Job applicants sometimes alter their name and experience to appear more "white." In a 2016 study<sup>[1]</sup> sociologists counted callbacks for fictitious resumes sent to randomly-selected job advertisements that differed only in the whitening of name and experience, like those shown here. Some of their data follow.

Lamar J. Smith	L. James Smith
Aspiring African-American Business Leaders	Aspiring Business Leaders
University Black Students' Association	University Students' Association
Lei Zhang	Luke Zhang
Aspiring Asian-American Business Leaders	Aspiring Business Leaders
University Asian Students' Association	University Students' Association

	Original Version		Whitened Version			
Race of	Unwhitened		Name & Experience		Total	
Applicant's	Resumes	Call-	Resumes	Call-	Resumes	Call-
Name	Sent	backs	Sent	backs	Sent	backs
Black	200	20	200	51	400	71
Asian	200	23	200	42	400	65
Total	400	43	400	93	800	136

a) What parameter and populations did the sociologists investigate?

b) Construct and interpret 95% confidence intervals for

- > the proportion of all whitened resumes that get a callback
- > the proportion of all unwhitened resumes that get a callback
- > the difference in proportions of whitened and unwhitened resumes that get a callback.
- c) What conclusions can you draw?

<sup>&</sup>lt;sup>[1]</sup> Kang SK, DeCelles KA, Tilcik A, Jun S; Whitened Resumes: Race and Self-Presentation in the Labor Market, *Administrative Science Quarterly* 1-34 (2016)