

Empirically Informed Regulation (with special reference to energy and the environment)

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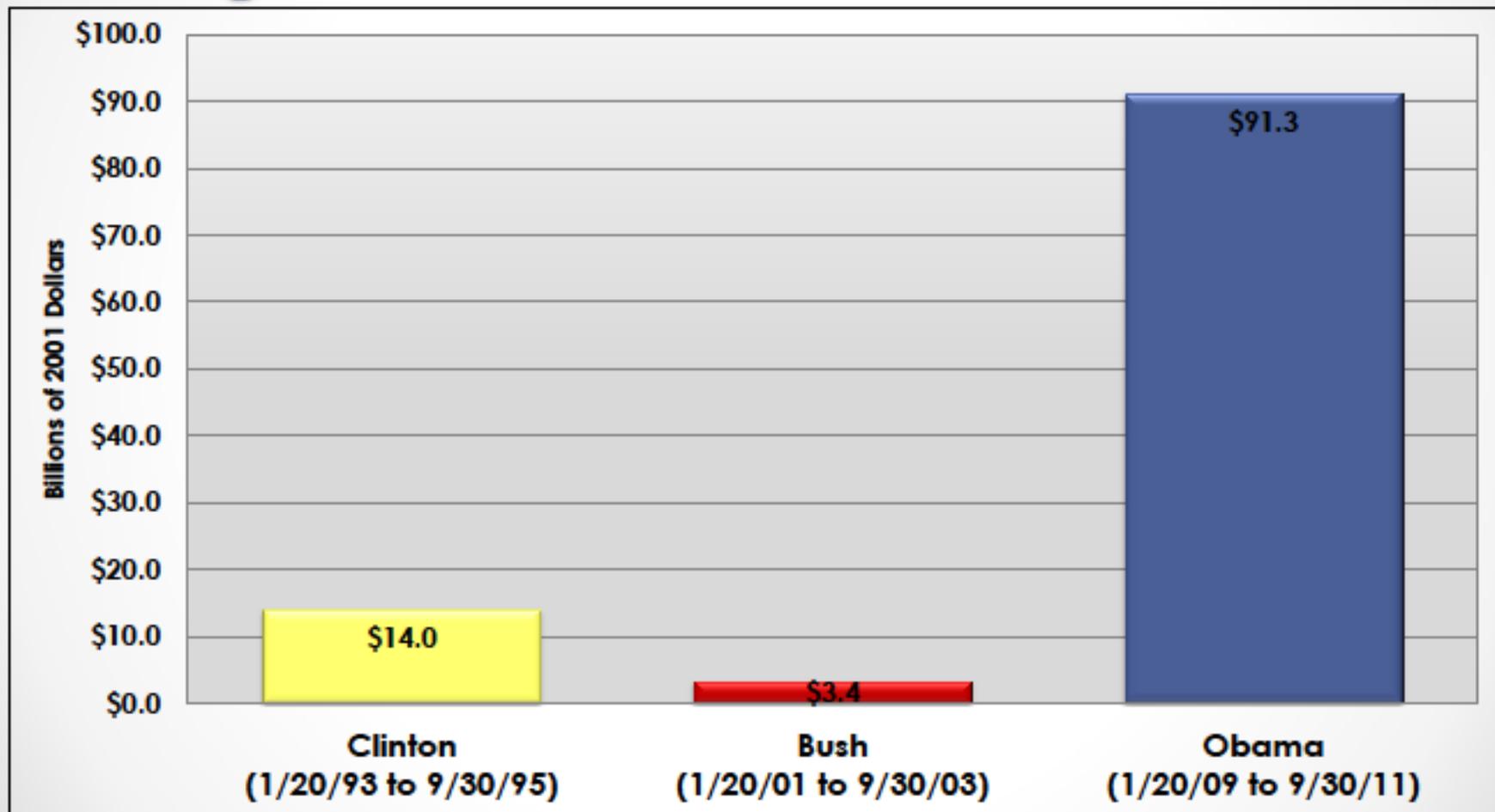
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Evidence, Not Intuitions (or Anecdotes)



“We’re Not Selling Jeans Here”: Total Annual Net Benefits of Major Rules through Third Fiscal Year of an Administration



What the Benefits Are

- The benefits include billions of dollars in savings for consumers
- They include thousands of lives saved and tens of thousands of illnesses and accidents prevented
- They include billions of dollars in economic savings for businesses.

Four Concepts

- Regulatory Moneyball (note that errors disappear in foreign language)
- Behavioral Market Failures (shrouded attributes, myopia, unrealistic optimism)
- Choice Architecture (the google cafeteria in New York)
- Libertarian Paternalism (“nudge”)
 - GPS
 - Plate, not Pyramid
 - Fuel Economy Label
 - Cf. Fuel Economy Requirements

Standard Economic Tools (three surprises?)

- Chetty et al.: Automatic enrollment has a **much** bigger effect than significant tax incentives (Denmark) (US Gov has responded)
- Opower: Home energy report has a bigger effect on energy use than significant price increases
- FAFSA simplification – effect equivalent to a several thousand dollar education subsidy (US Ed Dept has responded; cf. new ACA application)
- For environment, a challenge (and an **opportunity**): Standard economic tools and regulation face serious economic and political obstacles

Two Systems in the Mind

- **System 1:** Automatic, effortless, fast
- **System 2:** Deliberative, calculative, slow

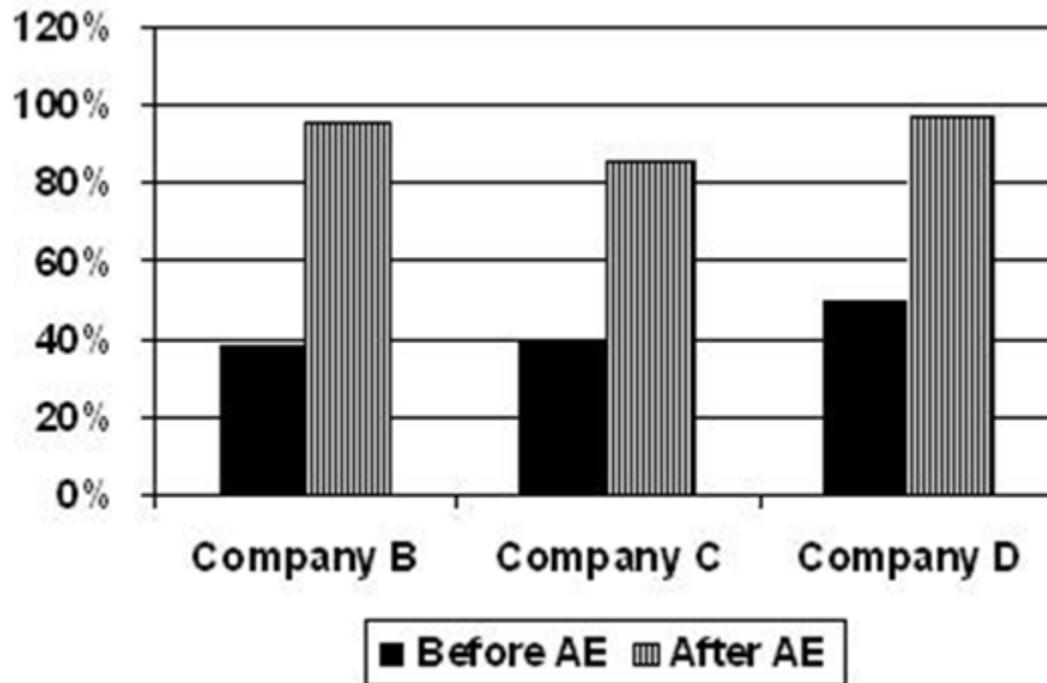
Helps explain human errors and need for nudges:

- (1) Importance of “channel factors” (eg maps)
- (2) Importance of salience (“you can’t miss it”)
- (3) Harmful effects of complexity
- (4) Immense power of default rules

General Principles

- Make It Automatic
- Make It Simple
- Make It Intuitive
- Make It Meaningful
- Do Not Strain System 2
- Applications: Obesity, health, energy, environment, education, traffic safety, much more

Automatic Enrollment and Savings



Opt in vs. Opt out

- More people will stay in under “opt out,” even if transactions costs are very low, and hence default rules matter
- Examples: savings; health insurance; school meals; electronic rather than paper reporting and filing; privacy
- **President Obama on opt-out:**
“[W]e’re going to make it easier for small businesses to do what large businesses do: allow workers to automatically enroll in a 401(k) or an individual retirement account. We know that automatic enrollment has made a big difference in participation rates by making it simpler for workers to save – and that’s why we’re going to expand it to more people.”



Theory & Practice: Default Rules in U.S. Government

- Executive Order 13563 (Regulatory Constitution, kind of): “each agency shall identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public. These approaches include warnings, **appropriate default rules**, and disclosure requirements as well as provision of information to the public in a form that is clear and intelligible.”
- Savings plans and Obama Administration (opt out)
- Affordable Care Act and large employers (opt out)
- Free School Meals (**direct certification** – up to 260,000 children from one rule)

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Automatically Green? Evidence

Background: savings, insurance, organ donations, electronic paychecks, privacy, cf. “negative option marketing”

- 1) Rutgers University and the two-sided default
- 55 million sheets of paper saved
- 2) The German Paradox: two VERY green communities. Why?
- 3) Energy Efficient Products



Why Defaults Stick: 3 Factors

- Inertia (“effort tax”?) – even when tax is low; “yeah, whatever”
 - Cabs in NYC – 10 percent increase from touchscreens!
- Suggestion
 - Wrinkle 1: Low-income people (deferential or busy?)
 - Wrinkle 2: Automatic enrollment is suggestive whereas nonenrollment is not
- Loss Aversion
 - Golf (birdie vs. par)
 - Teachers
 - Environment/energy (conscience?)

Which Default? Without Externalities

- First cut: What people would choose if adequately informed (might be hard question, in fact and conceptually)
- Easy cases: Green energy costs less (and also reduces environmental harm)
- Hard cases: Costs a bit more but green (might need to know about views of relevant population)
- Majority rule
- Intensity of preferences

Which Default? With Externalities

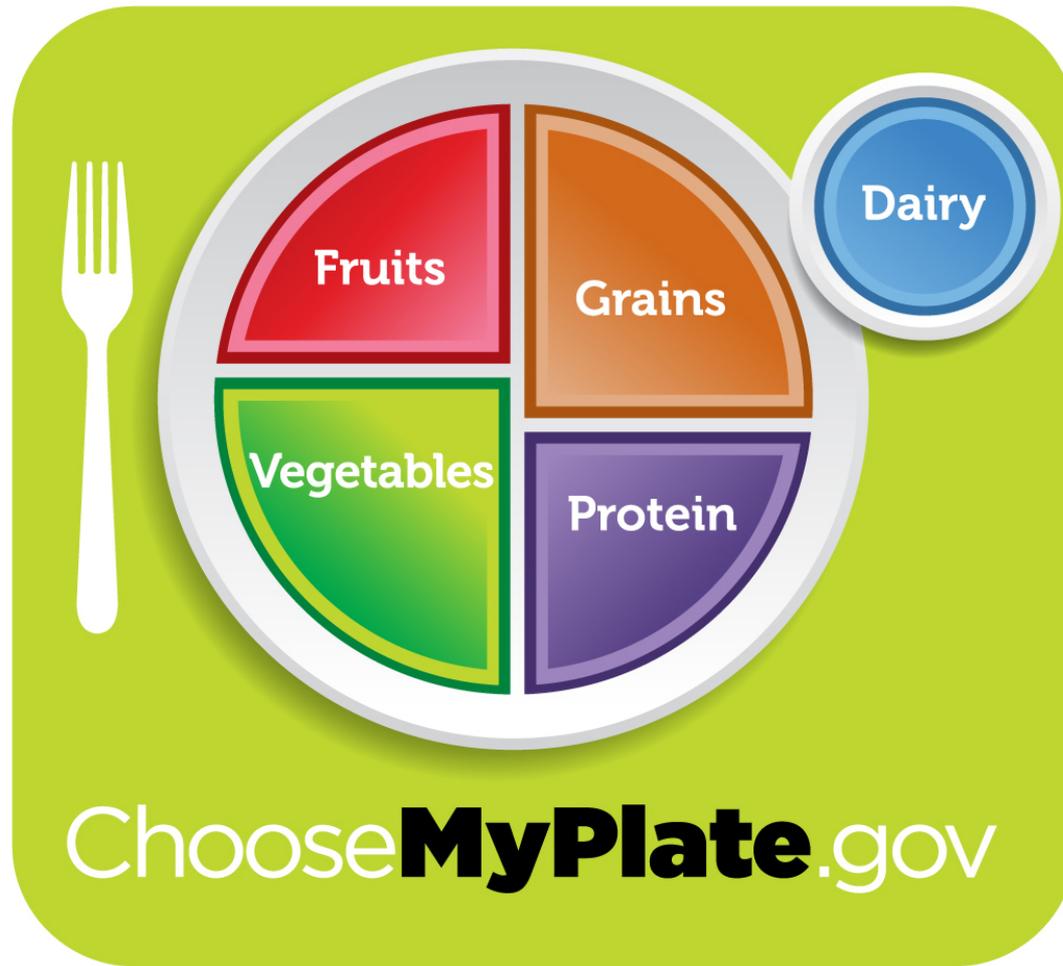
- Cost-benefit test (EO 13563 again)
- Social cost of carbon (\$23 per ton)
- Cost of eg coal
- Circumstances for a mandate, not a default rule?
- But poor people, and may lack sufficient information or political will
- Distributional issues

Plate, Not Pyramid

Old USDA Food Pyramid



New USDA Food Plate



Old Fuel Economy Label

Compare this vehicle to others in the **FREE FUEL ECONOMY GUIDE** available at the dealer.

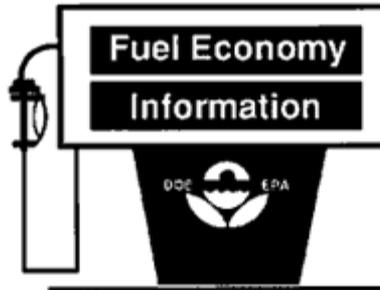
CITY MPG

23

Actual Mileage will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between

19 and 27 mpg in the city
and between

26 and 35 mpg on the
highway.



1993 CANARY 2.0 LITER
L4 ENGINE FUEL INJECTED
AUTO 3 SPD TRANS CATALYST
FEEDBACK FUEL SYSTEM

Estimated Annual Fuel Cost:

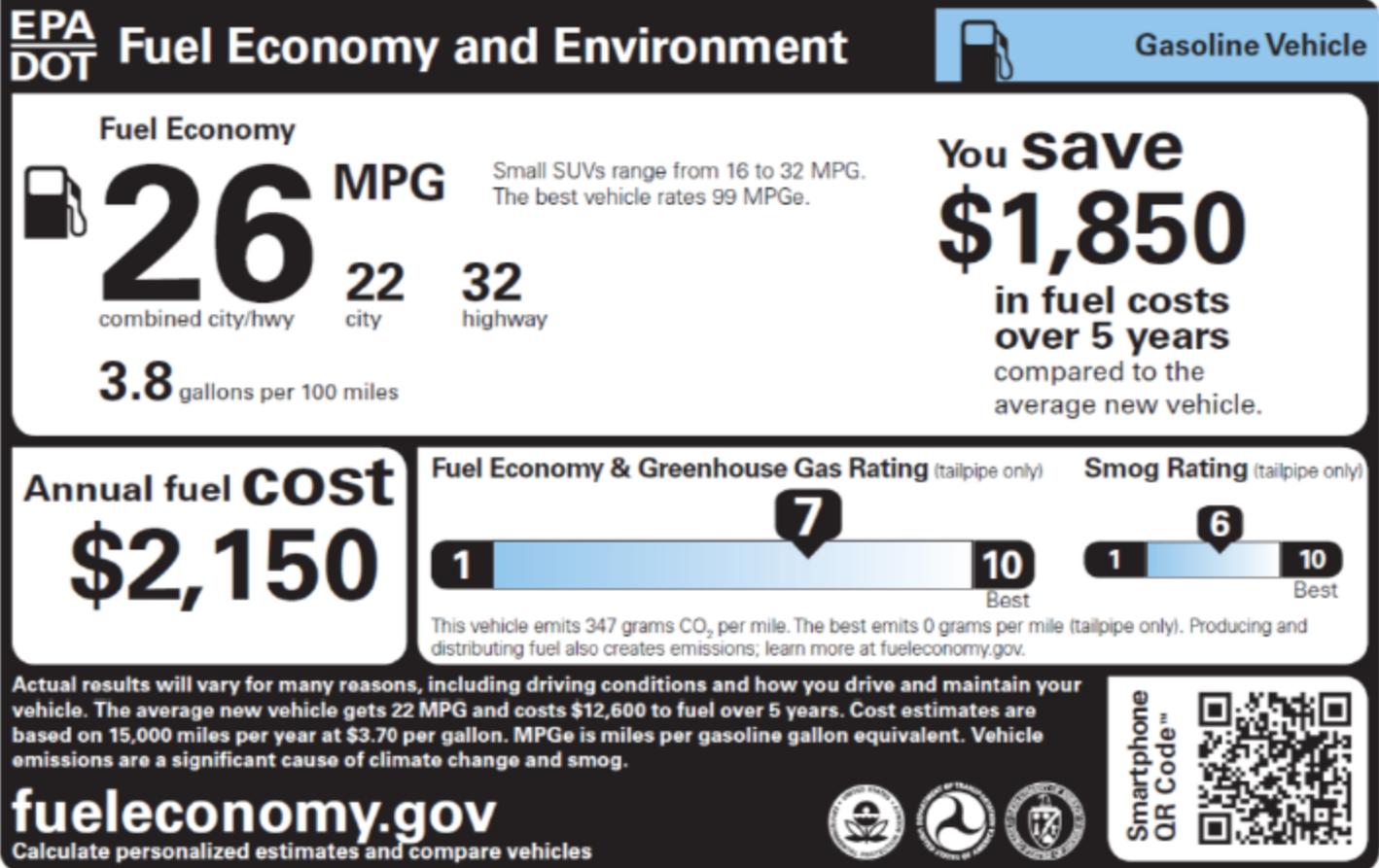
\$850

HIGHWAY MPG

30

For Comparison Shopping,
all vehicles classified as
COMPACT
have been issued mileage ratings
ranging from 11 to 31 mpg city
and 16 to 41 mpg highway.

New Fuel Economy Label



Simplification Is A Nudge

- Basic finding: **Complexity can have serious adverse effects, defeating program goals.** (What seems to be resistance may be a response to ambiguity.)
- Financial Aid for College Reform – enabling large numbers of students to attend college.
- Prescription Drug Plans
- Call to all agencies to simplify requirements, especially on small business and participants in federal programs
- Form Simplification Project



Social Norms Are Nudges

- Energy use: levels decrease when people learn that they are spending more money than their neighbors
- In fact a Home Energy Report can produce larger savings than a big increase in the price of energy
- Increase in usage of seatbelts, prompted in part by changing social norms
- “Compliance without enforcement” in context of restrictions on cigarette smoking
- Let’s Move campaign: Walmart has committed to reformulating thousands of everyday packaged food items by 2015 by reducing sodium 25 percent and added sugars 10 percent, and by removing all remaining industrially produced trans fats.
- In a similar vein, a number of companies, including Kraft Foods, General Mills, Coca-Cola, Pepsi, and Kellogg, have pledged to remove 1.5 trillion calories from their products by 2015, in an effort to combat childhood obesity.
- Distracted driving initiatives
- Note: *Deaths on highway at lowest level in recorded history*

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Friday, March 02, 2012 Text: A+ A- A S



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- Motor Carrier Registrations - Census File...
- Motor Carrier Registrations - Census File...
- Pipeline Incident Data - Natural Gas...

Smart Disclosure is Simpler

- Basic idea: disclose information in machine-readable formats
- Energy use
- Utility and electricity suppliers across the United States have committed to provide more than 15 million households with access to data about their own energy use with an online “Green Button,” which will enable homeowners and building owners to make better decisions
- The UK as well



Simpler: Regulatory Lookback

Executive Order 13563, Sec. 6(b)

“Within 120 days of the date of this order, each agency shall develop and submit to the Office of Information and Regulatory Affairs a preliminary plan . . . under which the agency will periodically review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed”



Lookback Results

- Over two dozen agencies release reform plans, including over 500 initiatives. The release was preceded by public comment.
- A small fraction of those initiatives, already finalized or formally proposed to the public, will **save billions of dollars in the near future.**
- The Environmental Protection Agency has joined in eliminating requirements that will produce savings of **in excess of \$10 billion.**
- Over 100 million hours of paperwork burdens are going or gone.