"If the facts don’t fit the theory, change the facts.”

Albert Einstein

It turns out that Albert Einstein was not just a brilliant physicist; he was also insightful about how people think. When facts and theory are in conflict, keep the theory, he suggests. The cognitive sciences now tell us that is basically how people process information about the world. Frames guide understanding, not facts, and when the two are in conflict, people ignore the facts. As FrameWorks President Susan Bales has often summarized, “When the facts don’t fit the frame, the facts get rejected, not the frame.”

Often, issue advocates mistakenly believe that they can build public support by finding a few compelling facts that will help people see an issue in a new way. We have all seen editorials that stress the number of children that live in poverty, or the millions of acres of rainforest that disappear in a given time period, or the rapidly increasing rate of uninsured adults, as though the numbers alone will cause the public to demand action.

In reality, however, most people do not develop policy stands by studying statistics or a stack of policy briefs. Most people develop a perspective on a particular policy based upon prior experiences (including second-hand experiences offered up by media) that shape how they see the world. In a quote often used by FrameWorks colleagues to drive home the power of frames, Deborah Tannen explains: “People approach the world not as naïve, blank-slate receptacles who take in stimuli …in some independent and objective way, but rather as experienced and sophisticated veterans of perception who have stored their prior experiences as an organized mass. This prior experience then takes the form of expectations about the world, and in the vast majority of cases, the world, being a systematic place, confirms these expectations, saving the individual the trouble of figuring things out anew all the time.”

This means that most people approach a social issue with some prior experience that influences their understanding of that issue, and facts are unlikely to alter that deeply-
held worldview. For example, if a person had to pay his or her own way through college and felt that experience taught important life lessons about self-reliance and hard work, then simply stating that millions of young people cannot afford to go to college will not cause that individual to support taxpayer-financed college tuition. Instead, an effective communicator has to find a different frame, or lens on the issue, that will cause the public to see the issue in a completely different way that will not trigger values that undermine support, such as self-reliance.

In a recent study concerning public attitudes about race and racism, focus group participants clearly demonstrated that statistics are ineffective in changing a person’s preconceived notions about race and crime. Focus group participants were asked to read and respond to the following fictional article that asserts that not only is racial profiling immoral, it is also inefficient, because race is not an accurate indicator of drug trafficking.

### Test Article:
**Declining Trust in Law Enforcement**

A new survey released today indicates that public trust in the law enforcement system has dropped substantially among minorities, undermining the legitimacy of the criminal justice system, and hindering effective policing in minority communities. Only 20% of Latino and African American survey respondents say they have “a lot of faith” in local law enforcement, compared to 85% of white respondents.

One reason for declining trust is the continuing practice of racial profiling, according to civil rights activists. Reginald Wilson, executive director of the Black Ministers Council stated, “Policymakers underestimate the burden placed on innocent people stopped by law enforcement officers because of racial profiling. These incidents lead to a reasonable fear of police officers, and risk alienating communities while doing little to serve law enforcement.”

Daniel Nelson is a typical example of how trust is undermined by racial profiling. Nelson is a well-dressed young African American man who works as an accountant. Last month he was stopped by state troopers: “It was early in the morning and I was driving my Ford Explorer when I saw the blue lights of a patrol car. My heart sank because I was worried about being late for a job interview, but I thought it wouldn’t take long. Instead of simply asking for a driver’s license, the trooper called for backup and started to go through every inch of the Explorer, pulling off door panels and looking under the carpet. They said they were looking for drugs, but of course they found nothing. Afterwards, sitting in my trashed SUV, I wept in anger and humiliation.”

Though publicly decried, police departments across the country continue to train police officers to profile based on race, ethnicity, and religion. In fact, the Drug Enforcement Administration’s Operation Pipeline, which was intended to disrupt the shipment of cocaine on highways, emphasized the correlation between drug trafficking and racial characteristics. According to Jim Davis, a New Jersey state trooper, “Our supervisors trained us to focus on black- and brown-skinned drivers because we were told they were more likely to be drug traffickers.”

The reality, however, is that the “hit rate” – the percentage of searches in which contraband is found – is the same for black and white drivers according to studies conducted in Maryland, New Jersey, and California. But African American and Latino drivers are far more likely to be stopped and searched, according to a new U.S. Department of Justice report. Even when all factors are taken into account, such as the neighborhood’s ethnic makeup, crime rate, etc., African American and Latino drivers are 2-3 times as likely to be stopped and searched as white drivers. “Racial profiling not only constitutes discrimination; it is also an unsound, inefficient method of policing,” noted trooper Davis. And the impact, according to Wilson, “Extends beyond direct victims to negatively affect all persons of color, because we all lose faith in law enforcement when we hear about these injustices.”

The statistics did not convince focus group participants to see the issue in a new way. In fact, several focus group participants twisted the statistics to fit their existing worldview that people of color are more likely to be involved with drugs than white people. “Maybe
10 white people were stopped and two people had drugs on them, that's 20 percent. Say 100 black people were stopped and 20 of them had drugs, it's the same percentage and there were more hits, more stops on black people. That's what I'm saying. So 20 is still a far greater number than 2,” asserted a non-college-educated white woman from New Mexico.

In fact, when focus group participants were confronted with factual information that did not conform to their existing worldview, they were more likely to question the facts than discard their existing frame of understanding. Note the following conversation from a mixed race group in Los Angeles in which focus group participants were so confounded by the facts that they rejected them, reinterpreted them, or gave up in confusion. They did not, however, question their belief that people of color are more likely to be involved in crime and drugs:

Woman: It says the hit rate is the same for black and white. It has to be that there is a stereotype going on in their mind, which in their mind it may be an -- I had this discussion with my own son before about the racial profiling. He says it is a numbers thing. If you look at the statistics, the percentages in the prison system are higher for minorities whether they be Latin or black. He feels the cops, based on that, got it figured their odds are pretty good of busting somebody for something because they are the ones that are in the prison. That is what he thinks.

Man: If you look at the last paragraph here it says the hit rate is the same. Is it one in 100? Whatever it is but then it says, when all factors are taken into account, African American and Latino drivers are two to three times as likely to be stopped and searched. If they are searching them two to three times as often but they're still coming up with the same hit rate, then maybe there is a reason. Maybe that is justifying. Maybe they're saying yeah, these people unfortunately, maybe they're the ones that are just as likely as anyone else. We stop 300 minorities and 100 non-minorities and the 300 minorities we got the same percentage of people. Even though we're stopping more minorities as a part of the percentage of the population, we're getting hits.

Woman: That's where reading stuff like that where they talk about percentages, you don't know really because you are saying if the hit rate -- if they are pulling over 600 blacks versus 300 whites but their hit rate is the same, what does that mean really? Are they arresting or finding crime at a same percentage? But it's based on what? I don't know whether that is a fair assessment. I don't know. I'm confused.

Another stellar example of fact distortion comes from FrameWorks’ research on adolescence. In 2000, we tested whether or not improving statistical trends could alter the public’s pre-existing perception that teens are far worse off than prior generations. Focus group participants were asked to read a news story that attempted to convince them that teens are not in crisis. It outlined all the positive trends in key indicators, while tempering the good news with the caution that there is still room for improvement and some areas are worse. The intent of this story was to use good news about teens (trend statistics) and point to societal solutions as explanations (communities as a key force in raising healthy children).
Focus group participants reacted to the positive statistics with disbelief and skepticism. They were so focused on trying to fit the statistics into their knowledge of the world that they largely ignored the suggested solution of nurturing communities.

Most people simply did not believe the statistics. “I questioned almost the whole story,” a father of a teen stated. A mother of a younger child queried, “How did they do this poll?” Another asked, “40% of youth involved in community service? That seems awfully high.” “A meteor? I mean how many times has a human been hit by a meteor?” argued an older man.

Others skeptically looked for some explanation that would make the statistic technically true, but not with the intended definition. “But is it forced community service?” asked a mother of a younger child attempting to understand the statistic that 40% of teens volunteer. “Well that’s because the schools make it mandatory now,” explained an older woman. “Kids today use marijuana less than their parents did,” read a father of a teenager, “maybe, maybe not. But it doesn’t mention anything about other substances.”

A few re-defined the positive statistics as negative. “Here we are now in 2000 and you would think that with all the technology that we have, 30 years later, you would think they would have more tools to work with that could provide better education,” a father of a younger child complained.
Focus group participants concluded that the objective of this story was to rationalize further cuts for children. “They are going to cut something because we’re doing so great or they are going to take something away,” suggested a mother of younger child. A father of a teenager asked, “Is that an organization run by whatever party is in power to cook the books or the stats to make it look like ‘Hey, we’ve done a great job’ when maybe we haven’t?”

Finally, to test the common wisdom that statistics alone cannot change public perceptions, we conducted an experimental survey. Four thousand survey respondents were divided into three groups and exposed to one of the following: positive facts about adolescents, negative facts about adolescents, or no facts.

**Experiment 1 – Positive Statistics**
Please tell me if you remember hearing any of the following facts that have recently been reported in the news:

1. A majority of youth participate in civic activities such as volunteering; that figure is higher than 30 years ago
2. Two thirds of high school graduates go immediately on to college
3. High school seniors overwhelmingly choose having a good marriage and family life as their most important goal, more than chose it 20 years ago

**Experiment 2 – Negative Statistics**
Please tell me if you remember hearing any of the following facts that have recently been reported in the news:

1. The percentage of students reporting street gang presence at school nearly doubled over the past ten years
2. There have been no gains over the past 15 years in addressing the drop out rate among high school students
3. Marijuana use among high school seniors has been increasing and is now at its highest point

After being exposed to one of three scenarios – positive statistics, negative statistics, or no statistics – all survey respondents were asked their opinion of a series of policies for young people, of increasing taxes to provide more funding for programs for youth, and of personality characteristics to describe young people. The facts had no statistically significant impact on response. Survey respondents were no more likely to strongly favor increasing taxes (43% strongly favor among those who received no facts, 42% among those who heard negative facts, 41% among those who heard positive facts). Surprisingly, they were also no more likely to associate positive or negative personality traits with teens and they did not change their priority of policies for young people.

In summary, unframed facts are not influential. Advocates cannot rely on facts and statistics alone to persuade opinion. Instead, effective communicators change the frame
so that people can hear the issue in a new way. Facts then provide important support to the new frame, when the facts are linked to broader values and meaning that allow people to incorporate new information into how they think about these issues. As in most aspects of framing, order matters – the facts can help drive home the frame, but they cannot replace it. This is why the FrameWorks research team recommends editing fact sheets to first set up a frame of interpretation, then to supply the data that prove that point. Doing that does not mean “cooking” the numbers; rather, it means adding meaning into the mix so that ordinary people can see the numbers with something approximating the way that statisticians do. As Risk Management theorist Nassim Nicholas Taleb has observed, “the (human) emotional system can be an extremely naïve statistician.” Using social math with its built-in analogies, reducing the number of numbers, using simplifying models, etc. – these are all frame devices designed to help people see the truth behind the numbers and to make more astute policy judgments.

**About FrameWorks Institute:** The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute’s work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector at www.frameworksinstitute.org.

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