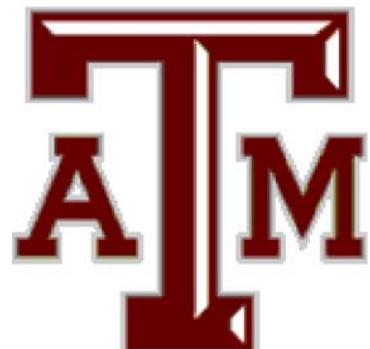


USDA Agricultural Outlook Forum 2007

TRADEOFFS IN PRODUCTION, PRICING, AND CROPPING PATTERNS

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Agricultural & Food Policy Center
Texas A&M University

Presented Thursday, March 1, 2007



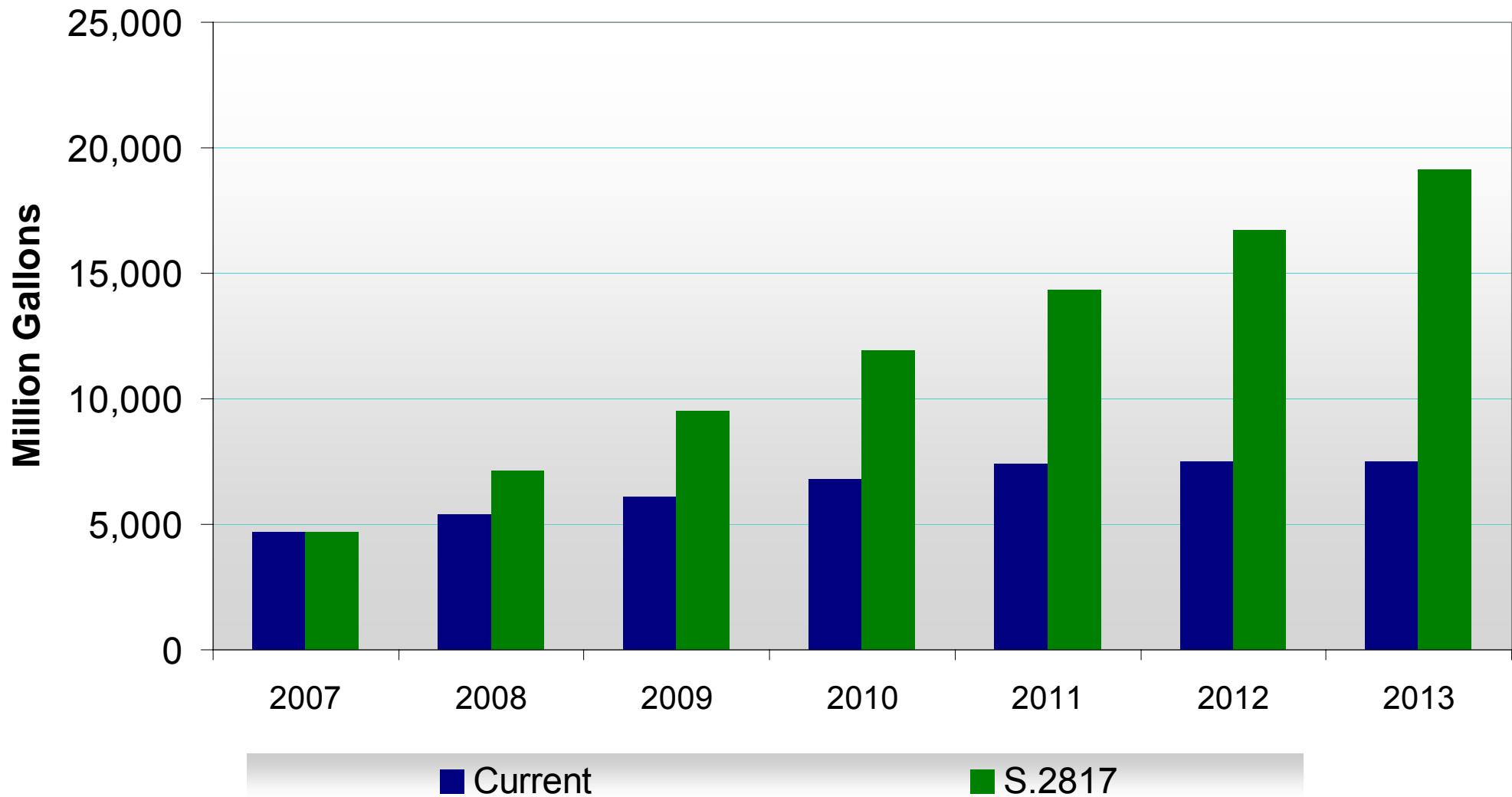
Background

- Current US production capacities:
 - Ethanol: 5.6 billion gallons
 - Biodiesel: 0.864 billion gallons
- New capacity under construction:
 - Ethanol: 6.2 billion gallons
 - Biodiesel: 1.7 billion gallons
- Fossil energy situation highly uncertain

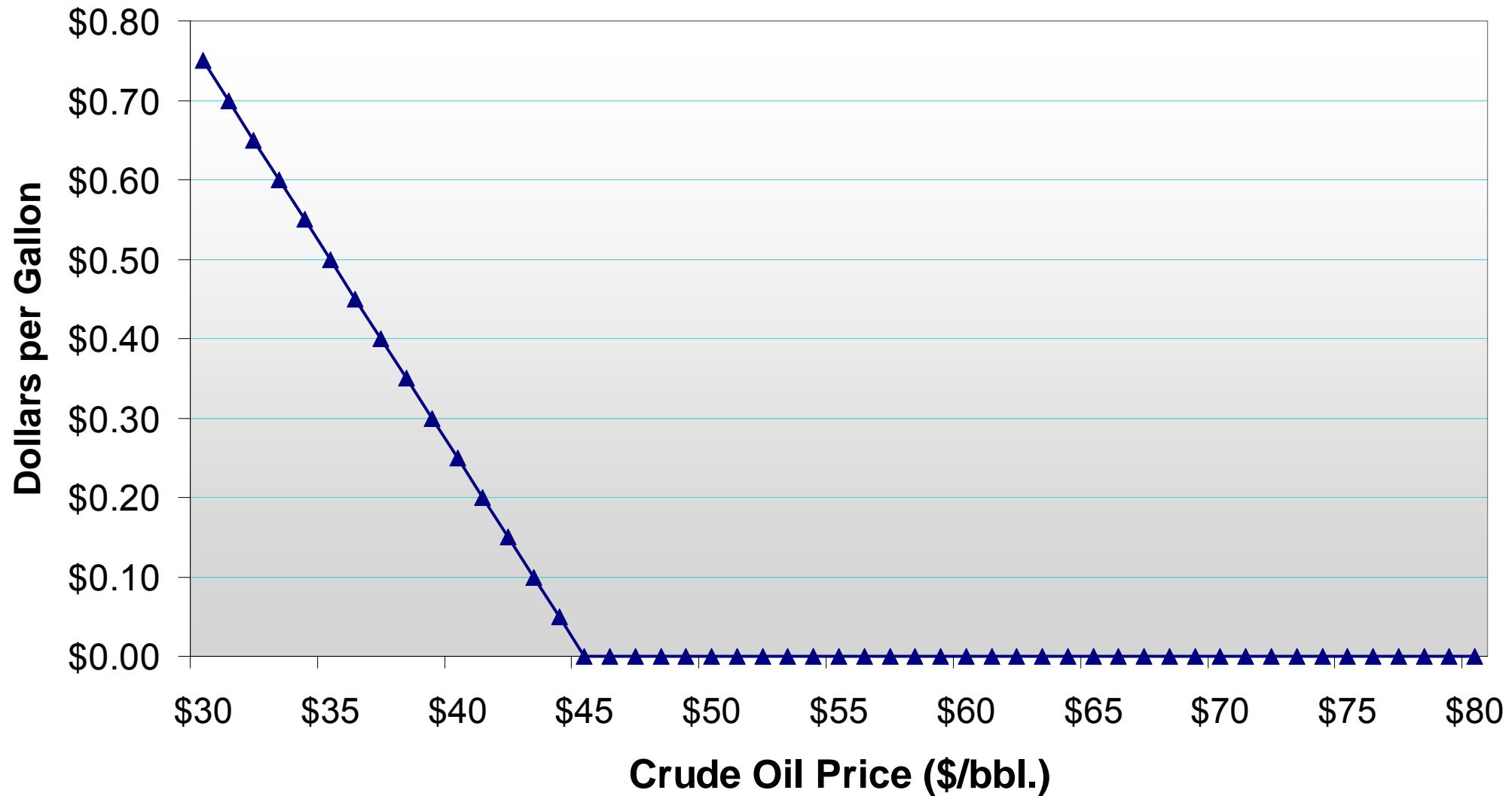
Policy Situation

- Current Renewable Fuel Standard unlikely to bind
- Current ethanol subsidy rapidly getting expensive, even as market incentives for ethanol production are high
- Proposal for higher RFS (S.2817)
- Proposal for variable ethanol subsidy (S.4000)

Current and S.2817 Renewable Fuel Standards



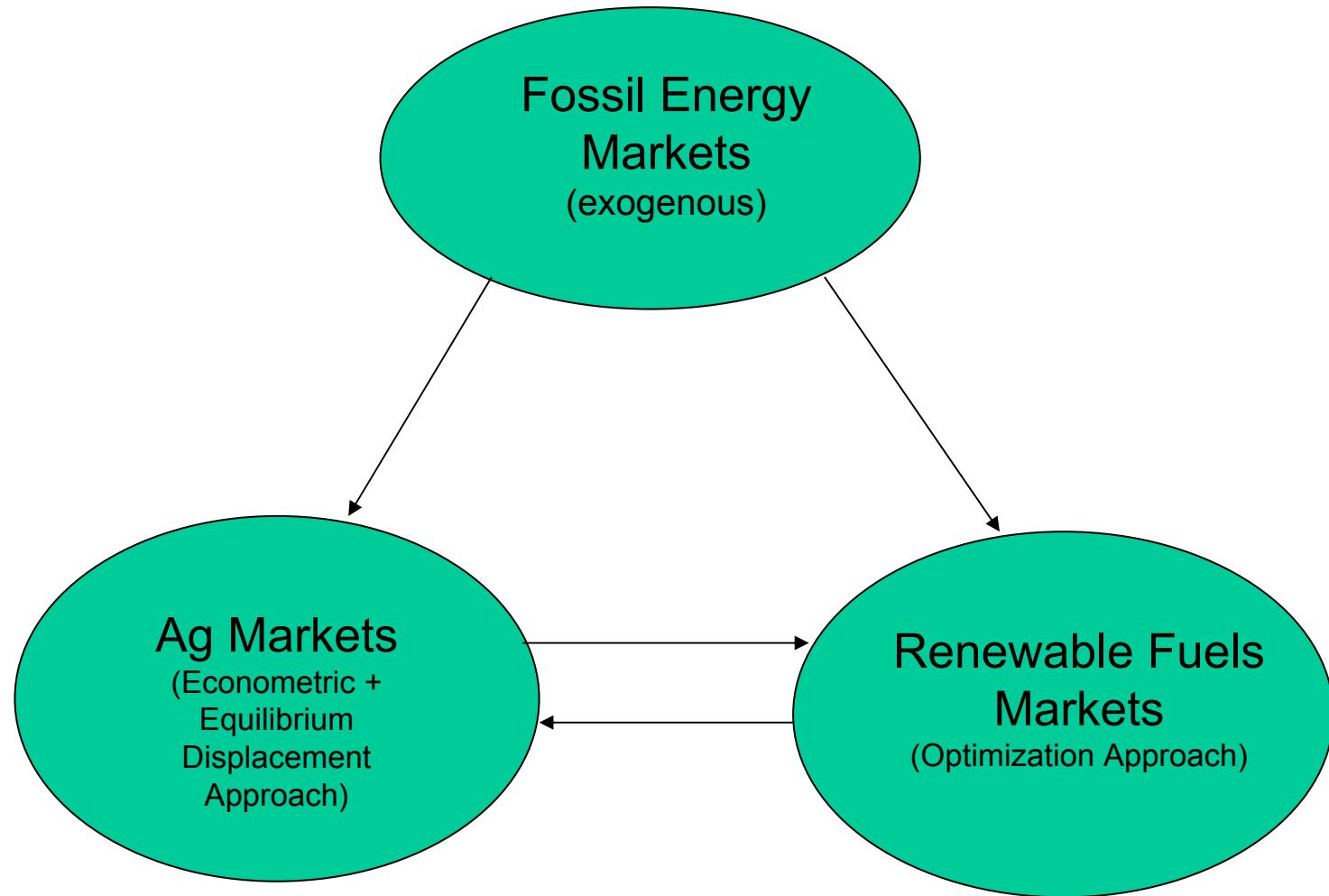
S.4000 Variable Ethanol Subsidy



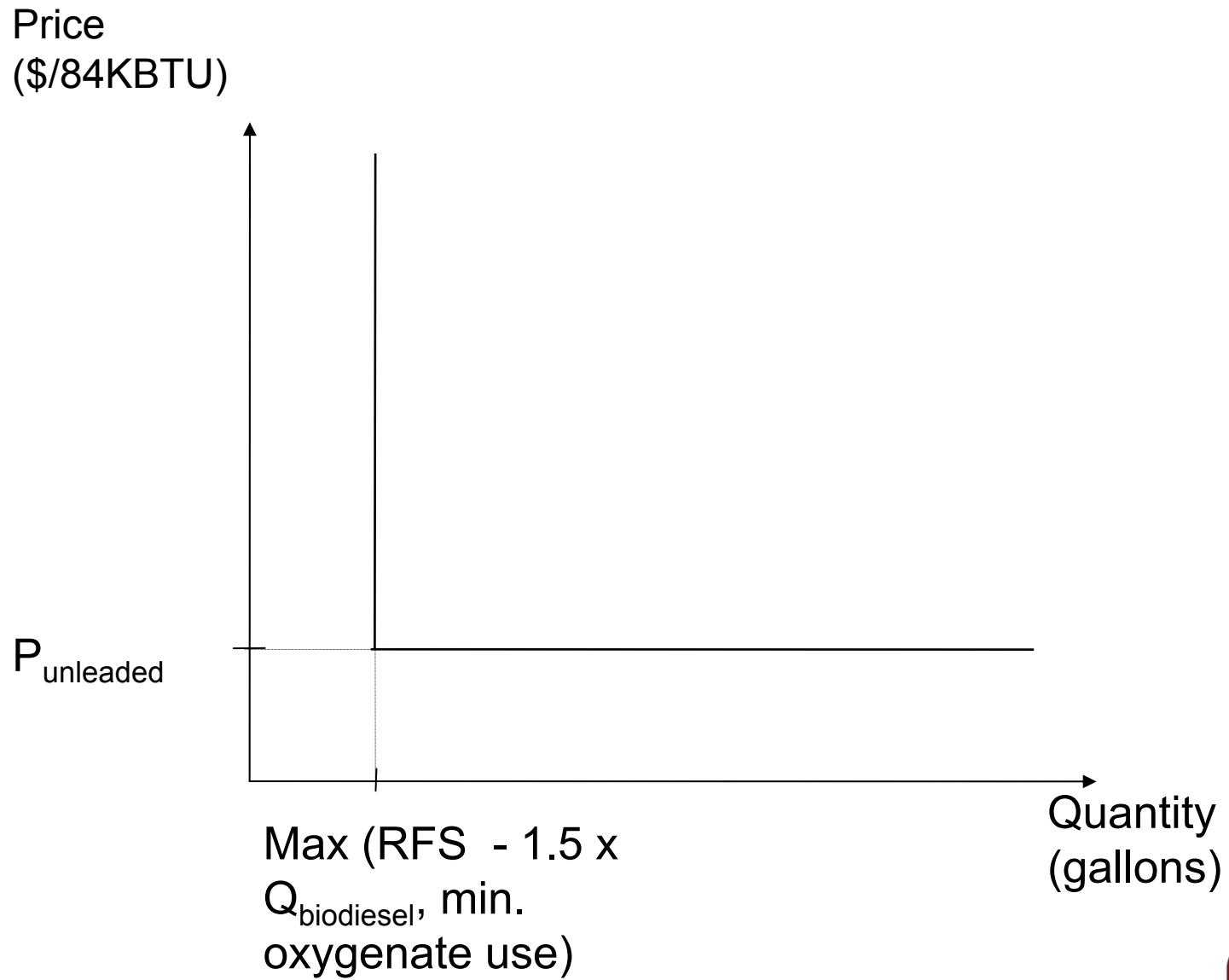
Four Policy Scenarios

- Current situation continues
- Higher RFS is set (and current subsidy remains)
- Variable ethanol subsidy replaces the fixed subsidy (and RFS is unchanged)
- Higher RFS and variable ethanol subsidy

Agricultural and Energy Market Interaction (AEMI) Model Overview

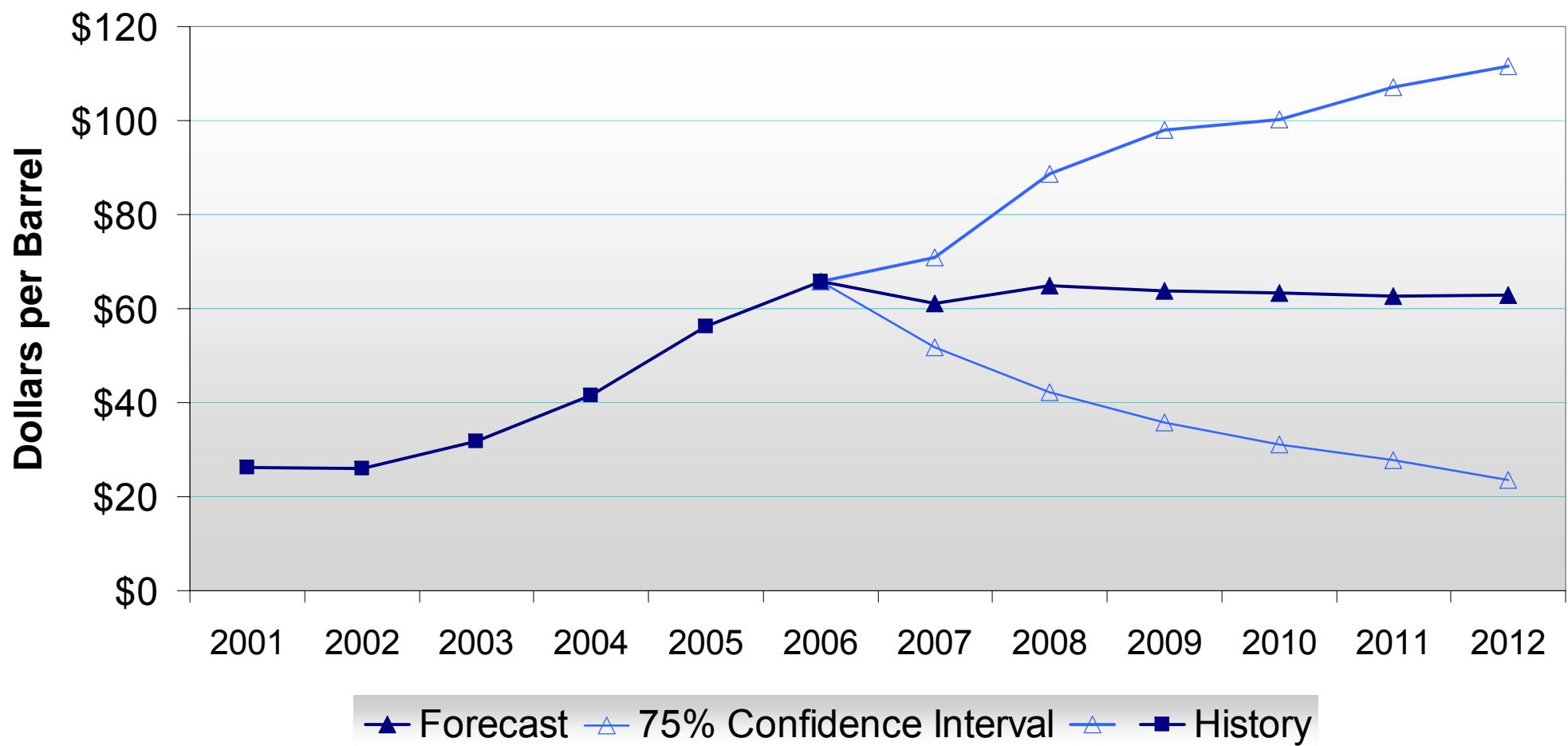


Ethanol Demand

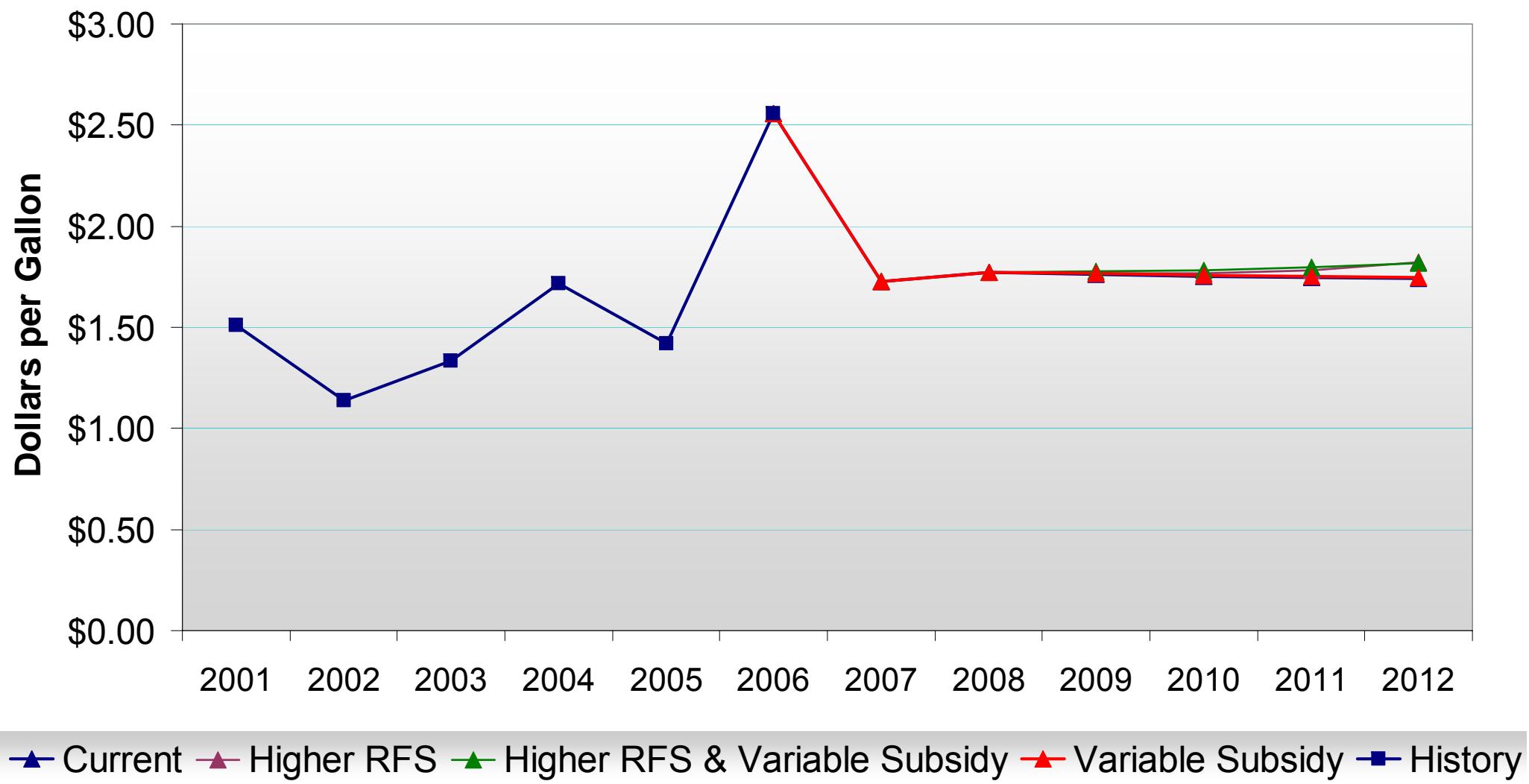


Light Sweet Crude Oil Price

Cushing, OK

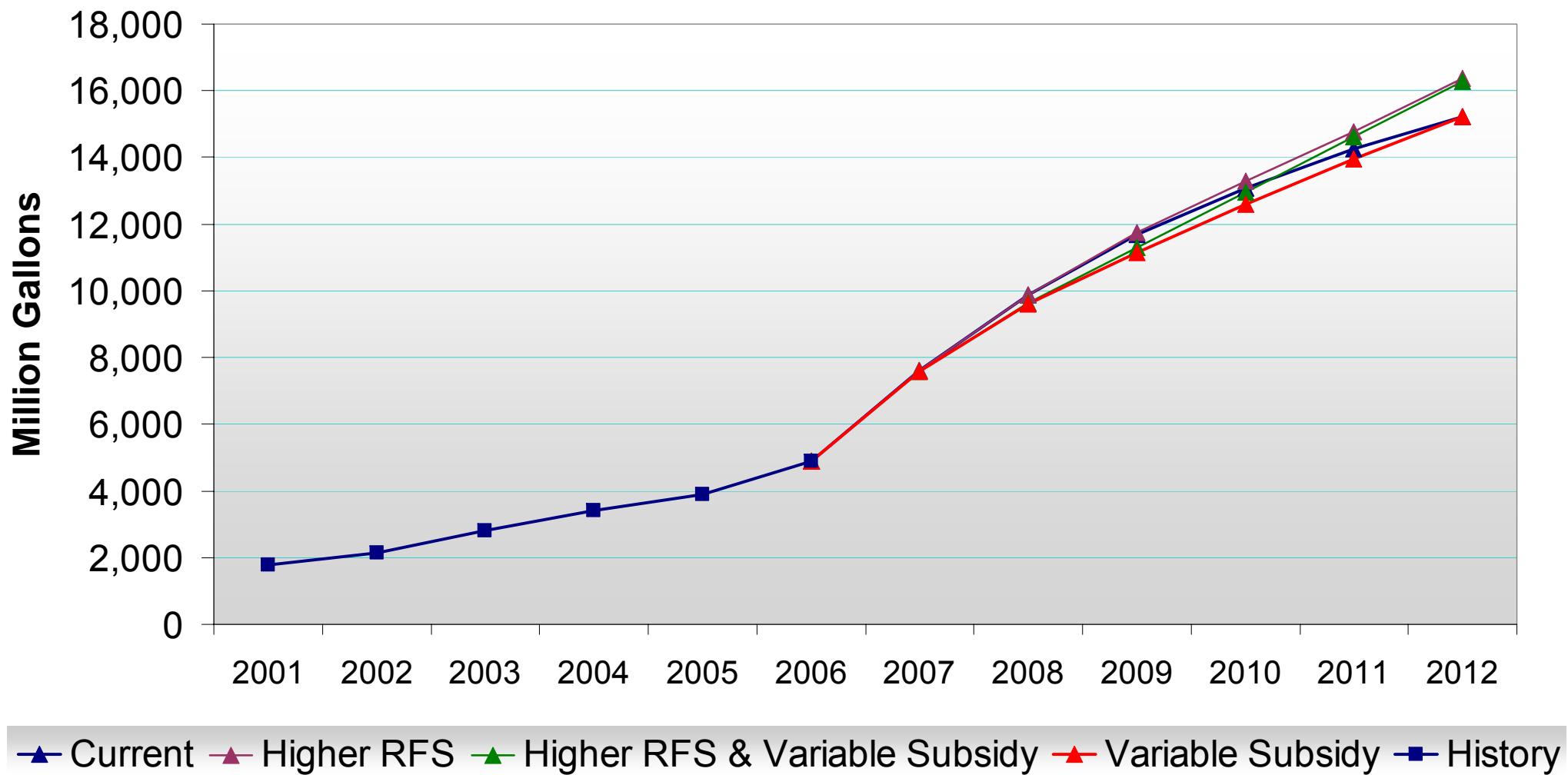


Ethanol Price U.S. Average



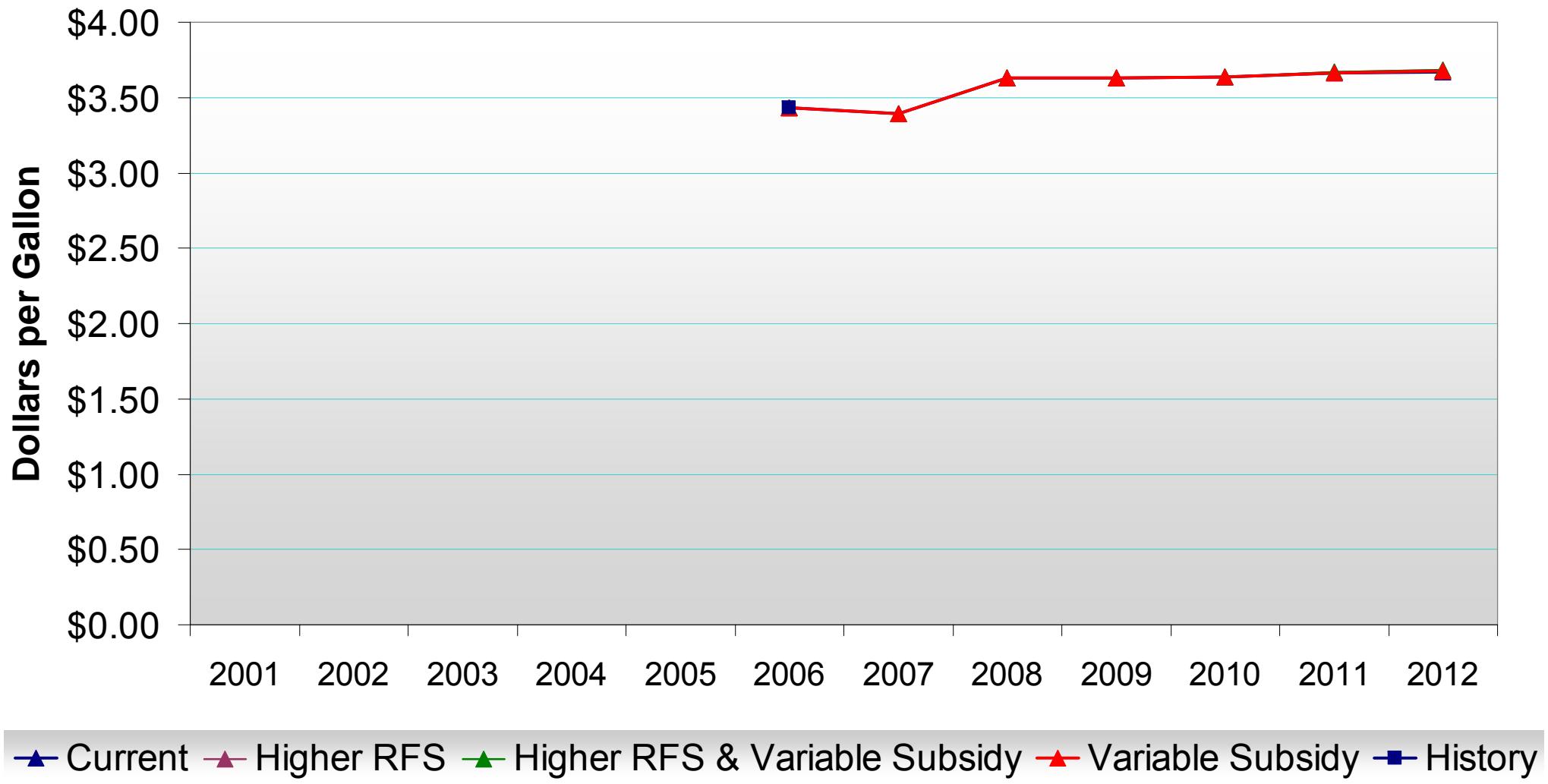
Ethanol Production

United States



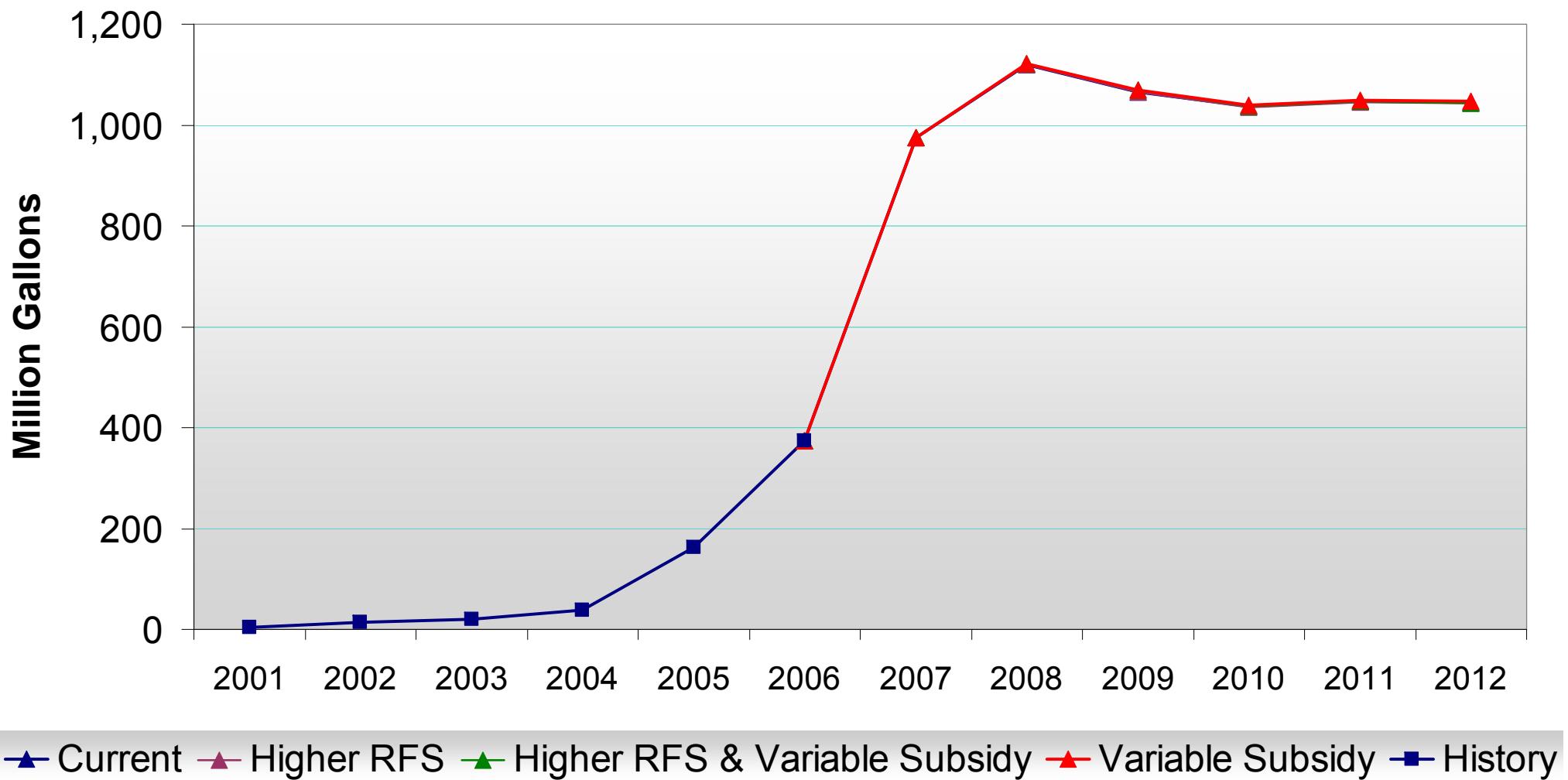
Biodiesel Price

U.S. Average



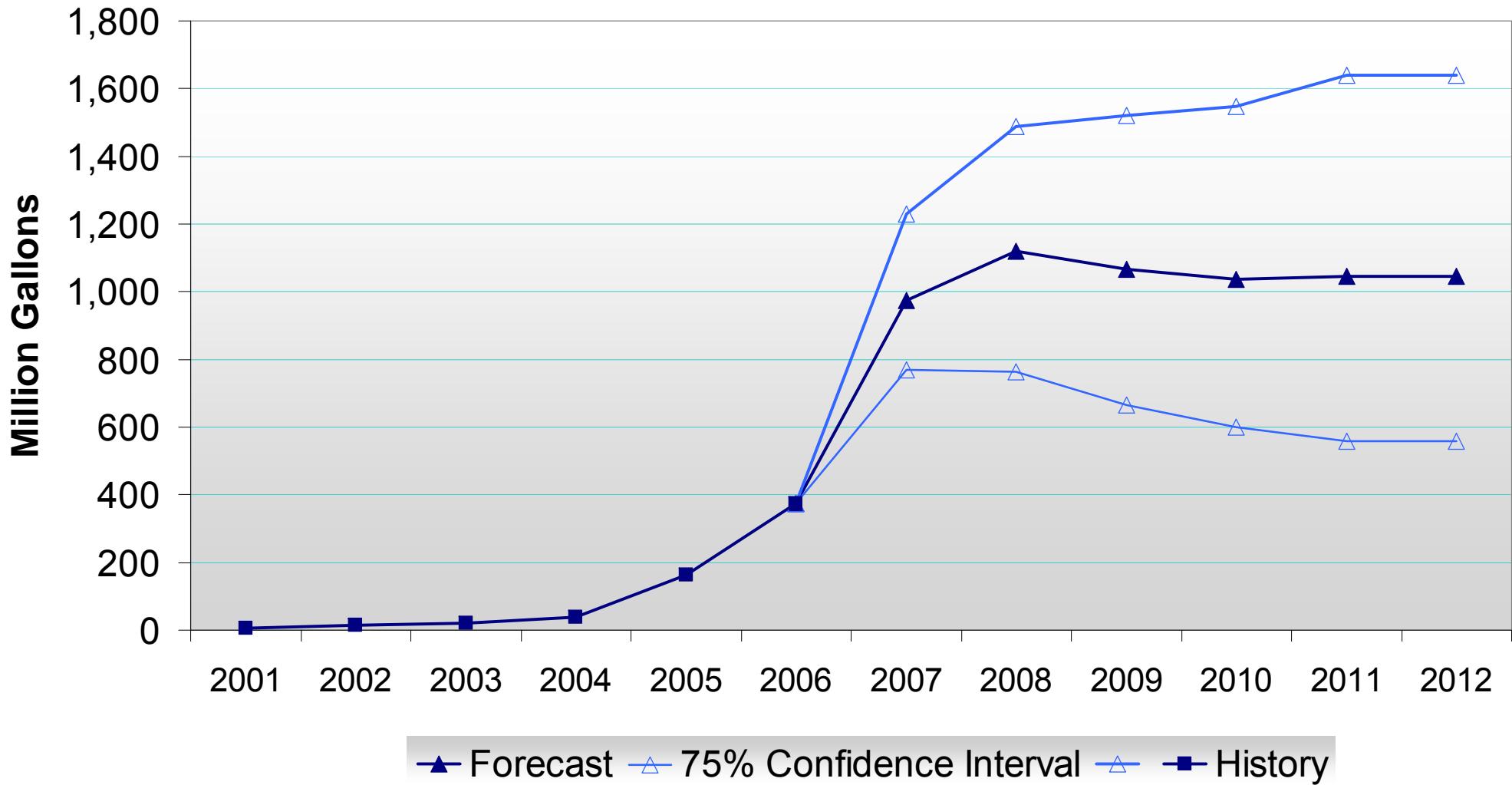
Biodiesel Production

United States



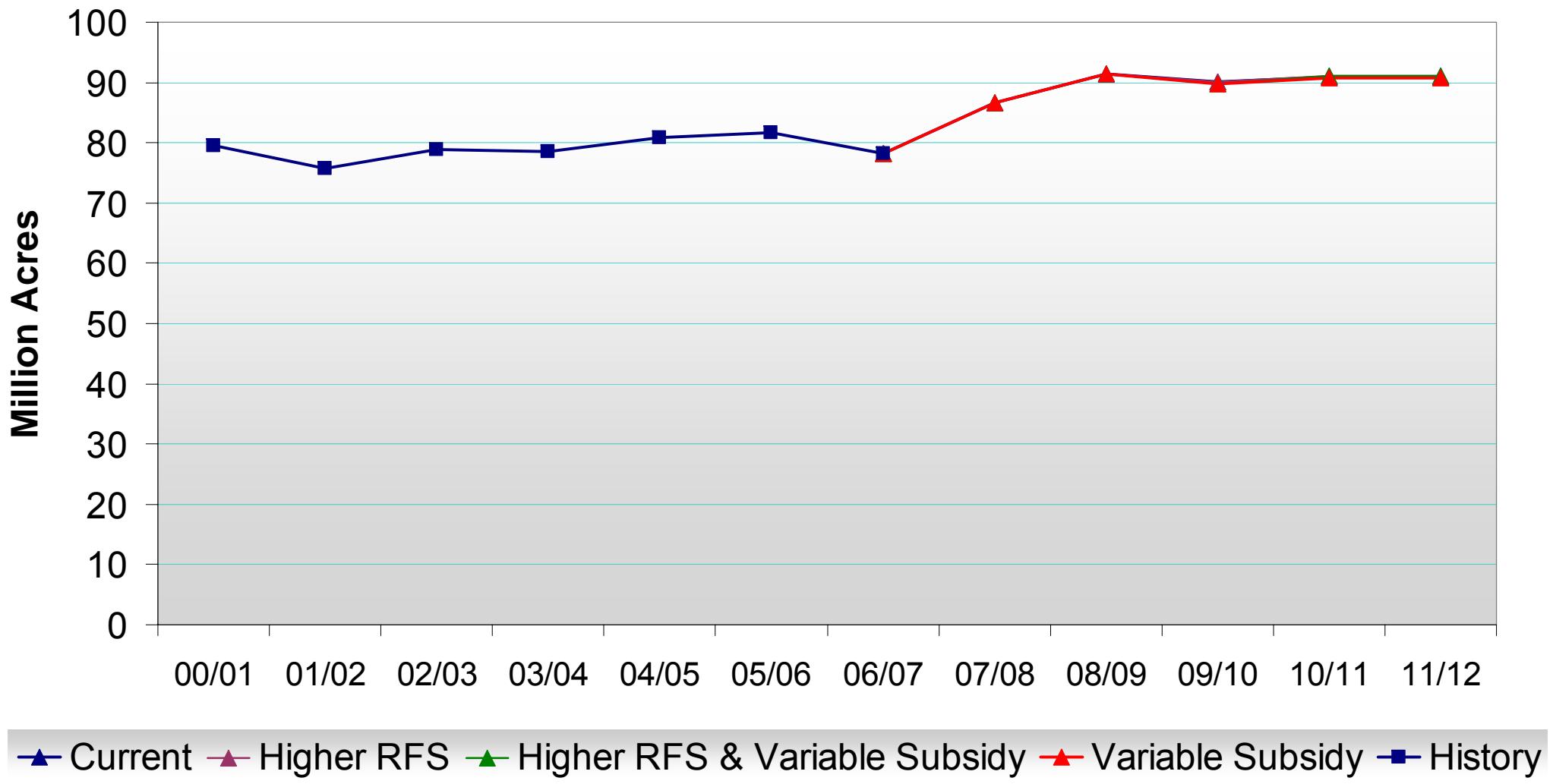
Biodiesel Production

United States



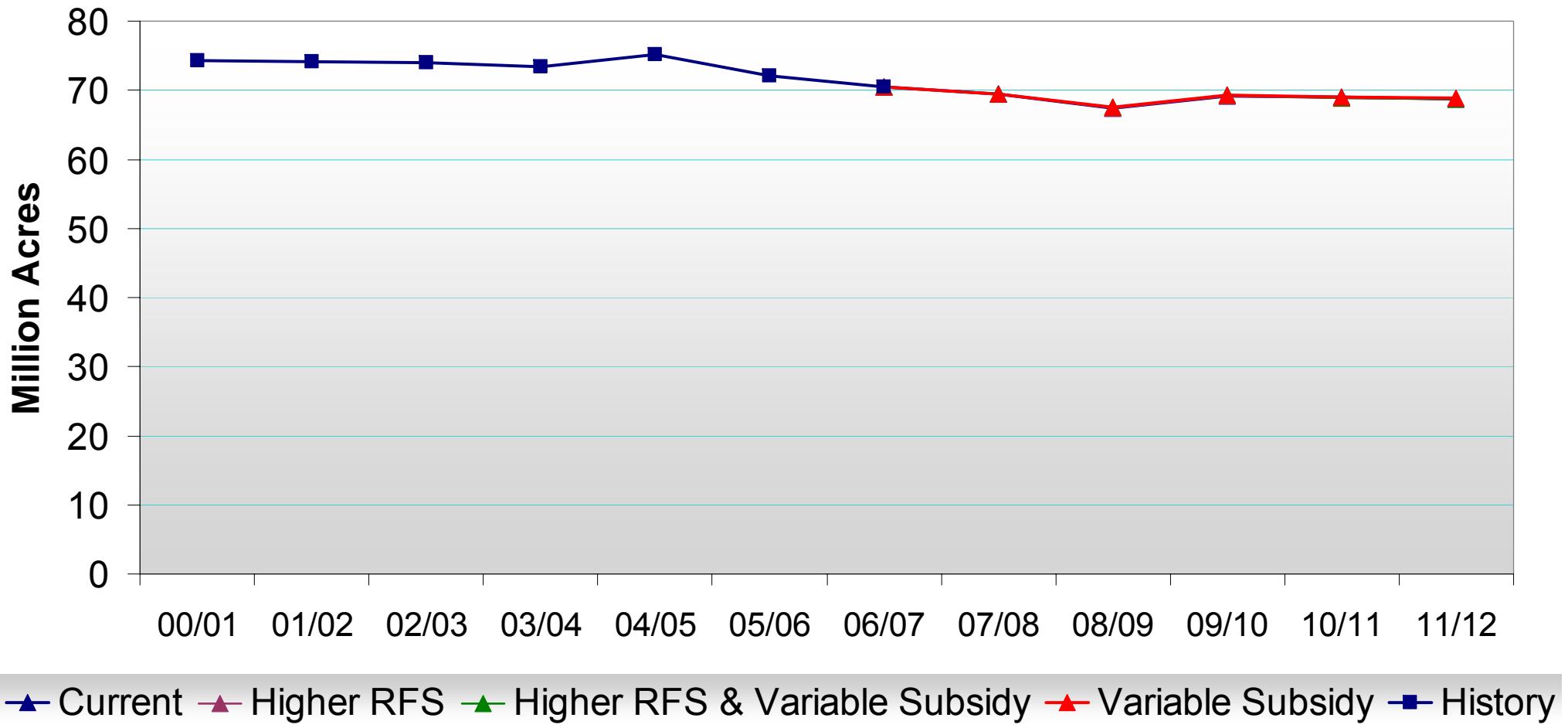
Corn Planted Acres

United States



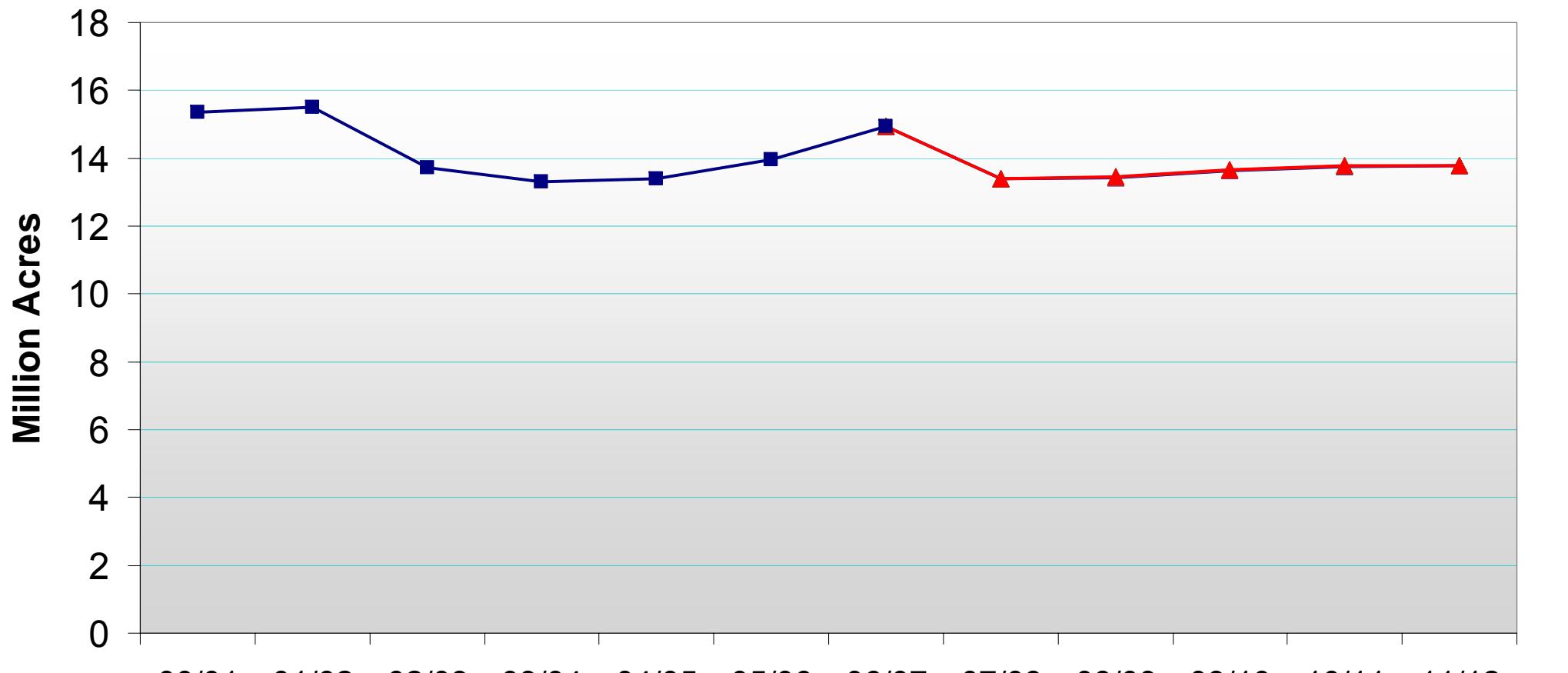
Soybean Planted Acres

United States



Cotton Planted Acres

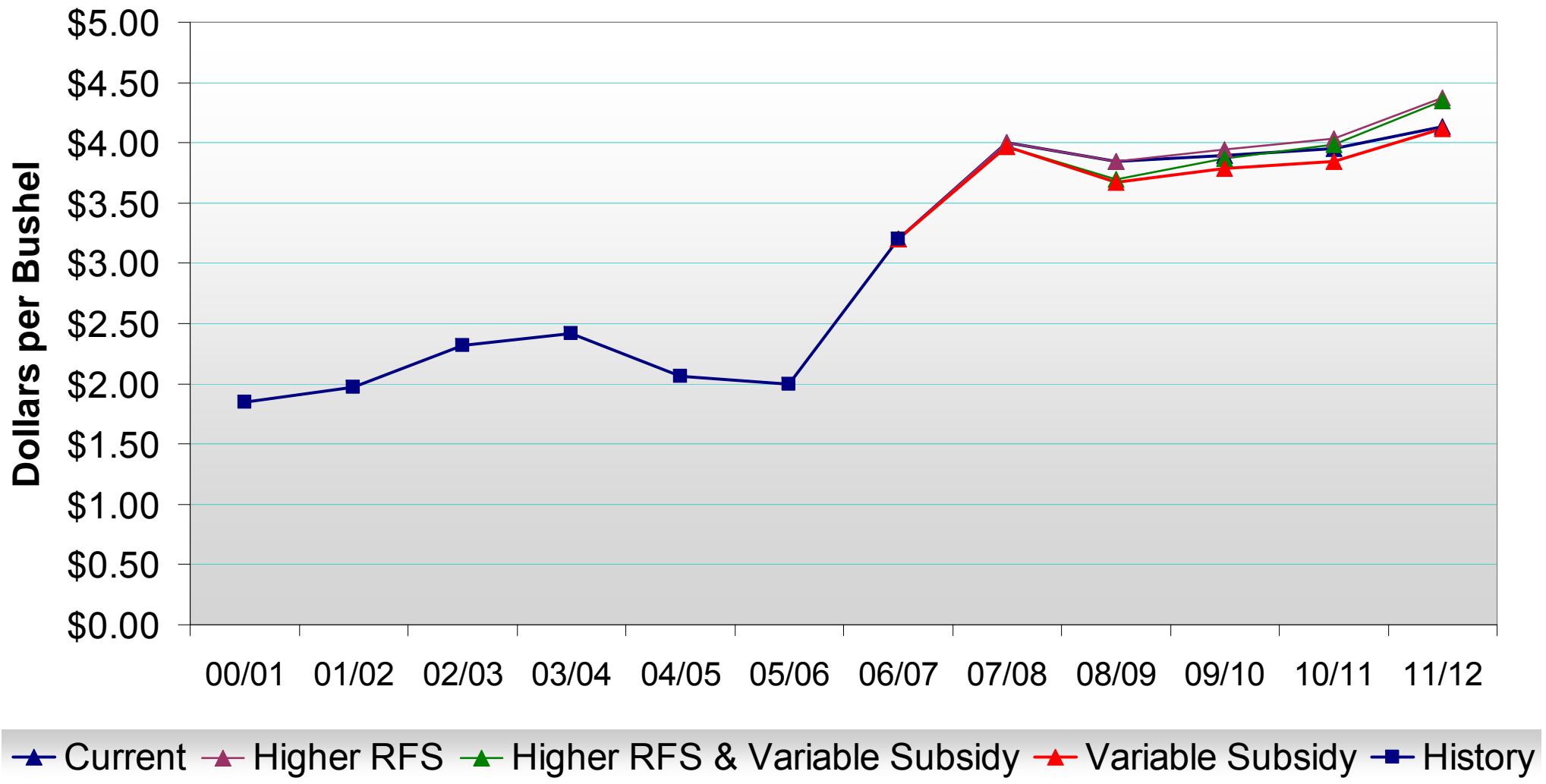
United States



▲ Current ▲ Higher RFS ▲ Higher RFS & Variable Subsidy ▲ Variable Subsidy ■ History

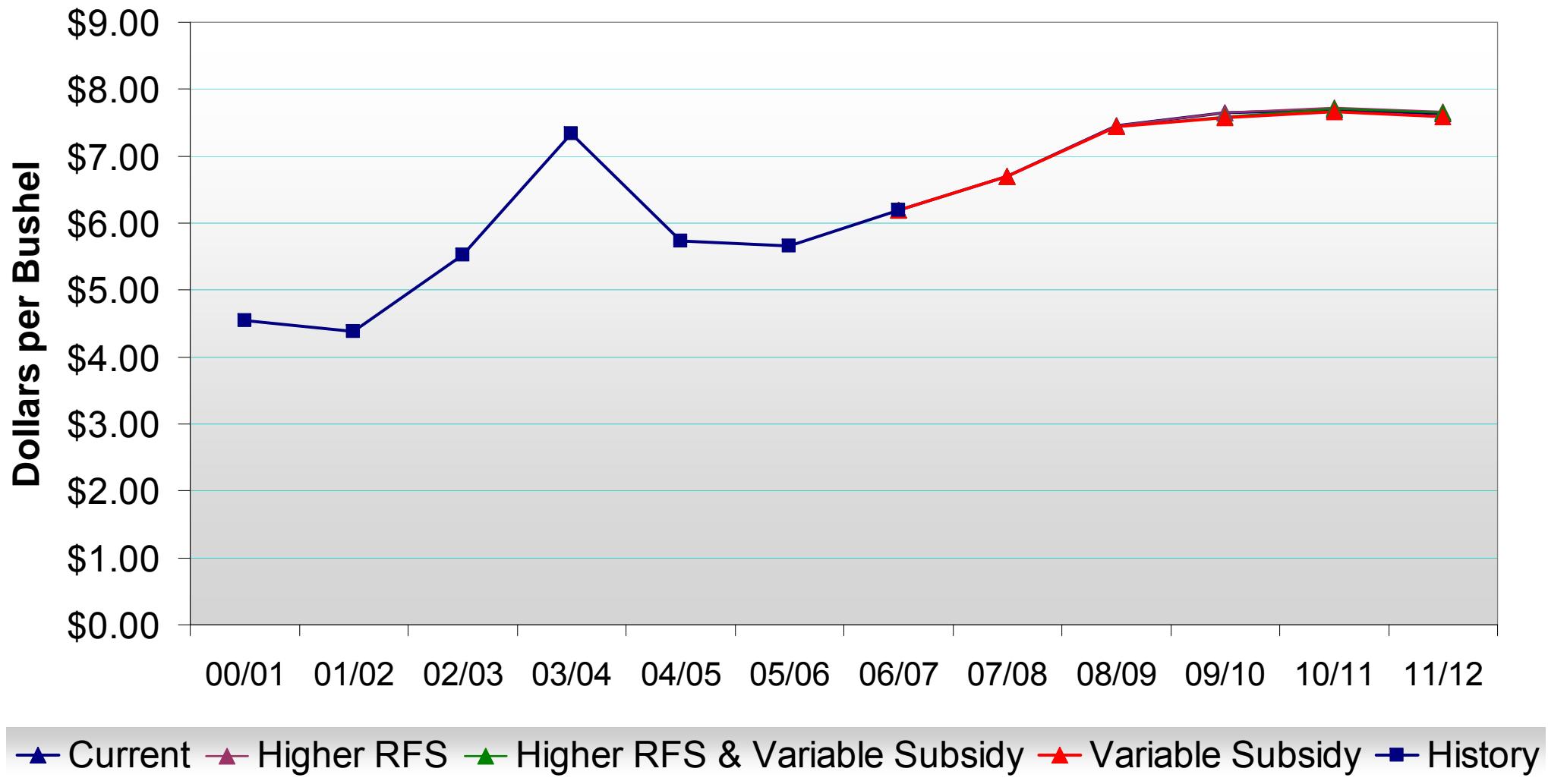
Corn Price

U.S. Average Farm Price

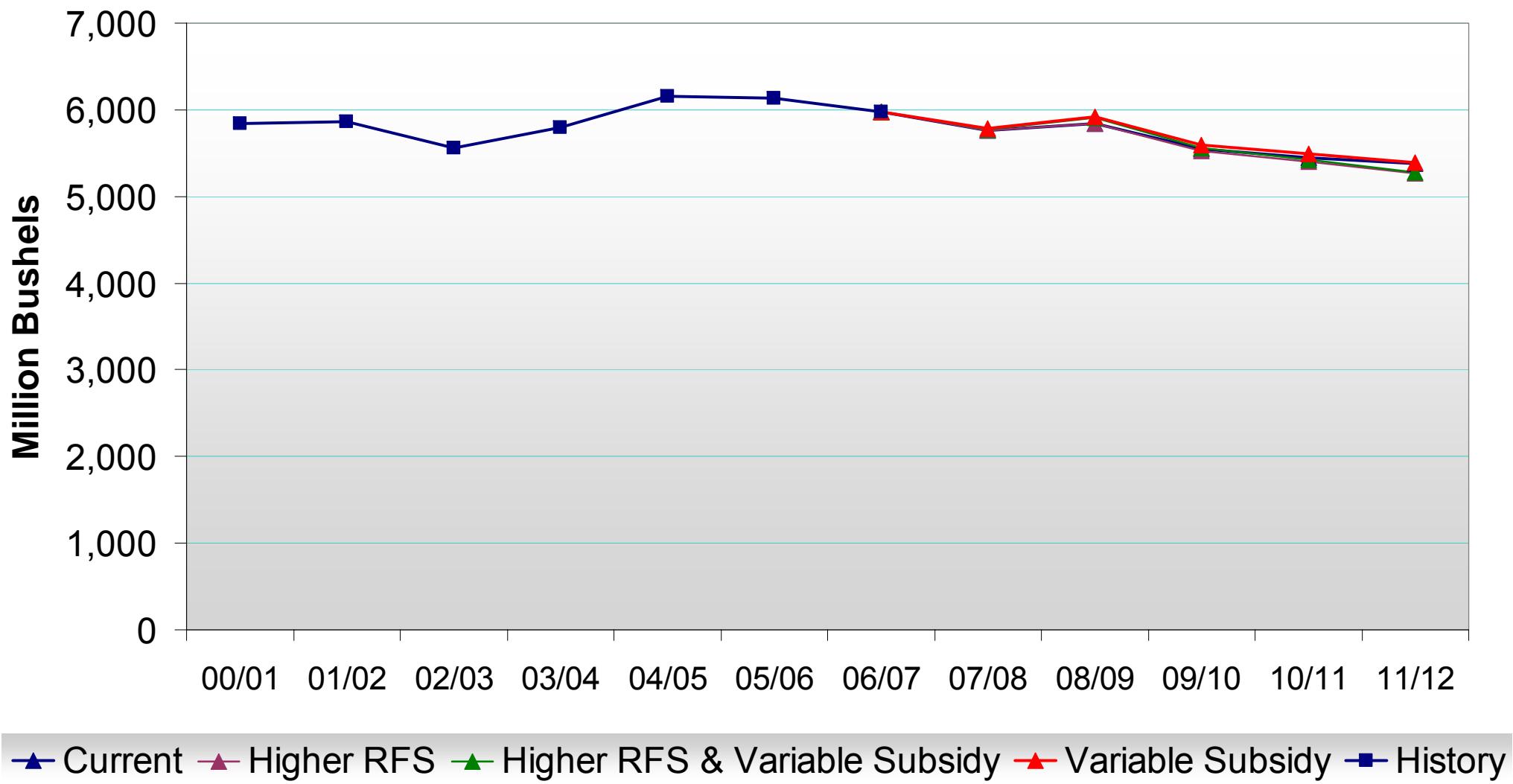


Soybean Price

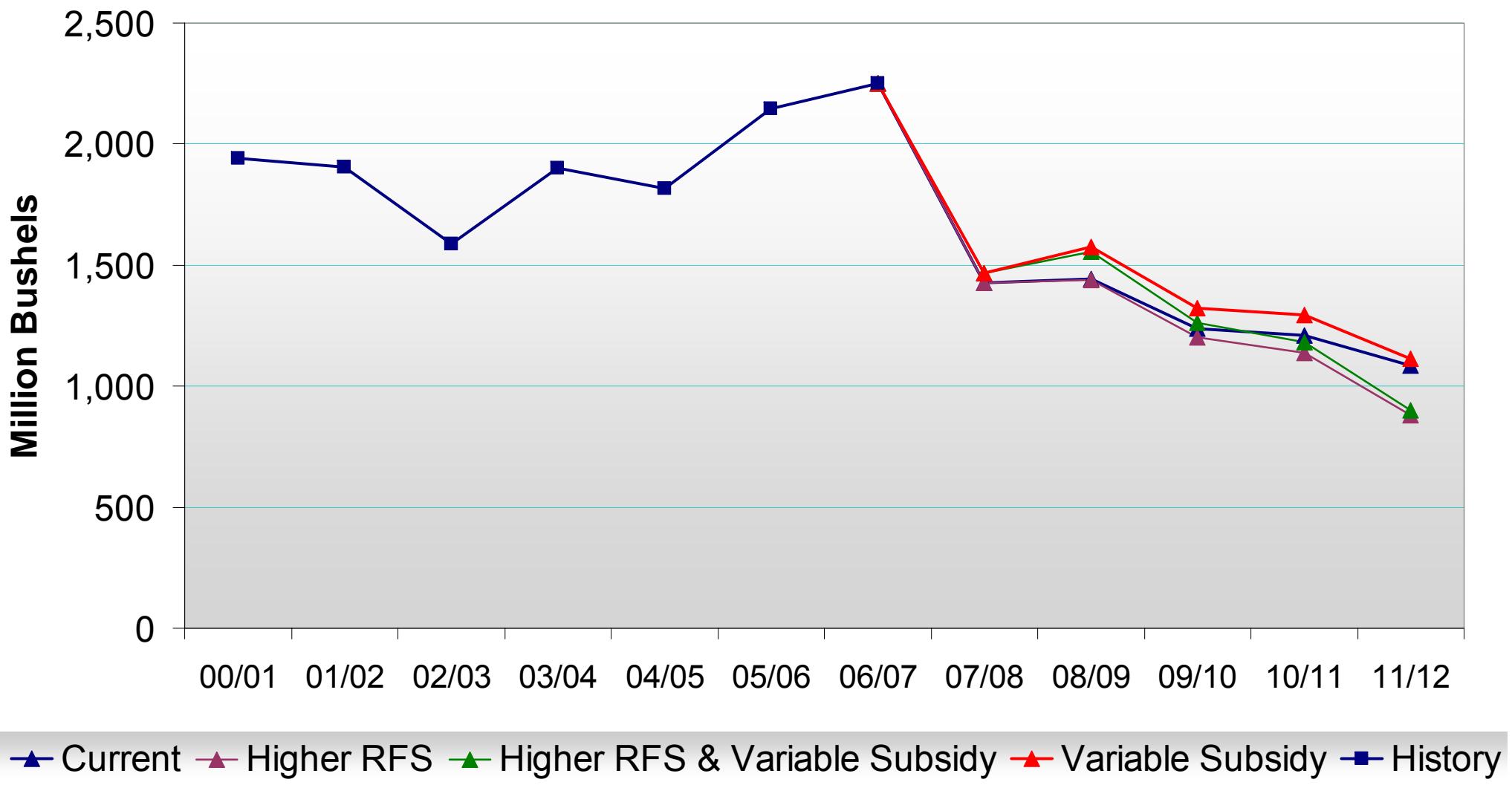
U.S. Average Farm Price



Corn Feed Use

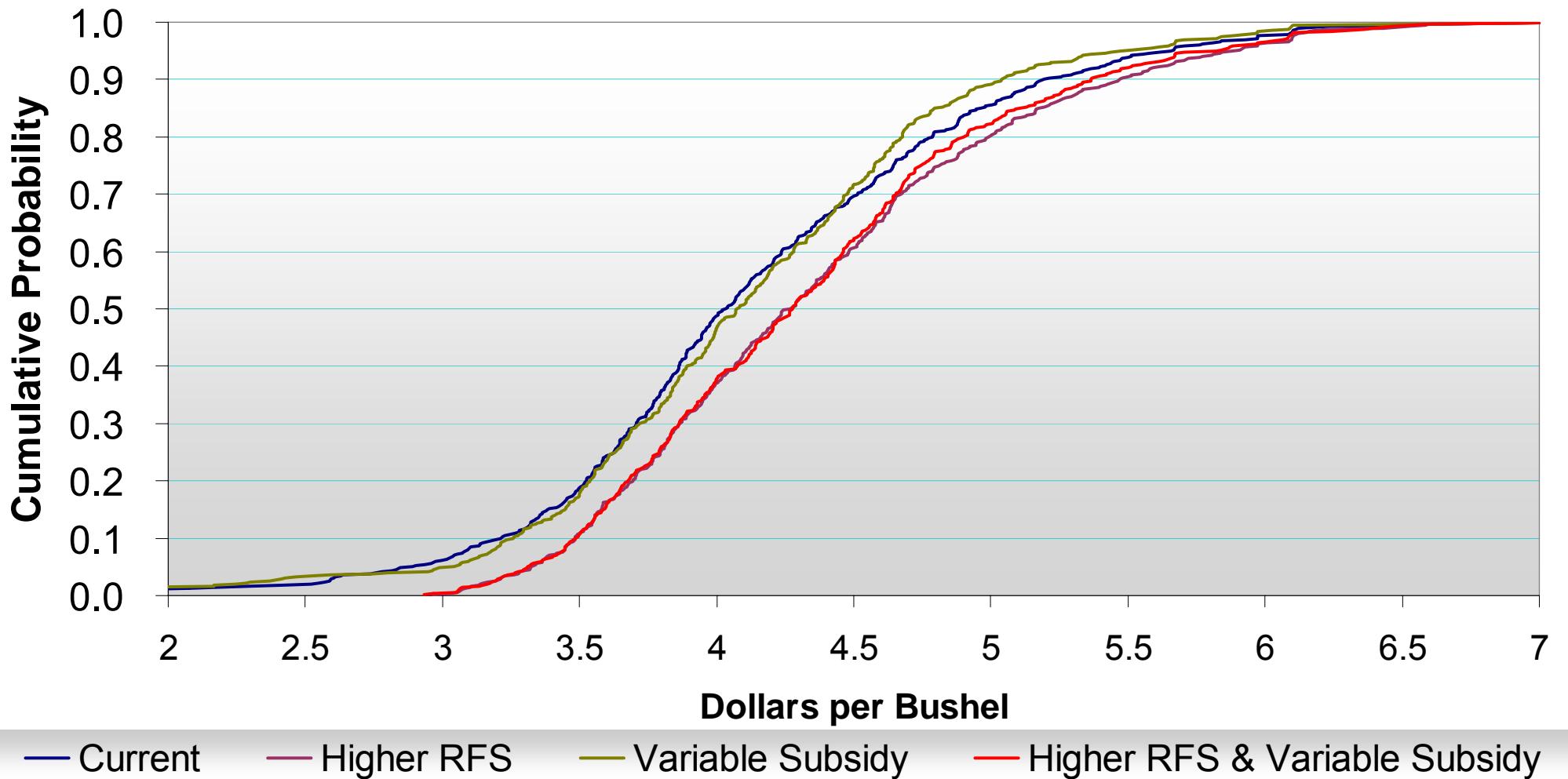


Corn Exports



Corn Price

U.S. Average Farm Price, 2011/2012



Effects of Alternative Policy Configurations on Expected 2011/12 Crop Prices (relative to the current configuration)

| | Current | Higher RFS | Variable Subsidy | Higher RFS + Variable Subsidy |
|----------|---------|------------|------------------|-------------------------------|
| Corn | 4.14 | 4.37 | 4.11 | 4.35 |
| Soybeans | 7.63 | 7.66 | 7.59 | 7.65 |
| Wheat | 4.21 | 4.22 | 4.20 | 4.21 |
| Cotton | 0.579 | 0.580 | 0.578 | 0.580 |

Effects of Alternative Policy Configurations on Uncertainty Regarding 2011/12 Crop Prices (relative to the current configuration)

| | Higher RFS | Variable Ethanol Subsidy |
|----------|------------|-----------------------------|
| Corn | ▼ | ▼ |
| Soybeans | ▼ | — |
| Wheat | — | — |
| Cotton | — | — |

Effects of Alternative Policy Configurations on Uncertainty Regarding 2011/12 Planted Acres (relative to the current configuration)

| | Higher RFS | Variable Ethanol Subsidy |
|----------|------------|--------------------------|
| Corn | ▼ | — |
| Soybeans | ▼ | — |
| Wheat | ▼ | — |
| Cotton | ▼ | — |

Conclusions

- We are likely to produce a lot more ethanol in coming years, and somewhat more biodiesel
- Biodiesel capacity glut possible
- Prices for crops are likely to continue to rise
- More acres in corn, fewer acres in other crops

Conclusions

- Effects on ag economy of different policy scenarios are minimal over the next 5 years
- However, relative to the current policy configuration:
 - The higher RFS leads to higher prices for major crops
 - The higher RFS would reduce uncertainty regarding the trajectories of acres and prices
 - The variable ethanol subsidy would reduce price uncertainty for corn