

Ethanol - Broken Promises

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DeWitt Global

Methanol & Fuels Conference

By

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Agenda

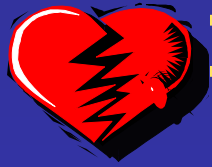
 **I will love you in the morning.**

 **The check is in the mail.**

 **I am from the government
and I am here to help.**

 **Would the government lie
to you?**

 **Environmental decisions are
based upon sound science.**

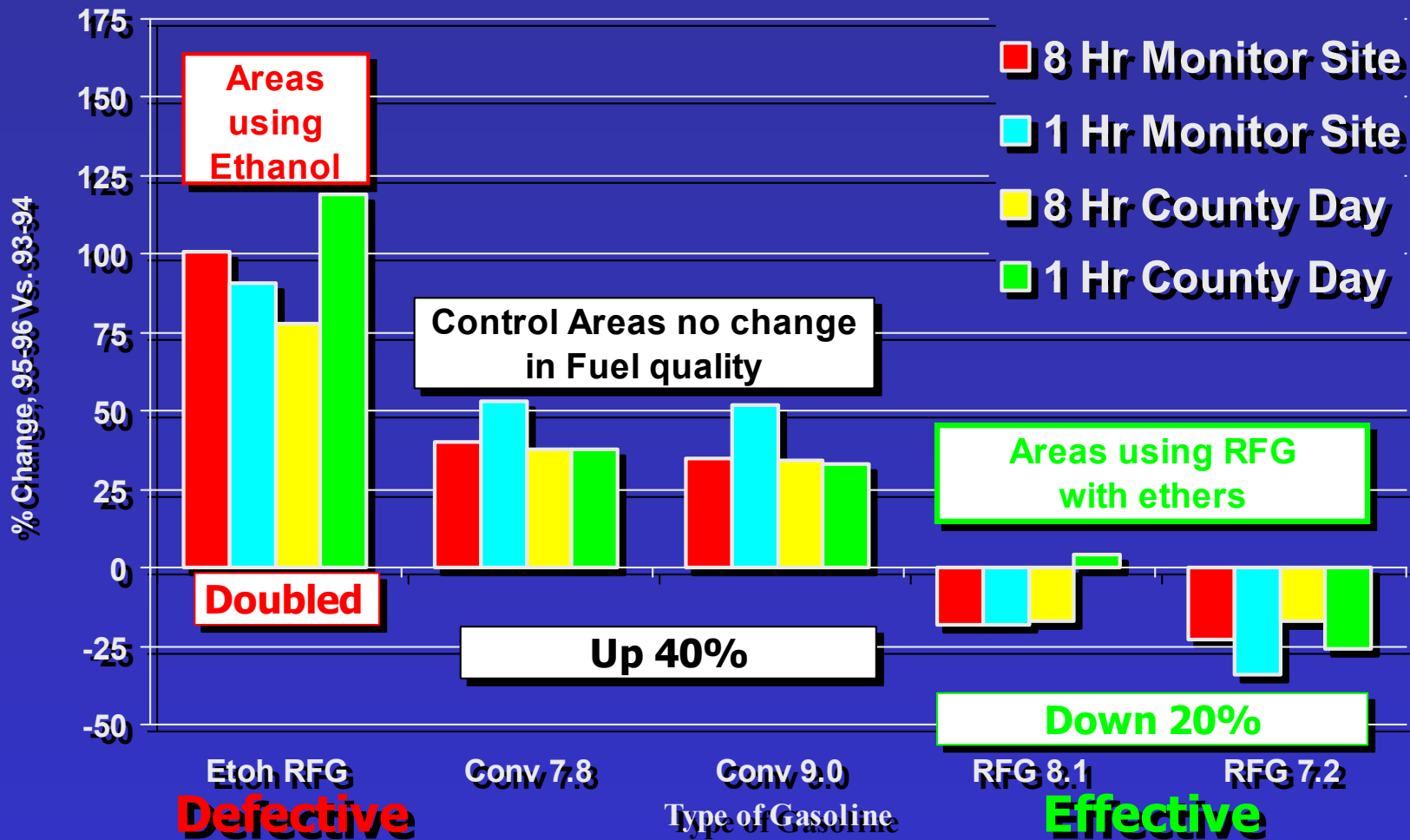


I will love you in the morning

Ethanol Increases Ozone

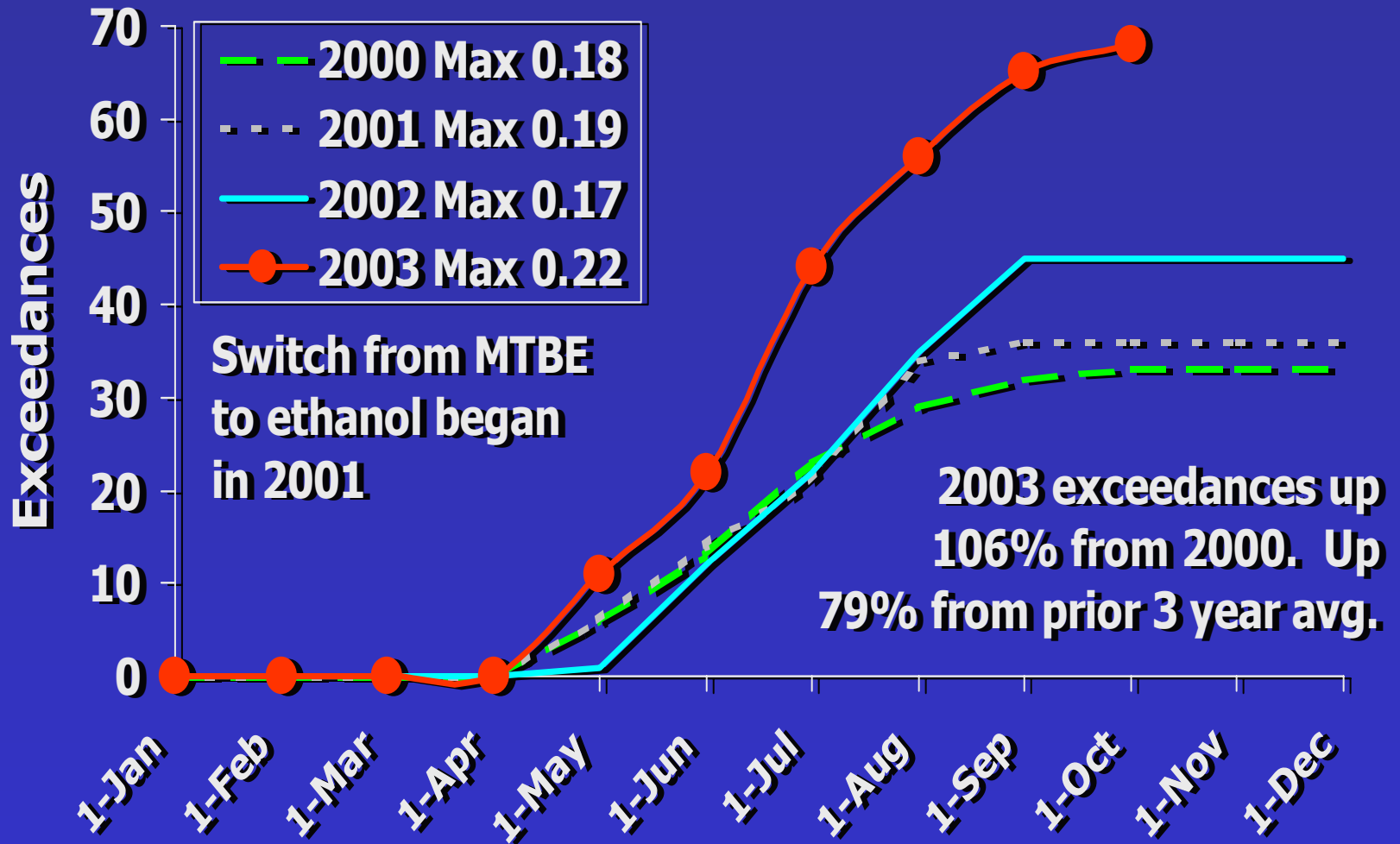
- **1995: Ethanol-based RFG *doubled* exceedances while**
- **MTBE-based RFG *decreased* exceedances 20%.**
- **Exceedances *Doubling* as California switches from MTBE to ethanol**

1993 - 1996 Ozone Data Shows Ethanol Defective & MTBE Effective

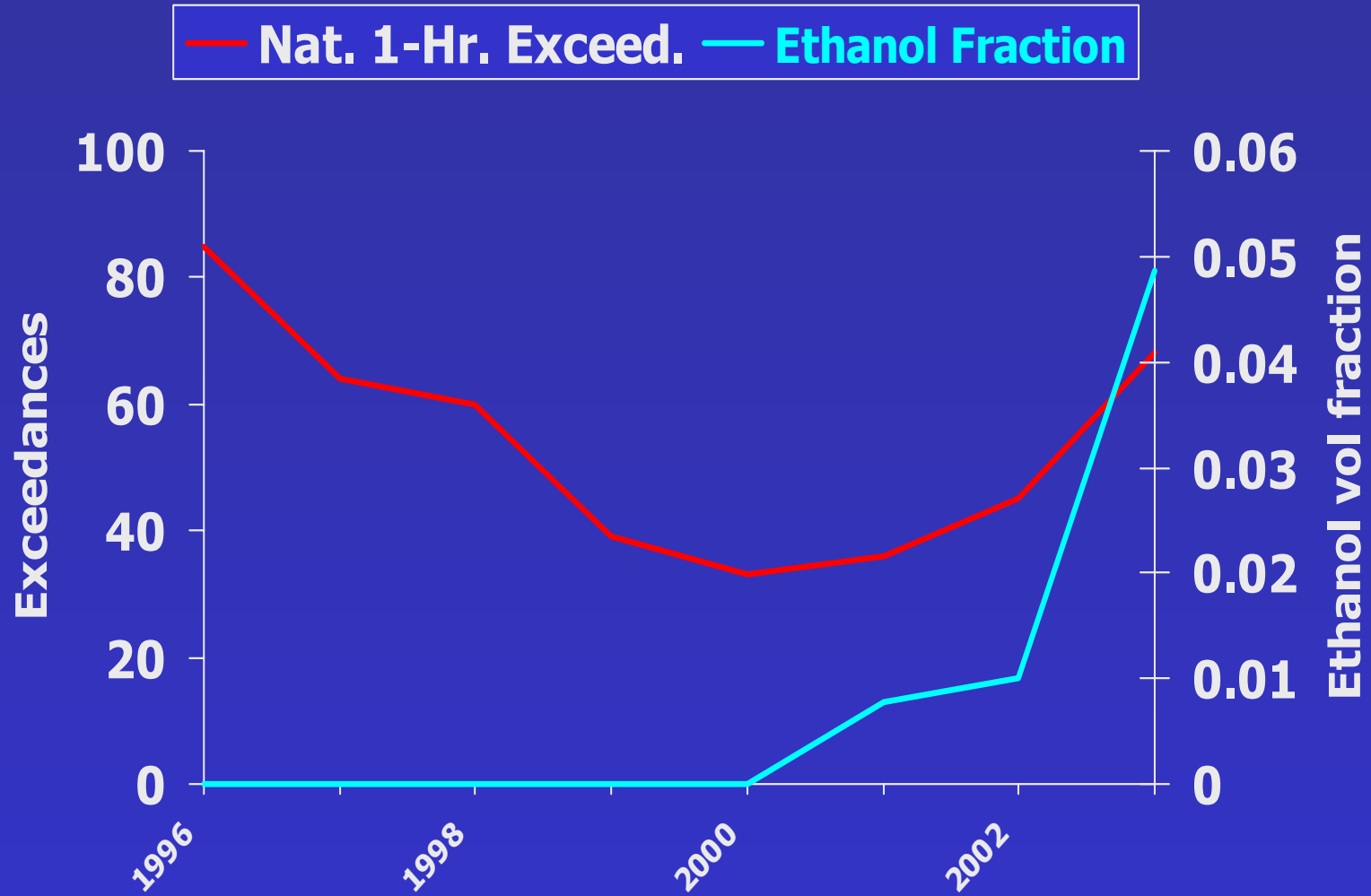


2003 South Coast Air Basin Exceedances

Confirm Ethanol Defective, MTBE Effective



South Coast Air Basin Exceedances of Federal 1-Hour Ozone Standard



Don't Blame the Weatherman

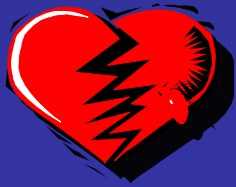
- Some blame the ozone increase on the weather.
- It did get warmer in California. ***BUT***
- Regression analysis indicates ozone was a function of:
 - Time (i.e. cars getting cleaner) and
 - MTBE or ethanol concentration but
 - ***Not temperature***

Yale Finds Asthmatic Children Vulnerable to Ozone

- **As California switched to ethanol, ozone concentrations increased 40 to 60 ppb.**
- **Yale study shows that 50 ppb increases:**
 - ***Wheezing* by 35%**
 - ***Chest tightness* by 47%**
 - ***Shortness of breath* by 32% and**
 - ***Rescue medication use* by 8%.**



Why should our children suffer to subsidize the ethanol industry?



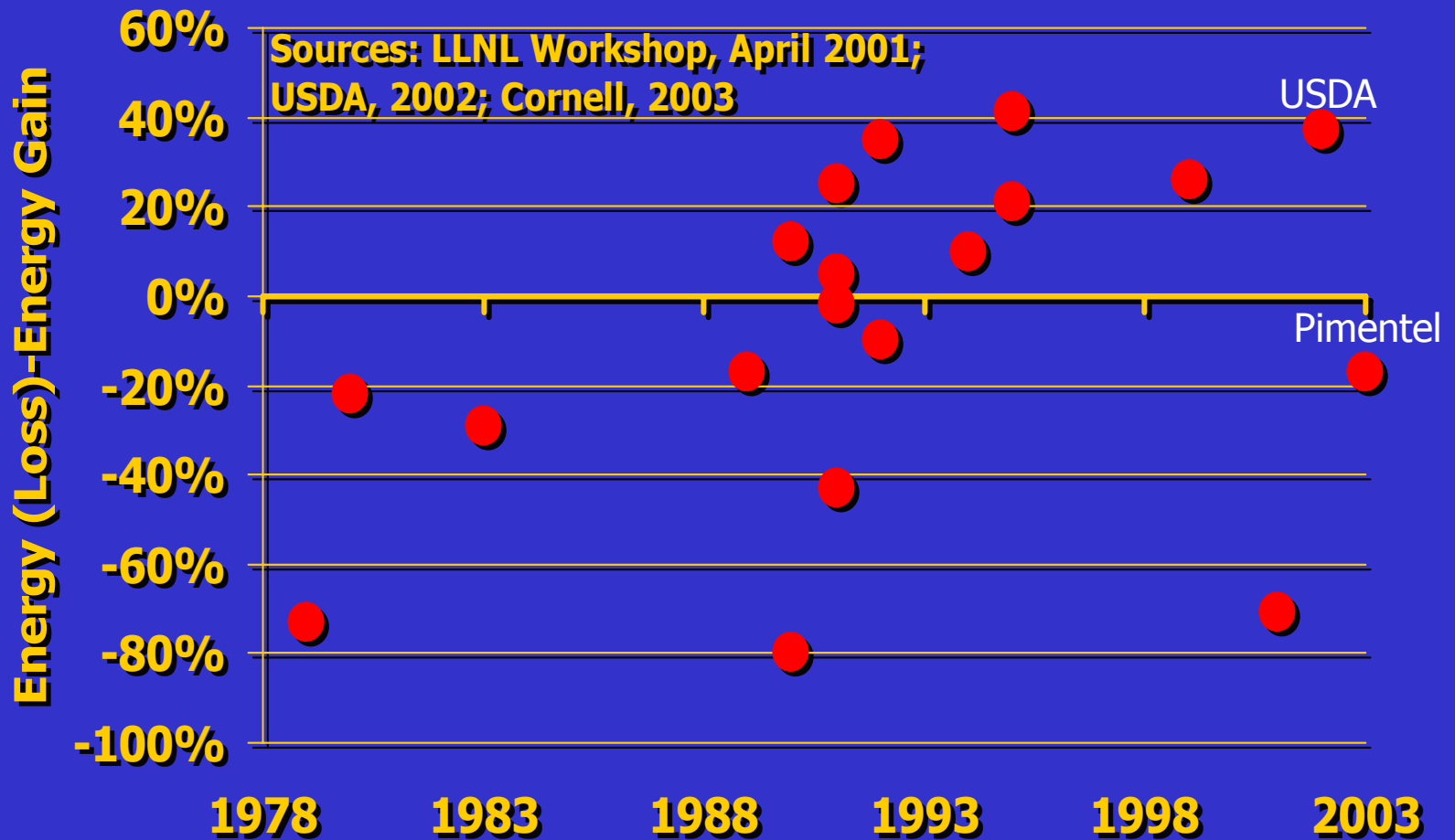
The check is in the mail

- Pay-offs for using more ethanol are *supposed* to be:
 - Better air quality
 - More energy independence
 - Better corn prices for farmers

The air quality check
BOUNCED

What about Energy & Corn Prices?

Average of 19 Studies Show Ethanol Loses 8% of the Energy Used to Make It

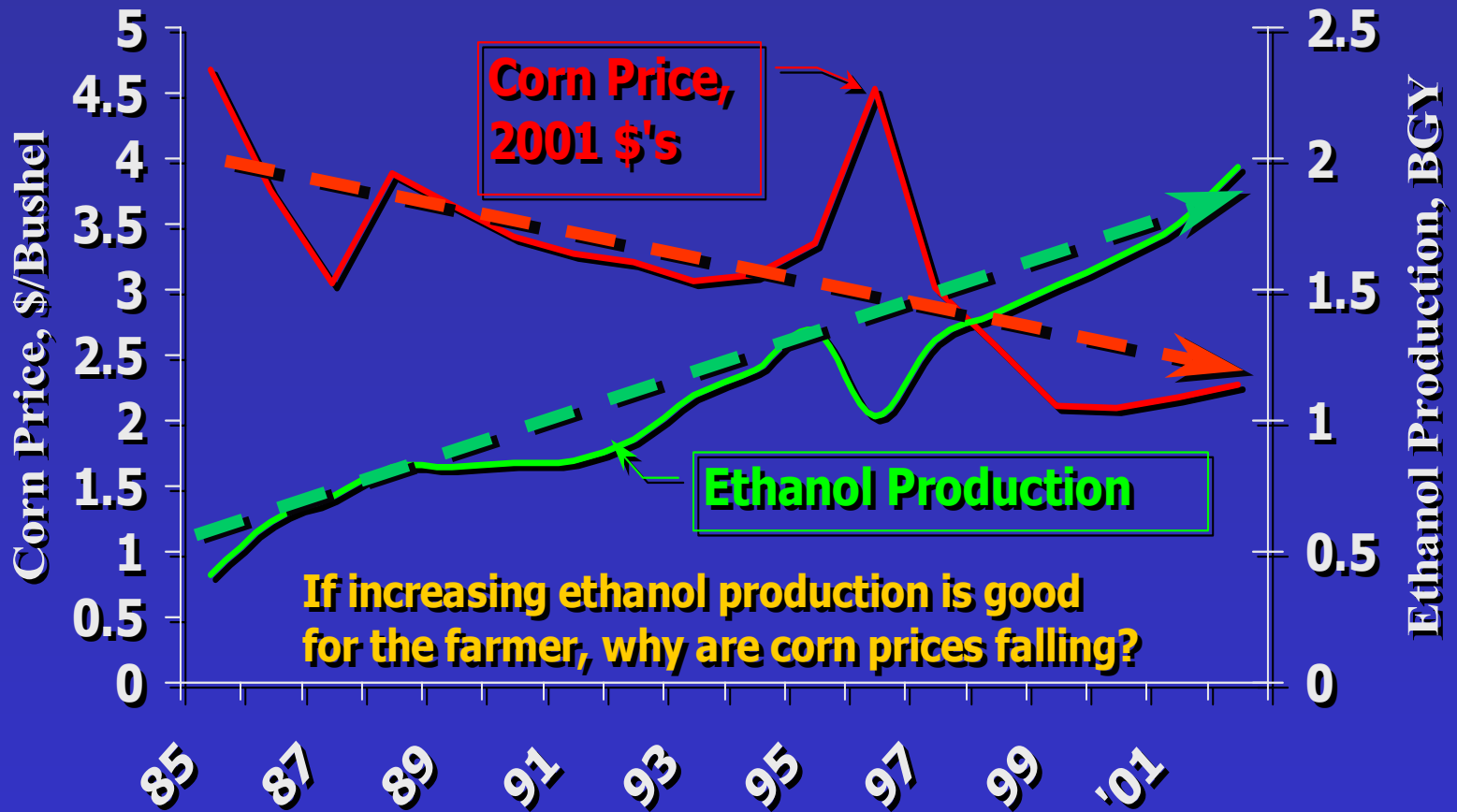


Why Energy Conclusions Vary

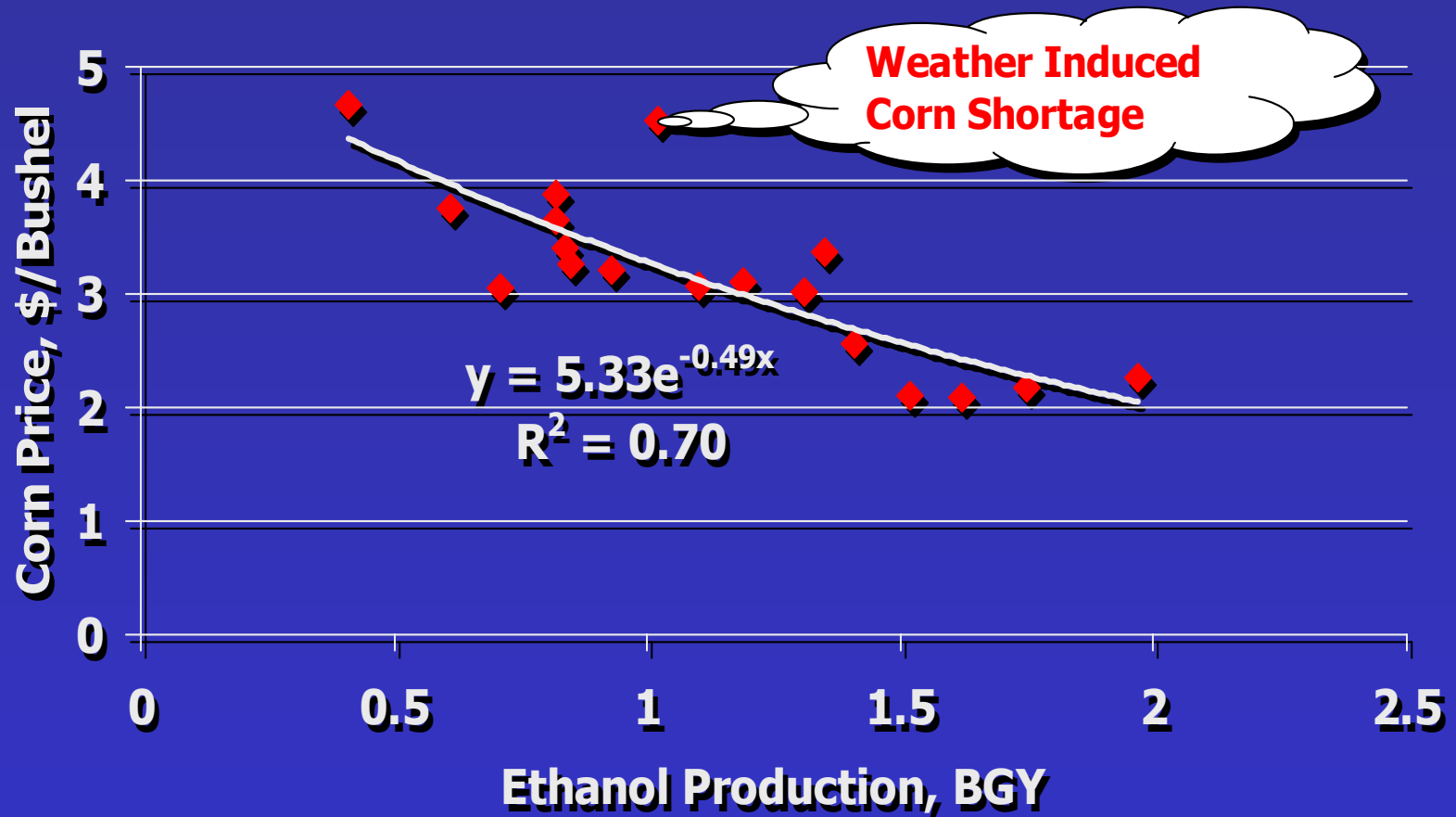
- **Overall energy balance is created from small assumptions.**
- **Researcher bias sneaks in.**
For example, in recent studies:
 - **USDA seemed to always favor ethanol.**
 - **Dr. Pimentel had pluses and minuses.**
 - **Adjusted USDA went from +37 to -5%.**
 - **Dr. Pimentel went from -17 to -20%.**
- **But average (8% loss) is probably right.**

Energy check has postage due!

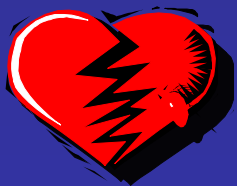
Corn Price Vs Ethanol Production



Corn Should Sell for 50¢ per Bushel When We Produce 5 BGY of Ethanol



To *whom* was that check payable?



I am from the government and I am here to help

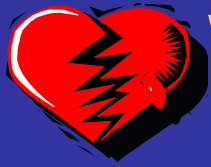
- **Subsidy & innovation**
- **Economic obsolescence**

Subsidies Stifle Innovation

- **Welfare program designed to maintain dependence.**
 - Can't save for a car to get a job.
 - Can't afford to go to school.
 - Lose medical if you begin work.
- **Ethanol subsidy like welfare.**
 - Paid to be inefficient.
 - Don't have to do better to survive.
 - Building economically obsolete plants.

Ethanol Technology Obsolete

- **Need for subsidy proves economic obsolescence.**
- **Ethanol-from-cellulose technology might be economic but it has been “a year away” for years.**



Would the Government Lie to You?

MTBE

- **Possible** carcinogen
- **No** birth defects
- **4%** soluble
- **Decreases** ozone
- **Gas** to liquids
- **NA**

Effective

Ethanol

- **Known** carcinogen
- **Known** birth defects
- **100%** soluble
- **Increases** ozone
- **Net energy** loser
- **Lower** corn prices

Defective

Tell me again, which is defective?

Sound Science Vs. Political Science

**Data shows that MTBE is effective
and ethanol is defective.**

So:

- ***WHY* have some states banned MTBE
and**
- ***WHY* is Congress considering a ban?**

Let's address those questions together..

Slippery Slope

- USEPA approved MTBE in 1979 based upon sound science.
- Since then we have gone downhill from “*sound science*” to “*sound-bite science*” to “*political science*”.
- Early MTBE sponsors were scientists:
 - They knew that MTBE had good science and economics.
 - They thought sound science was enough.

Scientists Over-Confident

- **MTBE industry knew:**
 - **MTBE was better than ethanol.**
 - **Sound science created MTBE.**
 - **Spending money for PR would be a waste.**

- **Ethanol industry knew:**
 - **MTBE was better than ethanol.**
 - **Political science created them.**
 - **Only good PR could save them.**

Santa Monica Started the Slide

- **Since 1992, I suspected anti-MTBE rhetoric had a sponsor.**
- **After Santa Monica, I saw farmers test launch the MTBE/ water issue at RFG hearings.**
 - They knew local politicians.
 - They were not held to scientific correctness standards.
- **After seeing effectiveness of the water issue, RFA staff became bolder.**

Reorganizations Accelerated It

- **OFA changed leadership.**
- **After Blue Ribbon Panel, EPA dropped MTBE support.**
- **OFA adopted national rather than state-by-state strategy while RFA clicked off state bans.**

How is a legislator whose state banned MTBE going to vote on an MTBE issue?

Why IS RFA Effective?

RFA

- **One goal:**
 - **Sell more ethanol**
- **Political science**
- **Domestic**
- **Continuity**
- **Senior managers**
- **Farmer image**
- **Etoh good-MTBE bad**

OFA

- **Multiple goals:**
 - **Sell MTBE**
 - **Sell methanol**
 - **Sell gasoline**
- **Sound science**
- **International**
- **Multiple leadership**
- **Mid managers**
- **Oil image**
- **MTBE good**

Sending Mixed Signals

- API, NPRA & OFA are perceived as *"evil big oil"* industry



- API – Ban MTBE & mandate Ethanol
- NPRA – No bans, no mandates
- OFA – No MTBE ban

Congress paralyzed by mixed message

- RFA is perceived as *"farmers"* (the backbone of America)



- Consistent (though false) message

Congress knows what RFA wants

International Survival Plan

- **Goal** - Grow international MTBE market. US experience proves MTBE cannot win by just playing defense.
- **Message** - MTBE works; ethanol does not. MTBE good - ethanol bad.
- **Budget to win** - PR to create the political science to sell the sound science.
- **Staff to win.**

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