

IS THERE PUBLIC MISTRUST OF SCIENCE?

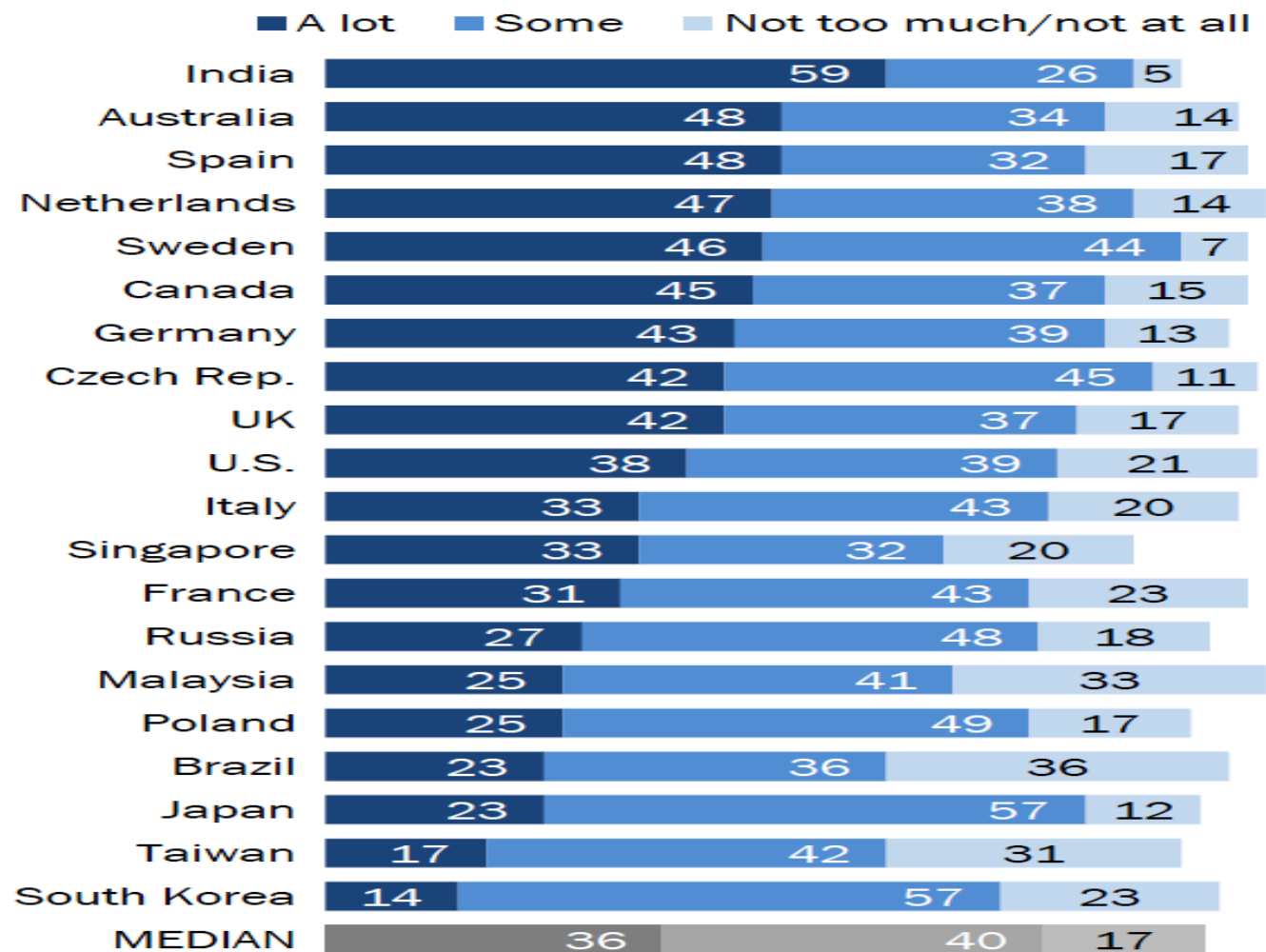
GIL EYAL
DEPARTMENT OF SOCIOLOGY
COLUMBIA UNIVERSITY



Pew Research Center global survey of trust in scientists

Majorities have at least some trust in scientists to do what is right

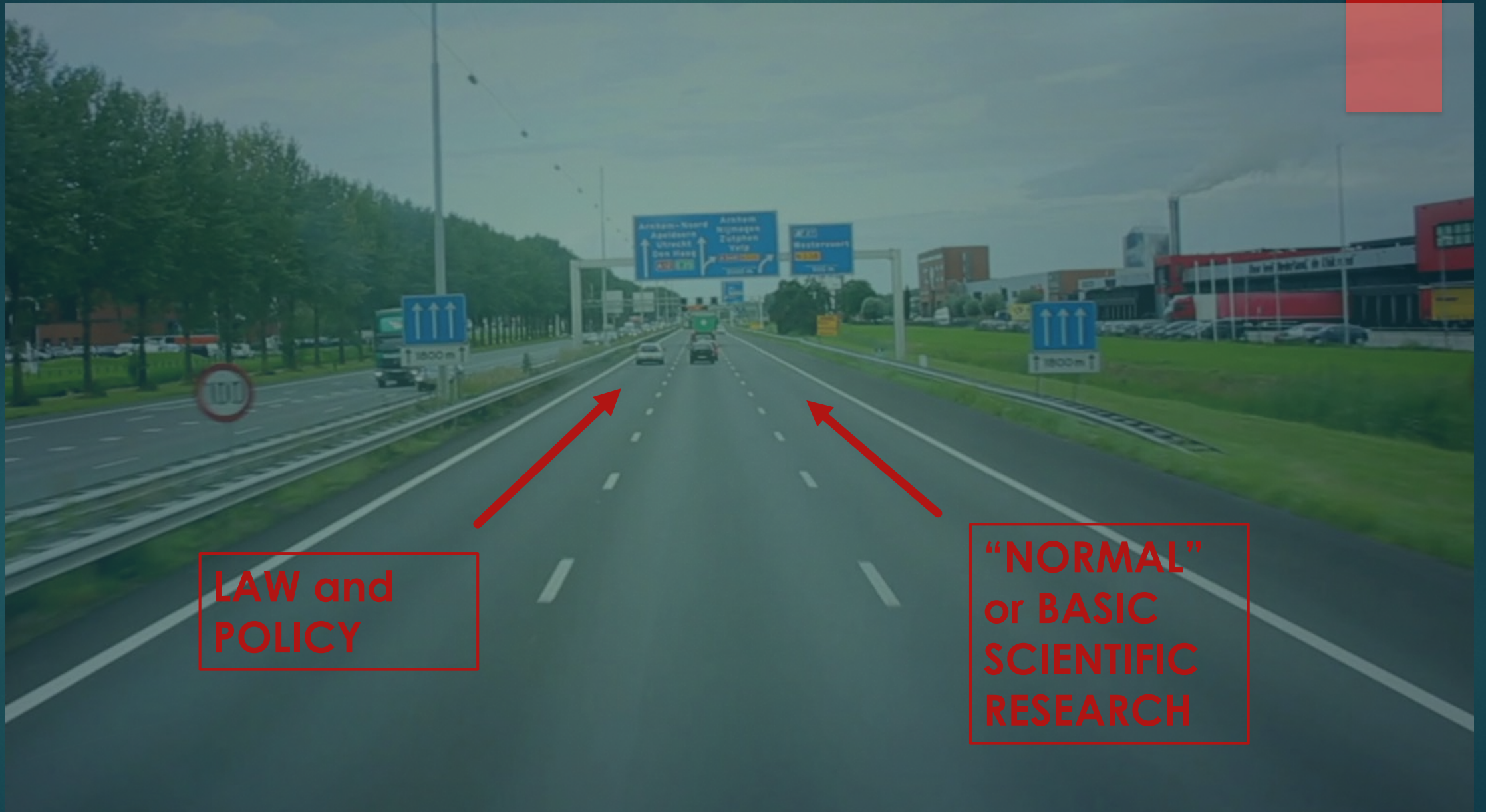
% who say they have ____ trust in scientists to do what is right for (survey public)



Note: Respondents who did not give an answer are not shown.

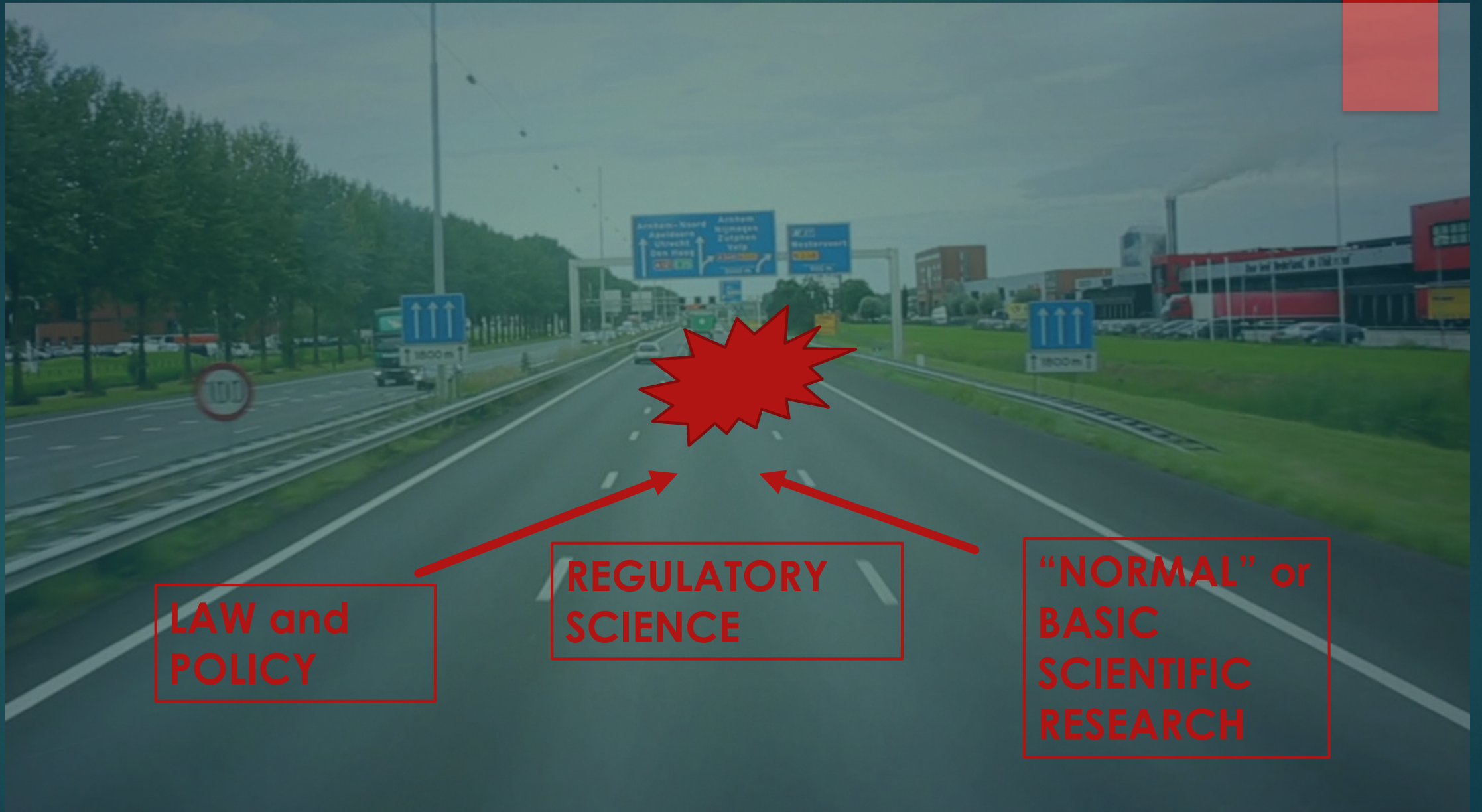
Source: International Science Survey 2019-2020. Q2d.

"Science and Scientists Held in High Esteem Across Global Publics"



**LAW and
POLICY**

**"NORMAL"
or BASIC
SCIENTIFIC
RESEARCH**

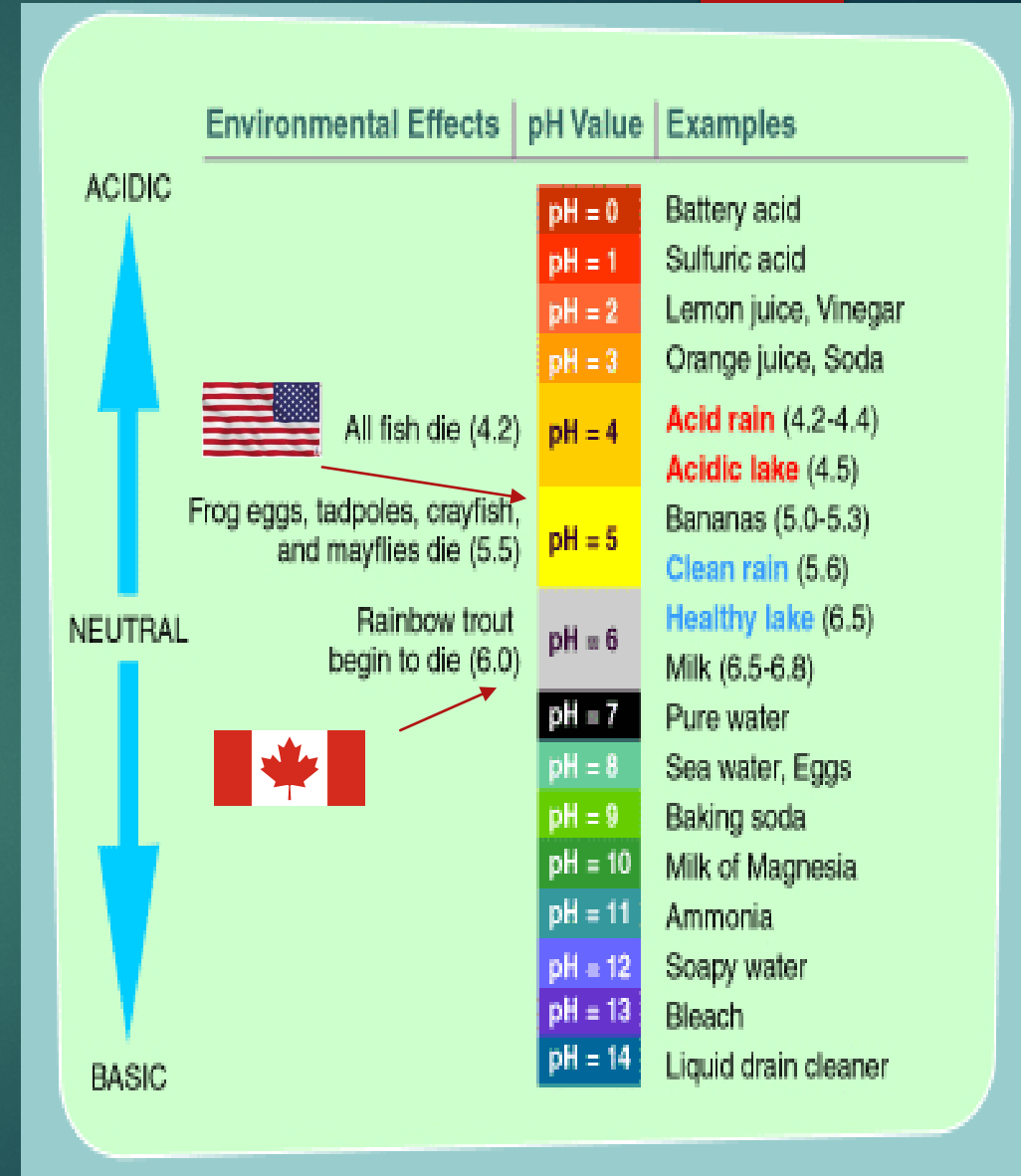


**LAW and
POLICY**

**REGULATORY
SCIENCE**

**"NORMAL" or
BASIC
SCIENTIFIC
RESEARCH**

When is a lake “acidic”?

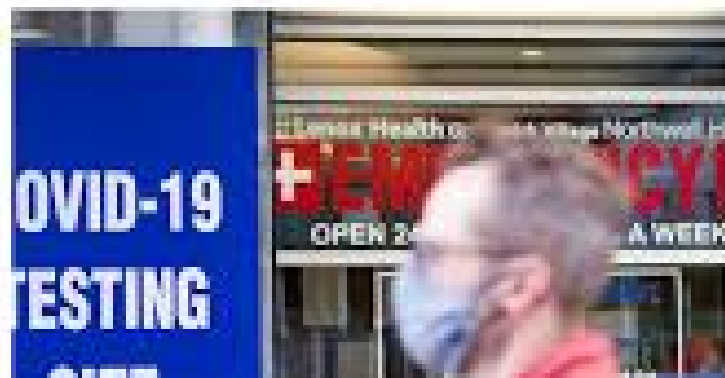


NEWS

Why Do NYC And NY State Report Different COVID Test Positivity Rates?

By Elizabeth Kim

July 28, 2020 11:41 AM EDT



Why is regulatory science vulnerable to mistrust?

- ▶ **Cutoffs have redistributive consequences and appear to “pick winners and losers”**

Why is regulatory science vulnerable to mistrust?

- ▶ Cutoffs have redistributive consequences and appear to “pick winners and losers”
- ▶ **Cutoffs incorporate hidden value choices**

Why is regulatory science vulnerable to mistrust?

- ▶ Cutoffs have redistributive consequences and appear to “pick winners and losers”
- ▶ Cutoffs incorporate hidden value choices
- ▶ **The assumptions necessary to convert uncertainty into calculable risk create ignorance about what was left out**

Why is regulatory science vulnerable to mistrust?

- ▶ Cutoffs have redistributive consequences and appear to “pick winners and losers”
- ▶ Cutoffs incorporate hidden value choices
- ▶ The assumptions necessary to convert uncertainty into calculable risk create ignorance about what was left out
- ▶ **Reliance on expert judgment leads to “jurisdictional struggles” between different groups of experts employing different norms of judgment**

Why is regulatory science vulnerable to mistrust?

- ▶ Cutoffs have redistributive consequences and appear to “pick winners and losers”
- ▶ Cutoffs incorporate hidden value choices
- ▶ The assumptions necessary to convert uncertainty into calculable risk create ignorance about what was left out
- ▶ Reliance on expert judgment leads to “jurisdictional struggles” between different groups of experts employing different norms of judgment
- ▶ **Regulatory cutoffs trigger unforeseen reactions and “boomerang effects”**



Tweet



Sara Pekow

@sarapekow



Brilliant idea from member of my household: socially distanced NYC public school parents should COVID test en masse to bring the numbers down so schools stay open.

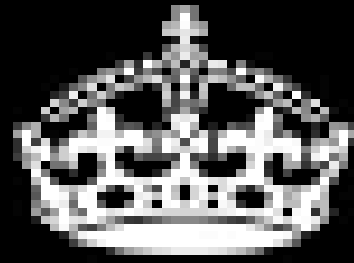
7:33 PM · Sep 29, 2020 · Twitter Web App

Why is regulatory science vulnerable to mistrust?

- ▶ Cutoffs have redistributive consequences and appear to “pick winners and losers”
- ▶ Cutoffs incorporate hidden value choices
- ▶ The assumptions necessary to convert uncertainty into calculable risk create ignorance about what was left out
- ▶ Reliance on expert judgment leads to “jurisdictional struggles” between different groups of experts employing different norms of judgment
- ▶ Regulatory cutoffs trigger unforeseen reactions and “boomerang effects”
- ▶ **Constant change undermines trust in the objectivity and accuracy of the cutoffs**

Breast Cancer Screening Guidelines for Women

	U.S. Preventive Services Task Force ^{1,2}	American Cancer Society ³	American College of Obstetricians and Gynecologists ^{4,5,6}	International Agency for Research on Cancer ⁷	American College of Radiology ^{8,9}	American College of Physicians ¹⁰	American Academy of Family Physicians ¹¹
Women aged 40 to 49 years with average risk	The decision to start screening with mammography in women prior to age 50 years should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin screening once every two years between the ages of 40 and 49 years.	Women aged 40 to 44 years should have the choice to start breast cancer screening once a year with mammography if they wish to do so. The risks of screening as well as the potential benefits should be considered. Women aged 45 to 49 years should be screened with mammography annually.	After counseling and if an individual desires screening, mammography may be offered once a year or once every two years and clinical breast exams may be offered once a year. Decisions between screening with mammography once a year or once every two years should be made through shared decision-making after appropriate counseling.	There is limited evidence that screening with mammography reduces breast cancer mortality in women 40-49 years of age.	Screening with mammography is recommended once a year.	Clinicians should discuss whether to screen for breast cancer with mammography before age 50 years. Discussion should include the potential benefits and harms and a woman's preferences. The potential harms outweigh the benefits in most women aged 40 to 49 years.	The decision to start screening with mammography should be an individual one. Women who place a higher value on the potential benefit than the potential harms may choose to begin screening.
Women aged 50 to 74 years with average risk	Screening with mammography once every two years is recommended. The evidence is insufficient to assess the additional benefits and harms of clinical breast examination.	Women aged 50 to 54 years should be screened with mammography annually. For women aged 55 years and older, screening with mammography is recommended once every two years or once a year. Women aged 55 years and older should transition to biennial screening or have the opportunity to continue screening annually. Among average risk women, clinical breast examination to screen for breast cancer is not recommended.	Screening with mammography is recommended once a year or once every two years. Decisions between screening with mammography once a year or once every two years should be made through shared decision-making after appropriate counseling. Clinical breast exams may be offered annually. Clinical breast exams should be offered in the context of a shared, informed decision-making approach that recognizes the uncertainty of additional benefits and harms of clinical breast examination beyond screening mammography.	There is sufficient evidence that screening with mammography reduces breast-cancer mortality to an extent that its benefits substantially outweigh the risk of radiation-induced cancer from mammography. There is inadequate evidence that clinical breast examination reduces breast cancer mortality. There is sufficient evidence that clinical breast examination shifts the stage distribution of tumors detected toward a lower stage.	Screening with mammography is recommended once a year.	Clinicians should offer screening with mammography once every two years. In average-risk women of all ages, clinicians should not use clinical breast examination to screen for breast cancer.	Screening with mammography is recommended once every two years. Current evidence is insufficient to assess the benefits and harms of clinical breast exams.



KEEP
CALM
AND
FOLLOW
THE SCIENCE

Excerpt from online forum COVID19- TOGETHER, April 2020

- ▶ **Ghost3333:** Why are people still believing the CDC and their guidelines? They have **consistently delivered misleading and reckless advice that has been disproven** and that goes against common sense. [...]I would just treat it as Schrödinger's virus. Everyone including myself both have it and is contagious and also doesn't have it and is immunocompromised and act accordingly. Stay in quarantine until we know more. Don't risk further spread until we have antibody tests and have peer reviewed studies that tell us how long viral shedding goes on for.
- ▶ **OnTheVerge:** What are you talking about Ghost3333? The CDC is one of the only reliable sources of guidance, it's the public officials that don't listen to them that has been causing harm. What misleading/reckless advice have they been delivering? They have been releasing information as they learn more and constantly updating the public with their **constantly evolving understanding** of the virus.
- ▶ **Ghost3333:** "Covid-19 isn't airborne". This was wrong. "Don't wear masks they're not effective". This was wrong. "Just wash your hands and don't touch your face". This was wrong. "Asymptomatic people can't spread the virus". This was wrong. "The virus can't spread on packages". This was wrong "Just quarantine for 14 days if you start feeling sick then you can pop back to work and be around you grandparents again when your symptoms have gone". Whoops you've been symptom free for a week but you are still testing positive, our bad... **Those blindly following official guidelines and not using *their own common sense* are endangering everyone.**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ **Explicit statements of trust/mistrust are often political signaling**
- ▶

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ **Behavioral trust is ubiquitous, inescapable and tacit**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ Behavioral trust is ubiquitous, inescapable and tacit
- ▶ **Trust and mistrust are not opposites**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ Behavioral trust is ubiquitous, inescapable and tacit
- ▶ Trust and mistrust are not opposites
- ▶ **The relevant opposition is between trusting responsibly and trusting "blindly"**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ Behavioral trust is ubiquitous, inescapable and tacit
- ▶ Trust and mistrust are not opposites
- ▶ The relevant opposition is between trusting responsibly and trusting "blindly"
- ▶ **To be a member of society is to share everyday "methodologies" for recognizing and exhibiting when it is responsible to trust and when it would be irresponsible and "blind"**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ Behavioral trust is ubiquitous, inescapable and tacit
- ▶ Trust and mistrust are not opposites
- ▶ The relevant opposition is between trusting responsibly and trusting "blindly"
- ▶ To be a member of society is to share everyday "methodologies" for recognizing and exhibiting when it is responsible to trust and when it would be irresponsible and "blind"
- ▶ **These methodologies involve careful attention to temporality. Trust is like music. Duration, sequence, tempo, resonance, repetition, are of the essence.**

What is trust?

- ▶ People's behavior, as distinct from what they say, demonstrates enormous amount of trust in experts and science.
- ▶ Explicit statements of trust/mistrust are often political signaling
- ▶ Behavioral trust is ubiquitous, inescapable and tacit
- ▶ Trust and mistrust are not opposites
- ▶ The relevant opposition is between trusting responsibly and trusting "blindly"
- ▶ To be a member of society is to share everyday "methodologies" for recognizing and exhibiting when it is responsible to trust and when it would be irresponsible and "blind"
- ▶ These methodologies involve careful attention to temporality. Trust is like music. Duration, sequence, tempo, resonance, repetition, are of the essence.
- ▶ **Overt mistrust of science is a surface phenomenon, one possible reaction to a common, underlying predicament of not knowing how to recognize and exhibit that we are trusting responsibly**