

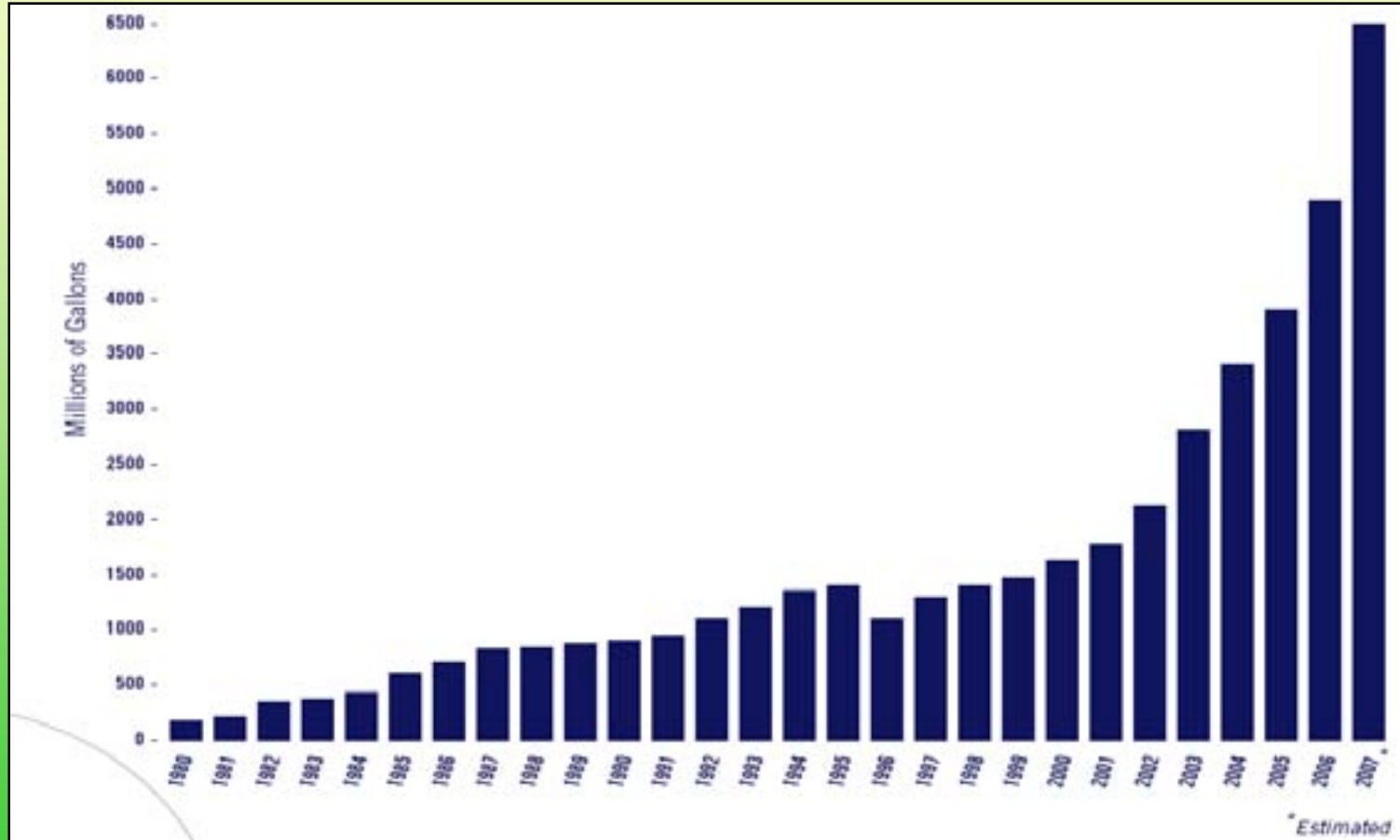
# Conflicting Environmental Claims: Analysis of the Media Discourse Surrounding Biofuels Development in Russell, KS



# Overview

- **Research objectives & methods**
- **The framing of biofuels development in regional newspapers**
- **Findings**
  - content analysis
  - survey data
- **Conclusions**

# Growth in US Ethanol Production



Source: Renewable Fuels Association January 2008

# Research question

- **how is the biofuels development and its environmental impact framed in the regional newspapers?**
- what is the nature and frequency of the biofuels-related articles in the regional newspapers?
- who are the sources and actors featured in the regional newspaper coverage?

# Discourse and media framing

- Content analysis (Altheide 1996, Krippendorf 2004, Neuendorf 2002)
- Environmental discourse on sustainable development and ecological modernization literature (Hajer 1995, Dryzek 1997)
- Framing of biotechnology applied to biofuels (Niesbet and Lewenstein 2002, Scheufele and Lewenstein 2002)

# Literature

*“Media framing is based on the idea that **how audiences interpret news coverage depends heavily on how a given news item is presented** by journalists (Scheufele, 1999)” in (Scheufele & Lewenstein, 2005)*

*“...people’s reactions to and attitudes toward new technologies are also often guided in part by **the trust and confidence they have in scientists, companies, and government agencies** (e.g., Priest 1995, 2001; Robbins 2001; Siegrist 1999, 2000)” in Lee, Scheufele and Lewenstein (2005)*

*“... public opinion will form around **frames offered by interest groups, policy makers, scientific media, and other actors in the policy arena**”.(Scheufele & Lewenstein, 2005)*

# Methods

## Content analysis

### ***The Hays Daily News***

- » 2000 through 2007
- » **178 articles**

### ***The Salina Journal***

- » 2001 through 2007
- » **90 articles**

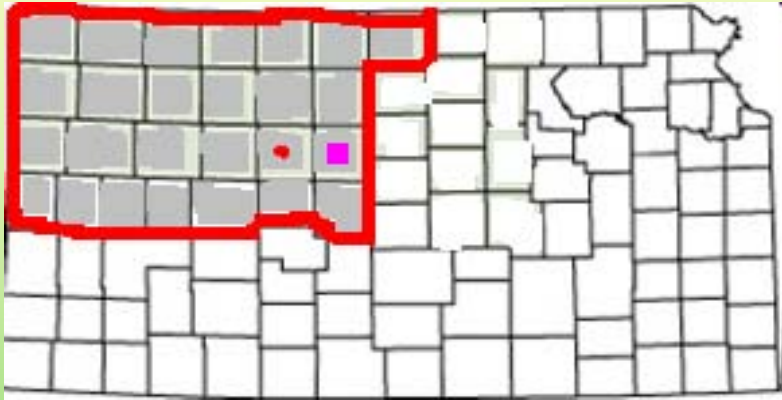
### ***Source: NewsBank database***

- » ~6 year time period:

### ***Search words:***

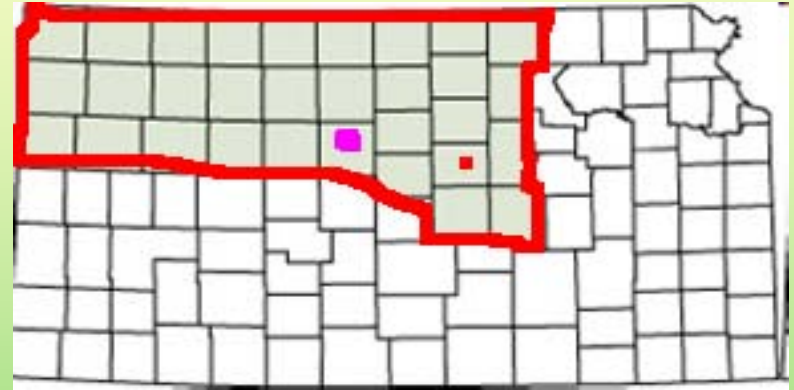
- » biofuels, ethanol, alternative energy, environment, water, pollution, erosion, degradation

## The Hays Daily News – Hays, KS



**Editor& publisher: Patrick E. Lowry**  
**Daily circulation: 13,500**  
**Coverage: 45 towns in Western KS,  
25 counties**  
**No. of Employees: 36**

## The Salina Journal – Salina, KS

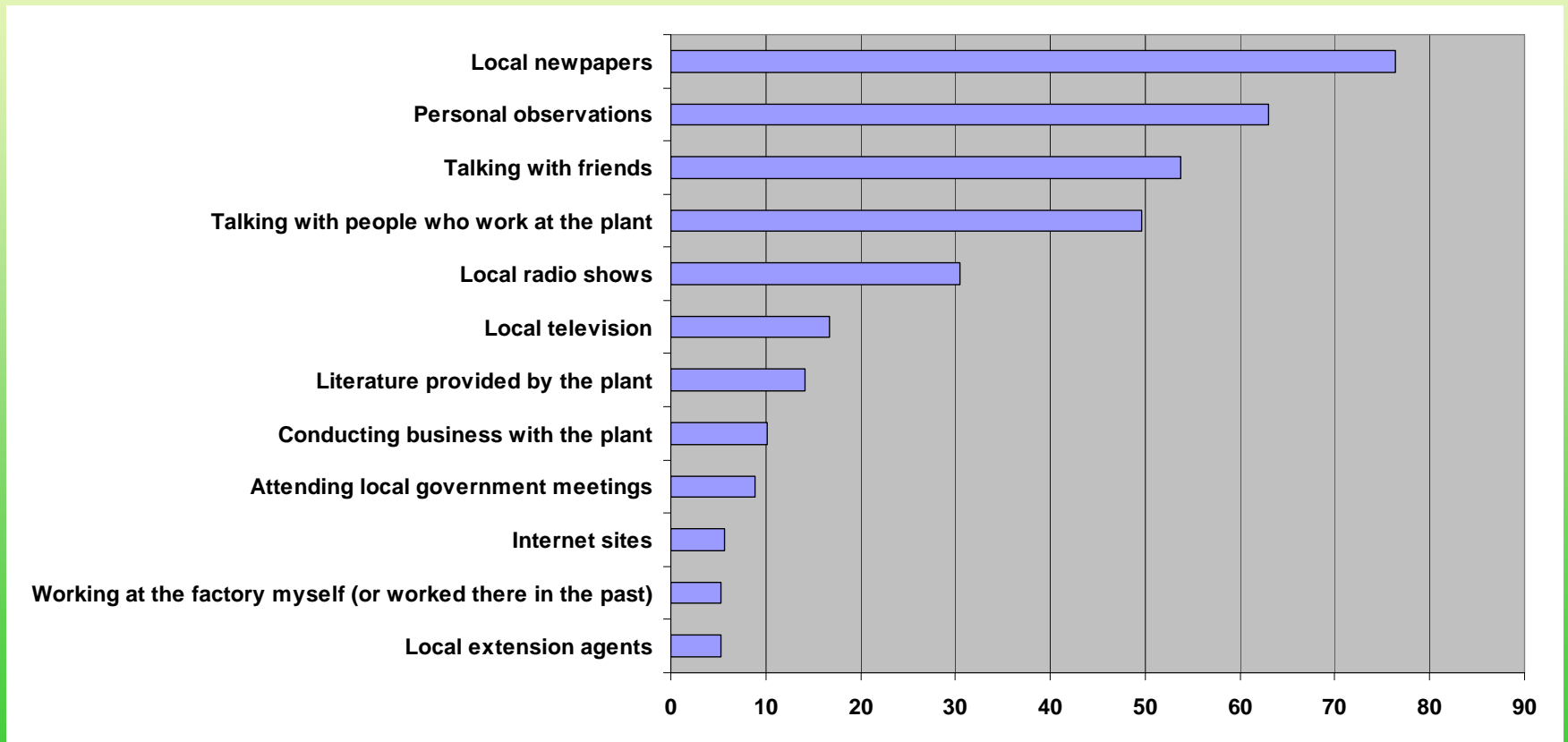


**Editor& publisher: Tom Bell**  
**Daily circulation: 30,000**  
**Coverage: 30,000 sq. miles in Western KS,  
31 counties**  
**No. of employees: 135**

**Searched online through NewsBank**

# Russell Survey Data

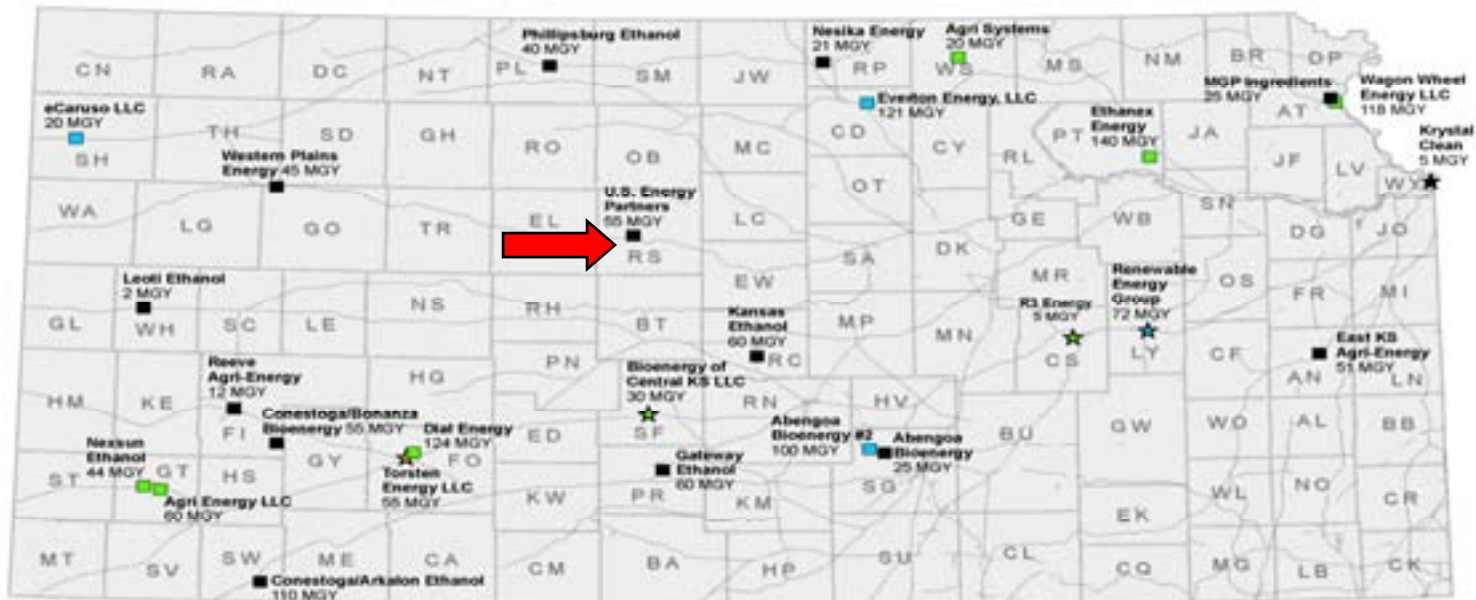
From which of the following sources have you obtained information about the ethanol plant located within the county?



**N = 246** Source: 2008 Russell Community Survey

# Kansas Biofuels Map

Ethanol and Biodiesel Plant Activity in Kansas  
July 2008



MGY = Millions of gallons per year of permitted capacity  
Capacities courtesy of Kansas Department of Health and Environment

\* Permitted and Permit Pending codes refer to KDHE Bureau of Air and Radiation - Air Construction permits.

#### Ethanol Plants

- Existing
- Under Construction
- Permitted\*
- Permit Pending\*

#### Biodiesel Plants

- ★ Existing
- ★ Under Construction
- ★ Permitted\*
- ★ Permit Pending\*



Kansas Department of Agriculture  
Administrative Services, GIS  
July 2, 2008

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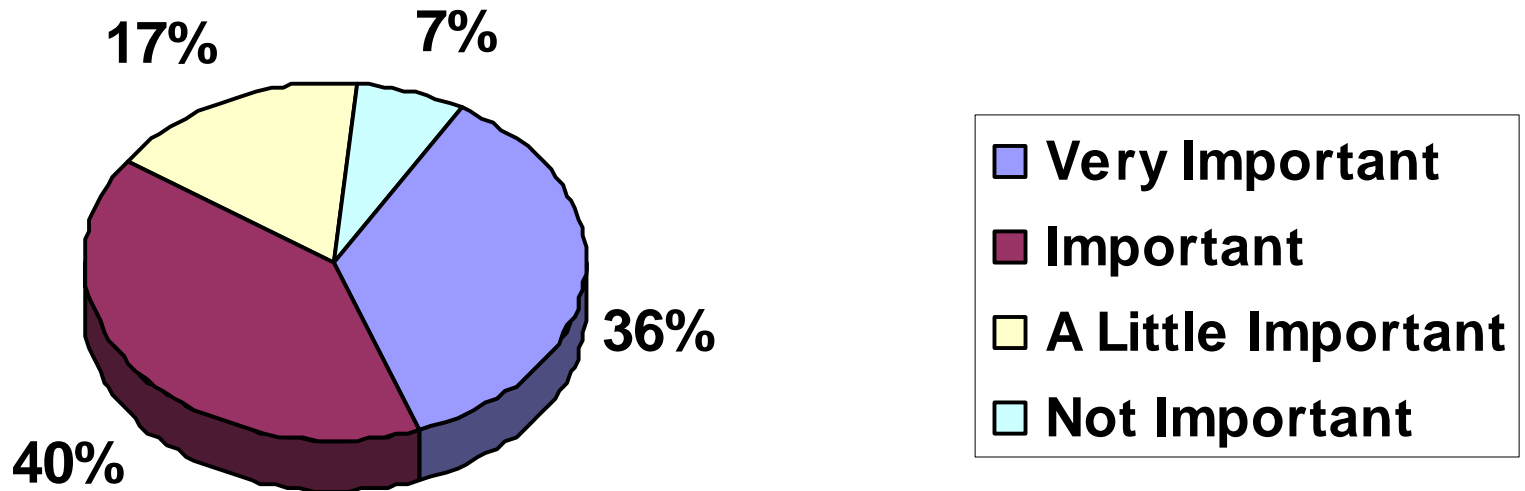
# The Ethanol Plant



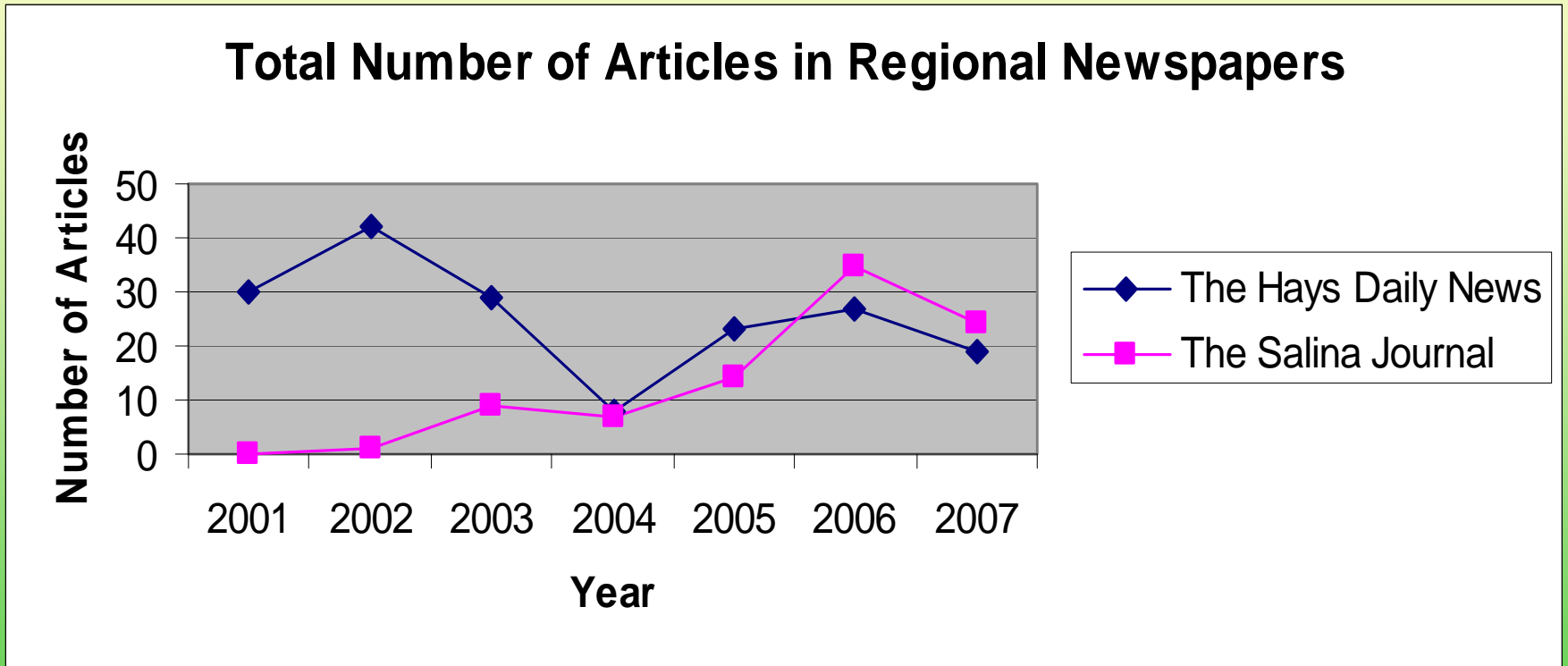
Built in 2001 by ICM, owned by US Energy Partners LLC; bought by White Energy in 2006

# Russell Survey Data

**In your opinion, how important is the ethanol plant to the economy of your local area?**



# Yearly distribution of articles



**HDN Total N = 178**

**SJ Total N = 90**

# Positive Framing

- **Economic**

- Boosts local economy
- Helps local grain-farmers
- Creates employment

- **Environment**

- Environment-friendly
- Renewable

- **National Security**

- Diminish dependency on foreign oil

# Articles from The HDN

- **Editorial by John D. Montgomery:** *"The plan for a new ethanol plant in Russell is **good news**."* The HDN February 8, 2001
- **Russell City Manager Gary Hobbie:** *"It's been a **godsend**, but it's also been a lot of work."*, The HDN April 12, 2001
- **Oil businessman John O. Farmer III:** *"Ethanol **makes good economic sense** for Russell"* The HDN June 24, 2001
- **John Neufeld, general manager of the ethanol plant:** *"At the start you always have to let people know what's happening, what's changing. The technology changes, the science itself changes, but it's becoming a more and more known fact that this is a **good thing** for our total energy"* The HDN June 6, 2003
- **Editorial by John D. Montgomery:** *"These **new fuels are important**. First, they generally burn cleaner than traditional gasoline and diesel, so they are better for the environment. Second, grain-based fuels represent a new market for farm products. In so doing they, thirdly, reduce U.S. dependence on foreign oil."* The HDN April 11, 2003

# Negative Framing

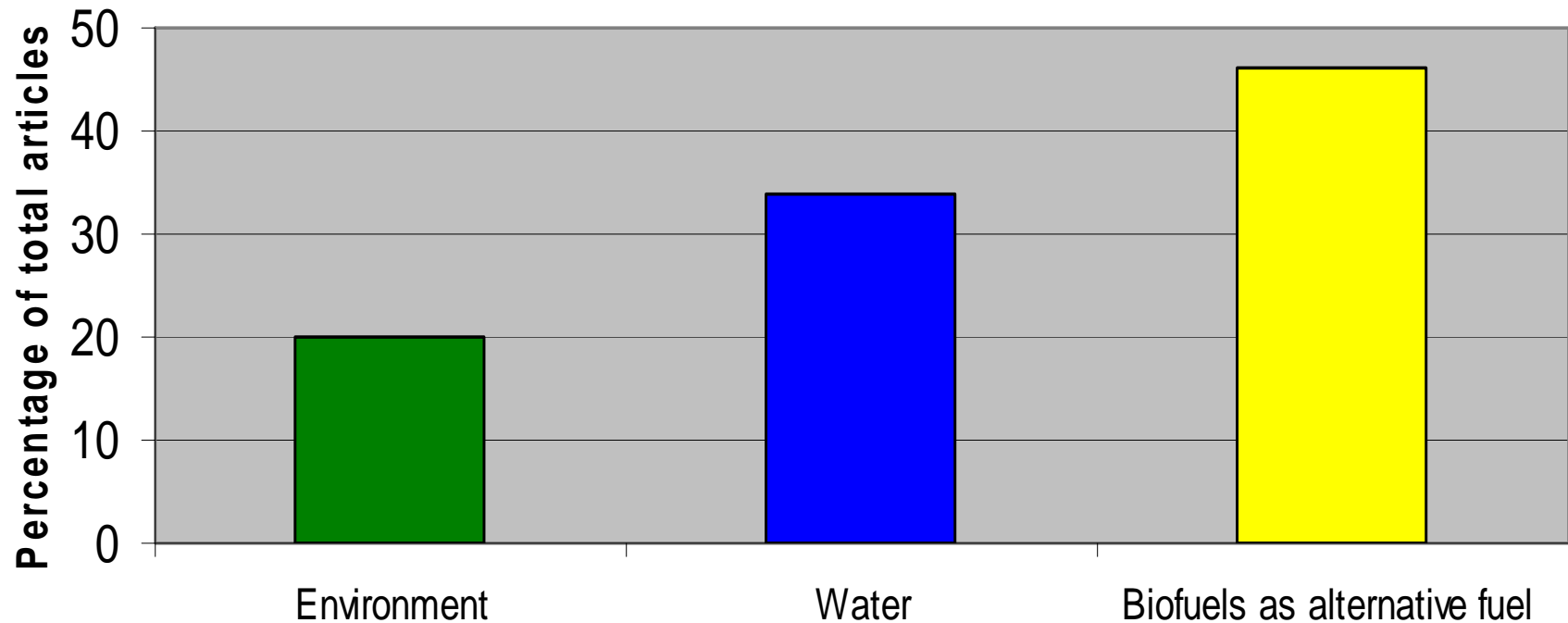
- **Environment**
  - Not sustainable
  - Need for high quantity of water
  - Noise/odor and increased traffic around the ethanol plants
  - Source of carbon-dioxide
- **Economic**
  - Not as efficient as fossil fuels
- **National Security**

# Articles from The HDN

- **Reprint from The AP:** “...a new study says the alternative fuels **burn more energy than they produce.**” The HDN, July 8, 2005
- **Reprint from The AP:** “Factories that convert corn into the gasoline additive ethanol are **releasing carbon monoxide, methanol and some carcinogens** at levels “many times greater” than they promised, the government says.”, The HDN May 5, 2002
- **Reprint from the National Review:** “Ethanol isn't as blessedly green as advertised. It takes coal, natural gas and nuclear power to produce and process it, and it is from these sources that it gets much of its energy. It reduces emissions of carbon monoxide, which isn't much of a pollution problem today, and increases emissions that create smog, which is a **pollution problem.**” The HDN Sept 13, 2007
- **Op-ed:** “We must listen to the science behind the studies and **abandon ethanol.** Most of us know the technology for oil dependency reduction is already here. It's those two long things attached to our hip joints.” in The HDN, Sept 1, 2005

# The HDN articles

## Environmental discourse



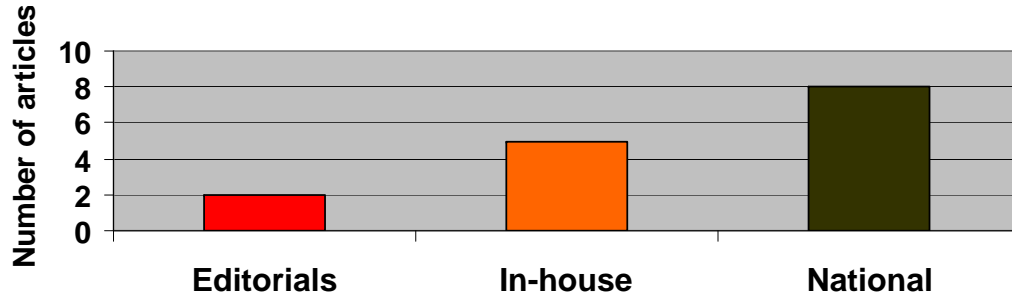
**N = 83**

**n = 15**

**n = 22**

**n = 46**

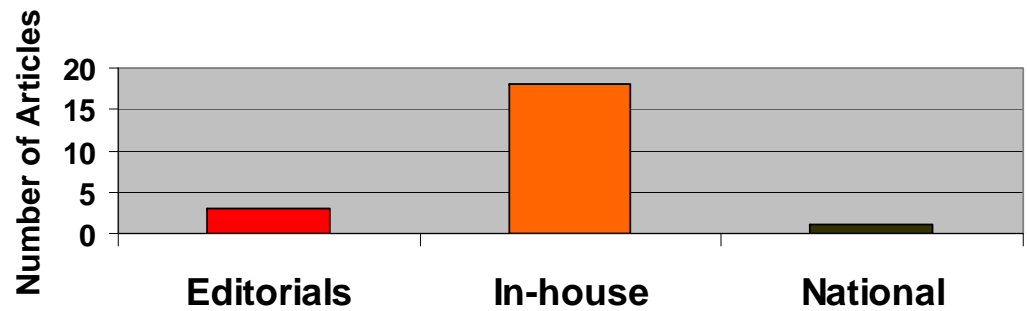
### Environment



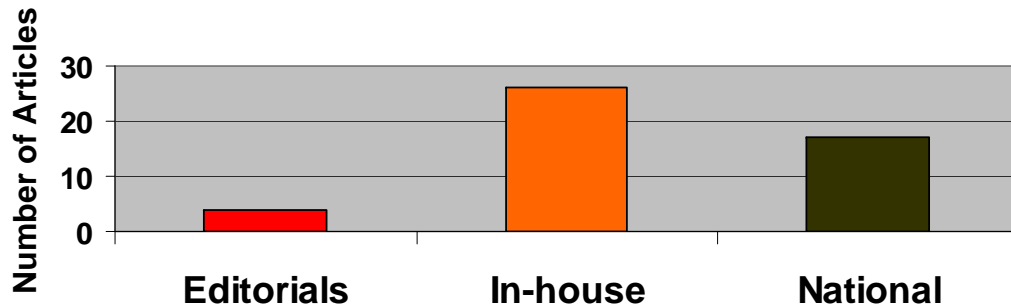
**n = 15**

**n = 22**

### Water Issues



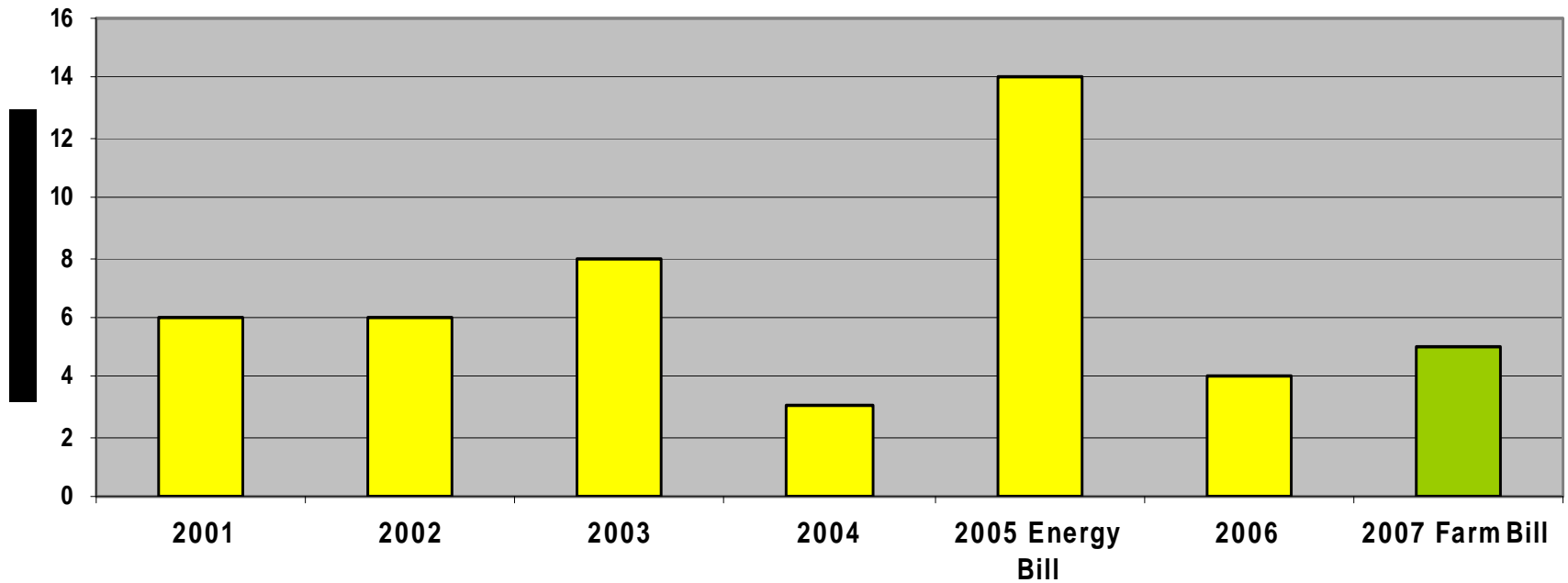
### Biofuels As Alternative Energy



**n = 46**

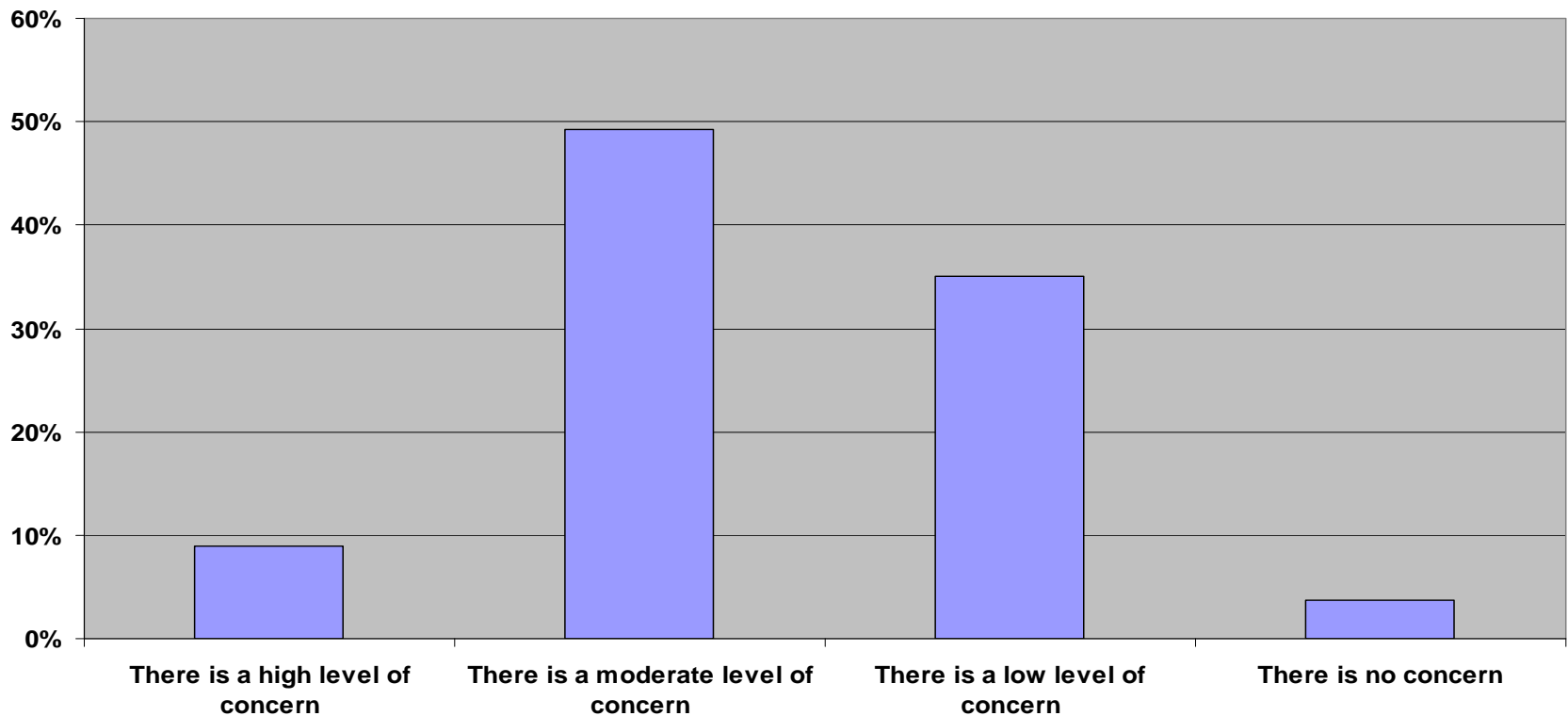
# The HDN articles

Biofuels As Alternative Energy



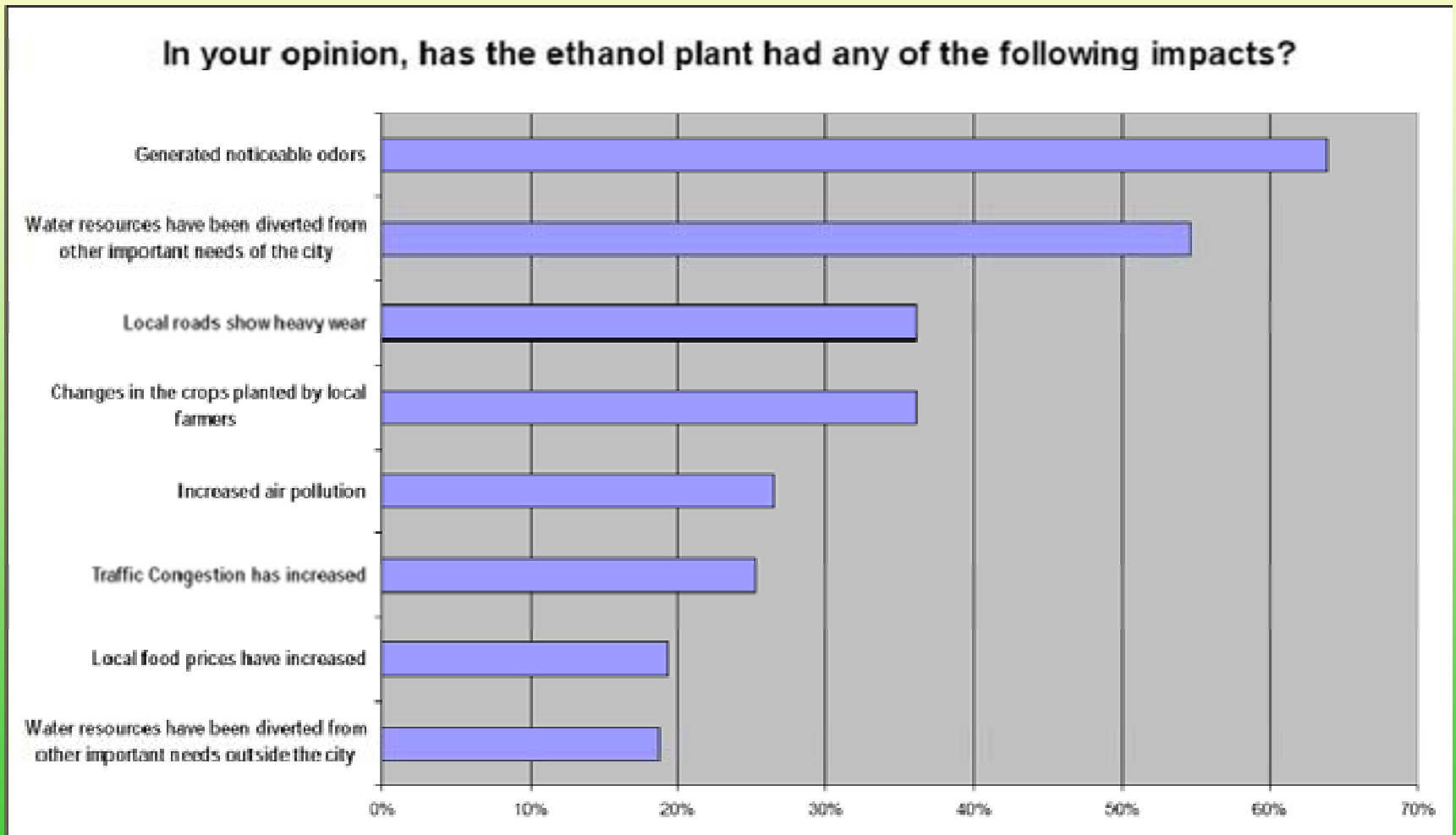
# Survey Data

**Overall, what is the community's level of concern about environmental issues in your community?**



**N = 246 Source: 2008 Russell Community Survey**

# Survey Data



**N = 246** Source: 2008 Russell Community Survey

# Conclusions

- Coverage fluctuates over the analyzed time period
- Different coverage levels in the two regional newspapers
- Very few public comments via op-eds
- Local/regional coverage tends not to emphasize on environmental issues
- Predominantly positive framing

# Future Research

- How is media exposure related to the acceptance of biofuels?
- Does the newspaper coverage influence local's attitude towards biofuels development?