

SOC 3811/5811:  
BASIC SOCIAL STATISTICS

Percentiles and Standardized Scores

# Questions?

(About the recorded lecture, assignments, etc...)

**Send a note via chat in Zoom ... I'll answer them now!**

# States' NAEP 2019 Reading Test Scores, by Race/Ethnicity

WHITE	Cum. %	BLACK	Cum. %	LATINX	Cum. %
256	2%	235	2%	241	2%
261	4%	236	15%	243	4%
265	8%	237	17%	246	8%
266	16%	238	20%	247	13%
267	25%	239	29%	248	19%
268	37%	240	34%	249	27%
269	47%	241	39%	250	40%
270	51%	242	46%	251	58%
271	63%	243	56%	252	60%
272	71%	244	66%	253	69%
273	76%	245	68%	254	71%
274	84%	246	80%	255	77%
275	88%	247	83%	256	83%
277	92%	248	88%	257	85%
279	96%	249	90%	258	92%
281	98%	250	93%	259	100%
299	100%	251	98%		
		259	100%		

$$\bar{Y}_{White} = 270.1; sd_{White} = 6.0$$

$$\bar{Y}_{Black} = 242.9; sd_{Black} = 5.1$$

$$\bar{Y}_{Latinx} = 251.8; sd_{Latinx} = 4.3$$

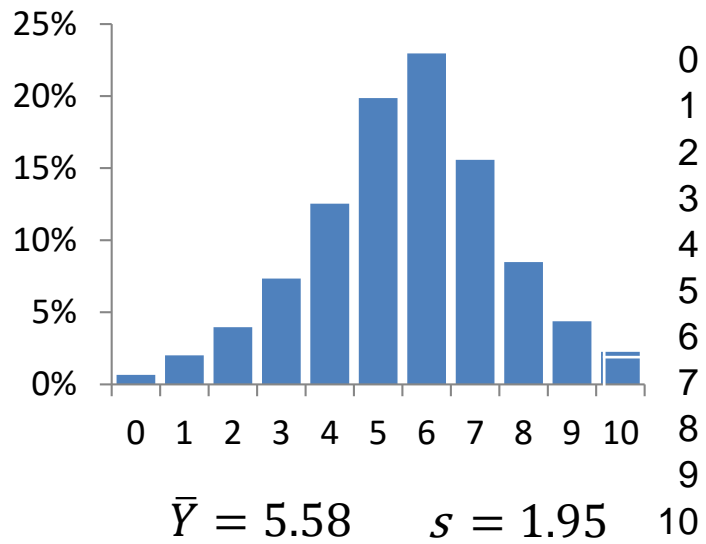
Minnesota's reading test scores in 2019 were 271 for Whites, 236 for Blacks, and 247 for Latinx.

1. For each race/ethnic distribution, what was Minnesota's percentile ranking?
2. For each race/ethnic distribution, what was Minnesota's Z score?
3. Interpret these findings! What do they mean? What have you learned about reading achievement in MN?

# Vocabulary Test

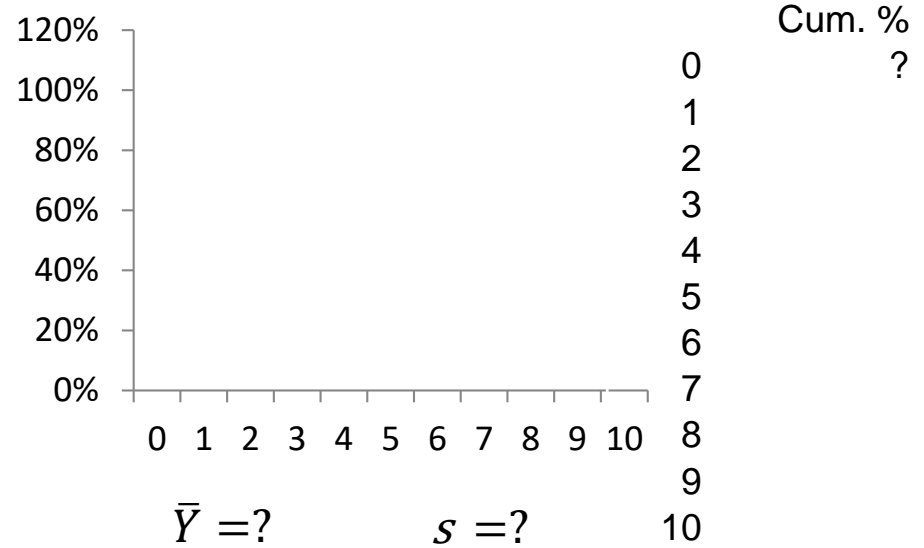
- A. **SPACE** 1. school 2. noon 3. captain 4. room 5. board
- B. **BROADEN** 1. efface 2. make level 3. elapse 4. embroider 5. widen
- C. **EMANATE** 1. populate 2. free 3. prominent 4. rival 5. come
- D. **EDIBLE** 1. auspicious 2. eligible 3. fit to eat 4. sagacious 5. able to speak
- E. **ANIMOSITY** 1. hatred 2. animation 3. disobedience 4. diversity 5. friendship
- F. **PACT** 1. puissance 2. remonstrance 3. agreement 4. skillet 5. pressure
- G. **CLOISTERED** 1. miniature 2. bunched 3. arched 4. malady 5. secluded
- H. **CAPRICE** 1. value 2. a star 3. grimace 4. whim 5. inducement
- I. **ACCUSTOM** 1. disappoint 2. customary 3. encounter 4. get used to 5. business
- J. **ALLUSION** 1. reference 2. dream 3. eulogy 4. illusion 5. aria

## GSS Data



Score	Cum. %
0	1%
1	3%
2	7%
3	14%
4	26%
5	46%
6	69%
7	85%
8	93%
9	98%
10	100%

## CLASS Data



What is your **percentile** ranking compared to (1) Americans in the GSS and (2) the class?  
 What is your **Z score** relative to (1) Americans in the GSS and (2) the class?

**BE PREPARED TO INTERPRET!**