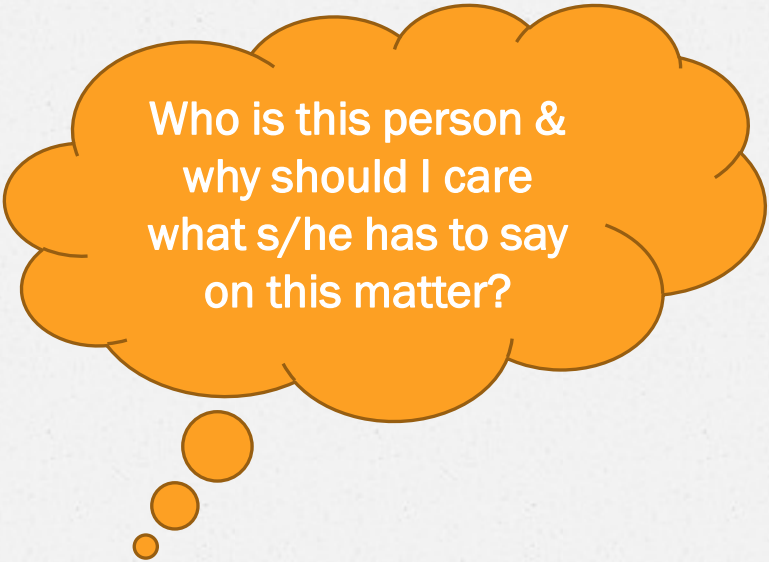




**AUTHORITIES &
STATISTICS**

I. AUTHORITIES

- ❑ What makes a person an **AUTHORITY** on a subject?



Who is this person &
why should I care
what s/he has to say
on this matter?

I. AUTHORITIES

(1) CREDENTIALS:

□ A) EDUCATION:

- What **level of education** does the person have
 - *in this particular field of study?*
- What **school** or **type of school** was it earned?
- associate's degree **vs.** PhD, MD, MBA
- from LCCC **vs.** Harvard, Brown, Rice, Yale

***NOTICE how the person's *authoritativeness* changes with these qualifications**

I. AUTHORITIES

(1) CREDENTIALS:

B) OCCUPATION:

- o What **work experience** does the person have
 - *in this particular field of study?*
- o **How long** have s/he been involved in this field?
 - orderly at psychiatric hospital **vs.** licensed psychologist
 - 2 years experience **vs.** 20 years experience

***NOTICE how the person's *authoritativeness* changes with these qualifications**

I. AUTHORITIES

(1) CREDENTIALS:

□ C) ASSOCIATIONS & AFFILIATIONS:

- Beside education & work, how else is the person **involved**
 - *in this particular field of study*
- In what **capacity**?
 - recreational, professional, local, national, federal
- local PTA, den mother, basketball coach **vs.**
- pharmacist at Medicine Shoppe **vs.** NEA, CDC, NRA

***NOTICE how the person's *authoritativeness* changes with these qualifications**

I. AUTHORITIES

(1) CREDENTIALS:

D) ACHIEVEMENTS:

- o What have they **done to further** the field?
 - writings, studies, publications, presentations,...
- o published in Times Leader editorial **vs.** Washington Post editorial
- o published in Reader's Digest **vs.** published in scholarly journal (Shakespeare Quarterly),
- o research in the field, presentation at conferences, professional awards in the field

***NOTICE how the person's *authoritativeness* changes with these qualifications**

I. AUTHORITIES

BUT

- ❑ If the topic = patient care, then the orderly or nurse makes just as reliable an authority as the doctor.
- ❑ Also, just because individuals studied at Stanford University, that doesn't automatically make them right on the topic.
- ❑ Also, **beware** of **false or misleading credentials**.
 - For example, Bill Clinton, in a transparent attempt to gain credibility and votes, claimed to be a Rhodes Scholar. In point of fact, he attended Oxford University only briefly and was booted for poor grades. Not only did he not receive a degree from the university, he became the joke of the town of Oxford as well.

I. AUTHORITIES

BUT

- It's a combination of all their credentials that makes them good/reliable authorities
 - the whole, not the parts

I. AUTHORITIES

2. BIAS:

☐ A) Topic = gun control

☐ B) Sources =

- parent who lost son/daughter in gun-related accident
- president of the NRA
- the leader of a militia
- a conscientious objector, Quaker, pacifist

***NOTICE how the person's *bias* is a bit different depending on these changes**

I. AUTHORITIES

2. BIAS:

- ❑ *Although you do not want to rely solely or heavily upon a biased source, you may be able to perform some “**damage control:**”
 - admit the bias
 - use other sources
 - defend or qualify or “spin”

I. AUTHORITIES

3. HOW to INTRODUCE AUTHORITIES:

❑ A) conjunctive adverbs:

- o Furthermore, However, Additionally, On the other hand, On the contrary,
- o (*relate authority to your topic, authority=support of your ideas)

❑ B) “according to”

- o Name (with title) + credentials

❑ C) credentials: “Furthermore, according to Dr. Jane Doe,

- o professor of bioethics (*on topic*) at Stanford University
- o author of such papers as — (*on topic*)
- o the award-winning psychologist (*on topic*)
- o the leading scientist in the field who has performed numerous studies on — (*on topic*)”



II. STATISTICS

“There are three kinds of lies: lies, damned lies, and statistics.”

❑ (often attributed to Mark Twain in his autobiography)



II. STATISTICS

- ❑ #, %
- ❑ *numbers, percentages, figures*
- ❑ *charts, tables, graphs*
- ❑ quantitative
 - expressed as a quantity, measurement

II. STATISTICS

CRITICAL ANALYSIS of STATS

□ Appropriate Use of Stats:

- (Critical Thinker's Question: **Are the figures...?**)
 - reliable, accurate, relevant, from an unbiased source,
 - altered, interpreted, contextualized, qualified,
 - complete, representative

□ Interpretation of Figures:

- **charts, graphs, tables** –
 - Anything left out, omitted, ignored?
 - Anything exaggerated?
 - Anything labeled incorrectly?
 - Where did it come from?
 - Who compiled it? Who **PAID** for it?
- Were the figures **converted in to percentages?**
- Were the figures **rounded off, up?**

II. STATISTICS

(2) MISLEADING:

- ❑ **BEWARE** of misleading stats
- ❑ **EX:** “4 out of 5 dentists recommend Trident for patients who chew gum”
 - % =?
 - Which sounds better, more impressive?
 - How many people surveyed? Ages, sex, area, ...?
 - How many patients chew gum? How often?

II. STATISTICS

(3) TOO MANY:

- ❑ **BEWARE** of a “shock & awe” usage meant to “baffle”
- ❑ **EX:** “Forty-six million women have long hair, and 38 million have short hair. Of that number, 36% have straight hair, while 22% have curly hair. Take that 36%, and two-thirds are blondes and 14% of that 33% are strawberry blondes....”
 - o (*see also #3 on p. 110)

II. STATISTICS

(4) PROPER USE of STATS:

❑ A) qualify to diminish the fact

- o only, just, just under
- o merely, barely, simply

❑ B) qualify to exaggerate the fact

- o an amazing, incredible
- o an unbelievable, enormous
- o extremely, exceedingly
 - 15" tires (+/-)
 - 500,000 people (+/-)

As a READER:

- Does the source explain the #?

As a WRITER:

- You should **explain, qualify, contextualize** any # you use
- Don't just throw it in there **as if it's proof in & of itself**

II. STATISTICS

(4) PROPER USE of STATS:

□ C) contextualize the number

- put it into some kind of context
- that readers can relate to
- EX: My car has 15" tires
 - (+/-) Is that good or bad?
 - depends on the type of car
- EX: 500,000 people
 - (+/-) Is that a lot of people?
 - 5 filled Beaver Stadiums

As a READER:

- Does the source explain the #?

As a WRITER:

- You should **explain, qualify, contextualize** any # you use
- Don't just throw it in there **as if it's proof in & of itself**

II. STATISTICS

(4) PROPER USE of STATS:

□ D) give more information:

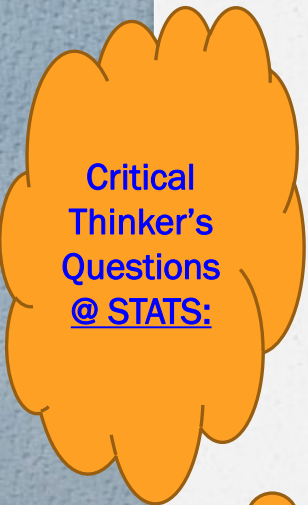
- as a writer, give the place
- as a reader, the place should be given
 - for further information or investigation or clarification of the statistics
- places include
 - Web sites, toll-free telephone numbers,
 - reference books, or a bibliography for “further reading”

II. STATISTICS

(4) PROPER USE of STATS:

□ D) * EXPLAIN, INTERPRET, INFER:

- * put stat/fact/numbers into some *context*
- * make an *analogy*
 - 500,000 people: “imagine 5 Beaver Stadiums at capacity”
 - “What this means is...”
 - “What this translates into is...”
 - “In other words, ...”
 - “To grasp the severity/enormity of this figure, imagine the entire state of Pennsylvania...”



Critical
Thinker's
Questions
[@ STATS:](#)

- Who paid for it?
 - What was asked?
 - Who was asked?
 - When they were asked?
 - Were the numbers adjusted?
 - What's the margin of error?
 - Are the figures
 - reliable, accurate, unbiased source, relevant
 - altered, complete, representative
 - interpreted, contextualized, qualified
 - Anything left out, omitted, ignored?
- Anything exaggerated?
 - Anything labeled incorrectly?
 - Where did it come from?
 - Who compiled it?
 - How are the #s being used to manipulate?
 - Are the figures contextualized?
 - Are the numbers
 - Why is it going on sale?
 - Is it cheaper?
 - Motives for taking polls, asking questions?
 - Original price?
 - Who set price? MSRP, mpg,...?
 - explained, interpreted?