

E85 Retail Business Case: When and Why to Sell E85

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Clean Cities Web Cast
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Agenda

- Convey current state of the retail gasoline market
- Explore E85 as part of the solution
- Test the profitability of E85 as an investment
- Give retailers guidance to assess if E85 would be a good investment for them

Outside Perspective/Help

- **Reviews**

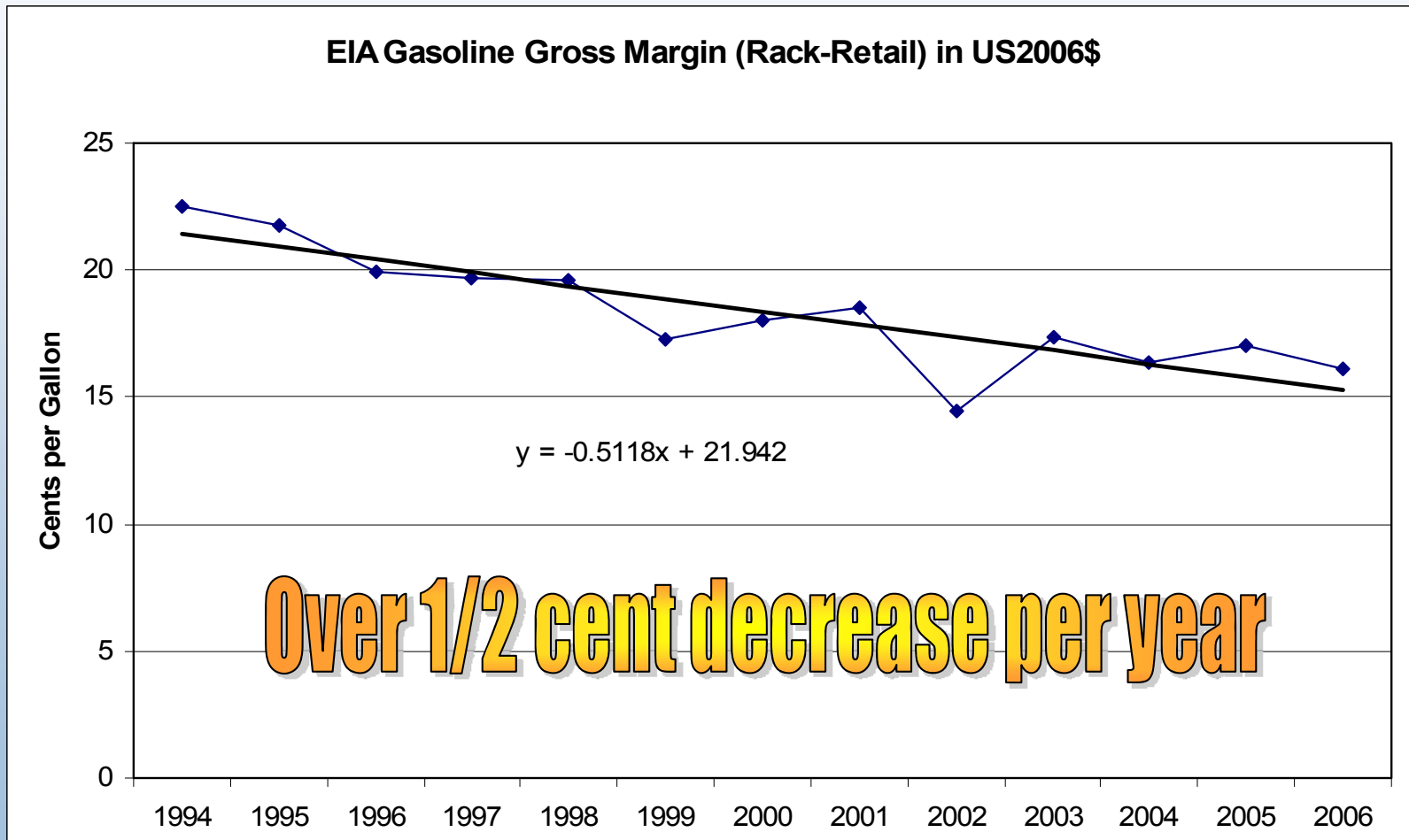
- John Eichberger (National Association of Convenience Stores)
- Jim Gentry (Gas America)
- John McKenna (Hamilton Clark & Co.)

- **Interviews**

- William Brown (Energy Information Administration)
- Nicole Cimino (Internal Revenue Service)
- Christopher Gaskins (Petroleum Realty Advisors)
- Troy Hill (Hill Petroleum)
- Phil Hutchinson and Scott Negley (Dresser Wayne)
- Liz Kaiser (Sinclair Oil Co.)
- Jim Kerth (Kubot Equipment Co.)
- Dan Koster (Little John's Equipment Co.)
- Phil Lampert (National Ethanol Vehicle Coalition)
- Paul Miller (EPA Office of Underground Storage Tanks)
- Steve Richardson (Public Solutions Group)
- Steve Walk, Karl Doenges (CleanFuel USA)

Tough Times

Gross Margins are decreasing



Cause of Lower Margins: Increased pricing and location competition

- Increased price transparency
- Science and technology of location planning advancing rapidly



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Prices for Golden, CO Lowest \$2.90 Highest \$3.30

Find Gas Prices

-Regular

Address or Intersection

City State ZIP Code

80401

Search

100 results for Gasoline

Stations at Golden, CO

Refine Price Distance Alpha

1	KING SOOPERS FUEL #061	\$2.90
2	WILLARY PETROLEUM	\$2.96
3	PHILLIPS LLC #7	\$2.96





WAL★MART

COSTCO
.COM

Higher Standards
meijer
Lower Prices



Hypermarts- the Perfect Competition

- Located where people go anyway
- Buy in bulk
- Often sell gasoline as a leader (for a loss)
 - Club card discounts
- They're successful
 - ~2.5% of retail outlets, but 7.7% of fuel sales (2004)
- They're increasing
 - 62% of grocery stores planned in 2004 had gas stations in their blueprints

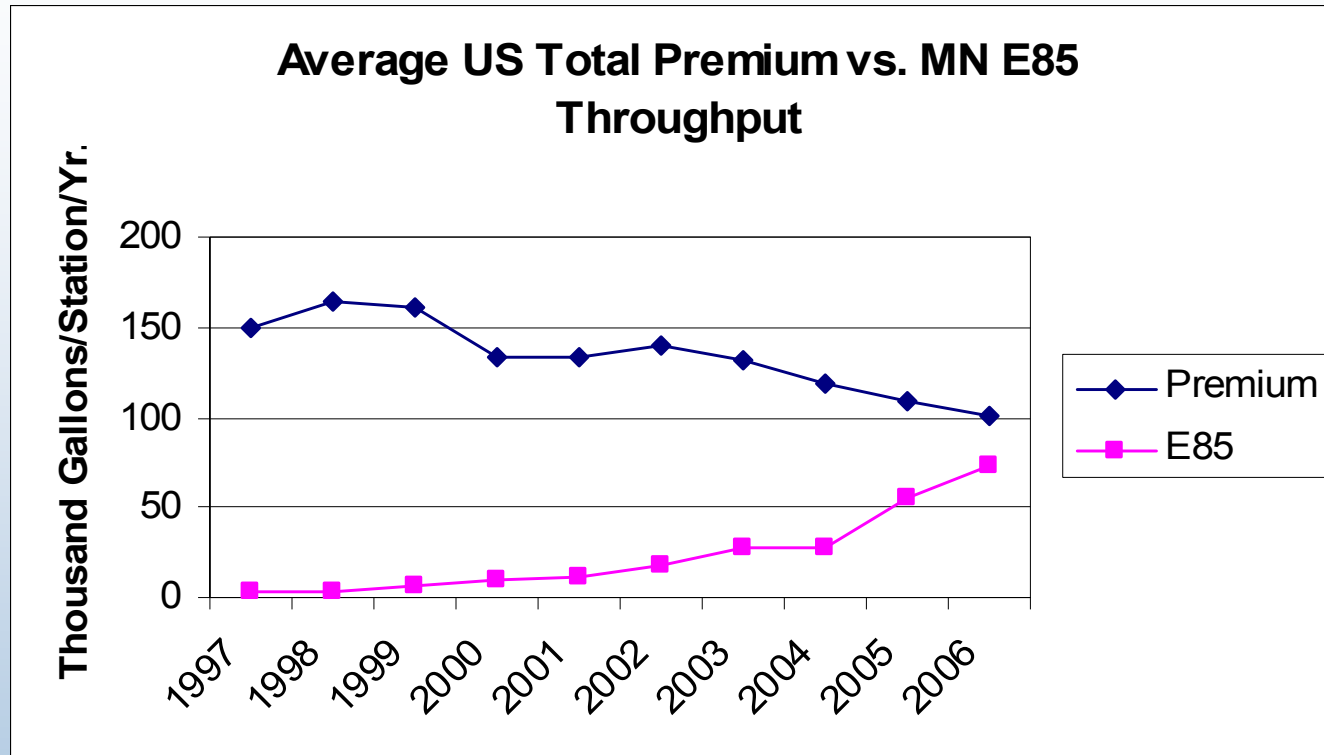
Solutions to Decreasing Margins

- Attract Customers to higher-margin goods
 - E85 can bring more customers to the convenience store
- Attract Loyal Niche Market
 - E85 attracts Fleets
- Increase throughput
 - E85 sold 74K gal/station in MN 2006

Item	Margin (percent)
Gasoline*	6%
In-Store Goods	30%
Prepared Food	48%
Car Wash	56%

*Gross Margins of combined regular, premium, and mid-grade after fuel transport.

Solutions part 2: Upgrade to a Growing Market



- Converging averages mean that E85 is outselling higher grade gasoline at an increasing number of stations
- Most modern cars don't require premium to keep from knocking

Solutions part 3: Differentiate

- Give customers something other than price and location to base their decision on



Differentiation is Highly Valued

Form of Differentiation	Action	Cost
Appearance (new, clean, well-lit)	Remodel every 11.5 years	\$228,000 per remodel
Branded gasoline	Additional cost of branded in California for 2001-2002 time span	\$54,000 per station per year
Green marketing	British Petroleum rebranded to BP or "Beyond Petroleum"	\$7,800 per station
Green, cutting-edge, patriotic, pro-farmer image	Offer E85	\$2,500 to \$200,000 for 15 yr. project

E85 Can be an Affordable Part of the Solution and a Good Investment

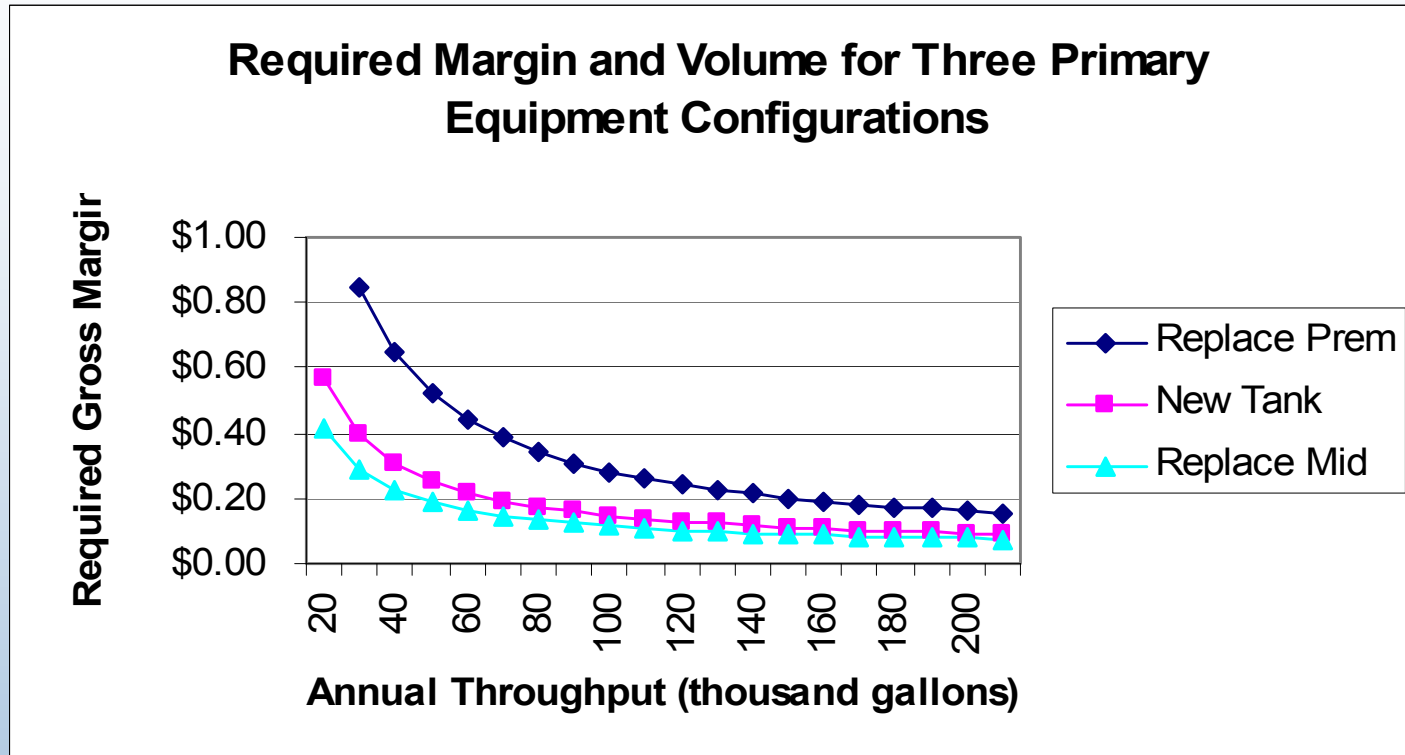
- Test investment with cash flow model
 - Cash flow analysis is standard way of assessing investments.
 - Model allows us to manipulate the various inputs and note effect.



Model Inputs and Outputs

- Determinants of Profitability
 - Throughput
 - Cost of Equipment
 - Required ROI
 - Maintenance and operation costs
 - Taxable net income of station before project
 - Annual throughput of mid-grade and premium
 - Numerous fixed assumptions (taxes, loan terms, etc.)
- Indicator of Profitability
 - Required Gross Margin for E85

Equipment Comparison

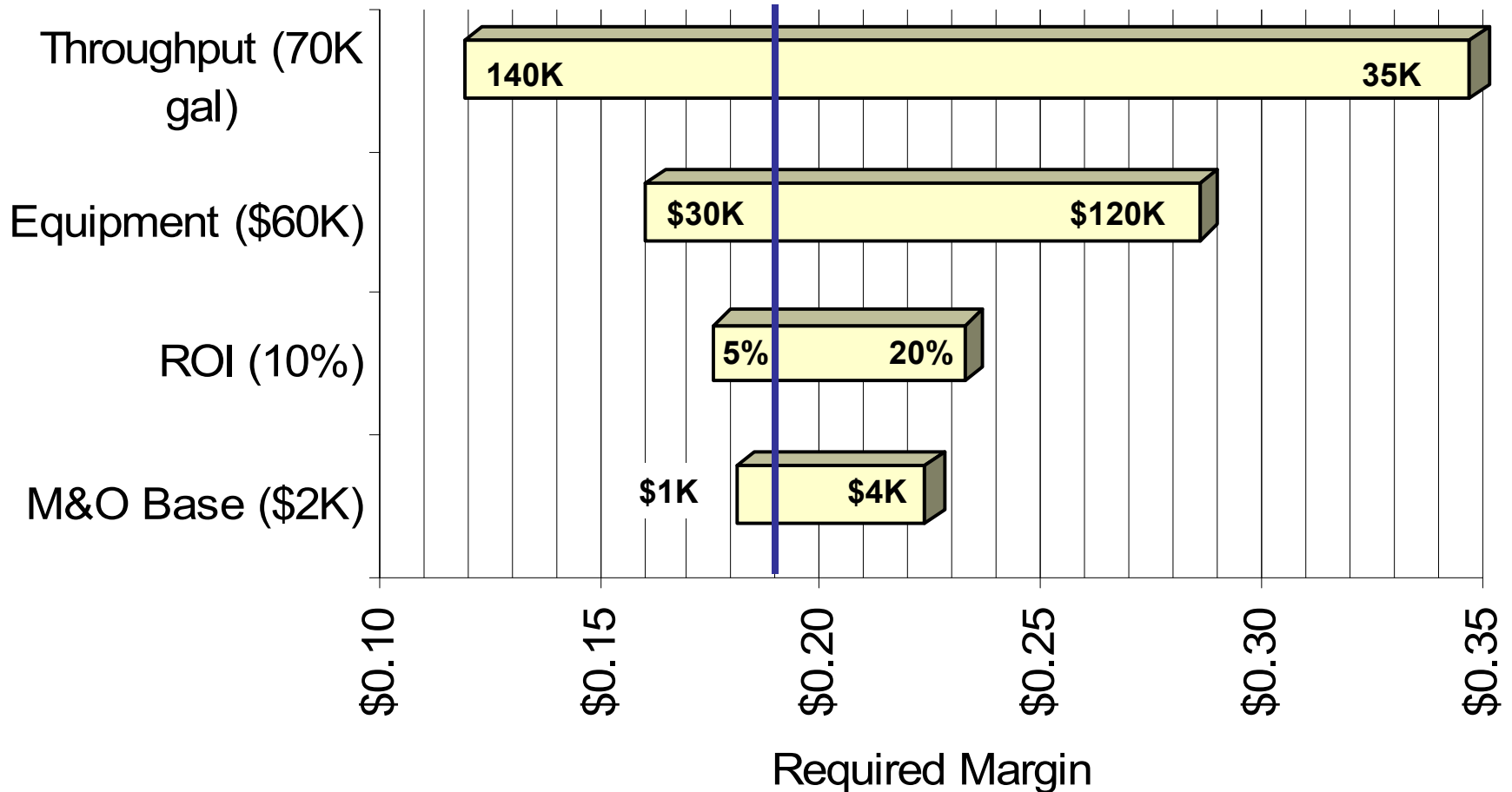


Reference Point: Average margin for regular gasoline in the U.S. (after transportation) is ~\$0.12

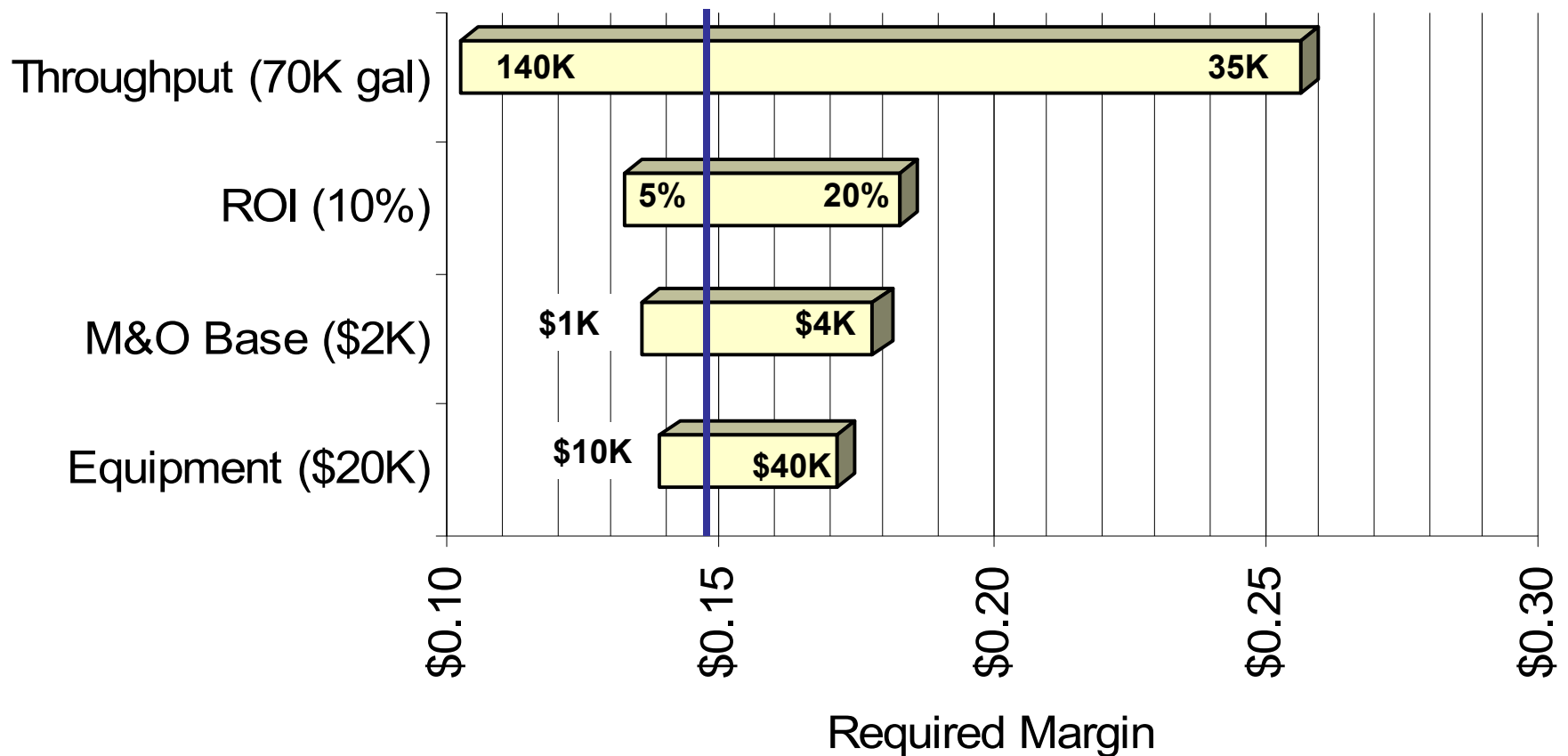
Test #2- Variance

- Test the relative influence of the determinants
 - Double and halve each of them
- Findings
 - Order of profitability (mid, new tank, premium) never changed
 - Replacing premium particularly bad when:
 - Original Premium and Mid throughput is doubled
 - Equipment prices are halved

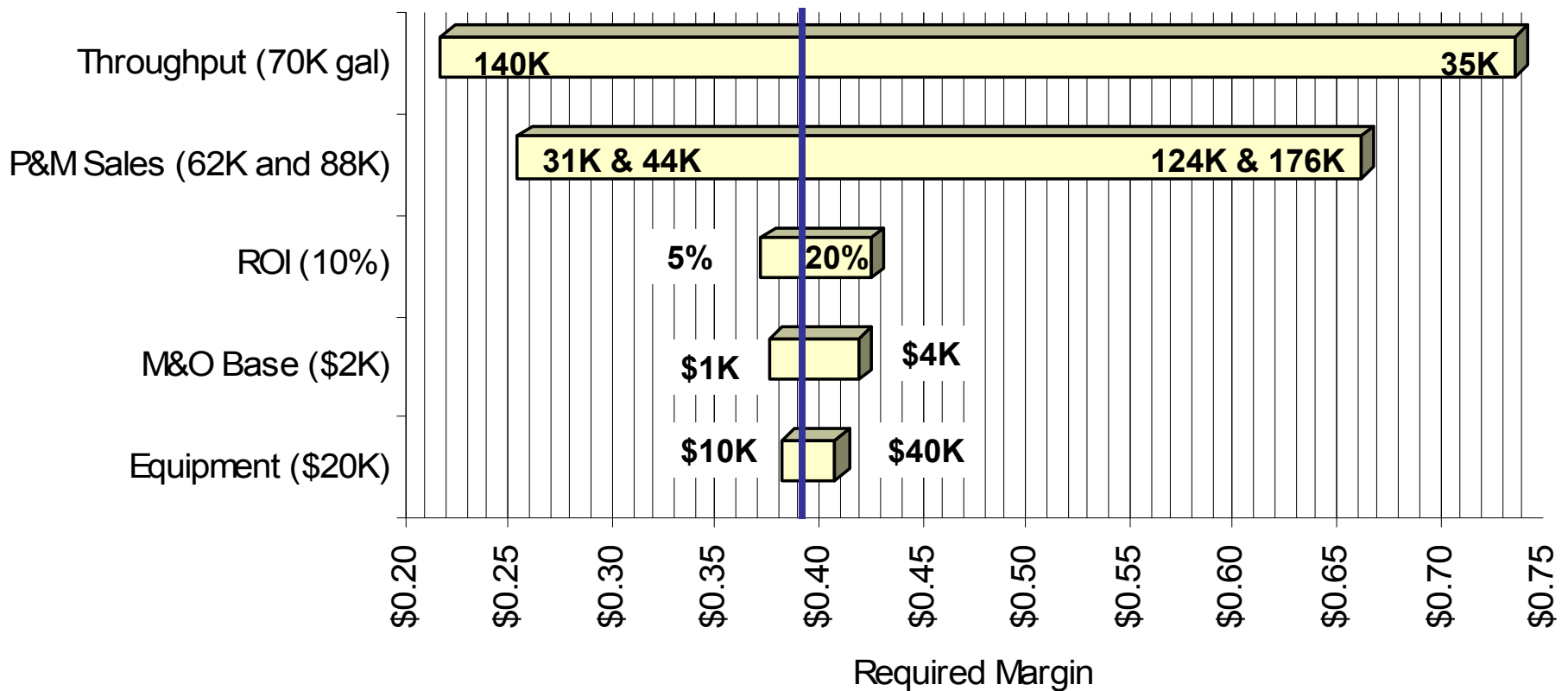
What Factors have the greatest effect on profitability when adding a new tank?



What Factors have the greatest effect on profitability when replacing mid-grade?



What factors have the greatest effect on profitability when replacing premium?

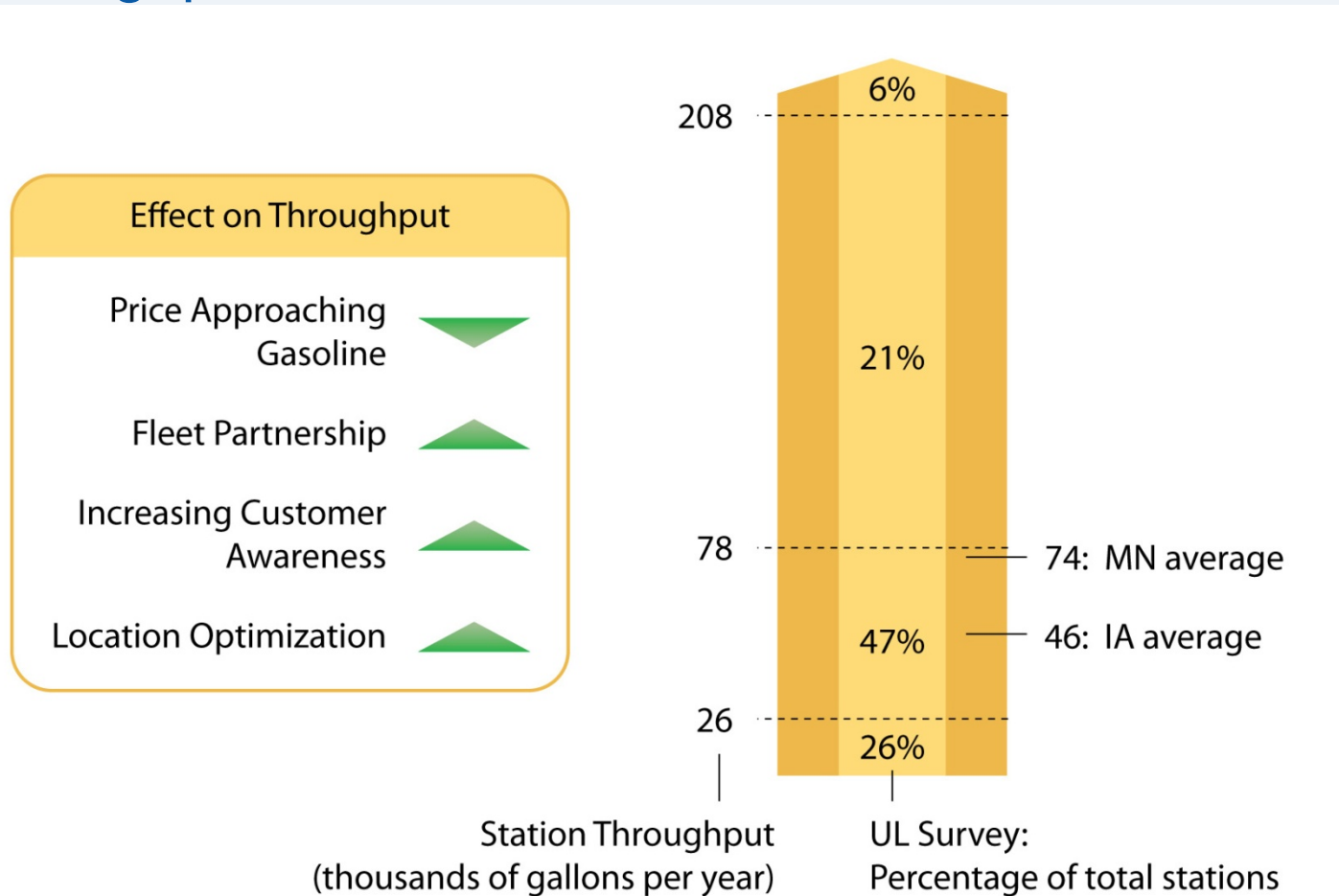


Test #3: Effects of Differentiation

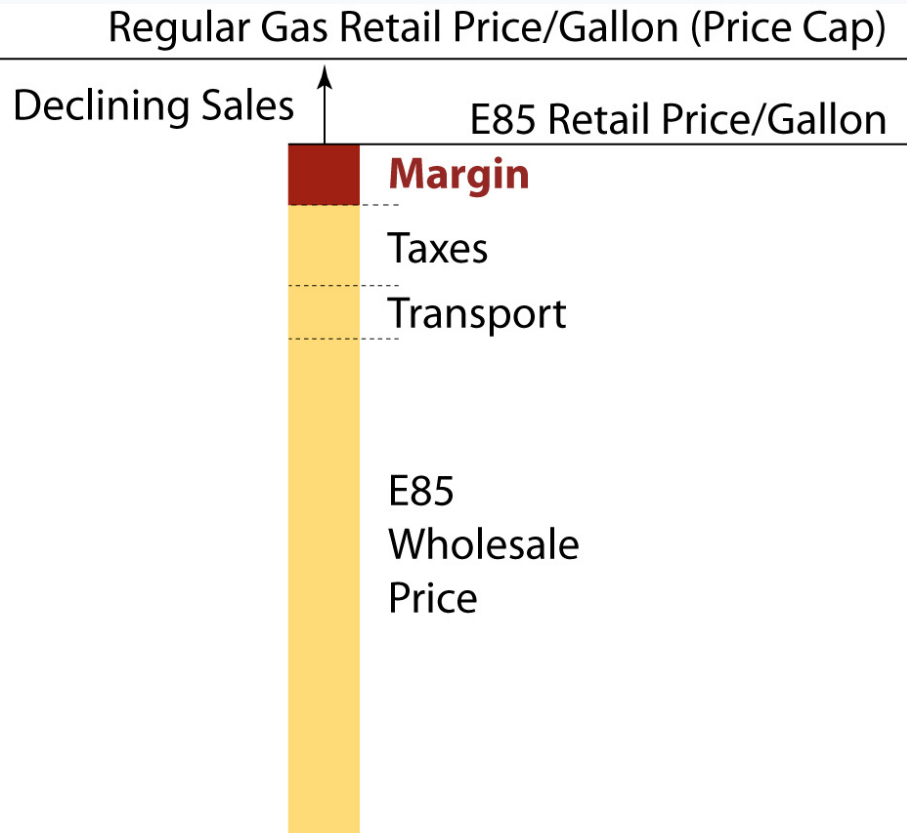
Decrease in Required Margin Caused by 1% In-Store Sales Increase		
Throughput (Kgal)	Decrease in RM	RM for Base-Case New- Tank (for reference)
30	\$0.077	\$0.395
50	\$0.046	\$0.253
70	\$0.033	\$0.192
90	\$0.026	\$0.158
110	\$0.021	\$0.137
130	\$0.018	\$0.122
150	\$0.015	\$0.111
170	\$0.014	\$0.103
190	\$0.012	\$0.096

Assessing Potential Throughput

- What station-specific factors affect throughput?
- How much E85 are stations selling per year?



Assessing Potential Gross Margin



- E85 Wholesale Price
 - Spot market not a good indicator of prices; it represents the most volatile 5-15% of sales
 - Most producer-blender contracts are fixed price, some are pegged to the price of gas
 - Need to research prices with local blenders
 - Lowest prices offered by ethanol plants

Conclusion: Checklist for E85 Favorability

1. Robust competition in the gasoline market= need to differentiate
2. Large Potential Throughput of E85
3. Have mid-grade tank that can be changed out
4. Access to lower E85 wholesale costs
5. Low M&O costs due to quality or warranty
6. State Incentives or cost-share for E85 Installation
 - See AFDC website for state incentives
7. Have low and declining sales of premium grade

Future Work

- Fact Sheet
- Web-based Model
- Regional Equipment Costs
 - Need bids and invoices from you!

Contact Info

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