

# 2011 Drilling Forecast:

And its effect on drilling and completion costs in the Lower-48.

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Richard Spears

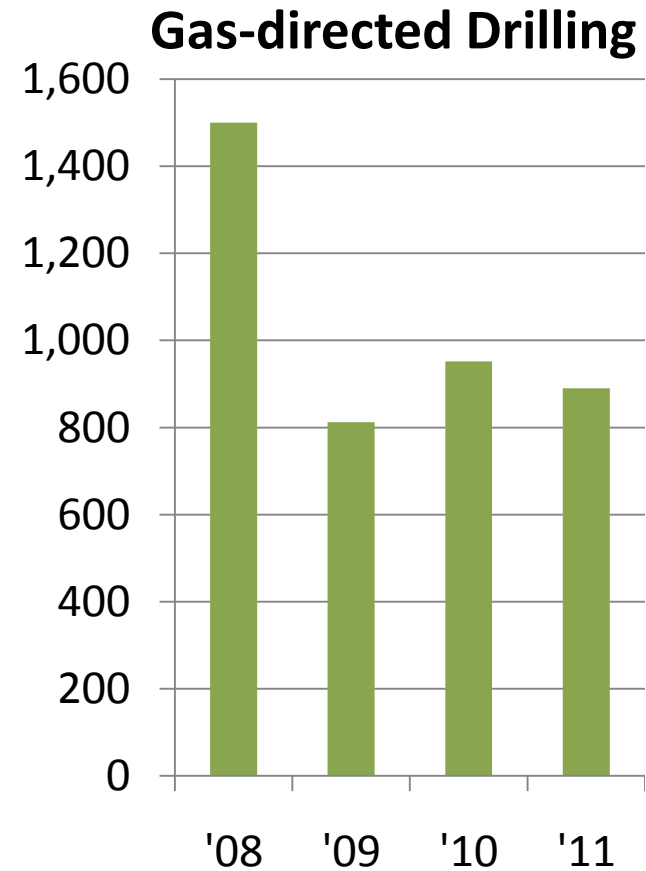
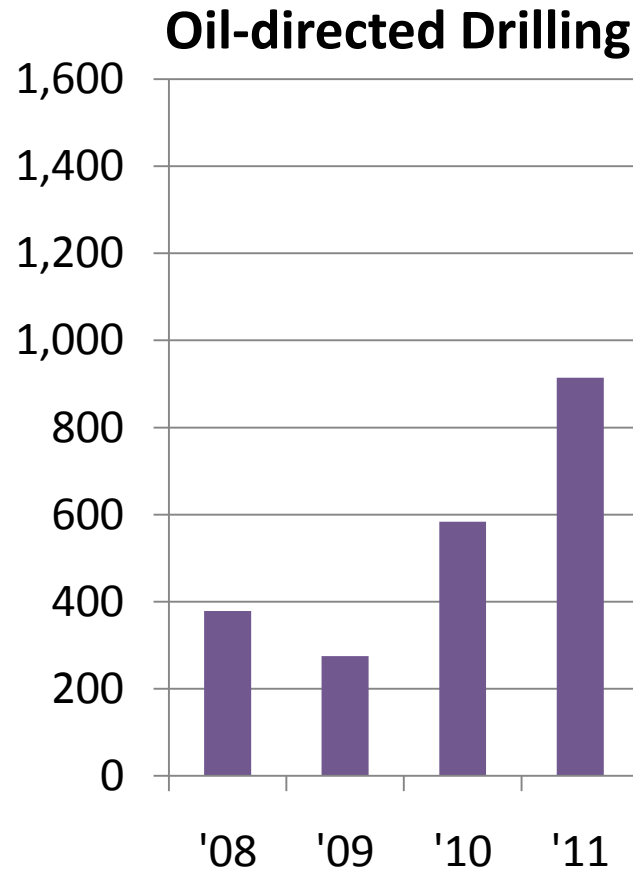
**Spears & Associates, Inc., Tulsa**

January 2011

[rspears@spearsresearch.com](mailto:rspears@spearsresearch.com)

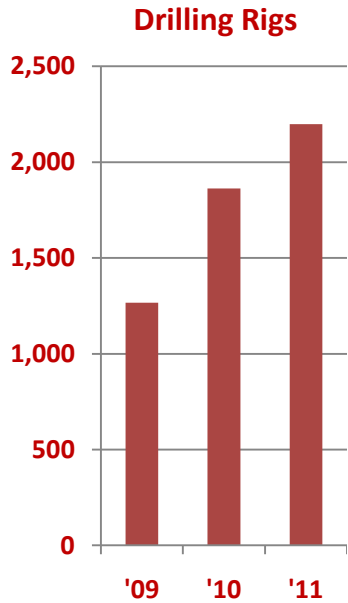
[www.spearsresearch.com](http://www.spearsresearch.com)

# US Drilling Activity: Oil vs. Gas

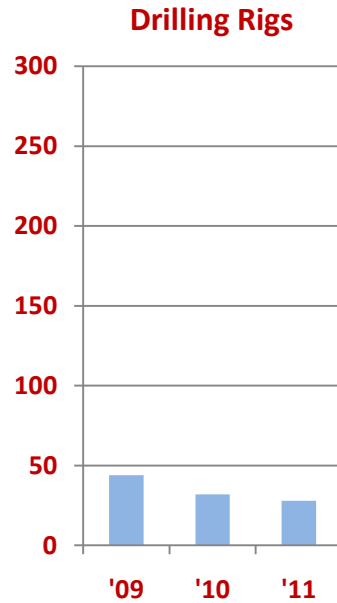


# Drilling Activity

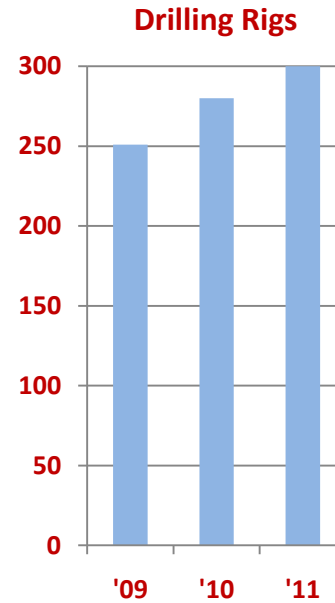
North America  
Land



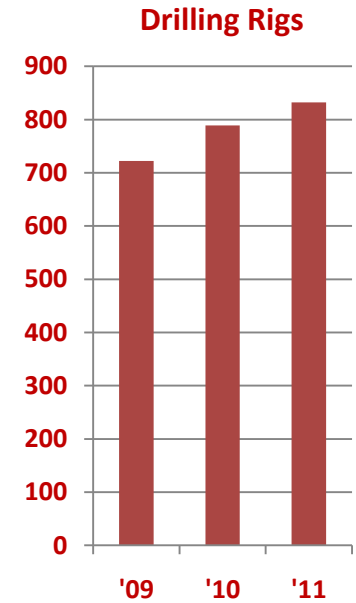
North America  
Offshore



International  
Offshore

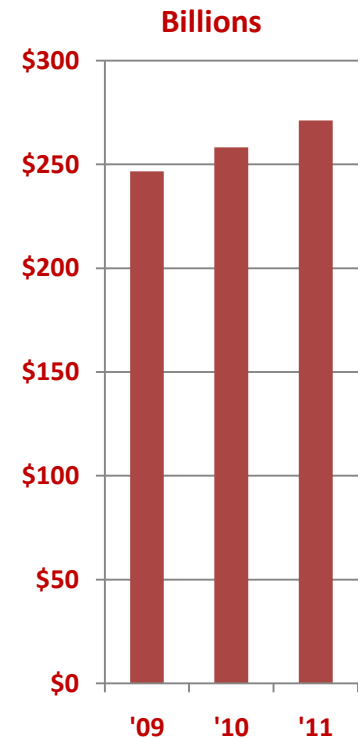


International  
Land



# Global Oilfield Market

- Global market growing 5% per year
- 32 unique market segments
- Markets falling in 2011: Offshore, rig gear & compression



# Global Oilfield Market

## HIGH GROWTH

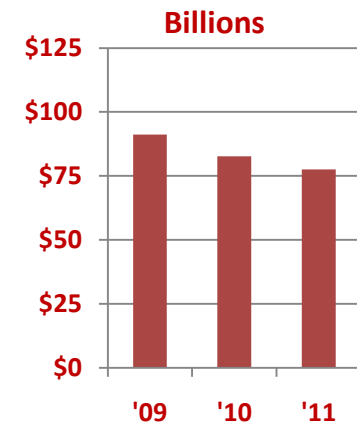
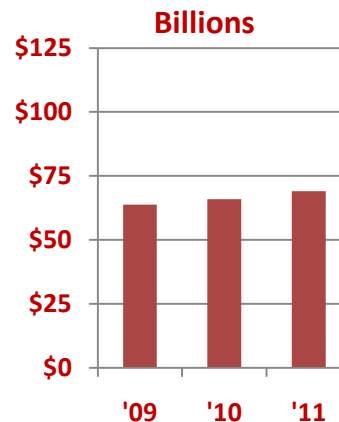
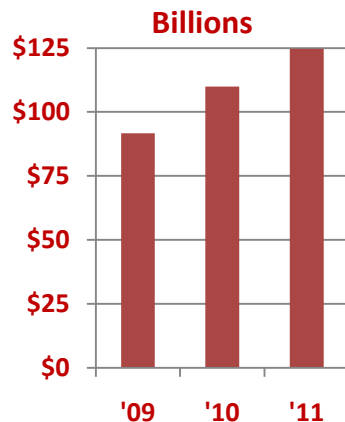
Coiled Tubing Services	20%
Downhole Drilling Tools	20%
Well Servicing	20%
Unit Manufacturing	20%
Drill Bits	16%
Logging-While-Drilling	15%
Casing & Cementation Products	15%
Land Contract Drilling	15%
Directional Drilling Services	13%
Pressure Pumping Services	13%
Wireline Logging	12%
Inspection & Coating	10%
Surface Equipment	10%
Production Testing	10%
Artificial Lift	10%
Solids Control	10%
Rental & Fishing Services	10%
Specialty Chemicals	10%
Casing & Tubing Services	10%
Surface Data Logging	10%

## SLOW GROWTH

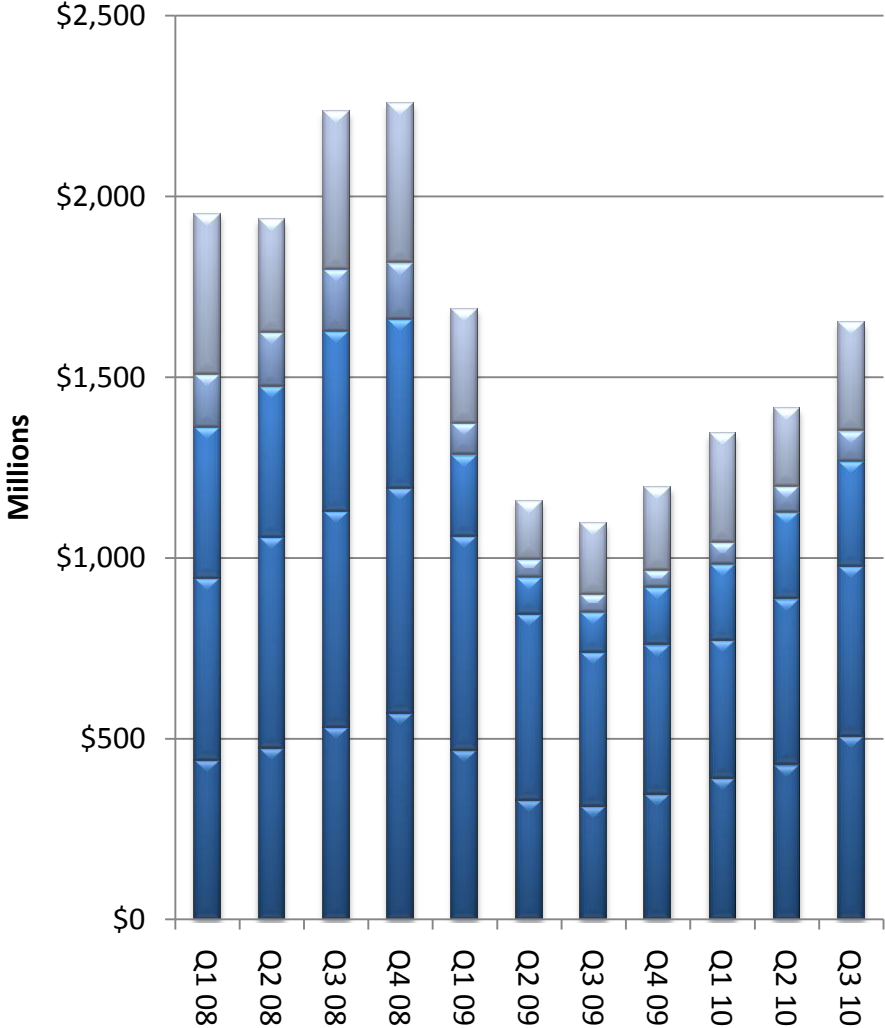
Completion Equipment	8%
Drilling & Completion Fluids	8%
Supply Vessels	5%
Geophysical	5%
Oil Country Tubular Goods	4%
Floating Production Services	3%
Petroleum Aviation	2%
Subsea Equipment	2%

## DECLINING MARKETS

Contract Compression Services	-3%
Offshore Construction Services	-5%
Offshore Contract Drilling	-6%
Rig Equipment	-10%

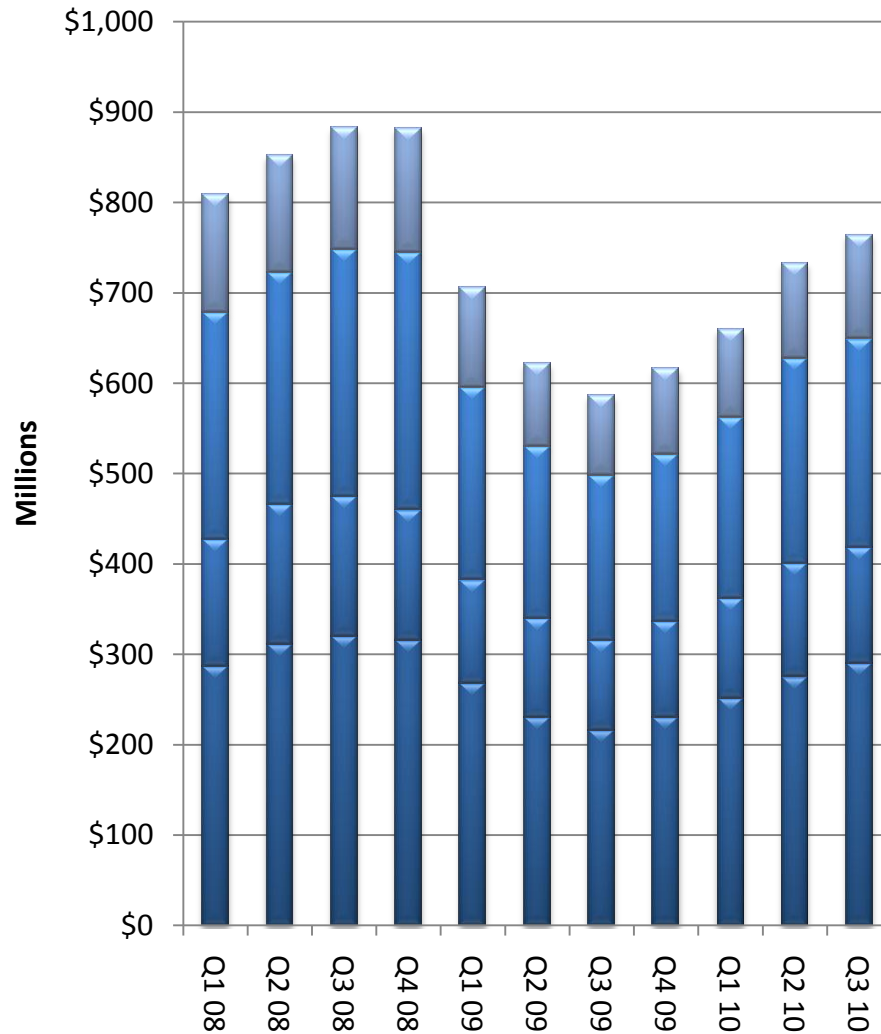


# High Growth: Land Drillers

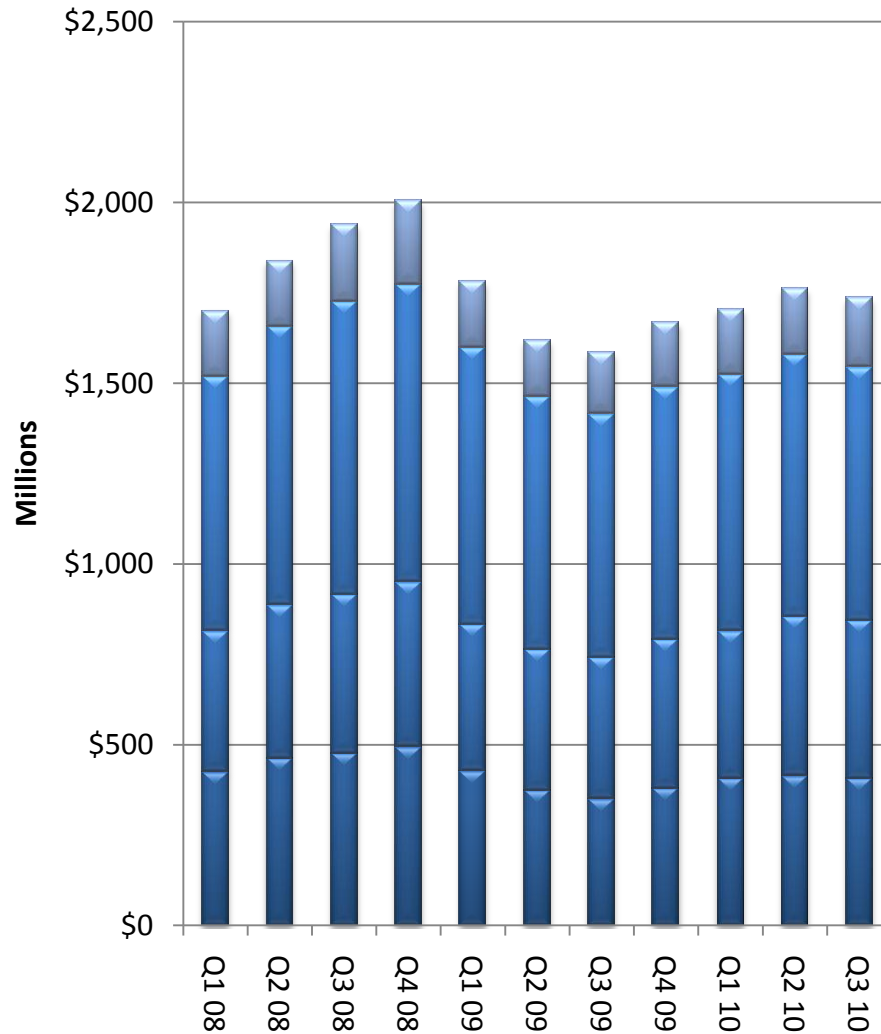


Source: Spears & Associates 2011

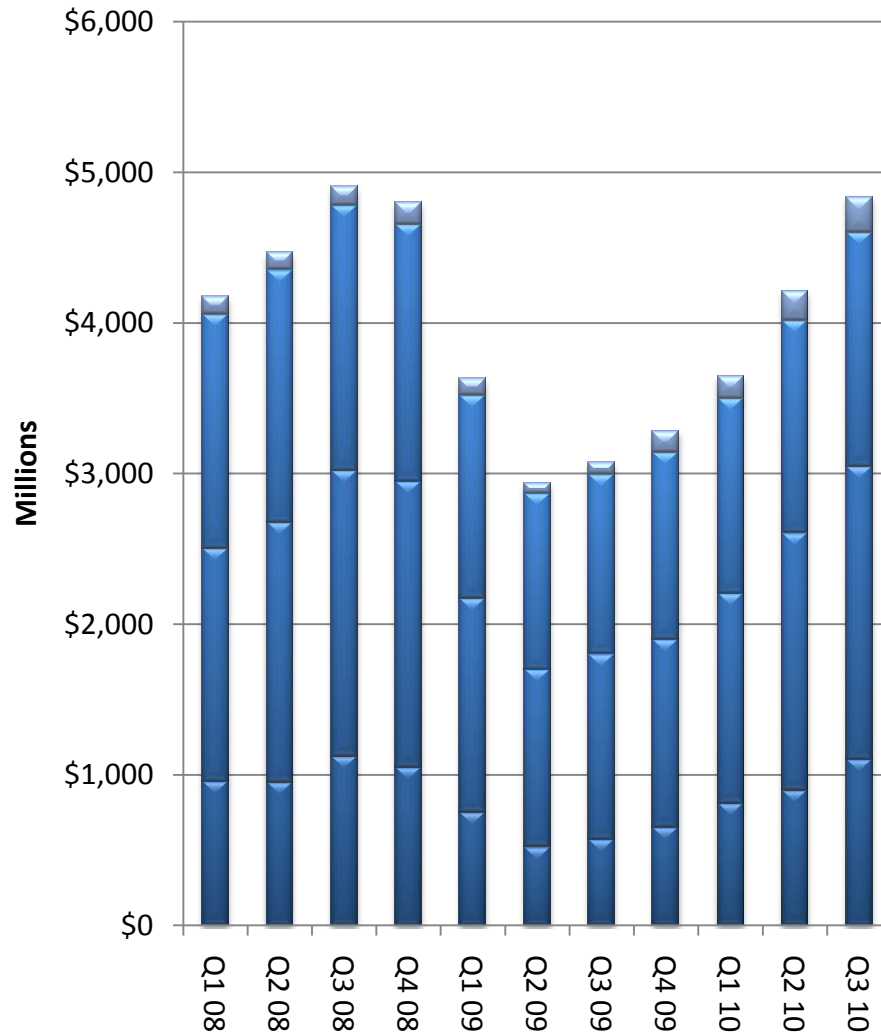
# High Growth: Drill Bits



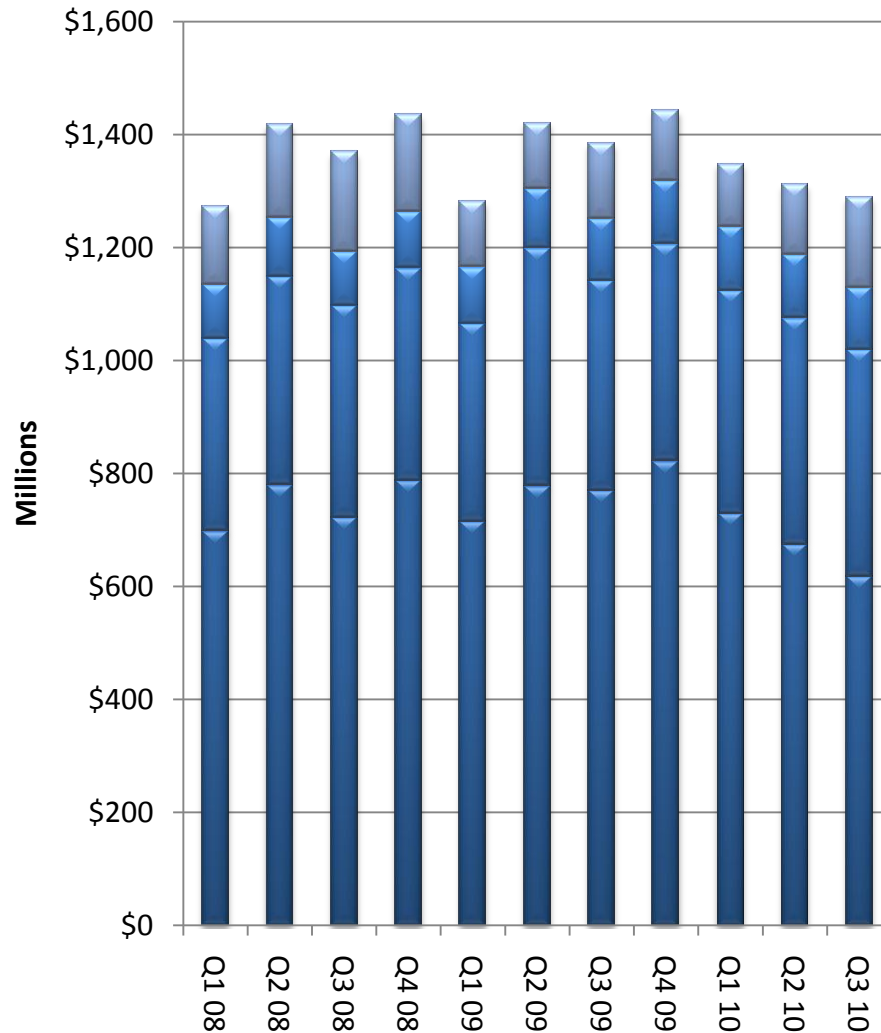
# High Growth: Directional Drilling



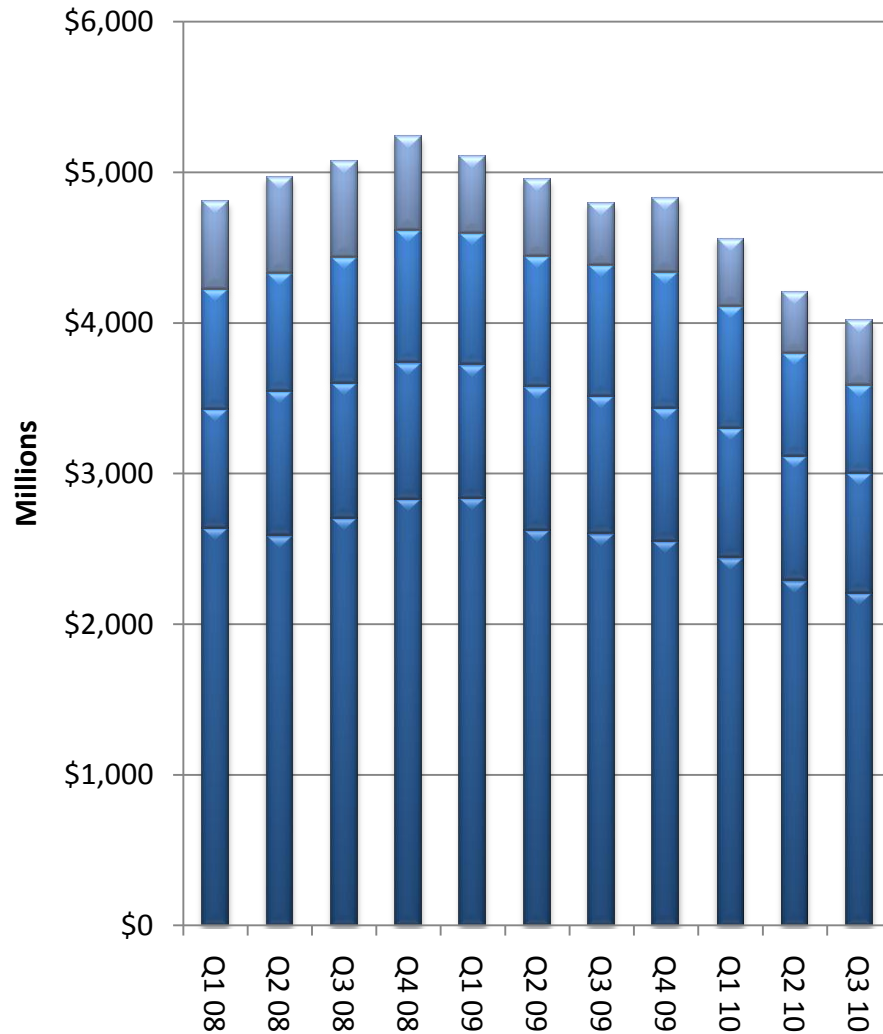
# High Growth: Pressure Pumping



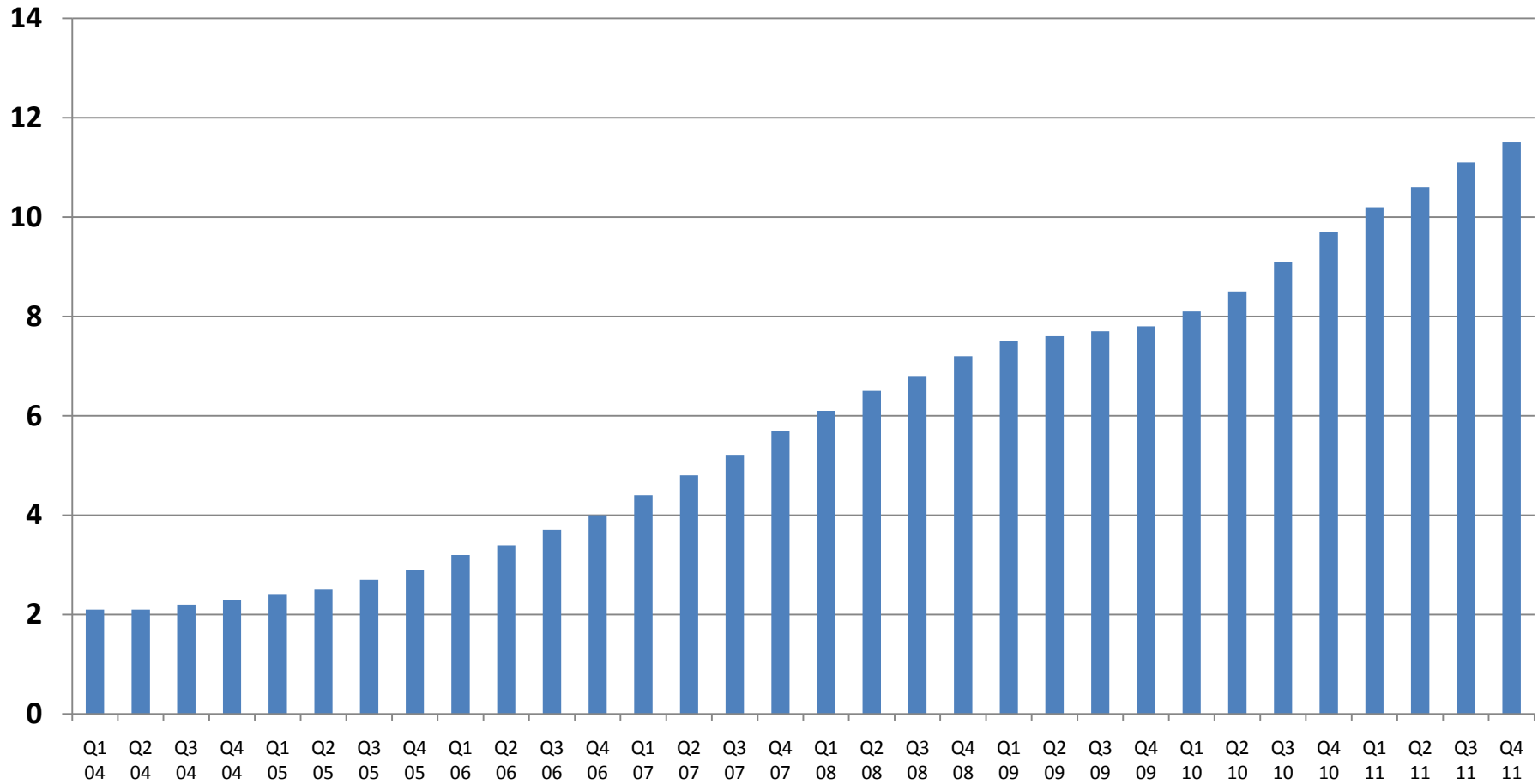
# Slow Growth: Subsea Gear



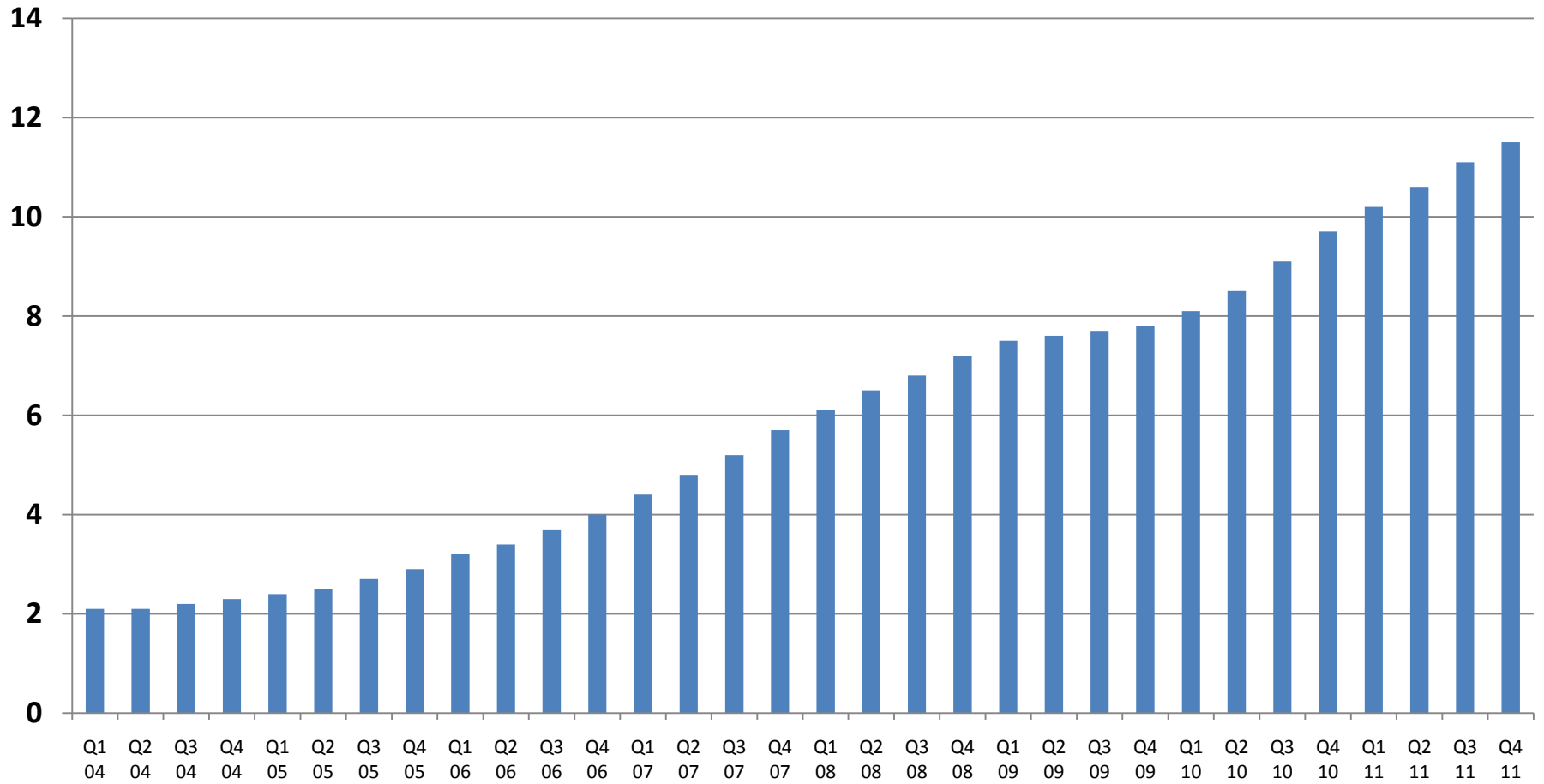
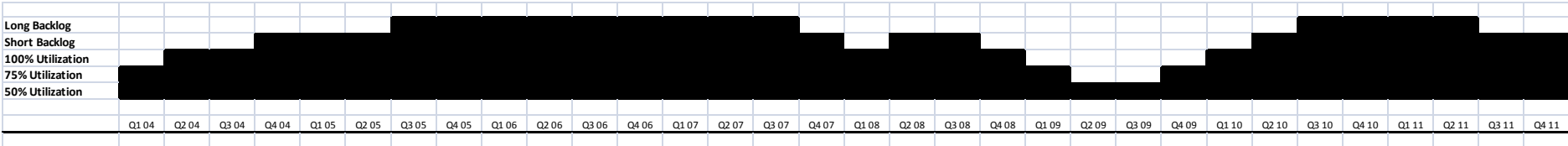
# Decline: Offshore Drilling



# Frac Horsepower (millions)

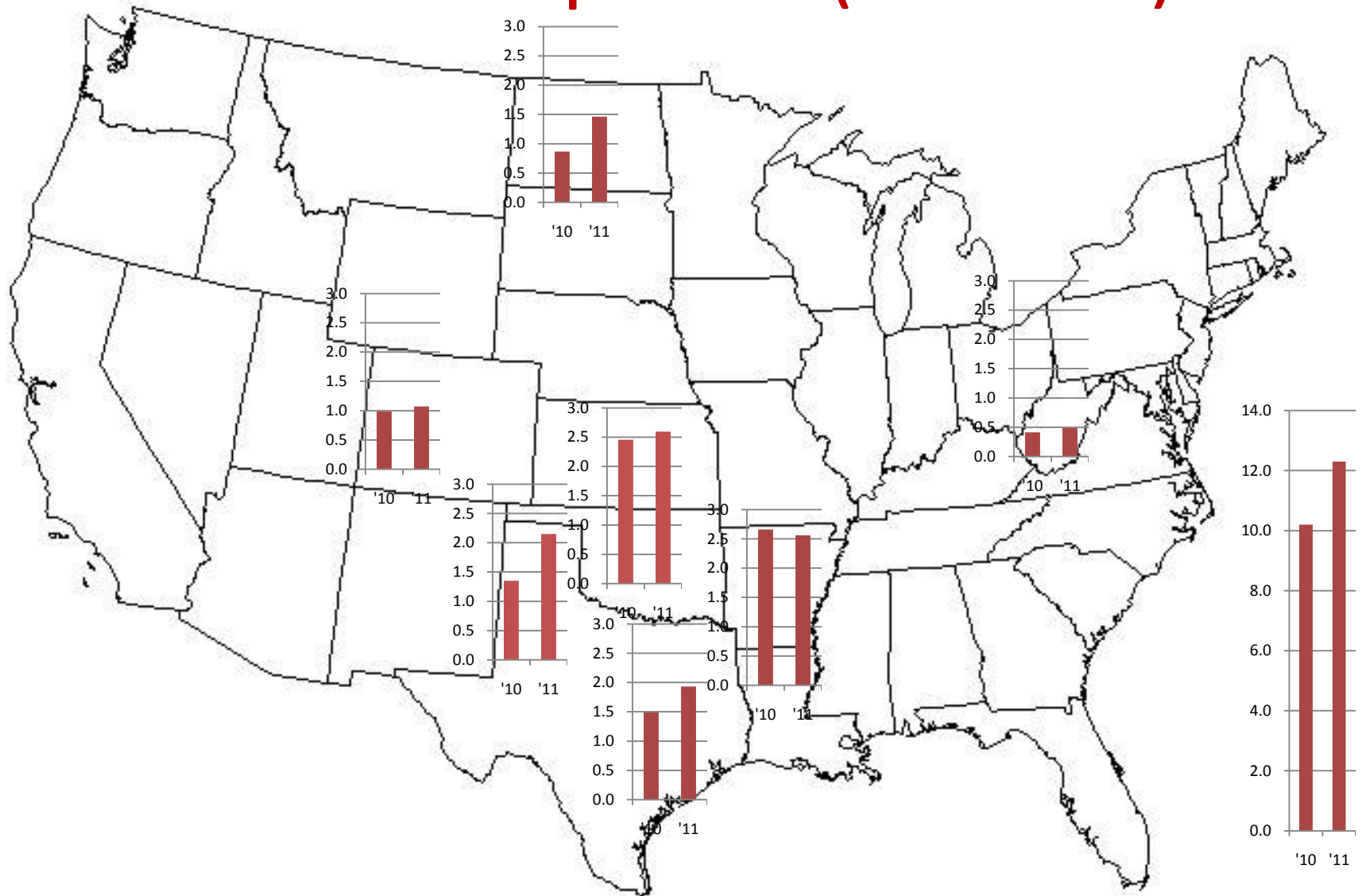


# Frac Horsepower (millions)

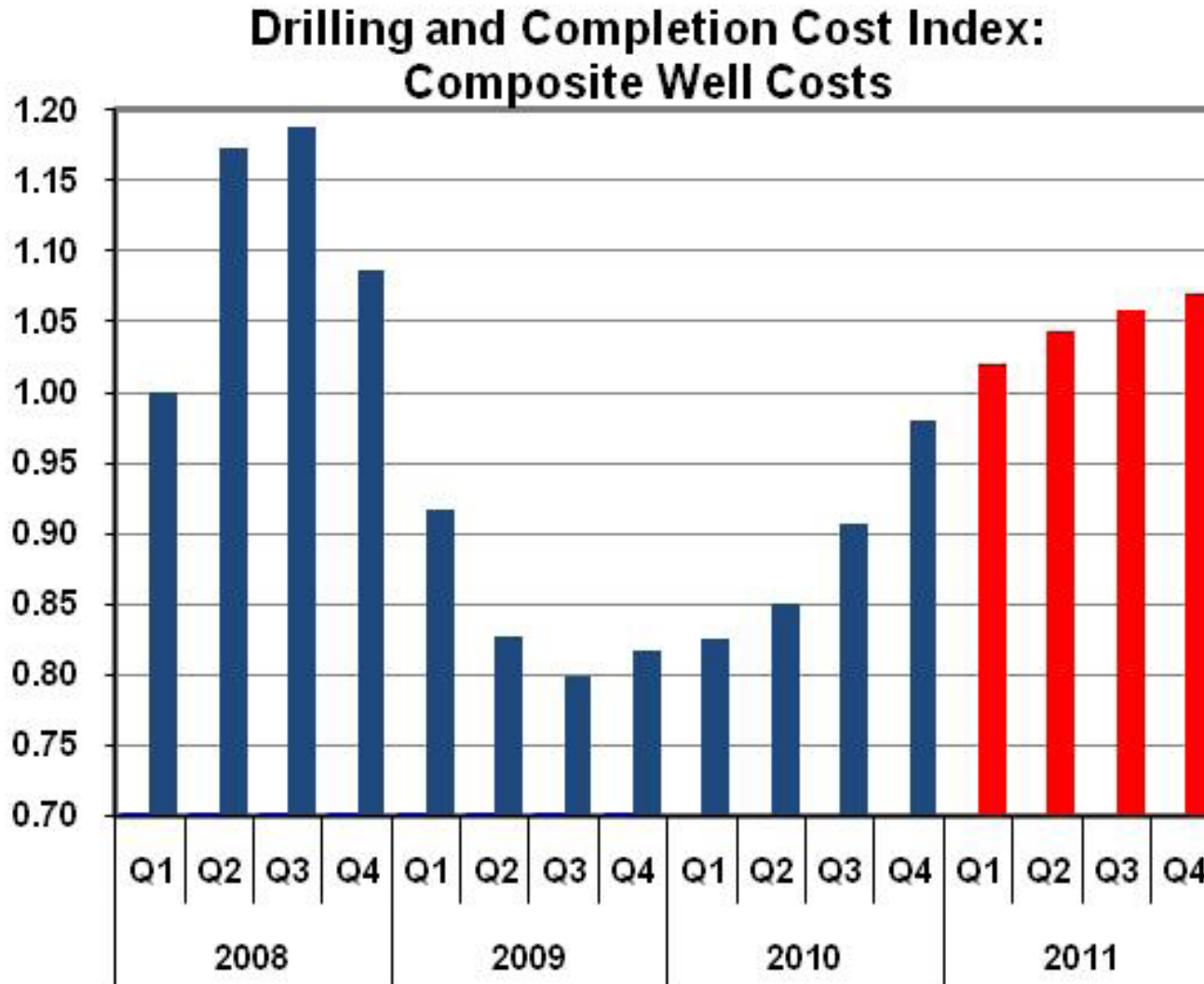


Source: Spears & Associates 2011

# Frac Horsepower (millions)

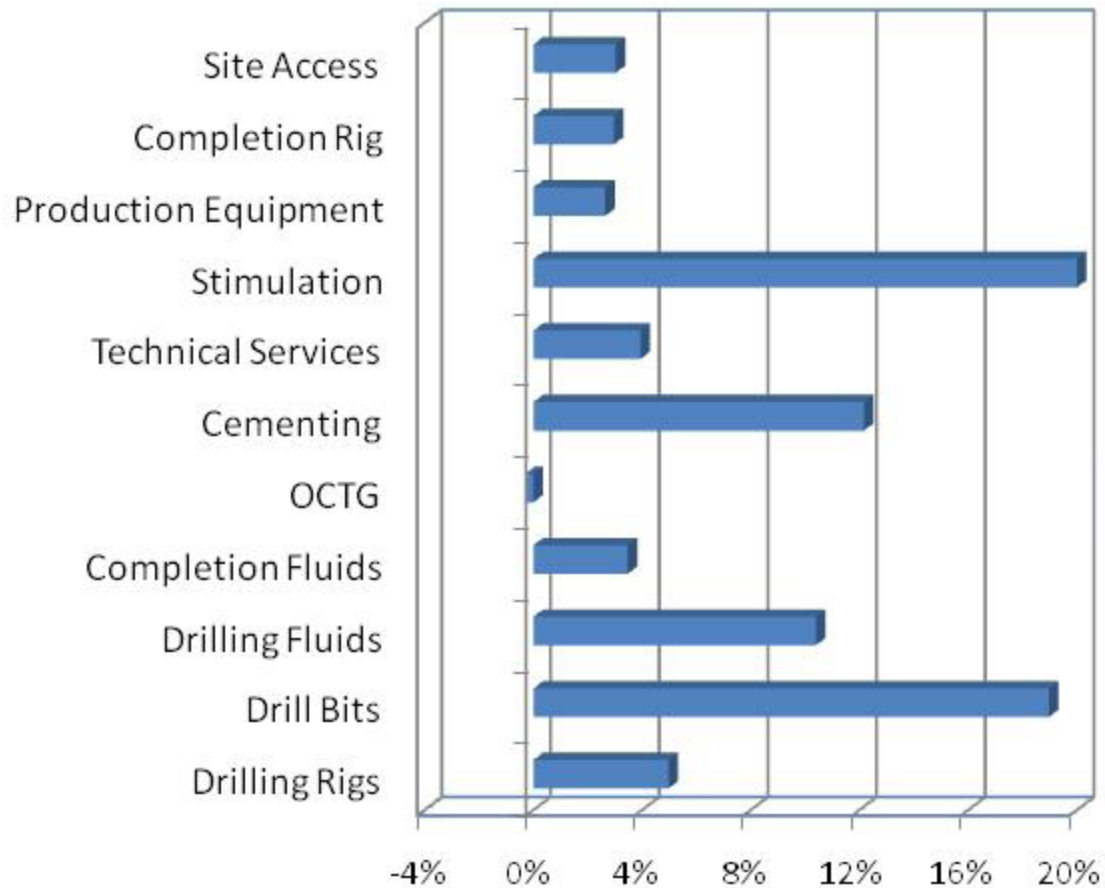


# US Drilling & Completion Costs

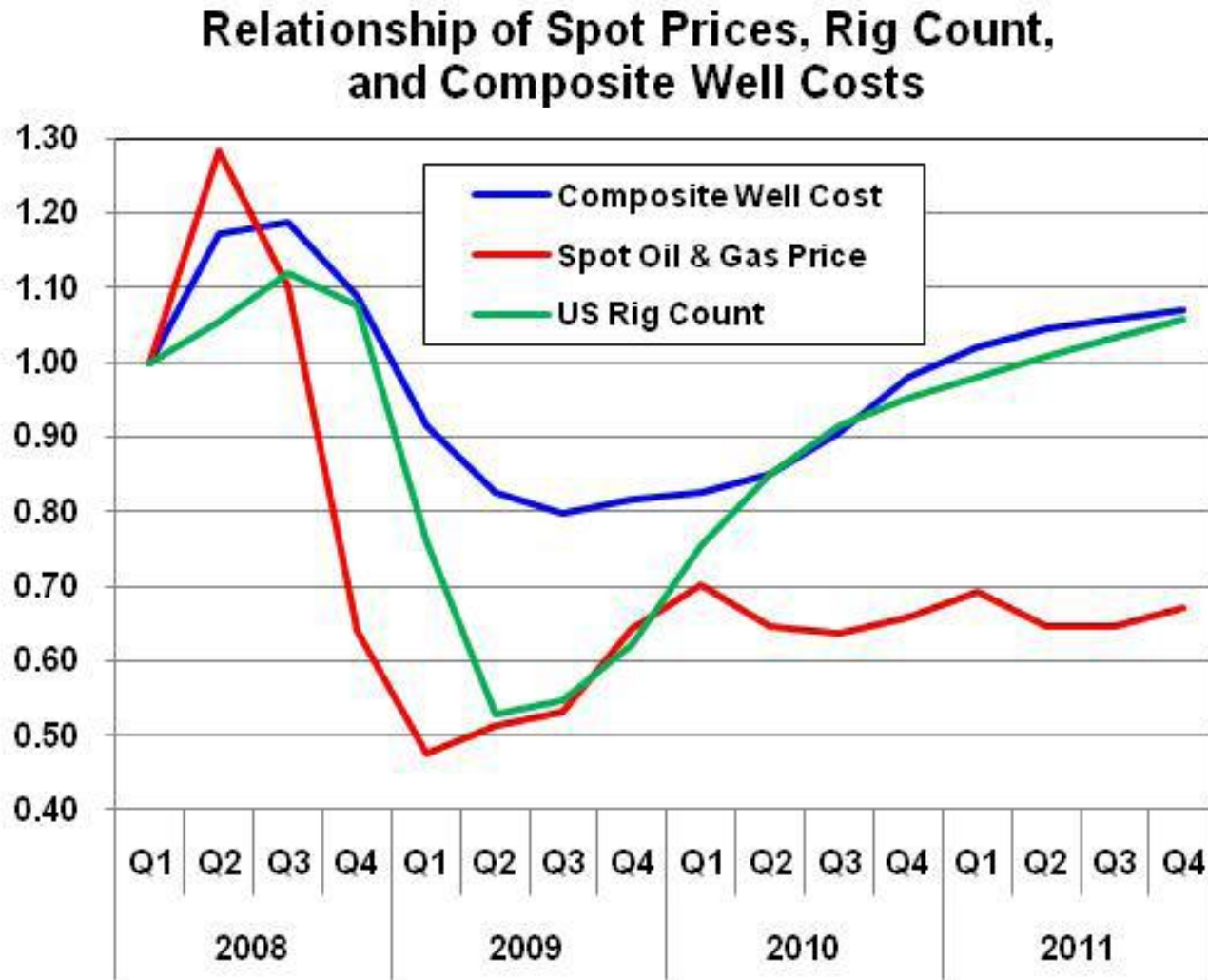


# US Drilling & Completion Costs

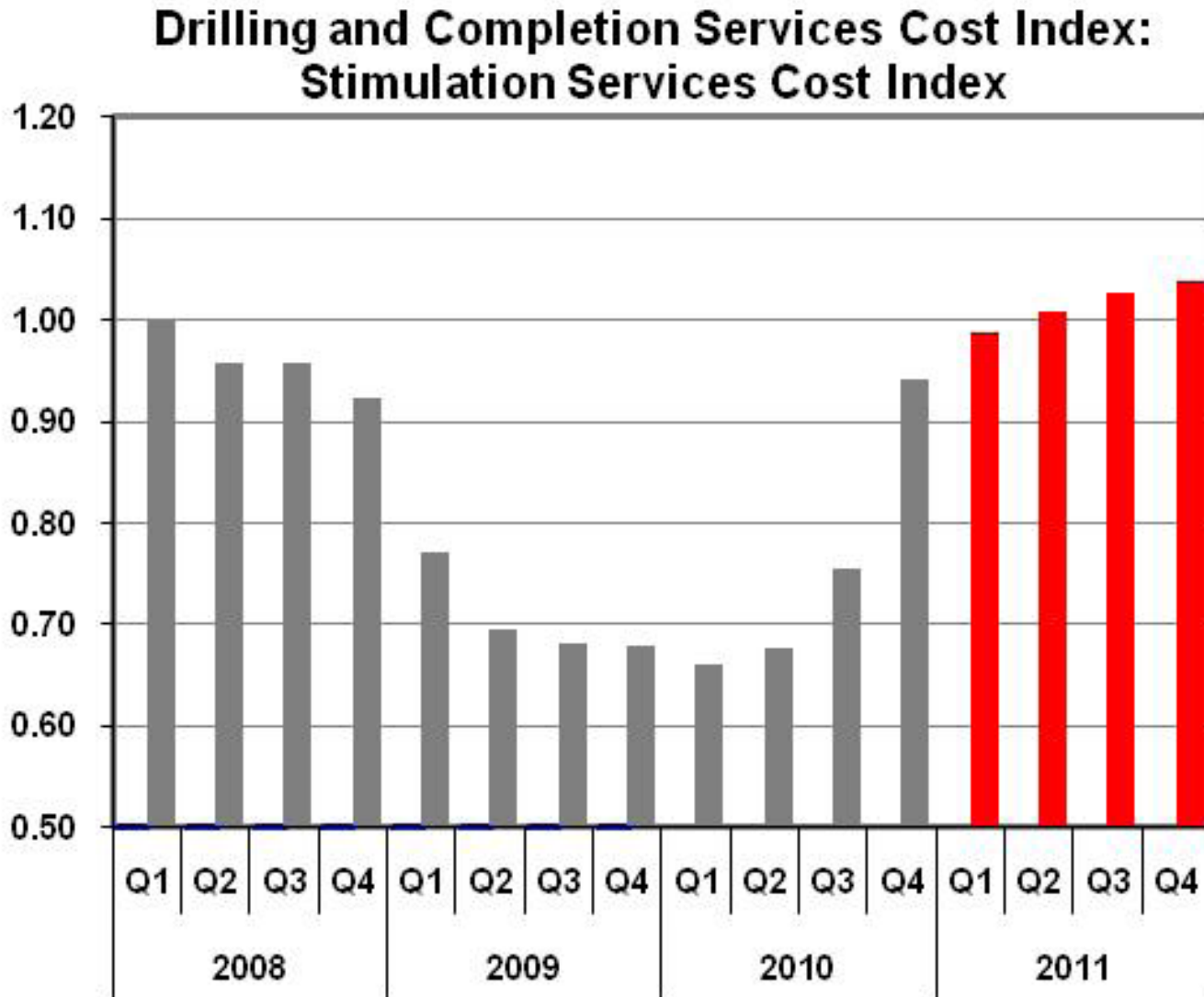
Well Cost Component Price Change:  
Q4 2010



# Oil Price vs. Rig Count vs. Costs

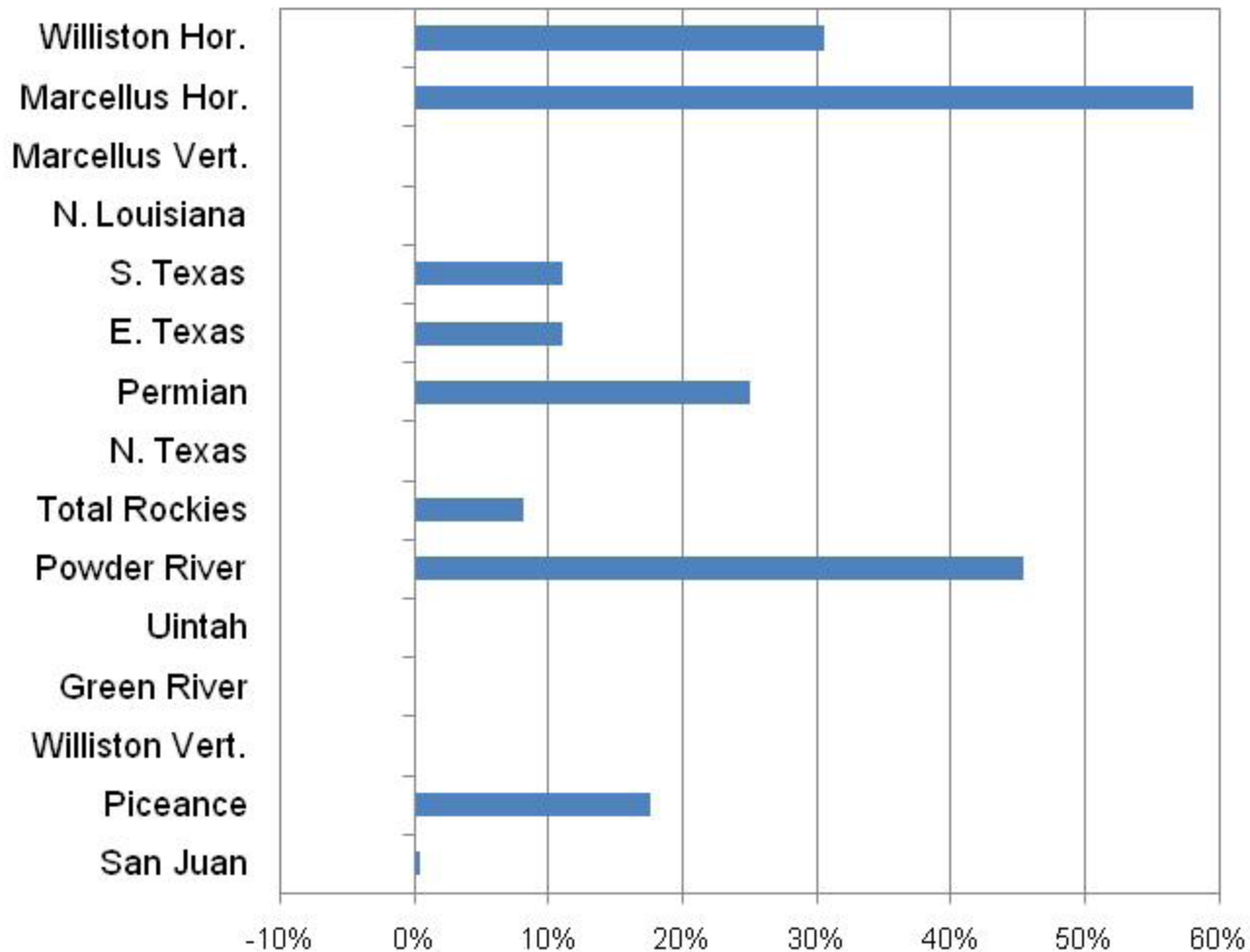


# US Frac Costs



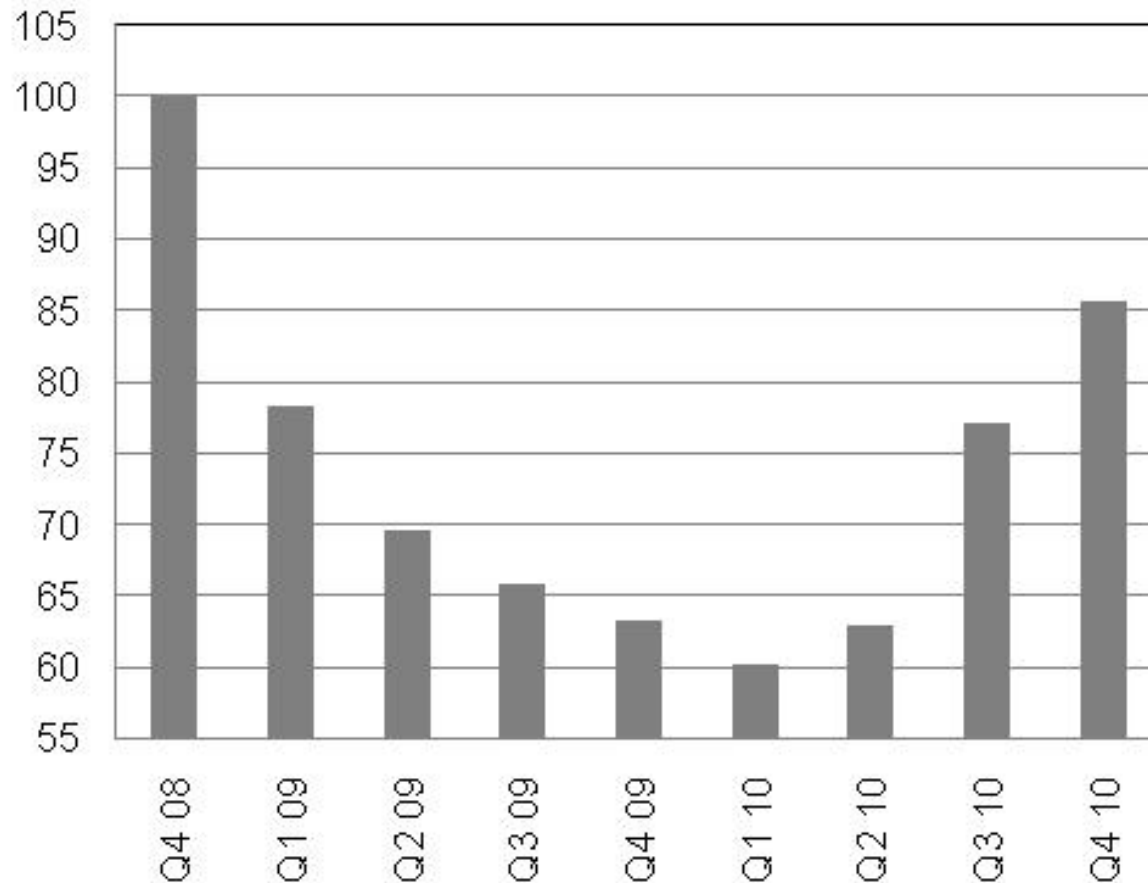
# US Frac Costs

Regional Stimulation Services Price Change:  
Q4 2010

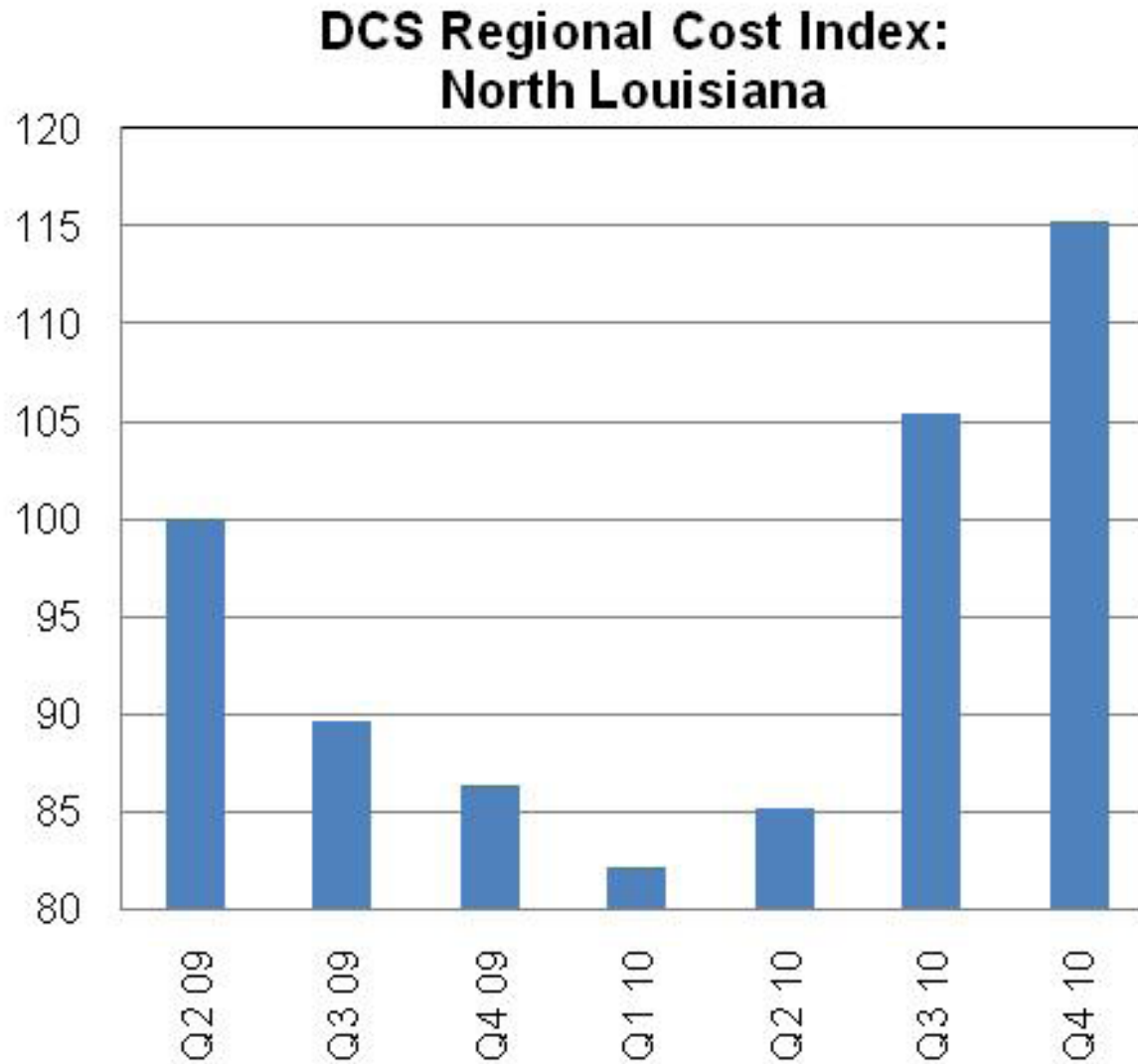


# East Texas Costs

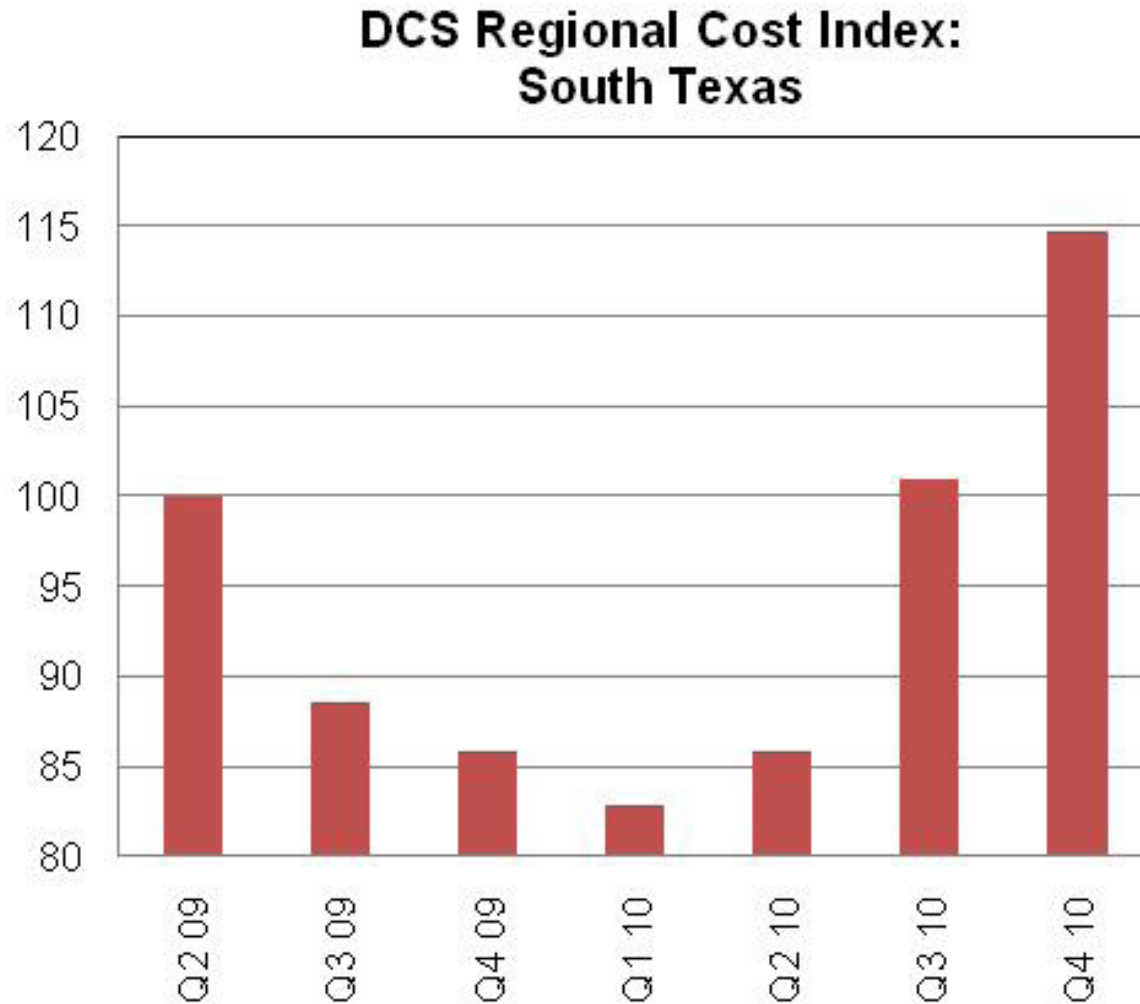
**DCS Regional Cost Index:  
East Texas**



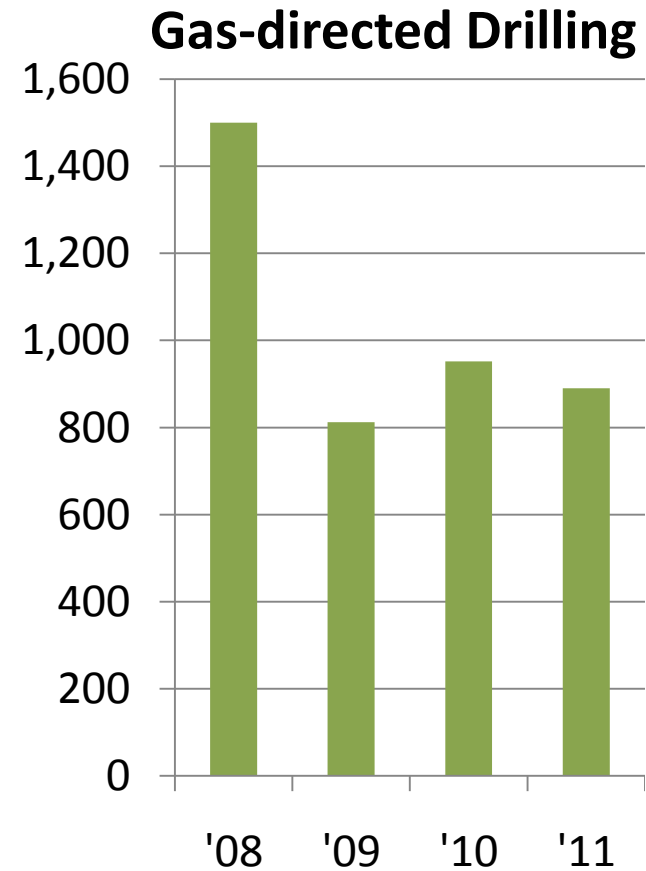
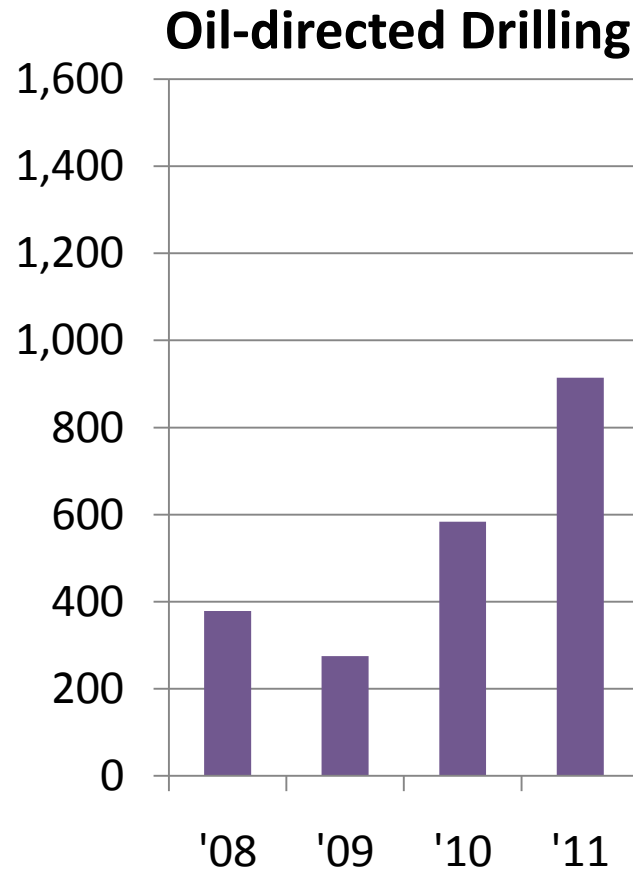
# North Louisiana Well Costs



# Eagle Ford/South Texas Well Costs



# US Drilling Activity: Oil vs. Gas



# Q&A

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## Fracturing

# Q&A

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## Drilling for oil

# Q&A

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## Compression

# Q&A

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## Changes