

# INTRO

# ENERGY FOR HUMANITY\_

ENERGY FOR  
HUMANITY\_

WE ♥  
ELECTRICITY...

Scroll  
to begin





- Today nearly three billion people cook over open fires fueled by wood, dung, coal, or charcoal.
- The health consequences are severe: every year, indoor air pollution causes two million premature deaths, one million cases of chronic lung disease, and half of all of pneumonia deaths among children under the age of five.



# **WE** **ELECTRICITY...**

Scroll to begin or use the arrow buttons.



The Times of India New Delhi, 08, May-2014

# Delhi air worst in the world

Packed With Fine Particles That Damage Heart, Lungs: WHO

TIMES NEWS NETWORK

New Delhi: Delhi has the most polluted air in the world. A World Health Organization (WHO) air quality database of 1,600 cities and 91 countries released on Wednesday shows that the concentration of PM2.5 (fine, respirable particles) is the highest in Delhi at 153 micrograms per cubic metre ( $\mu\text{g}/\text{m}^3$ ) when the WHO standard is just about  $10\mu\text{g}/\text{m}^3$ . The fine, particulate pollution which is considered most dangerous for health is way higher in Delhi compared with many other crowded Asian cities, including Beijing which has a PM2.5 level of  $56\mu\text{g}/\text{m}^3$ , Karachi ( $117\mu\text{g}/\text{m}^3$ ) and Shanghai ( $36\mu\text{g}/\text{m}^3$ ).

The concentration of PM10 (coarse particles) in Delhi is about  $286\mu\text{g}/\text{m}^3$ , more than 14 times higher than the WHO annual mean standard of 20. Peshawar ( $540\mu\text{g}/\text{m}^3$ ) and Rawalpindi ( $448\mu\text{g}/\text{m}^3$ ) in Pakistan fare worse on this parameter. Indian cities with a very high PM10 level include Gwalior, Raipur and Lucknow.

This is not the first time Delhi has earned the dubious distinction of having extremely polluted air. In January, Yale University's Environmental Performance Index 2014 had ranked India among the bottom five in a list of 178 countries for various parameters, including air pollution. A controversy erupted when the Yale data was interpreted to mean that Delhi's

## SUBCONTINENT'S DIRTY AIR



Asian cities	PM10	PM2.5
Delhi	286	153
Karachi	273	117
Dhaka	180	86
Beijing	121	56
Colombo	64	28
Jakarta	48	21
Singapore	27	17

PM10: Particulate matter of size 2.5-10 micrometre; PM2.5: Particulate matter smaller than 2.5 micrometre

“Small particles less than 10 micrometres in diameter (both PM10 and PM2.5) pose the greatest problems, because they can get deep into your lungs, and some may even get into your bloodstream. Exposure to such particles can affect both your lungs and your heart

— US ENVIRONMENTAL PROTECTION AGENCY DOCUMENT

air quality is worse than Beijing's. The Delhi government and the ministry of earth sciences, which monitors air pollution data for the city, had vehemently denied this. But the latest WHO database suggests that Beijing probably has better control systems in place to deal with air pollution.

“WHO has not ranked cities but its database gives us an idea of where we stand. Delhi is more polluted than

others. WHO has compared our annual mean levels with its standards, which are far lower than Indian standards. The database highlights what a major public health issue air pollution is and how aggressive our policies need to be,” said Anumita Roychowdhury, air pollution expert with Centre for Science and Environment (CSE). India's annual mean standard for PM10 is  $60\mu\text{g}/\text{m}^3$  and for PM2.5 it is about  $40\mu\text{g}/\text{m}^3$ .

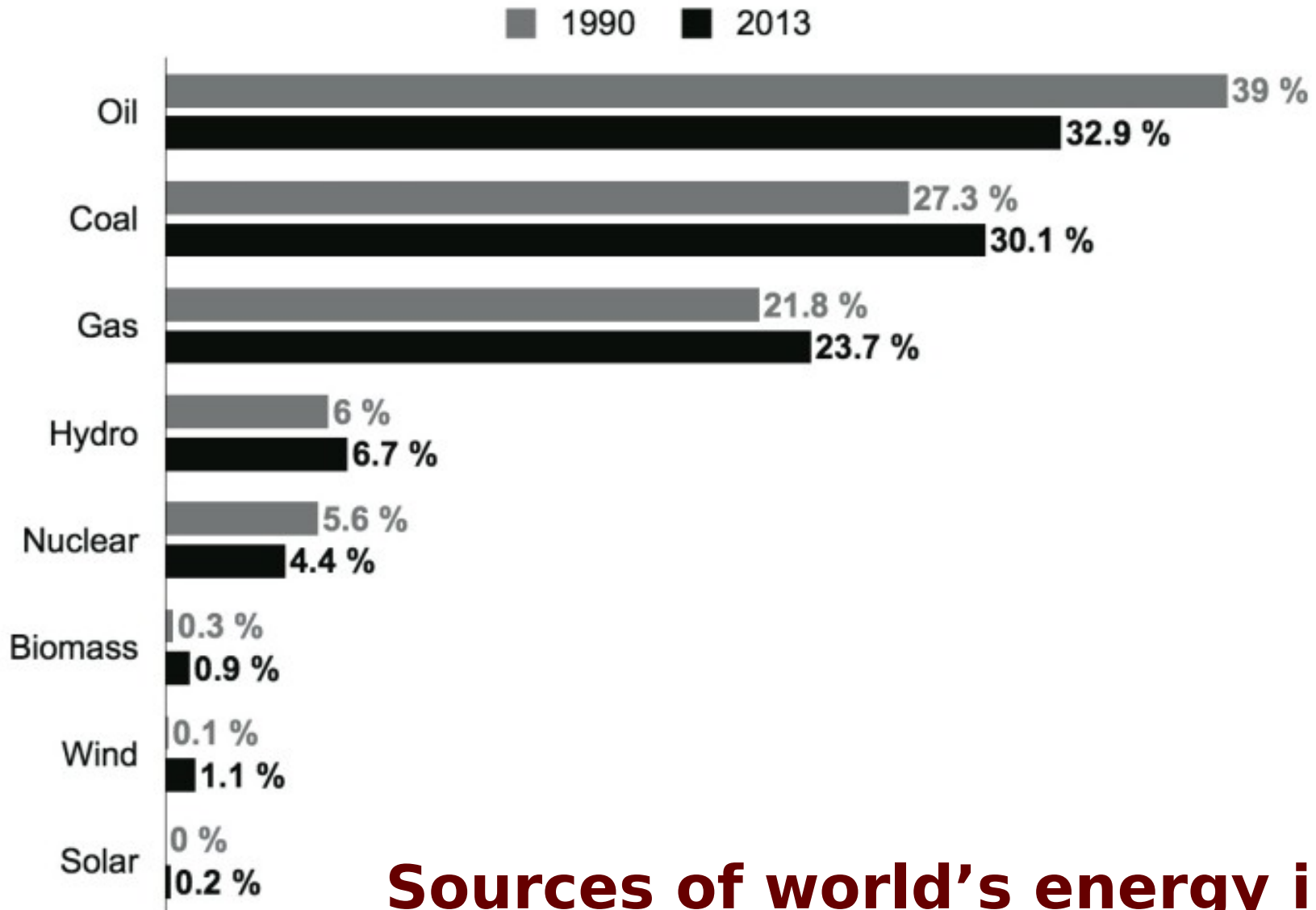
High PM2.5 levels are associated with major health effects. WHO in its statement said: “High concentrations of small and fine particulate pollution is particularly associated with high numbers of deaths from heart disease and stroke, as well as respiratory illnesses and cancers. Measurement of fine particulate matter of 2.5 micrometres or less in diameter (PM2.5) is considered to be the best indicator of the level of health risks from air pollution”.

## WEATHER

Max 38.5°C (80°) Min 24.2°C (75°)  
Moonrise: Thursday - 1.06pm  
Moonset: Friday - 1.54am  
Sunset: Thursday - 7pm  
Sunrise: Friday - 5.35am  
Mainly clear sky. Maximum & minimum temperatures on Thursday will be around 40°C & 25°C. Max humidity on Wednesday was 81% and min 32%

Dr Maria Neira, WHO director for Public Health, Environmental and Social Determinants of Health said, “Cities such as Copenhagen and Bogotá have improved air quality by promoting ‘active transport’ and prioritizing dedicated networks of urban public transport, walking and cycling”.

Only 12% of the people living in cities get air quality conforming to WHO guidelines. About half of the urban population being monitored by WHO is exposed to air pollution that is at least 2.5 times higher than the levels the agency recommends.



**Sources of world's energy in 1990 and 2013**



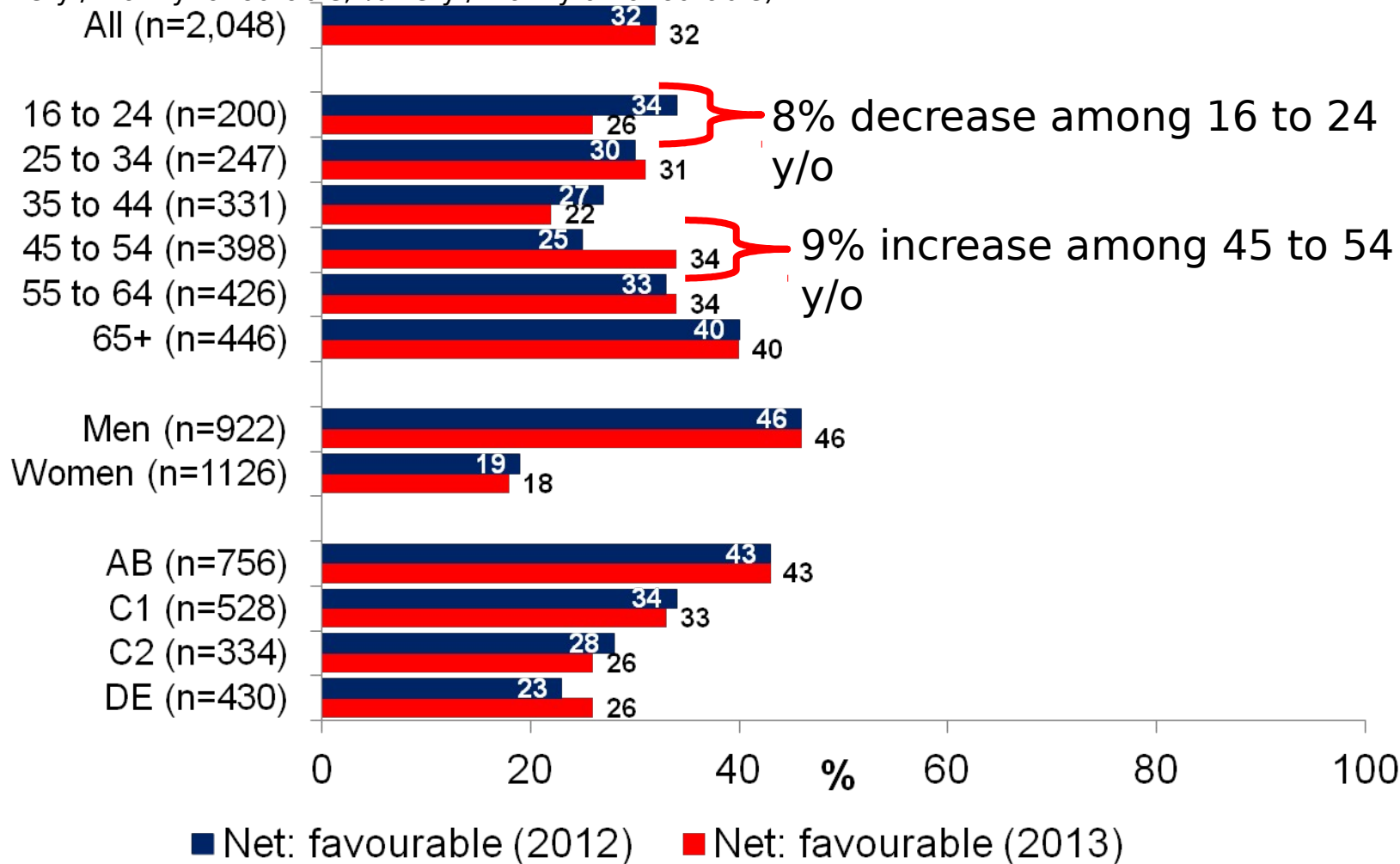






# The gender gap in public attitudes to nuclear energy<sup>9</sup>

How favourable or unfavourable is your opinion or impression of the nuclear energy industry? (% Very / Mainly favourable; % Very / Mainly unfavourable)



Tracking adjustment for method change: Favourable (-5%)

Base: Online survey (2,048).

Source YouGov Nov 2013



# ENGAGING WOMEN

- RECRUIT
- PROGRESS
- ADVOCATE



# World's leading climate scientists calls for environmentalists to





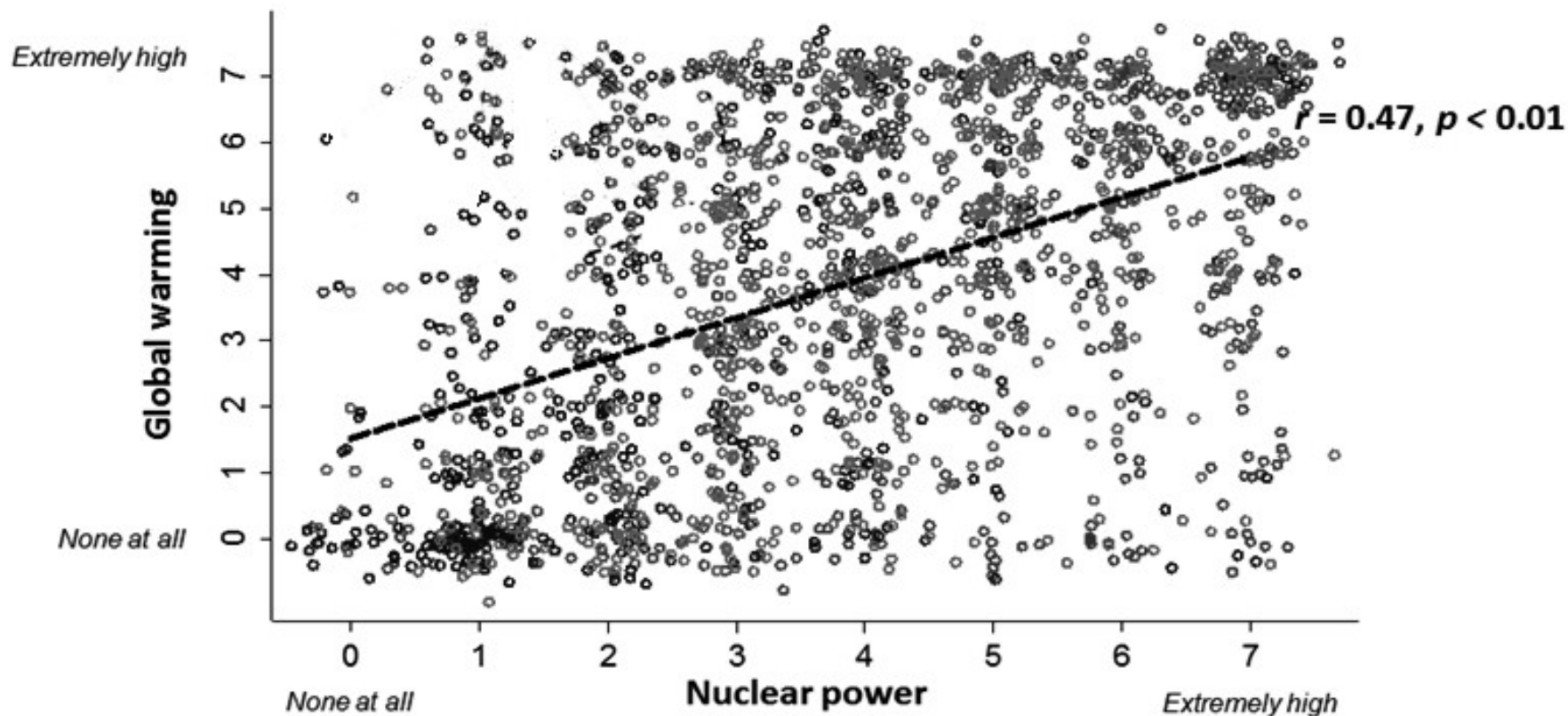
# WIND AND SOLAR?

- Total wind power is 2% of global electricity.
- Total solar power is 0.25% of global electricity.
- Average annual increase in global electricity is 3%.
- Coal remains the fastest growing source of energy on the planet

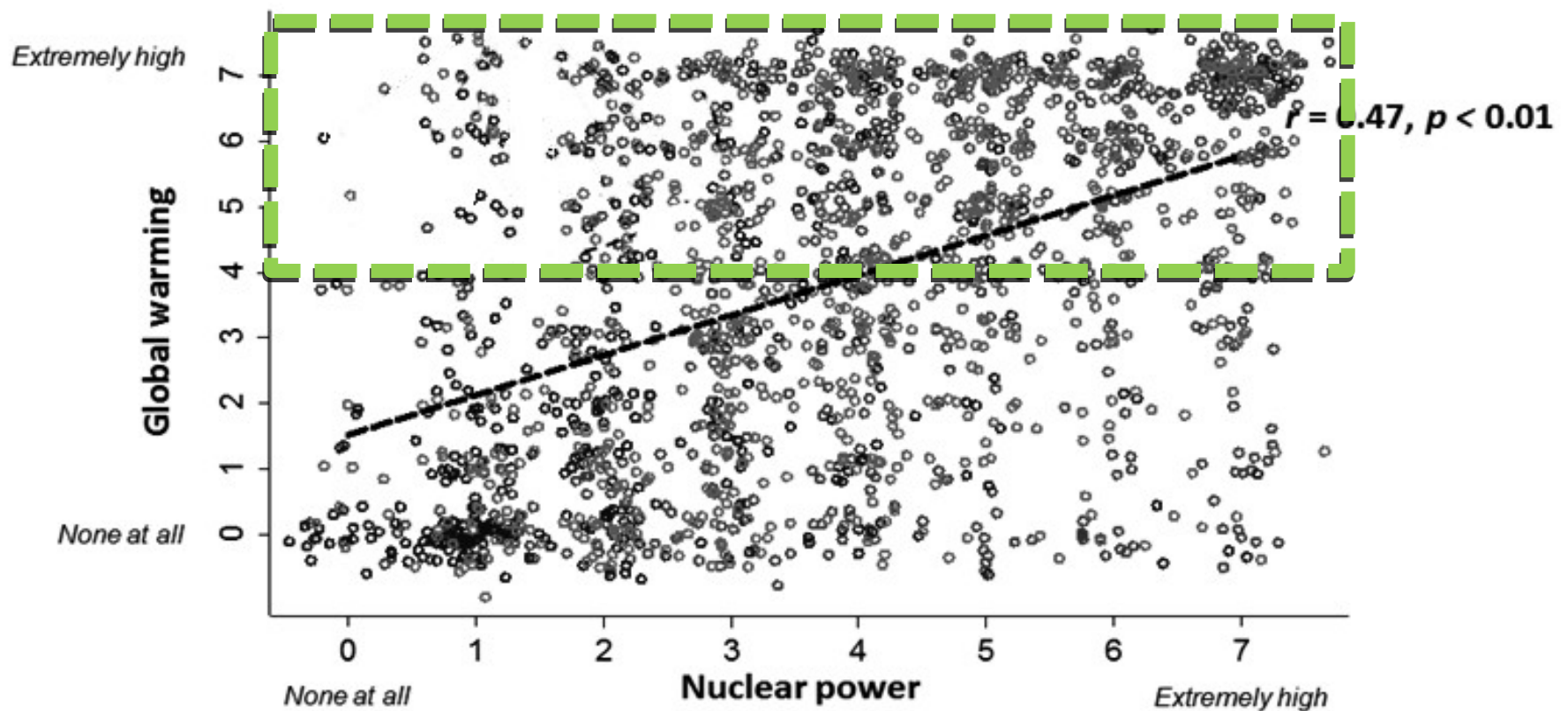




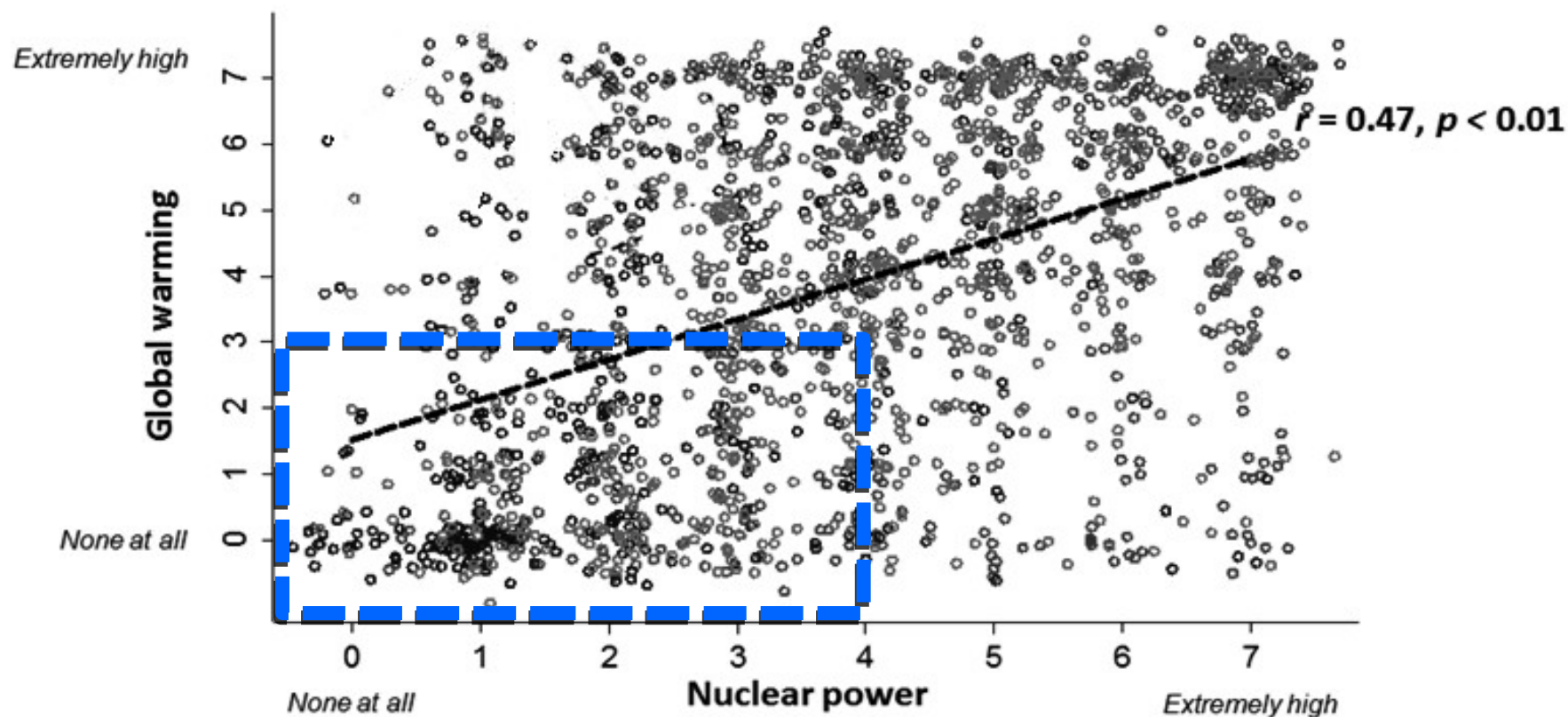
*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*



*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*

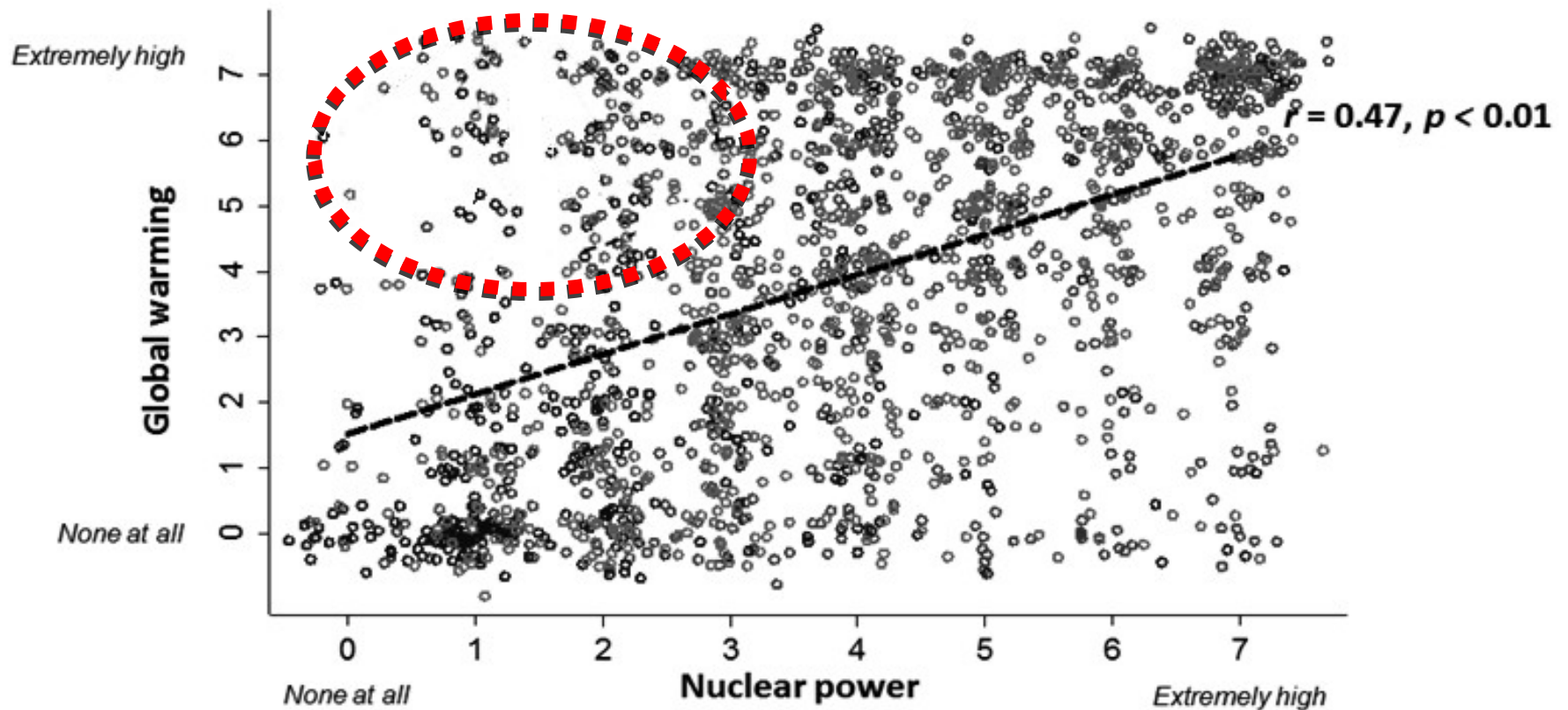


*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*

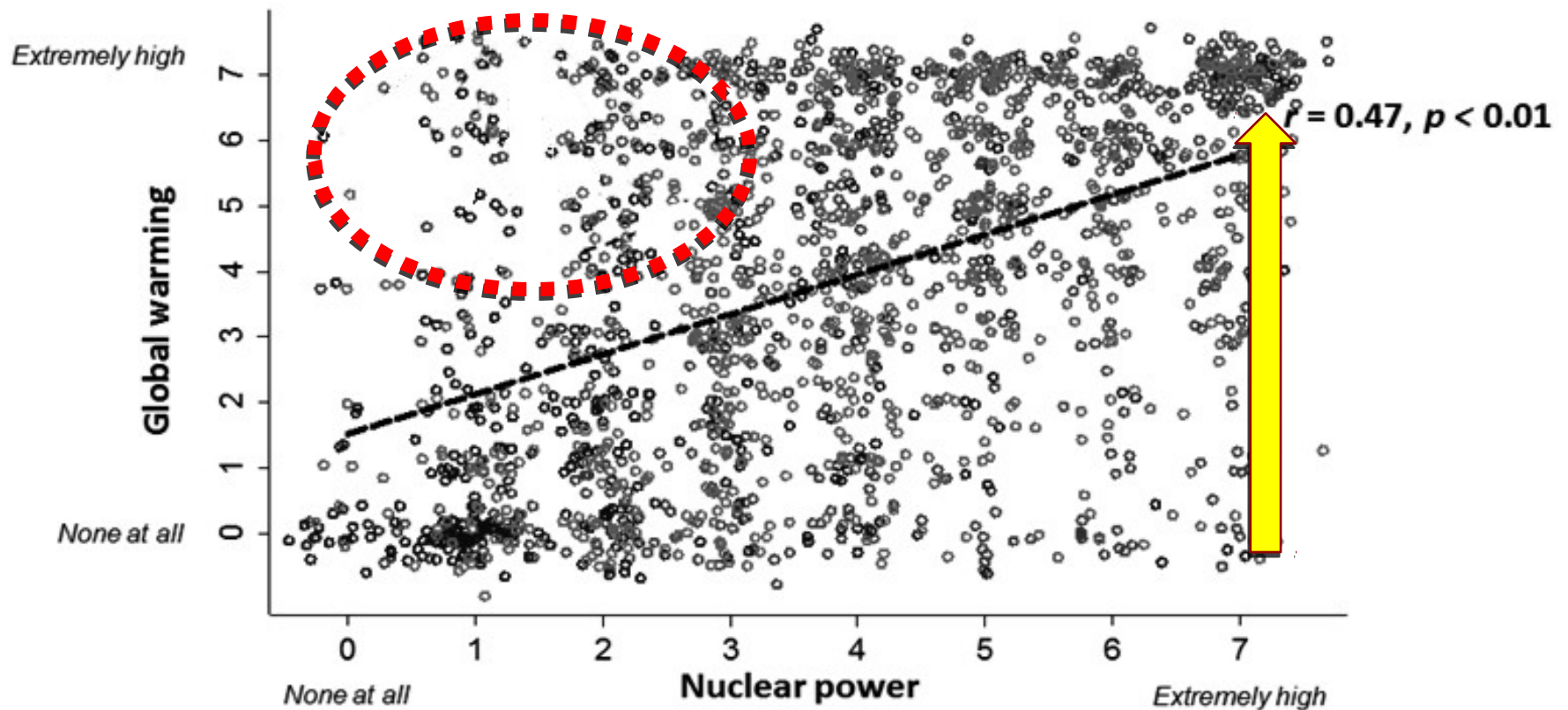




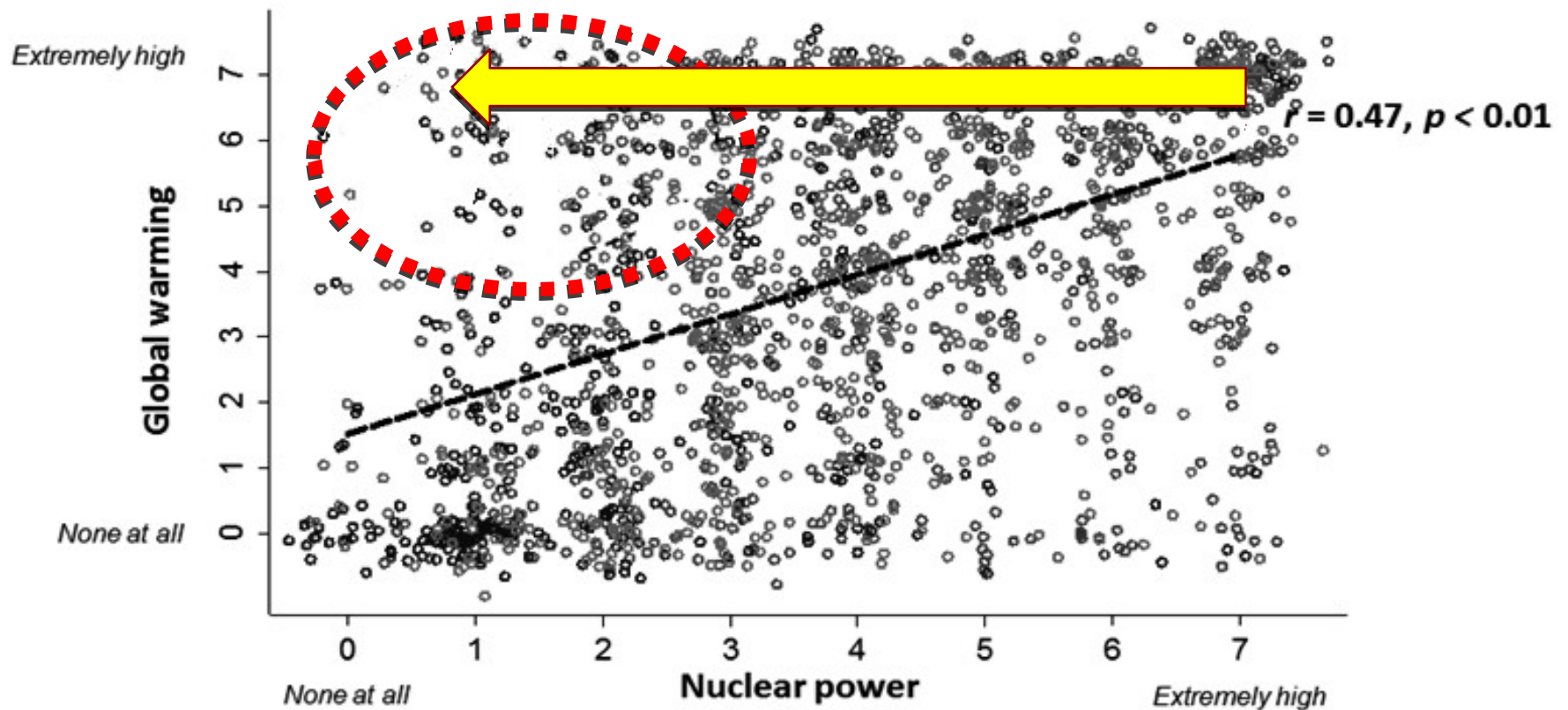
*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*



*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*

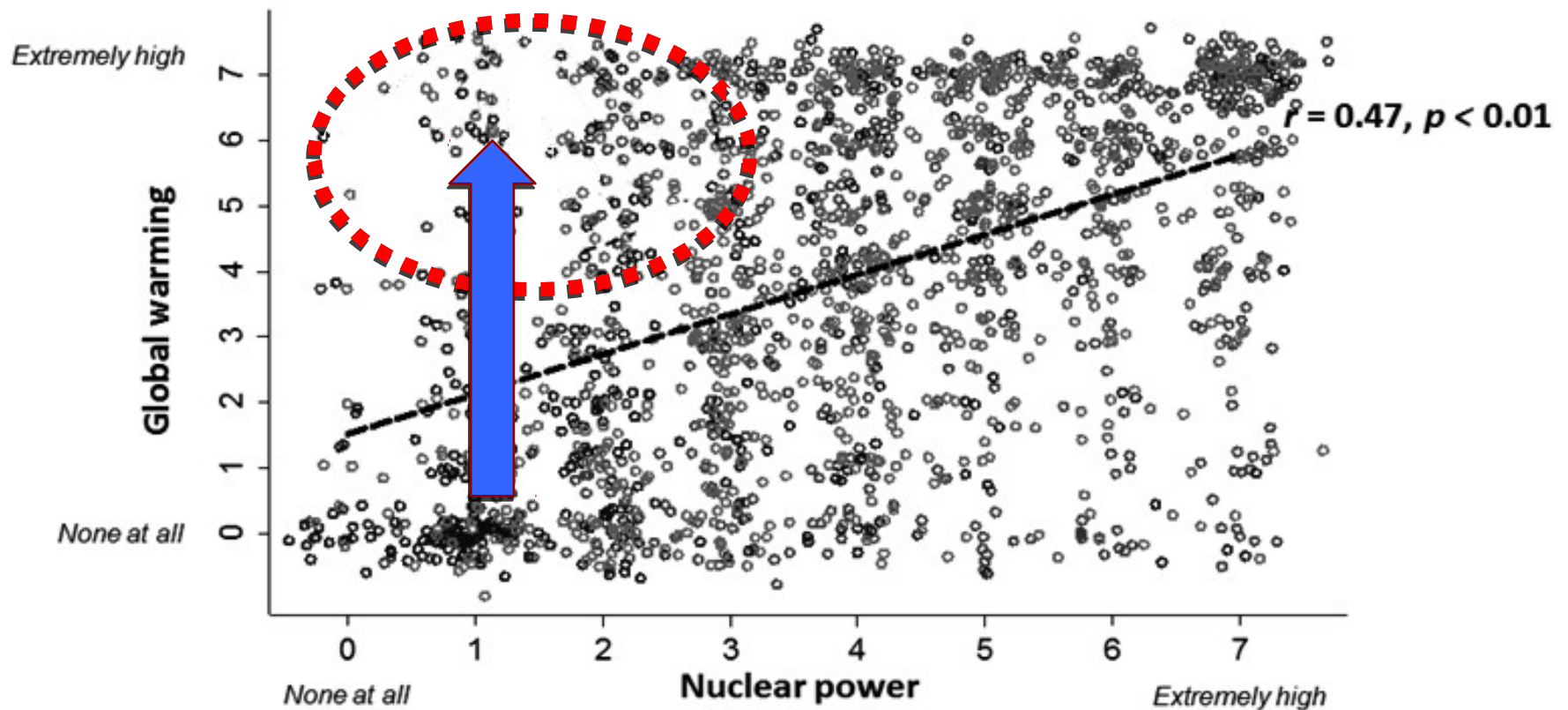


*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*

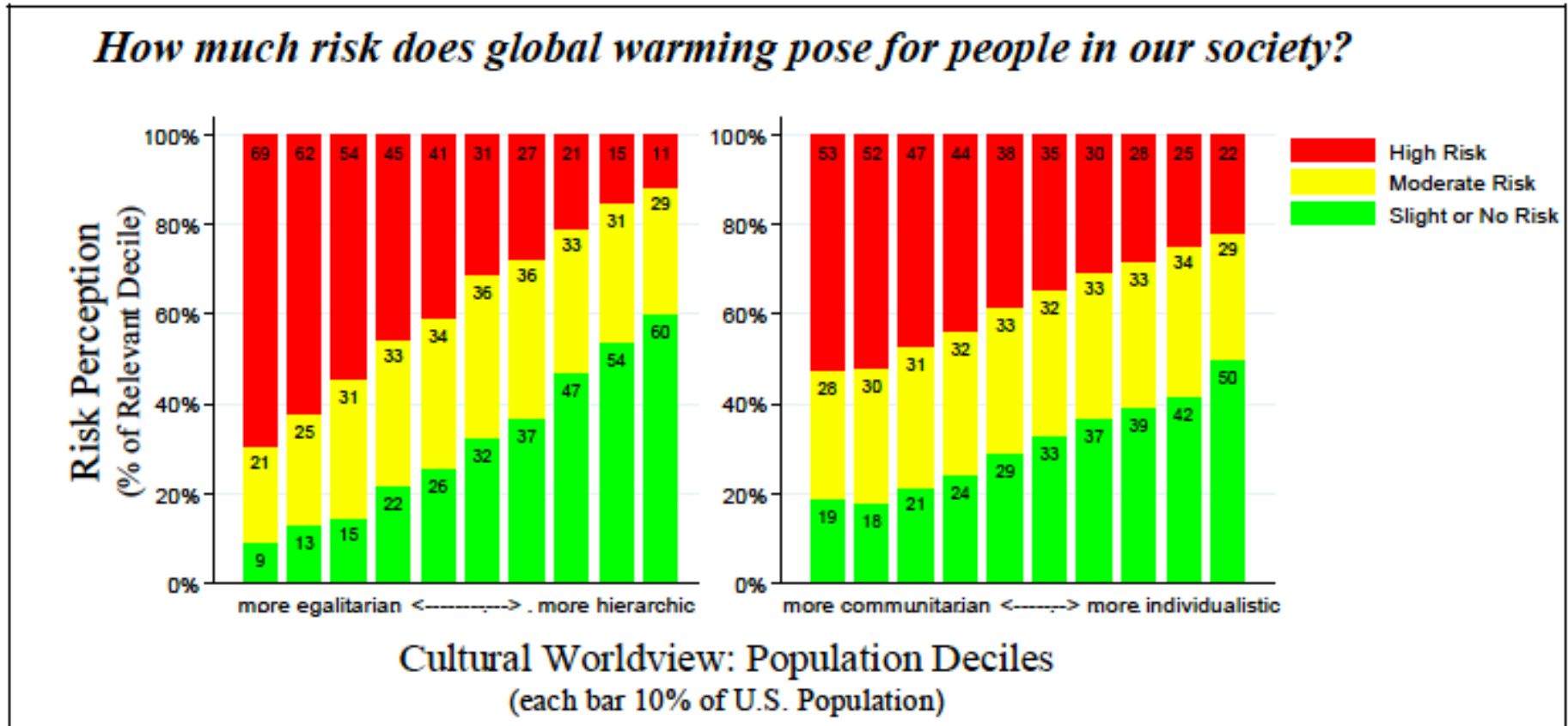




*“How much risk do you believe . . . poses to human health, safety, or prosperity?”*



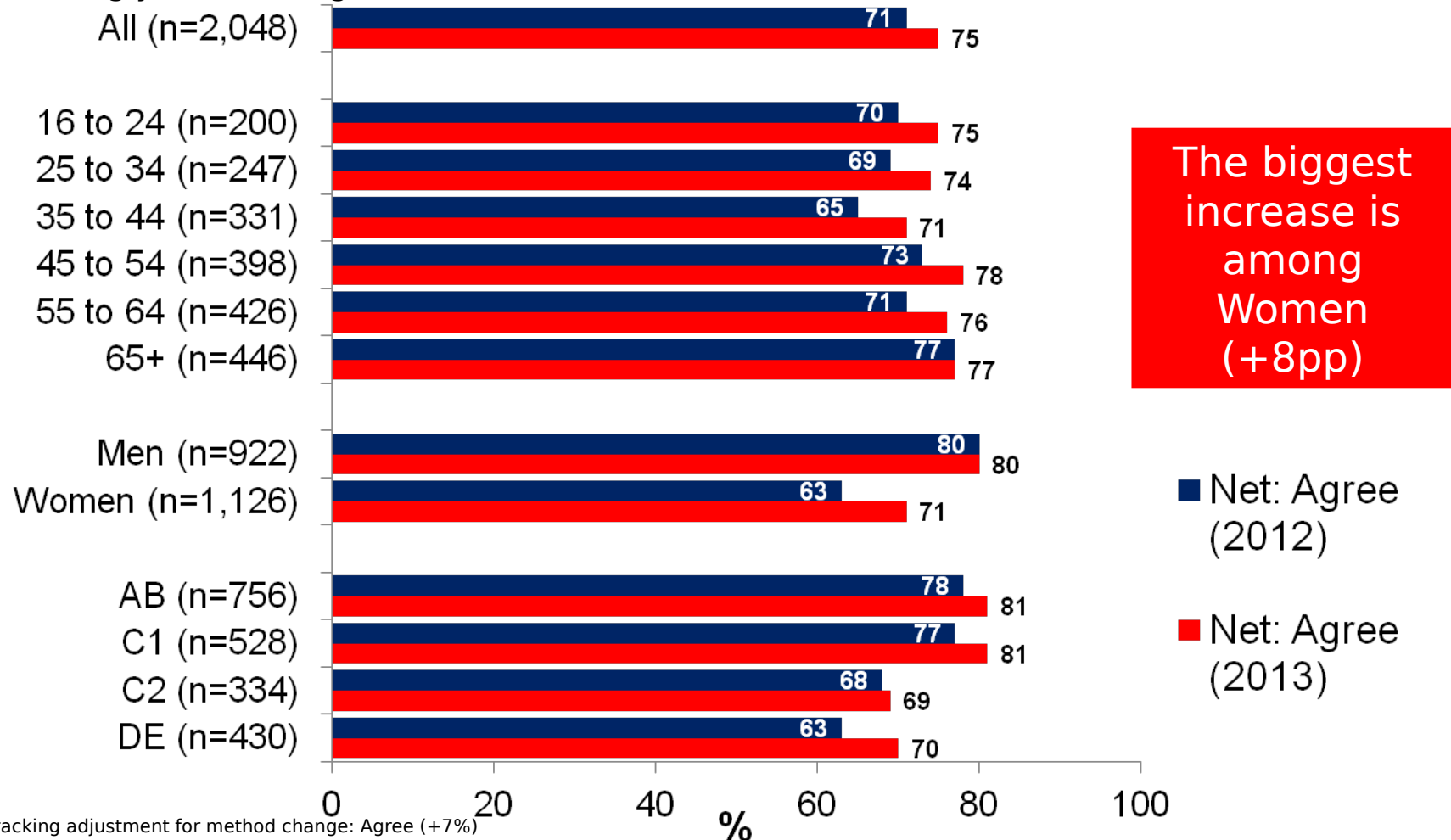
# Cultural worldviews accurately predicts belief on fact of global



**Source: Cultural Cognition Project, Yale Law School** *The Second National Risk and Culture Study: Making Sense of - and Making Progress in - the American Culture War of Fact*

# 75% SUPPORT BALANCED ENERGY MIX INCLUDING NUCLEAR AND RENEWABLES

How far do you agree or disagree that ... Britain needs a mix of energy sources to ensure a reliable supply of electricity, including nuclear power and renewable energy sources?  
(Strongly / tend to agree)



Tracking adjustment for method change: Agree (+7%)

Base: Online survey (2,048)

Source YouGov Nov 2013



GREENPEACE



# COP21



- Create a global platform in the build up to COP21 where thought leaders and experts can discuss nuclear power's role in future electricity generation and carbon reduction.
- Highlight the potential impact of nuclear reactor technology in achieving global social, environmental and economic goals.
- Bust myths surrounding nuclear, creatively communicating the facts, including how advanced reactors will address many concerns associated with conventional nuclear.



## ENERGY FOR HUMANITY \_

We believe the Climate Summit in Paris in December presents a unique opportunity to change the conversation about energy and climate, and to shine a light on the benefits that nuclear offers society and the environment.

### **If you agree:**

- Talk to your friends and colleagues.
- Get organized.
- SI
- M



ard!



An aerial night photograph of a city, likely New Orleans, showing a dense network of streets illuminated by warm yellow lights. A prominent river, the Mississippi River, winds through the center of the image, reflecting the city lights. The surrounding areas are dark, with some scattered lights from buildings and infrastructure.

Thank you for your attention.  
Happy to take questions.