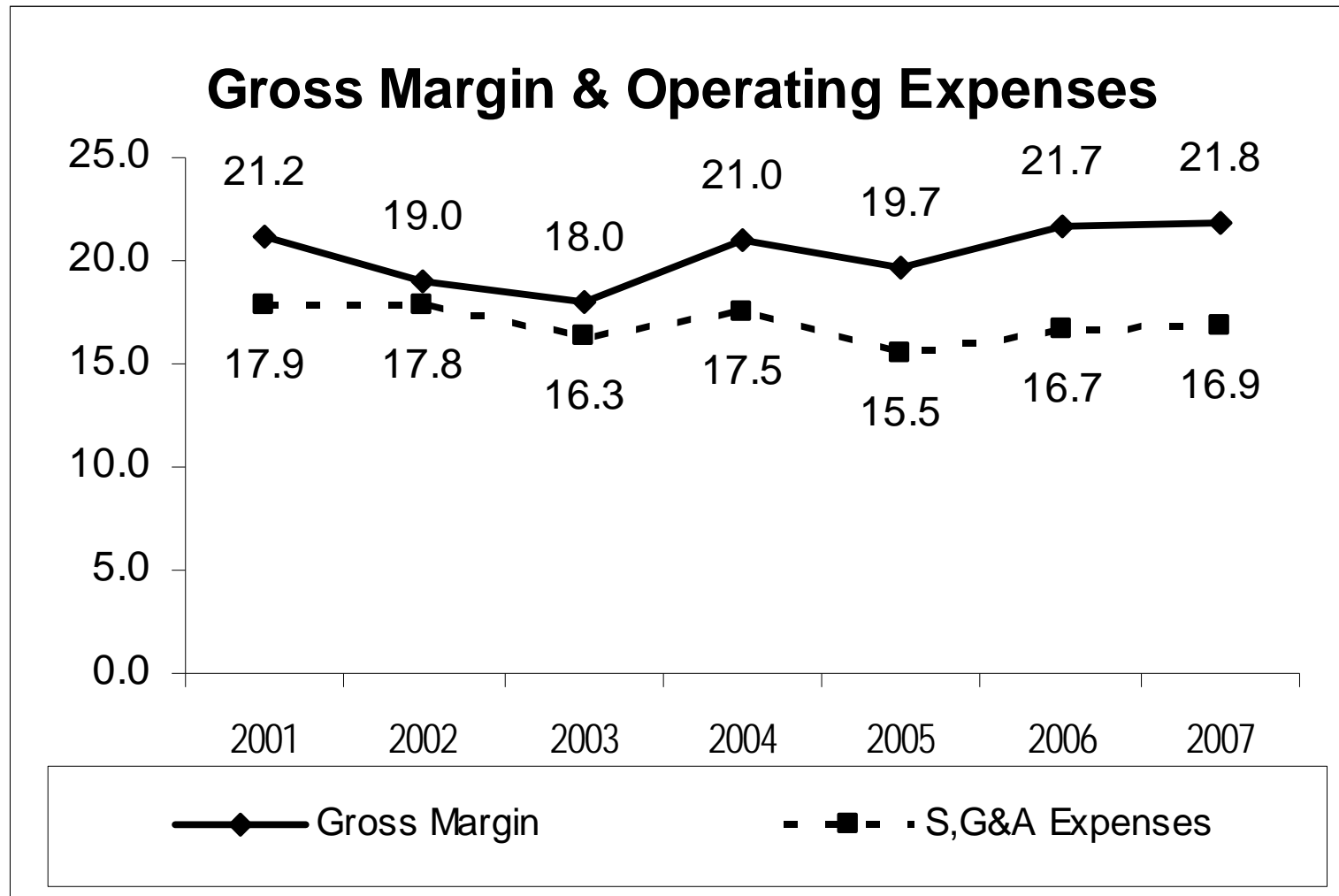
Income Statement Factors	<u>Typical</u>	<u>High Profit</u>
Sales Growth	3.9%	12.5%
Gross Margin	21.8%	28.4%
S,G&A Expenses	16.9%	14.5%
Sales Per Employee	\$135,669	\$154,118
Balance Sheet Factors		
Average Collection Period	47.2	42.4
Inventory Turnover	8.5	9.0
Strategic Profit Model		
Profit Margin	4.0%	13.5%
Asset Turnover	2.0	2.3
Return On Assets	8.0%	31.0%
Financial Leverage	1.8	1.5
Return On Net Worth	14.4%	46.5%

Sales Growth



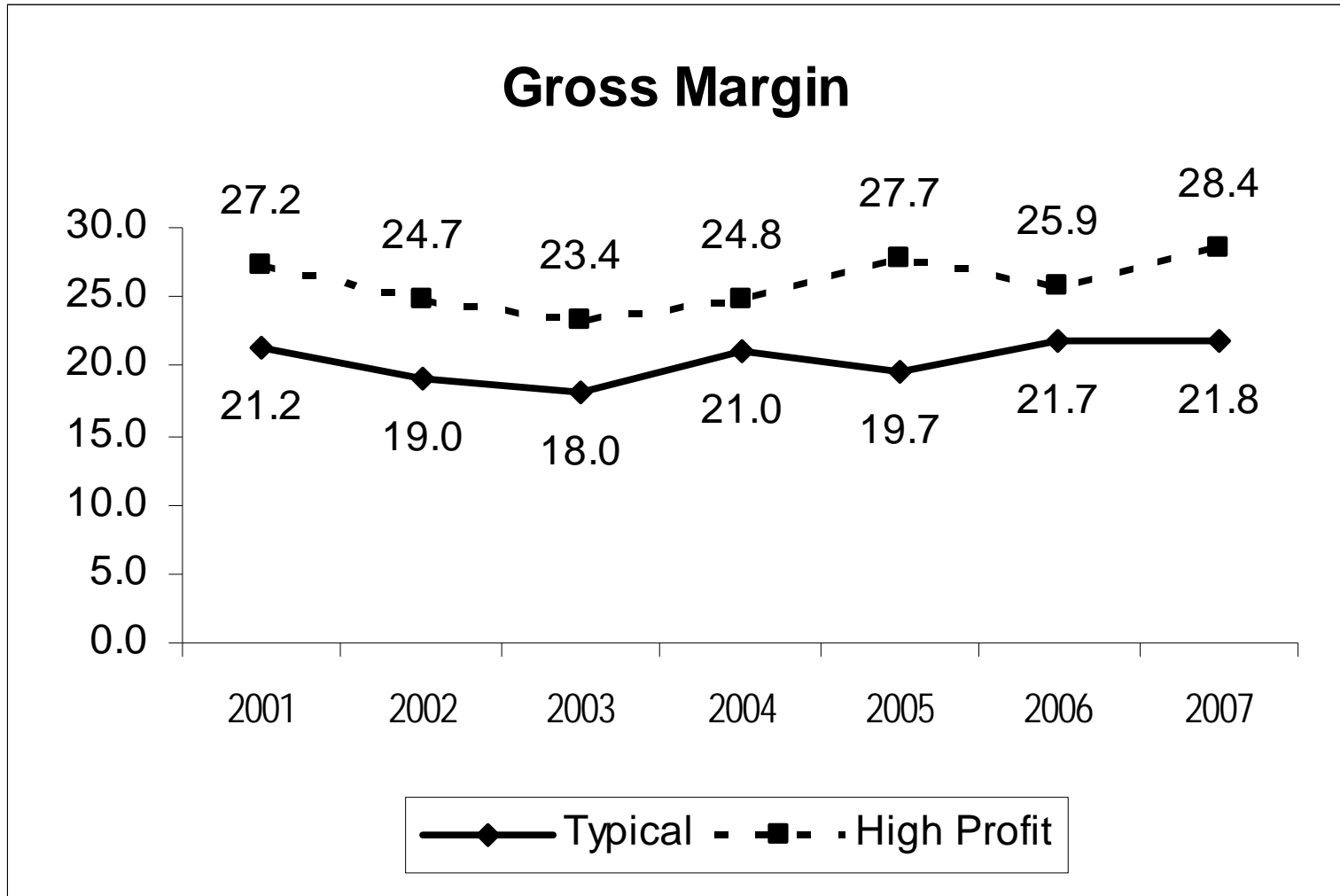
Source: 2007 NTMA Operating Costs Report

Margin & S,G&A Trends



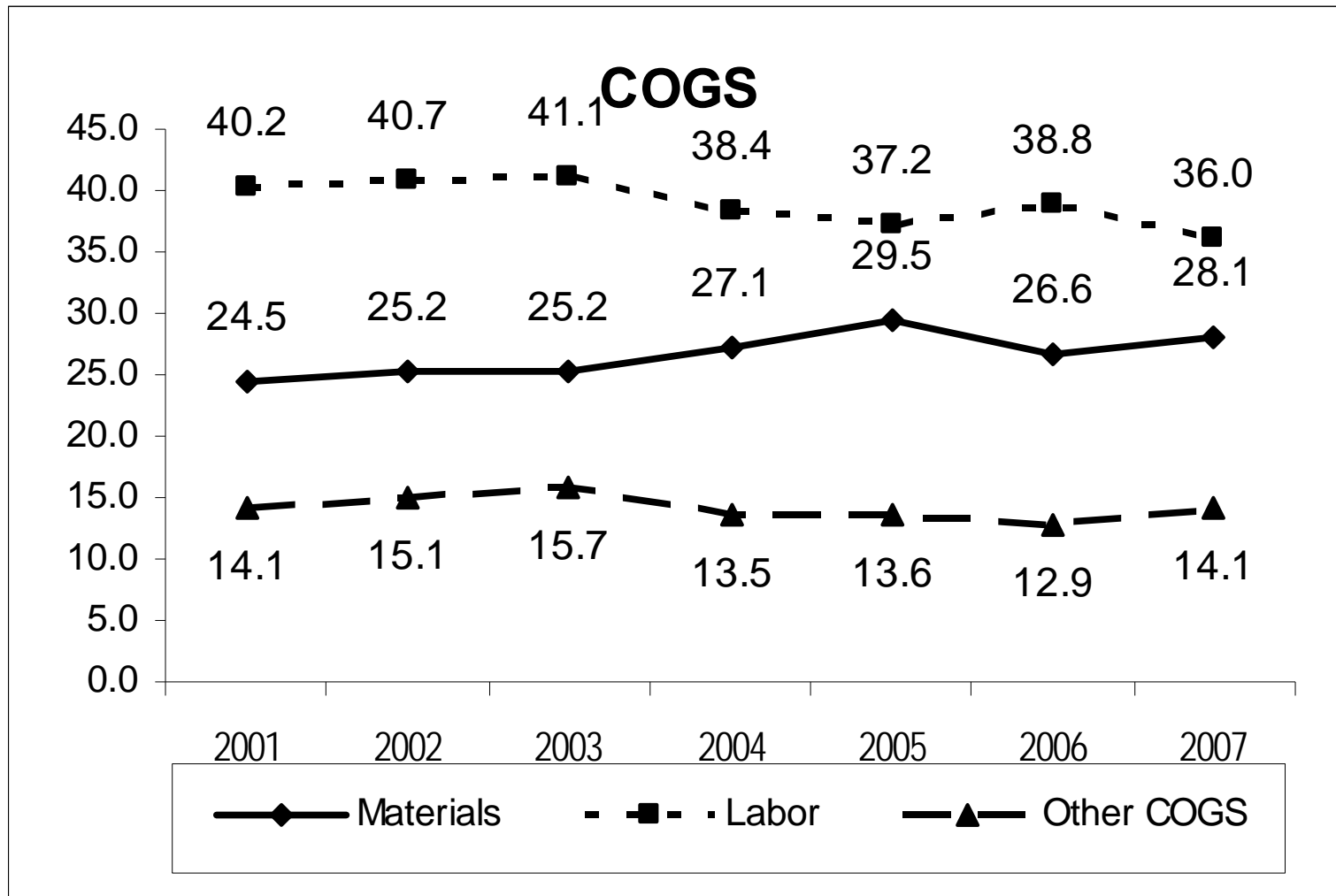
Source: 2007 NTMA Operating Costs Report

Gross Margin Trends



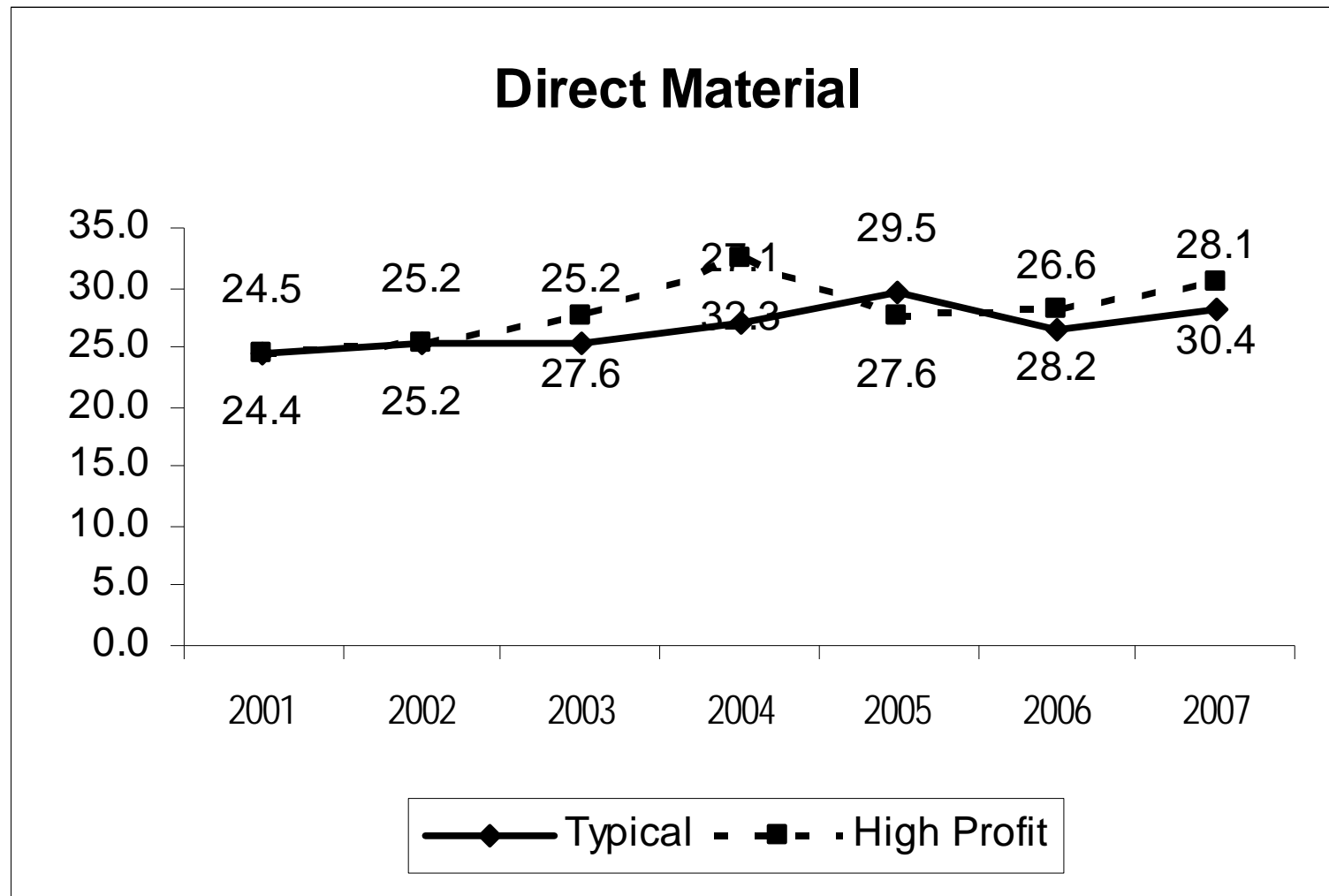
Source: 2007 NTMA Operating Costs Report

COGS Trends



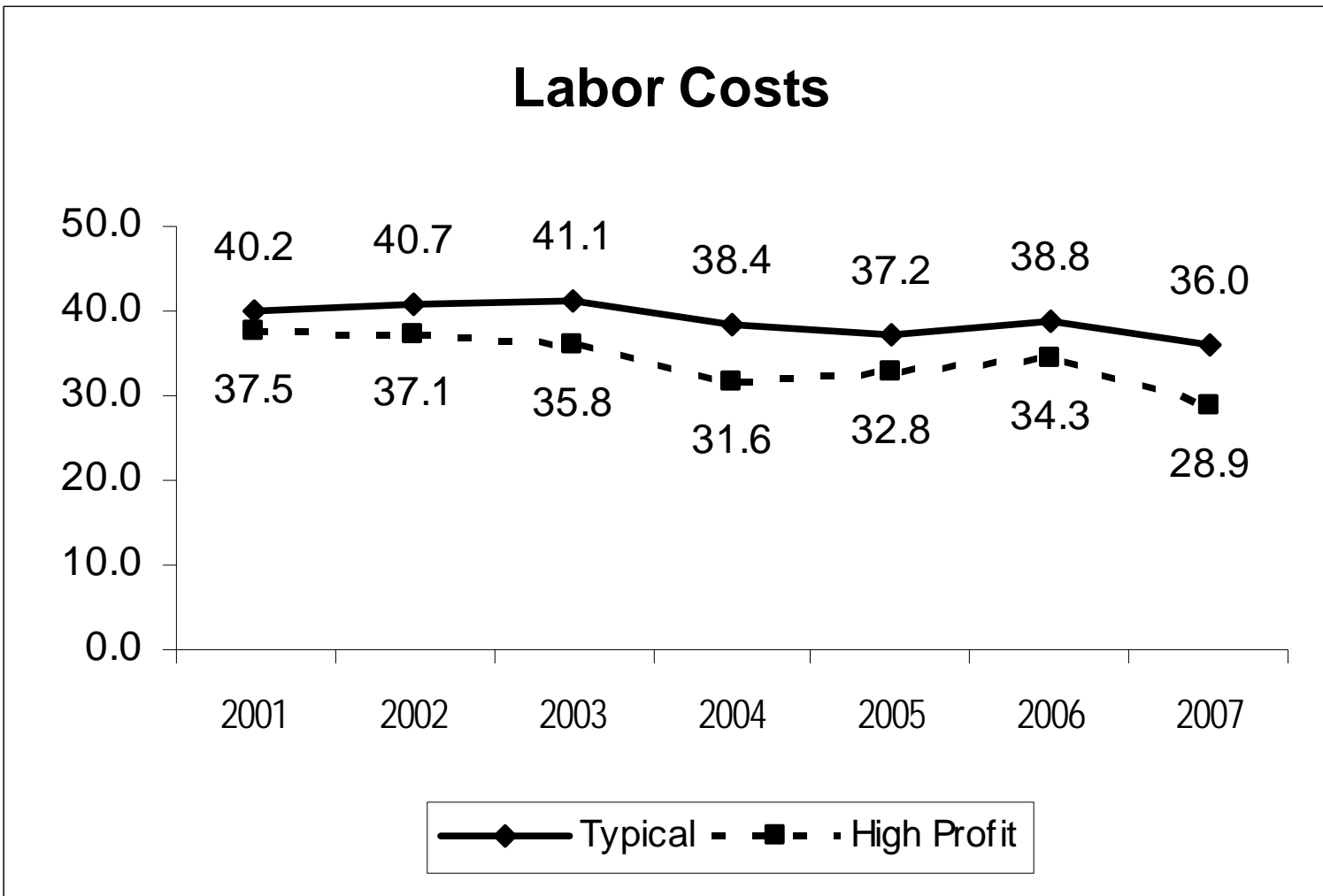
Source: 2007 NTMA Operating Costs Report

Direct Material Costs



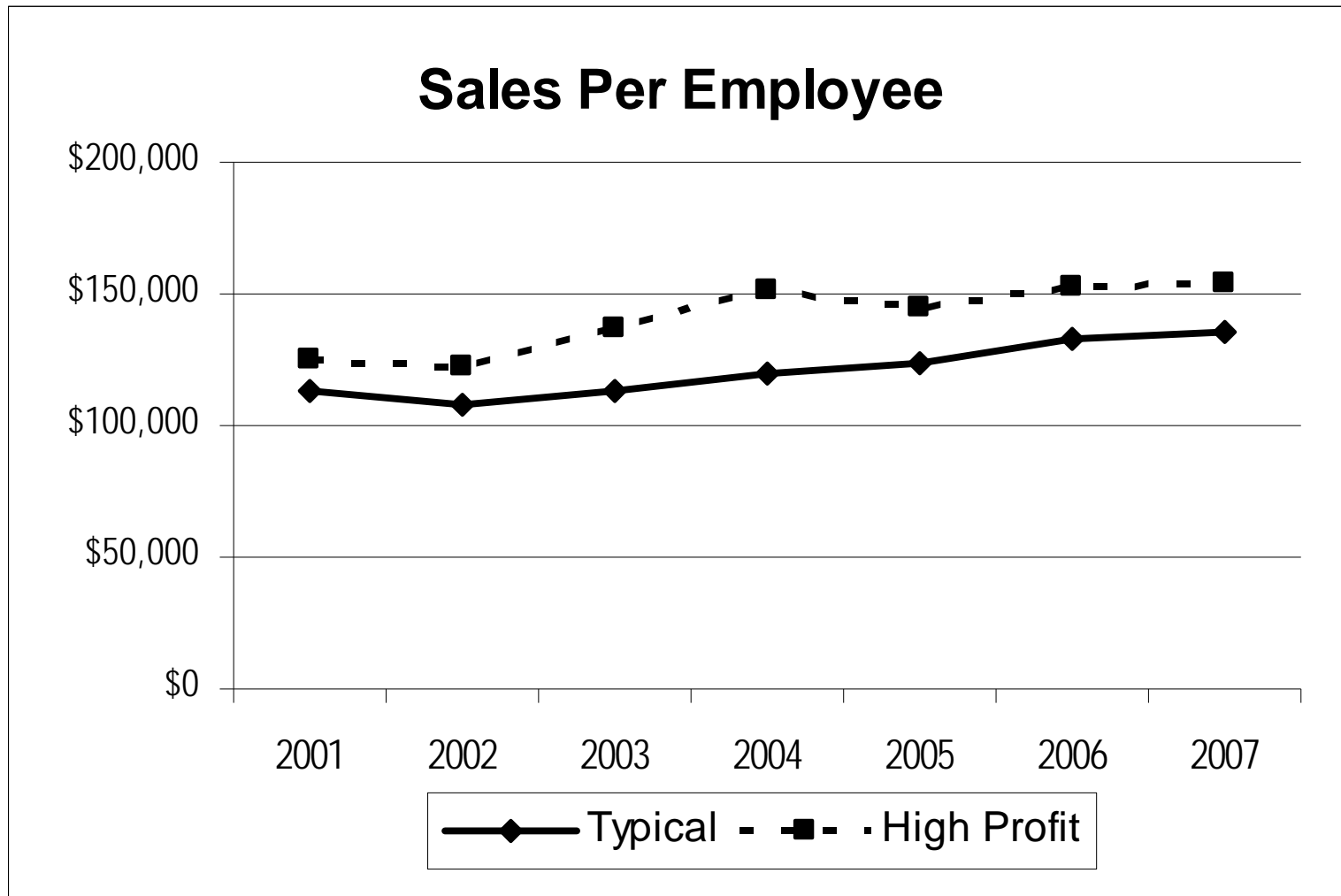
Source: 2007 NTMA Operating Costs Report

Labor Costs



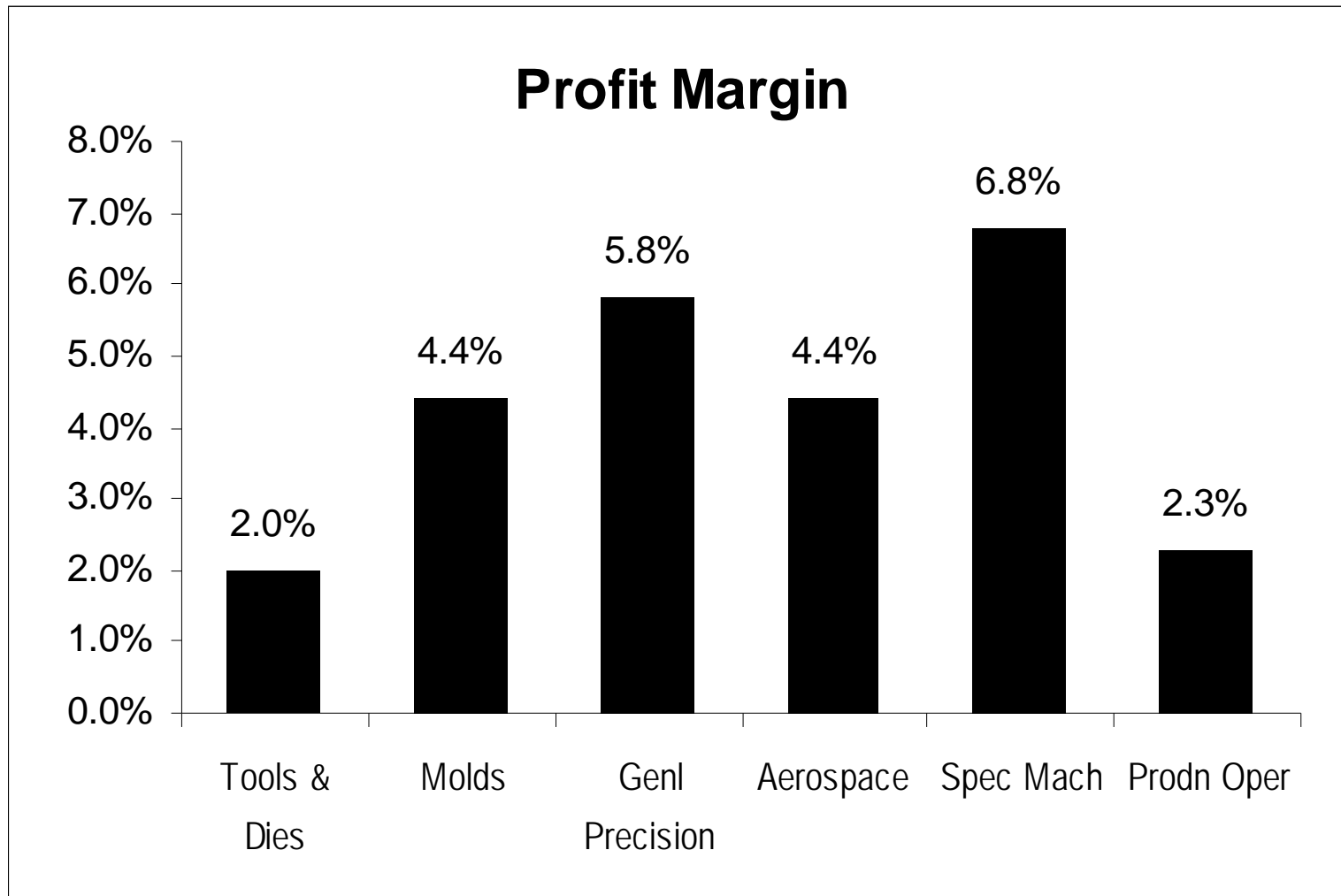
Source: 2007 NTMA Operating Costs Report

Sales Per Employee Trend

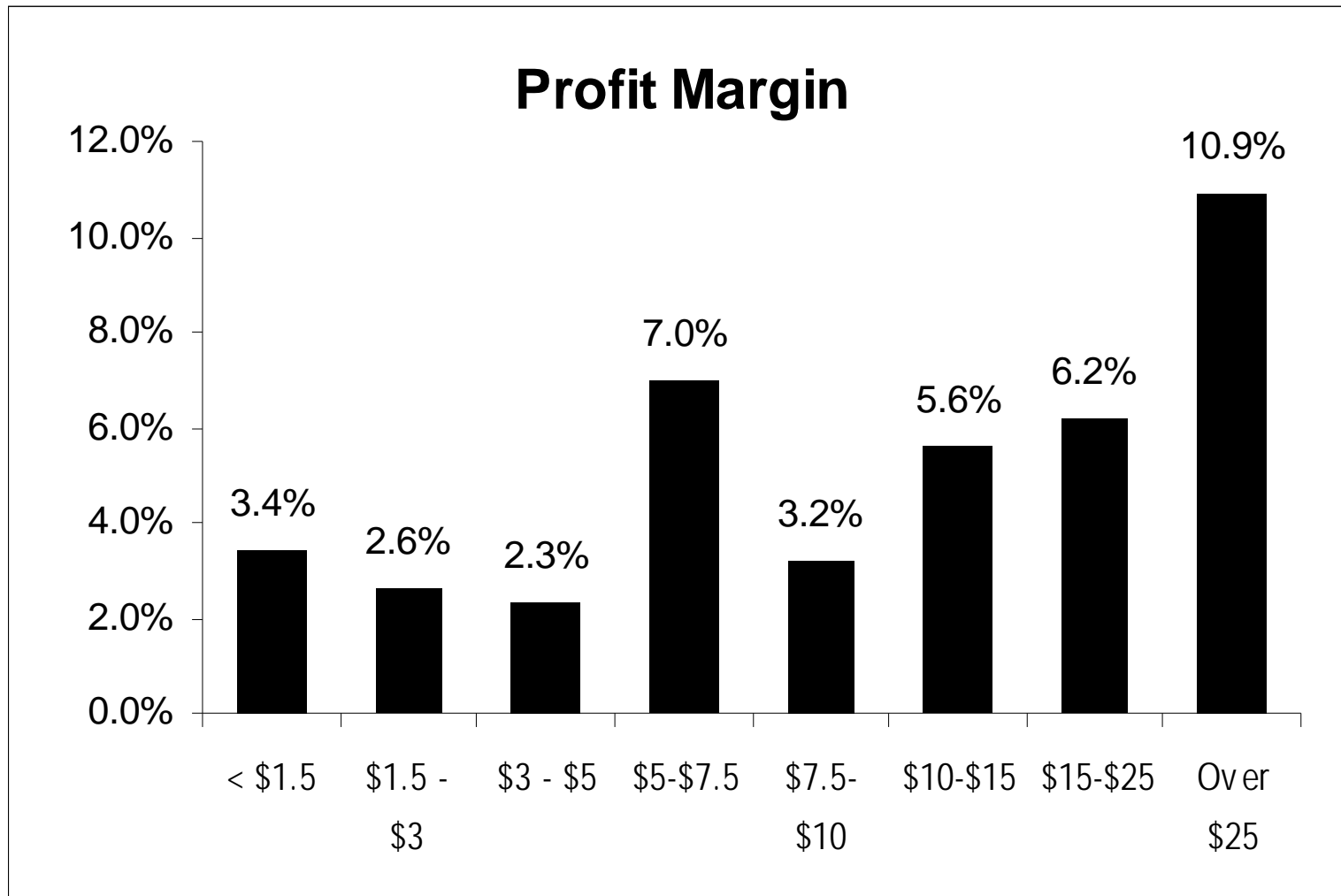


Source: 2007 NTMA Operating Costs Report

Profit Margin by LOB



Profit by Size



Reasonable Compensation

Total Compensation (Salary + Bonus)	10 th	25 th	Median Or 50 th	75 th	90 th
	<u>Percentile</u>	<u>Percentile</u>	<u>Percentile</u>	<u>Percentile</u>	<u>Percentile</u>
Chief Executive Officer	\$70,420	\$105,000	\$150,020	\$225,052	\$317,145
Top Sales or Marketing Executive	\$64,670	\$80,000	\$107,304	\$148,000	\$191,000
Top Manufacturing/Production Exec.	\$63,475	\$80,424	\$97,500	\$128,500	\$185,161
Top Engineering Executive	\$60,465	\$75,000	\$90,000	\$110,250	\$135,690
Top Financial Executive	\$42,430	\$72,278	\$97,827	\$114,750	\$173,116
Top Admin. Executive or Manager	\$37,800	\$53,444	\$82,812	\$141,153	\$226,472
Top Human Resources Executive	\$38,220	\$43,973	\$63,000	\$71,617	\$93,062
Top MIS Manager	\$40,010	\$49,365	\$61,323	\$88,585	\$101,400
General Manager	\$59,250	\$77,000	\$89,116	\$124,630	\$153,647
Controller	\$49,715	\$53,562	\$69,086	\$88,300	\$116,400
General Shop Superintendent	\$51,230	\$62,378	\$75,856	\$89,346	\$103,800
Salaried Foreman	\$49,080	\$60,752	\$67,994	\$79,461	\$90,300
Quality Control Manager	\$41,058	\$50,038	\$67,629	\$78,900	\$92,370
Chief Designer	\$47,568	\$53,153	\$72,689	\$85,409	\$100,400
Office Manager	\$27,790	\$32,000	\$40,724	\$51,734	\$58,800
Sales Manager	\$47,945	\$56,366	\$82,160	\$97,033	\$121,275
Highest Paid Salesperson	\$38,990	\$56,497	\$76,269	\$101,743	\$131,625
Highest Paid Estimator	\$49,996	\$55,000	\$65,000	\$79,768	\$90,220 ¹

Exec Comp Table of Contents

Introduction	1
Executive Compensation Overview	2
Executive Compensation Summary	3
Regional Analysis	
Demographics	5
Executive Compensation by Geographic Region	6
New England and Mid Atlantic Region Executive Compensation (Massachusetts, New York, Pennsylvania, and Rochester Chapter)	8
Midwest Region Executive Compensation (Ohio, Michigan, Indiana, Wisconsin, Cleveland, Michiana Chapter)	10
North Central and West Regions Executive Compensation (Missouri, Colorado, Arizona, California, St. Louis Chapter, L.A. Chapter)	12
Executive Compensation by Sales Volume Category	14
Executive Compensation by Industry Classification	16

Summary and Conclusions

Benchmarking results provide the rationale and evidence for shifting or reducing resources.

Thank you



**Please plan to participate in
the current Wage & Fringe
survey**