FOR OFFICE USE ONLY

DATE RECEIVED: ***06/12/2024*** *DATE APPROVED:* ***06/12/2024***

FILE NUMBER: ***#24-050***

APPLICATION FOR STATISTICAL CONSULTING

LAST NAME**:** Nodar FIRST NAME: Leah

DEPARTMENT (full name): Linguistics CAMPUS MAILING ADDRESS: Stanley Coulter

PHONE: 2515995000 EMAIL ADDRESS: lnodar@purdue.edu

YOUR PRIMARY POSITION AT PURDUE: PhD Student

Other:

(if a student) MAJOR PROFESSOR LAST NAME: Roberts FIRST NAME: Felicia

PHONE NUMBER: 765-494-3323

MAJOR PROFESSOR CAMPUS ADDRESS (BLDG & DEPT): Communications / Beering

MAJOR PROFESSOR EMAIL: froberts@purdue.edu

HOW DID YOU FIND US: Recommendation of my advisor or committee member

LIST STATISTICS COURSES TAKEN AND STATISTICAL COMPUTING EXPERIENCE: Introductory stats for social scientists, introductory probability theory

Intermediate R

STAGE OF RESEARCH: Presently collecting data

IF DESIGN STAGE IS COMPLETE, WAS A STATISTICIAN CONSULTED FOR DESIGN? No

PREVIOUS CONSULTANT – INSTITUTION/DEPARTMENT:

ESTIMATED NUMBER OF CONSULTING HOURS NEEDED THIS SEMESTER: <5 hours

EXPECTED COMPLETION DATE OF PROJECT: 10/31/2024

IMPORTANT DEADLINE OR DUE DATES RELATED TO YOUR PROJECT: Major professor not available before 9 July or from 17-21 July

THE RESULTS OF THIS RESEARCH WILL PROBABLY BE PUBLISHED AS:

Ph.D Dissertation

IS THIS RESEARCH SUPPORTED BY A GRANT OR CONTRACT? No

If so, give grant/contract title:

GIVE A BRIEF DESCRIPTION OF YOUR RESEARCH INCLUDING:

PURPOSE:

In this project, I want to know whether two groups of people who in the early 20th century spoke very different dialects of English continue to speak differently in the 1970s and 1990s, or if their dialects have converged. The two groups are the people of Africatown, AL and those of Mobile, AL.

Within linguistics, this is of interest first because Africatown has a unique dialect that has not been studied before, and second because in Africatown we have documentation of a town founder's earliest stage of the dialect in the 1920s, so following this across later time periods may tell us something new about how dialects develop overall, with implications for other language change.

DESCRIPTION OF VARIABLES TO BE MEASURED:

Because this is a social and historical analysis, there is no experiment. The data is constrained to the audio available to me from the two time periods mentioned, which is a small number of people. For each time period, I have Group A, descendants of the original Africatown founders; Group B, people who were born and raised in Africatown but are not direct descendants; and Group C, people from Mobile, AL.

1970s

Group A: 2 people

Group B: 2 people

Group C: 7 people

1990s:

Group A: 3 people

Group B: 4 people

Group C: 11 people

For each person's audio, I am currently marking up seven linguistic variables (pronunciations or grammatical features). These seven variables were chosen based on previous research that analyzed the documentation of speech from the 1920s of a founder of Africatown.

As an example, one feature is the pronunciation of "th" sounds as "d" (as in "dey, dese, dose" vs "they, these, those"). For each person I have followed linguistic criteria to determine ~60 potential environments (places where this sound could occur) and then checked the audio and spectrogram for

each of those environments to determine whether the person actually pronounced it with "th" or "d" (or neither).

The other variables are similar: based on linguistic criteria, determination of the environments in each person's speech where a feature could occur, followed by a check for whether it does occur. Generally there are at least 50-100 potential environments per variable.

When the data markup is complete, the desired outcome is to determine whether as a whole this collection of seven features indicates that the groups of speakers have significantly different speech patterns.

RESEARCH QUESTIONS THAT YOU WANT TO ADDRESS USING STATISTICAL METHODS:

In the 1970s, do descendants of Africatown founders (Group A) pattern significantly differently in speech than Mobilians (Group C) with respect to the collection of seven linguistic features under consideration?

In the 1970s, do people raised in Africatown (Groups A and B together) pattern significantly differently in speech than Mobilians (Group C) with respect to the collection of seven linguistic features under consideration?

In the 1990s, do descendants of Africatown founders (Group A) pattern significantly differently in speech than Mobilians (Group C) with respect to the collection of seven linguistic features under consideration?

In the 1990s, do people raised in Africatown (Groups A and B together) pattern significantly differently in speech than Mobilians (Group C) with respect to the collection of seven linguistic features under consideration?

STATISTICAL ISSUES:

What is the most appropriate statistical process for testing differences between groups containing speakers containing linguistic variables?

Are there additional steps I can take to increase my confidence in my results despite the small number of speakers?

ADDITIONAL INFORMATION YOU THINK WOULD BE HELPFUL:

I've attached an outline of the way each of the seven variables is dealt with, though I'm not sure if this is useful to you or if it will be too far into the technical linguistic side of things. I have not had a stats consultation before, so if there is something else that would be helpful, please let me know and I'll be glad to pass it along.

ATTACHMENTS:

Attchment in clients folder