

Perceptions of “Southern” in Utah English

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## ABSTRACT

### Perceptions of “Southern” in Utah English

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In this study, two experiments are conducted to study language regard of Utah English. Experiment 1 is a draw-a-map study wherein participants were asked to mark areas on a map to of Utah where people speak differently (Preston 1989; Bucholtz et al. 2007). Experiment 2 uses a new research method, referred to here as a “perceptual audio survey”. With this method, participants are asked to listen to recordings of native English speakers and identify where in Utah the speaker is likely from (Preston 1996:320-328; Cramer & Montgomery 2016:11). Crucially though, the speakers used in this experiment were from throughout the United States and not limited to Utah. Although participants were not explicitly deceived into believing these speakers were native Utahns, this is greatly implied. Generally, speakers with features of Southern United States English (SUSE) are far more likely to be placed in rural areas. The data also shows that participants favored placing age 20-49 speakers in urban areas and age 50+ speakers away from urban centers. The data from both experiments is cross-examined, revealing certain perceptual alignments and misalignments held by Utahns. Although speakers with features of SUSE are placed in rural areas, there is no objective linguistic evidence to show that speakers in these areas have features of SUSE. This illustrates that features of SUSE are indexed as being part of rural regions of Utah by Utahns. Other regions of Utah, namely the Wasatch Front and St. George, are labeled as “California” in the draw-a-map task. When presented with California English speakers in Experiment 2, however, participants mainly placed these speakers along the Wasatch Front and not St. George. So, perceptions of certain regions don’t necessarily align across experiments. Overall, this study has a great deal to contribute to the ongoing studies of Utah English, language regard, and perceived Southern-ness in certain regions of rural America (Hall-Lew & Stephens 2012; Podesva et al. 2015).

Keywords: variation, language regard, perceptual dialectology, United States

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## 1 Introduction

This study seeks to better understand various aspects of language regard in Utah using two experiments. The first experiment employs the draw-a-map task, a tool popularized by Preston (1989), which is commonly used to study non-linguists' views about regional accents. In the draw-a-map task, participants are given a map of Utah and asked to circle and label regions where English is spoken differently. The second experiment uses a method original to the present study. This new method, referred to throughout this paper as the “perceptual audio survey”, provides participants with recordings of a native speakers of American English and asks participants to place this person somewhere on a map of Utah. Most of the speakers used aren’t from Utah, so this method requires participants to rely solely on their biases towards regions in Utah to place the speakers on the map.

One speaker presented to participants in the perceptual audio survey is a 60-year-old female from Milwaukee, Wisconsin, who has several features of the Northern Cities Shift in her variety of English, including a feature where pre-velar /æ/ is raised to /ɛ/, a feature more commonly referred to as “BAG-raising” (Zeller 1997). In response to this, one participant wrote in the feedback section of the survey: “I'd be curious to see if the "baygs" were Utahns, because that's a thing I associate with the upper midwest, and I think it's something I've heard in northern Utah/Cache Valley, but I'm not certain.”

This comment lines up with other studies of language regard, including one by Niedzielski (1999) in which perceptions of the Northern Cities Shift in Detroit were examined. According to Preston (1989), Michiganders generally have a high level of

security in their language. Niedzielski sought to understand if Michiganders' linguistic security was derived from believing their shifted vowels were "correct" or simply an inability to recognize the shifted vowels. Niedzielski (1999) found that "even when faced with acoustic data that suggest otherwise, Detroit respondents select standard vowels as those that match the vowels in the speech of fellow Detroiters." Preston (2018:11) offers his thoughts on this finding, saying:

*"My favorite phrase to describe this phenomenon is, 'Your brain gets in the way of your ear.' That is, a language regard feature ('We're standard speakers around here') interferes with linguistic evidence (a vowel that the hearers do not associate with their imagined standard speech is ignored and recast as one that matches their perception)."*

While Preston and Niedzielski are discussing perceptions of a standard or "correct" variety of English, the same can be said of the participant who made the comment about "baygs" in Northern Utah. Despite not having concrete knowledge that BAG-raising as a feature exists in northern Utah, this participant knows this feature isn't standard and therefore associates it with a region they believe speaks a nonstandard variety of English.

Using a combination of the draw-a-map task and the perceptual audio survey, the present study seeks to not only expand the growing body of research on Utah English, but to also expound on Preston's quote above, giving further insights into how non-linguists perceive their spoken variety. The present study provides evidence that shows how

biases toward and beliefs about certain regions in Utah affect how speakers perceive not only the English spoken in said regions, but the people there as well. For the remainder of this chapter, a brief history of the present study will be provided, followed by a discussion about the key terms “rural” and “urban” and their use in the present study, and finally, an outline of this paper and some of its main findings.

## 1.1 Project History and Research Questions

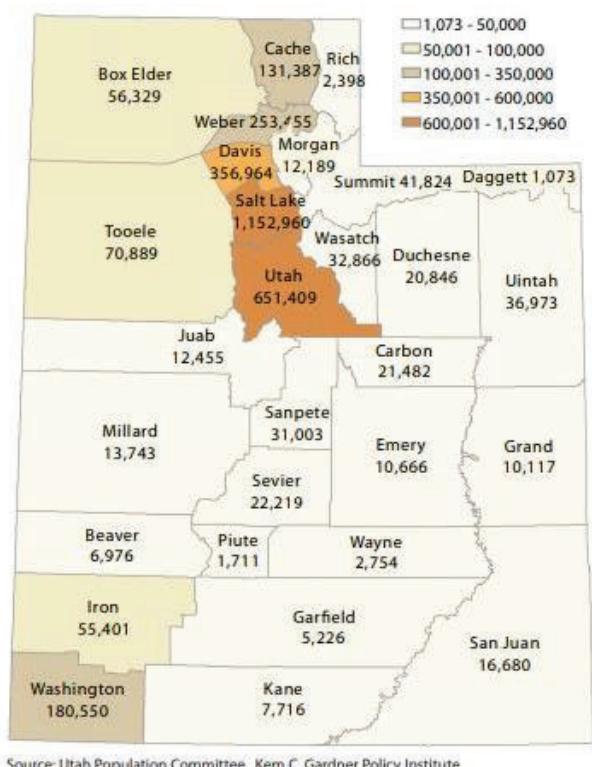
In 2021, pilot data was collected using the draw-a-map task to understand linguistic perceptions in Utah. For both the pilot data and data collected by Stanley (2022) which also examined perceptual dialectology in Utah, certain regions of Utah are labeled as “Southern” by participants. As a result of these studies, the exploration of these questions became the guiding questions of this thesis: 1) “Is there perceived ‘Southern-ness’ in Utah English?” and 2) “Which regions of Utah are perceived as Southern?”

## 1.2 Rural vs. Urban

Because Southern-ness is often tied to rurality, understanding the concepts of urban and rural and how they are used here will be essential to the discussion presented in this study. While “urban” can sometimes be used to describe an area in the inner city in contrast to more affluent suburban areas, for the present study, “urban” is used in contrast to rural areas to denote areas with higher populations. “Rural”, on the other hand, can be used in different contexts as well. Rurality is sometimes determined by population, but other times determined by geographic isolation. According to the U.S. Census Bureau,

rural areas are those with “open country and settlements with fewer than 2,500 residents” (USDA ERS 2019).

Although this definition is helpful in determining what a rural area is, because this study deals with relatively large regions (including counties, which are quite large in Utah), this definition seems inadequate. For the purposes of this study, rural areas will be those with less than 200,000 people. The urban areas will primarily be the counties along the Wasatch Front: Weber, Davis, Salt Lake, and Utah. Cache and Washington Counties also have notably high populations, but not necessarily close to the other more highly populated areas. A map (Kem E. Gardner Institute 2019) showing Utah counties and their populations as recorded in 2019 can be seen below (*Figure 1*).



*Figure 1 - Map of Counties in Utah with Population Estimates, 2019*

### 1.3 Outline

As has been mentioned, two experiments were developed to help answer the questions of the present study and to understand perceptions and regard of Utah English generally. The two experiments will be explained at length later in this paper, but here are brief overviews of each:

1. Draw-a-map Survey (Chapter 3): Inspired by Preston (1989), the draw-a-map study consists of participants labelling a map of Utah based on how they perceive dialectal variation across the state. This experiment builds upon the draw-a-map results of (Stanley 2022) as well as data collected in the pilot study mentioned previously.
2. Perceptual Audio Survey (Chapter 4): This is a new research method wherein participants listen to a recording of a speaker of American English and are asked to place the speaker somewhere in Utah. This method lines up most closely with what Cramer (2018) refers to as a “voice placing task”<sup>1</sup>.

In the conclusion chapter of this paper, the results of both studies are compared and the similarities and differences of perceptions across experiments are discussed. Utahns are seen to associate the English spoken in rural regions of Utah with that of older and more Southern-sounding speakers, consistent with the findings of Stanley (2022) and pilot data collected for this study. This is also consistent with what is found by

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<sup>1</sup> An example of this can be found in Preston (1996: 320-328), but the methods for the present study differ slightly.

Eddington (2022), which demonstrates that older features of Utah English are mainly found in rural regions. Certain regions of Utah, namely Salt Lake City, are generally seen as speaking a standard variety of American English. When comparing the results of both experiments, this standard variety is perceived as a dialect of Western American English spoken primarily by younger speakers (20s-30s). The implications of these findings are discussed thoroughly throughout this paper as well as in Section 5.1 which discusses the synthesis of the two experiments. Following the synthesis of the two experiments, a discussion is had on the effectiveness of the perceptual audio survey as a tool for studying language regard. This discussion is had on the backdrop of the shortcomings of the present study as well as how future research can build upon its findings.

## 2 Literature Review

In this chapter, various topics that are expanded in the present study will be discussed. This literature review begins with an explanation of the sociolinguistic subfields of language regard and perceptual dialectology as well as a discussion on the draw-a-map task and how previous draw-a-map experiments have influenced the present study. Following this, previous literature on Utah English, its features, and sociolinguistic studies will be addressed. The last topic that will be discussed is language identity and how it factors into the rural identity which the present study is heavily influenced by. Finally, the research objectives of the present study will be more explicitly addressed, explaining how the present study builds on previous research.

## 2.1 Language Regard and the Draw-a-map Task

Dennis Preston, who coined the term “language regard” defines it as “a term that refers to various methods and data types focused on non-linguists’ beliefs, evaluative or not, conscious or unconscious, about language” (Preston 2018a). Generally, “language regard” has come to be used as an umbrella term to discuss any research done on perceptions of non-linguists toward language variation. There are many ways to study language regard and each method is valuable in understanding the different biases and responses that various stimuli can trigger in a respondent. As Preston (2018:8) explains,

*“...Different approaches to language regard will reveal the variation in regard potential that surely exists. Asking different questions, presenting different sorts of stimuli, asking people to carry out different tasks, and even offering different conversational opportunities will help us not only establish the complex and underlying networks of regard systems that any member of any speech community will have but also begin to understand the contextual facts that trigger one sort of regard response or another.”*

One way of studying a more specific aspect of language regard is by studying perceptual dialectology, another subfield of sociolinguistics which Preston (1989) popularized and has greatly contributed to over the last several decades. The primary distinguishing factor between language regard and perceptual dialectology is that perceptual dialectology generally contains a geographical component or “mental maps” as described by Preston (2018:8).

In perceptual dialectology, one of the primary methods employed in various studies is the draw-a-map task. The draw-a-map task is used to understand how non-linguists perceive dialectal variation in a regional sense. As has been touched upon briefly in prior sections, the draw-a-map task generally consists of providing respondents with a blank map of a designated region and asking them to circle and label regions on the map where they perceive dialectal variation exists.

The first recorded use of this method was in a study carried out in the Netherlands to understand how individuals perceived dialect distribution in the area (Rensink 1955, as referenced in Chapter 1 of Preston 1989). The questions that were posed to participants in the study were “1) ‘In which places in your area does one speak the same or about the same dialect as you do?’ and 2) ‘In which places in your area does one speak a definitely different dialect than you do? Can you mention any items which vary?’”(Preston 1989:4). Once the surveys were all taken, a composite map was created, outlining the various dialect regions as described by the survey participants. Although this was the first recorded use of the draw-a-map task, its use was expanded upon greatly by Preston (1989) in which he carried out several perceptual studies of the U.S. using the draw-a-map task. Since then, Preston has gone on to publish several works further exploring this subfield of sociolinguistics (e.g., Preston & Krezschmar 1999; Long & Preston 2002).

Perhaps one of the most influential draw-a-map studies that has been done was Bucholtz et al. (2007). Unlike prior draw-a-map studies, Bucholtz et al. (2007) studied language perceptions in a specific state: California. Bucholtz et al. (2007) aimed to understand what perceptions are held by California residents towards their variety of

English and how it varies regionally. This method of doing a draw-a-map study for a specific state paved the way for further draw-a-map studies of individual states<sup>2</sup>.

While the draw-a-map task is one of the methods used in the present study, the method for the second experiment is original to this study (as far as I am aware), which fits more in the language regard subfield. Because of this, it is important to understand other methods that have been used to study language regard and how the present study builds on these methods.

Cramer (Cramer & Montgomery 2016; Cramer 2018) gives an outline of five developing methods of language regard or what she refers to as “the five pillars of perceptual dialectology”. Including the draw-a-map task in her list, these are the five methods included by Cramer (2018:16):

1. Draw-a-map task
2. Degree-of-difference task – participants rate how different a given variety is from their own.
3. Pleasantness and correctness evaluations – participants rate how pleasant or correct a given variety is; this could also include other category labels as well.
4. Voice-placing tasks - participants listen to recordings of speakers and then guess where that speaker is likely from on a map.

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<sup>2</sup> Examples of draw-a-map studies in other states/regions of the U.S.: California: Bucholtz et al. (2008); Washington: Evans (2011); Texas: Cukor-Avila et al. (2012) and Cukor-Avila (2018); Eastern New England: Ravindranath & Fernandes (2014); Kentucky: Cramer (2016); Florida: Garzon (2017).

5. Qualitative analysis – dialectologists draw on other data types collected during research to make commentary on language variation. This could include commenting on map labels, focus groups, or commentary made by participants during the draw-a-map task.

The voice placing task is highly similar to what is done in Experiment 2 of the present study. Based on my understanding of the voice-placing task, the objective is to see how closely participants can guess the location of a speaker based on their speech. Because this seems to be a newer method for collecting sociolinguistic data (and hasn't received a catchy name that is consistent across studies), it's difficult to locate studies that have used this method. One that matches Cramer's description is Preston (1996: 320). In this study, Preston presented recordings of speakers in random order to participants and asked them to assign that speaker to a location in the designated region. A score was then assigned based on how closely the participant could accurately guess the speaker's origin.

It's possible that other dialectologists have been using the voice placing task as well but referring to it by a different name. Although the method used in Experiment 2 (referred to here as a perceptual audio survey) is similar in concept to the voice placing task, unlike the voice placing task, there is no correct answer for most of the speakers. Because of this, participant placement for each speaker is based almost exclusively on their own biases of a given region in Utah. This differentiation opens the door for a fresh look at perceptions of language variation in a particular region. The perceptual audio survey builds upon Preston's explanation of the importance of using different stimuli in

the study of language regard, helping to understand how different stimuli have the ability to trigger different responses in participants.

## 2.2 Utah English

Like many dialects in the Western U.S., relatively little research had been done to explore Utah English until the last few decades. This is due in large part to the Western U.S. being a relatively young region. Dialectal variation has only recently been noticed and studied in the West. While Utah English is similar in terms of features with other dialects of the West, it is nevertheless distinct (Bowie 2017). In this section, we will look at some of the research on Utah English, specifically its basic features and previous sociolinguistic studies.

### 2.2.1 Basic Features

Before the 1990s, studies on Utah English were relatively sparse, with a few popping up sporadically before then (Pardoe 1935; Cook 1969; Krahne 1979). One of the first works to gain notoriety which focused specifically on Utah English is Di Paolo & Faber (1990) in which certain tense-lax vowel mergers before [l] are examined. Examples of these types of vowel mergers are, as in *feel-fill*, *sale-sell*, etc. Since then, other studies have been done on Utah English, each of which focusing on different aspects of the variety.

Bowie (2003) studies the history of a merger found among some Utah English speakers where /ar/ and /ɔr/ are merged, also known as the CARD-CORD merger. In his original study of the CARD-CORD merger, Bowie found that this feature was absent

among first-generation native English speaking Utahns, but gained prominence among second and third generation speakers. Although this is often considered a staple of Utah English and is highly stigmatized (as can be seen in the results of these experiments even still), Bowie (2012) found that this merger is hardly present in modern Utah English. Bowie (2012) posits that this is likely due to stigmatization of this feature over time.

Perhaps one of the most influential studies of a specific feature of Utah English is Eddington & Savage (2012) which looks at the often stigmatized feature of Utah English generally referred to by non-linguists as “*t*-dropping,” a phenomenon that occurs after /t/ in environments before syllabic nasals (in words such as *mountain* and *kitten*). The most stigmatized instance of this is how Utahns say *mountain*. While Eddington and Savage find that actual *t*-deletion occurs in the speech of some Utahans, they were more likely to use [?] for /t/ and release it orally rather than nasally ([maw?ən] vs. [maw?n]). They also found that most English speakers from the Western U.S. didn’t use [t], but used [?]; the difference being that they didn’t use any vowels in the unstressed syllable. In a study that looks generally at consonantal features of Utah English, Stanley & Vanderniet (2018) followed up on pronunciation of words like *mountain*, referred to as the MOUNTAIN lexical set. In this study, Stanley and Vanderniet demonstrated that stigmatization has led to hypercorrection, with a significant number of Utahns pronouncing the second syllable of *mountain* and similar words with [tʰin], leading this representation to now become the most common pronunciation of *mountain* in Utah (Stanley 2023). Eddington and Brown (2021) did a study looking at pre-nasal /t/s in words such as *mountain* but expanded it to other states besides Utah. In their study, they found that speakers who represented /t/ with [?] were more likely to be rated as less educated and less friendly by participants. Seeing

as this feature is heavily stigmatized in Utah English, it is no surprise that it comes up during the experiments in this study, particularly the draw-a-map experiment.

The other consonantal features explored by Stanley & Vanderniet (2018) also include [t]-epenthesis in /ls/ sequences (*Nelson, false, else*, etc.) and [k]-epenthesis after /ŋ/ (*talking, thing, morning*, etc.). These features aren't as well-known among Utahns, so they aren't mentioned as often throughout the present study, but there are some mentions of [k]-epenthesis in the draw-a-map experiment.

Perhaps the feature of Utah English most important to this study is /ai/-monophthongization. This feature has been explored primarily by Morkel (2003) and Sykes (2010). A discussion of this feature will be had in Section 2.2.3, seeing as this feature ties into a potential reason why certain varieties of Utah English are perceived as “Southern”.

These are the main features of Utah English that are still found in the variety today. The “*t*-dropping” phenomenon is definitely the most well-known stigmatized feature in Utah English. This is evident in the data collected for the draw-a-map experiment. How these features relate to perceptions of Utah English will be discussed in Chapter 4.

## 2.2.2 Sociolinguistic Aspects of Utah

Utahns generally view their variety of English negatively (Savage 2014). As was discussed in the previous section, there are certain stereotypes associated with Utah English namely the pronunciation of pre-nasal /t/ in *mountain* and similar words (Eddington & Savage 2012; Eddington & Brown 2021). As was discussed in the previous

section, the negative attitudes held by Utahns towards Utah English have led to hypercorrection in certain instances, namely pronunciation of pre-nasal /t/ in words like *mountain* (Stanley 2023). This results in many Utahns pronouncing the second syllable of *mountain* as [tʰɪn] to avoid the stigmatized variant [ʔɪn] as well as the more common [ʔη] which is also perceived as stigmatized. As Baker, Eddington, and Nay (2009) find, individuals who have lived in Utah for a shorter period of time will be more likely to use stereotypes such as this feature to identify Utah English speakers. Those who have lived in Utah for longer have been shown to be more able to correctly identify Utah English speakers without relying solely on stereotypes of Utah English.

When looking at Utah in any sense, it's important to understand the role religion plays in the state. As of 2021, 56% of the state's residents claim membership with the Church of Jesus Christ of Latter-day Saints or "Mormons" (PRRI - American Values Atlas 2021). Undoubtedly, this has played a key role in determining language variation in Utah. Baker and Bowie (2010; 2015) conducted studies which look at the role of membership and level of activity in the Church of Jesus Christ of Latter-day and how that affects language behavior. Baker and Bowie looked at various vowel mergers and whether they were found among self-identified members of the Church of Jesus Christ of Latter-day Saints versus nonmembers. Baker and Bowie concluded that religious affiliation (particularly from a religion that requires a high level of participation) greatly affects linguistic behaviors. These findings were further confirmed in their follow-up paper, wherein Baker and Bowie studied Church members' level of activity in the Church and found that this also led to linguistic divergence. Baker and Bowie have contributed to

the ongoing study of the role of identity in language variation, one of which will be discussed further in Section 2.3.

### 2.2.3 Dialect Surveys of Utah English

Aside from the present study and the aforementioned Stanley (2022), two other studies have been done to examine dialectal variation in Utah; namely Lillie (1998) and Eddington (2022). The objective of both studies was to establish dialect regions by distributing dialect surveys throughout Utah. How Lillie (1998) designated the dialect boundaries can be seen in *Figure 2*, whereas the regions found by Eddington (2022) can be seen in *Figure 3*.



*Figure 2 - Utah dialect boundaries as found by Lillie (1998)*



Figure 3 - Utah dialect regions as found by Eddington (2022)

In Experiment 2: The Perceptual Audio Survey (Chapter 4 of the present study), regions are created which take certain elements into account; namely county lines and metropolitan areas (determined by the census). However, the findings of Lillie (1998) do play a role in determining some of the boundaries.

One of the key findings of Eddington (2022), that aligns with what is found in the present study, is that more rural regions of Utah (deemed *Non-Wasatch Front* by Eddington), are where most of Utah English's older features are still used by speakers. Because Eddington (2022) was published while the present study was already well underway, its outcomes didn't affect the development of the present study's methods. However, it is intriguing to see that both studies have resulted in similar findings.

## 2.3 Features and Perceptions of Southern American English

Southern American English is one of the most well-documented and distinct varieties of Northern American English. One of the key distinctions of Southern U.S. English (SUSE) is its participation in a vowel shift known as the “Southern Shift”. Among features in the Southern Vowel Shift are /ai/-monophthongization as well as the fronting, raising, and in-gliding of initial short vowels /i/, /e/, and /æ/ (Labov, Ash & Boberg 2008).

As for perceptions of SUSE, this is another topic that has been studied at great lengths by sociolinguists. Preston (2018b), based off other research done on perceptions of Southern speech, created a chart which he believes accurately describes perceptions of Southerners by non-linguists.

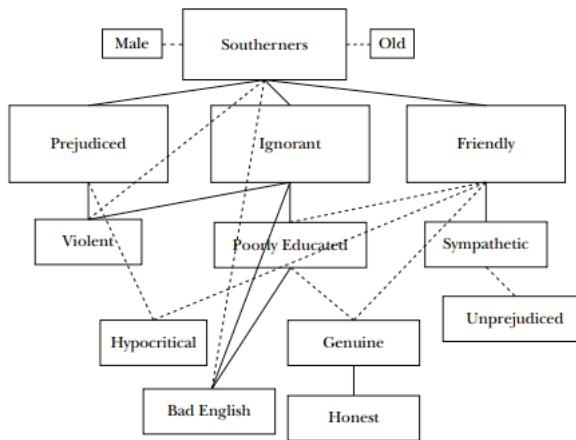


Figure 4 - Perceptions of "Southerners" as found by Preston (2018b:475) as held by Southeastern Michiganders (dotted lines show weaker associations)

So, as Preston finds, Southerners are generally perceived to be primarily male and old. Aside from these perceptions, there appears to be a mix of positive and negative perceptions held toward Southerners. While the findings of the present study don't allow for such a clear picture of rural areas of Utah, there are similarities with Preston's

findings, particularly with rural Utah being perceived as “old”. This also lines up with the aforementioned Eddington (2022).

## 2.4 Language Identity and Rural Ideology

One of the key objectives of the present study is to further understand language identity in Utah. A study foundational to the exploration of language identity is Eckert (1989). In this study, Eckert sought to study the language features of high school students in the Detroit area to understand the Northern Cities Shift. Ultimately, Eckert ended up uncovering a great deal about the effects of socioeconomic status on language variation. Eckert found that certain phonological variables differentiated across two groups which she refers to as “jocks” and “burnouts”. According to Eckert, the “burnouts” generally spent their time in urban Detroit, were more likely to maintain the features of their local variety, and wanted to find employment locally right out of high school. Because of this, there was value in using the features of the local variety because those they worked with would likely be other locals. The “jocks”, however, were generally characterized as upwardly mobile, middle-class students who spent their time in the suburbs, and wanted to attend university (most likely out of state). This resulted in them adopting features of Standard American English.

Eckert (2008; 2012) and Hall-Lew, Moore & Podesva (2021) (among others) have greatly fleshed out the relationship between language and identity. Eckert (2008)

introduces the concept of the *indexical field*<sup>4</sup>, explaining that language features are part of a field of variables which can be chosen at will by a speaker. As a feature is chosen, it has the potential to gain more or less prominence in the individual speaker's language ideology, informing their overall identity. Eckert (2012) builds upon her findings with creation of what she refers to as the “third wave” of variationist sociolinguistics. While first and second wave theories of sociolinguistics seek to explain variation through various macro (first) and micro (second) variables, the third wave theories seek to understand how language variation is used to establish social identity.

As was discussed in the previous section, this concept of identity has already been shown to play a role in Utah English, particularly to show membership and level of activity in the Church of Jesus Christ of Latter-day Saints (Baker & Bowie 2010; 2015). The present study looks at this relationship as well, but the main focus is to understand the characterization of some regions of Utah as “Southern”. The present study argues that this perceived Southerness in language is a choice made by individuals to set themselves apart from urban Utah. This aligns with what is found in Eddington (2022) and the differentiation between rural and urban varieties of Utah English. To accomplish this rural identity, Utahns could be adopting features of “Country Talk”.

“Country Talk” is used to describe a variety of U.S. English designated specifically to rural regions of the U.S. In some regions of the U.S., this variety has been

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<sup>4</sup> The concept of *indexical field* builds upon the concept of *indexical order* introduced by Silverstein (2003). The primary difference is that Eckert argues that speakers give prominence to various features by using them whereas Silverstein claims that certain features have an inherent prominence assigned to them in the hierarchy of indexicality.

known to have similarities with Southern American English (Hall-Lew & Stephens 2012), which will be discussed in greater depth in this section. In California in particular, Podesva et al. (2015) found rural regions embrace the California Vowel Shift, but do so differently than more urban and coastal areas. Podesva et al. posits that this is to maintain an ideological divide between town and country in California, further showing the possibility of Southerness in language being tied to an identity as opposed to a specific region.

Hall-Lew and Stephens (2012) created a study which really fleshes out Country Talk as its own variety. To understand Country Talk more thoroughly, Hall-Lew and Stephens conducted language attitude interviews with residents in a community on the border of Texas and Oklahoma who self-identified as speakers of Country Talk. Through their study, Hall-Lew and Stephens found that Country Talk has become enregistered as its own variety based off perceptions of rural speech as well as certain features of SUSE and other nonstandard U.S. varieties of English. During each interview, Hall-Lew and Stephens would discuss with the interviewee their perceptions and feelings about Country Talk. They also discussed with interviewees the differences between other similar terms such as “Southern”, “hick”, “redneck”, and “rural”. Finally, they would have each interviewee label a map of the U.S. with the areas that speak “Country”.

One of the most interesting findings of Hall-Lew and Stephens (2012) is that many of the interviewees generally considered Country Talk to be simply a list of features associated with the variety. According to participants, most features are lexical or morphosyntactic in nature. Examples of these include: *howdy*, *yonder*, *y'all*, *fixin to*, and *ain't*. Other features are phonetic/phonological in nature. These include such features

as: slow, “a drawl”, /ai/-monophthongization, and “g-dropping”. Note that these features were those elicited through metalinguistic questions.

Although this study isn’t specifically a study of Country Talk in Utah English, pilot data gathered for this study, as well as Stanley (2022) have shown that there is a perception of “country” or “Southern” in Utah. There is some precedent this. As was stated previously, a feature that is found in some varieties of Utah English is /ai/-monophthongization, which is also found in Country Talk and Southern American English (Plichta & Preston 2005; Murray & Simon 2006; Labov, Ash & Boberg 2008).

Morkel (2003) studied /ai/-monophthongization by doing an apparent time analysis, looking at two groups of individuals born in Utah: 1) individuals (religious orators specifically) born between the 1850s and 1890s and 2) individuals from four regions of Utah born between the 1910s and 1980s. Through her study, Morkel (2003) looked at what environments were common for /ai/ monophthong production. Morkel found that more sonorant following consonants tended to lead to production of the /ai/ monophthong while preceding liquids were more likely to disfavor /ai/-monophthongization. As for /ai/-monophthongization over time, Morkel (2003) found that the feature was found in early Utah English, decreased in usage for a time, and has now seen a resurgence in the past few decades. Since this feature is still present among some speakers of Utah English, it’s likely that it’s one of the main reasons there is perceived Southerness in the speech of certain areas of Utah.

Sykes (2010) conducted a slightly more recent study on /ai/-monophthongization in Utah English. Sykes (2010) builds upon the findings of Morkel (2003) and confirms Morkel’s findings about /ai/-monophthongization being conditioned by the voicing of the

following consonant, consistent with the Southern /ai/ monophthong. To add to Morkel's findings, Sykes concludes that gender plays an important role in glide weakening as well, finding that men are more likely to weaken their glides than women.

Although /ai/-monophthongization is a feature common between Southern American and some Utah English varieties, because Utah isn't part of the American South, it's more likely that whatever this rural variety of Utah English is, it's closer in similarity to Country Talk as described by Hall-Lew and Stephens (2012).

## 2.5 Research Objectives

While reviewing previous literature about Language Regard, Utah English, and the role of identity in language, it is clear there is still much to be studied and researched on these various topics. The present study helps to add to the growing body of research on Utah English, but also has a good amount to add about how language is perceived generally, as well as the effect of rural ideology on language variation. Primarily, these are the objectives of the present study:

1. Gain further understanding of what classifies as “Southern” speech in Utah English, where it’s found in Utah, and how this contributes to the idea of a rural identity among Utahns.
2. Demonstrate the effectiveness of the perceptual audio survey as a method for collecting data on language regard.

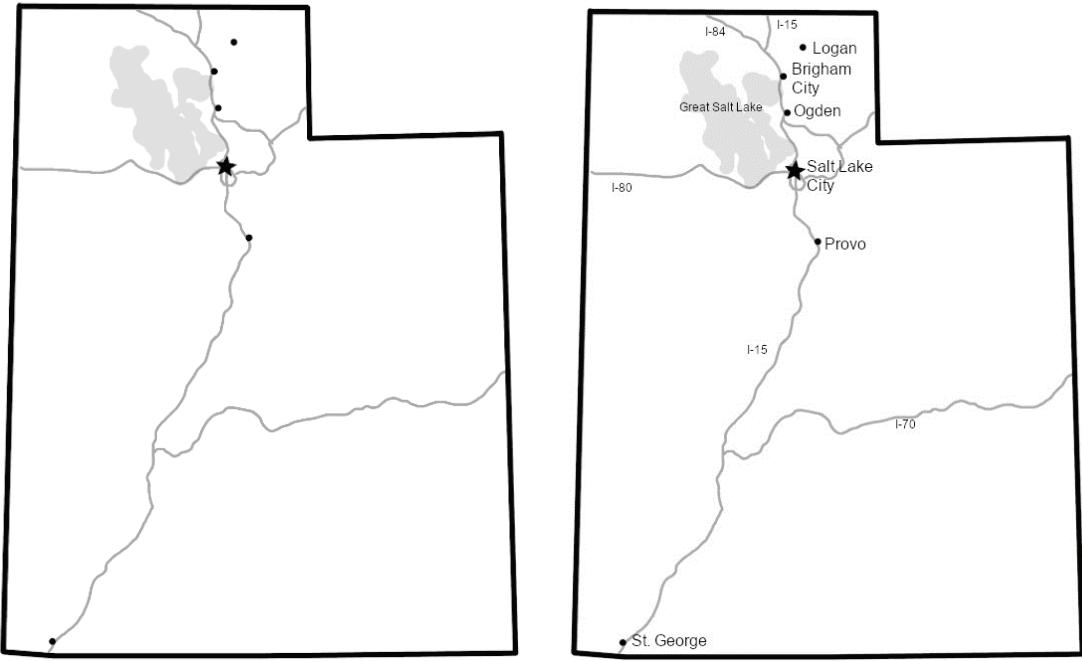
As mentioned in the introduction to this paper, these research objectives will be addressed via two experiments: 1) the draw-a-map task (Chapter 3) and 2) the perceptual audio survey (Chapter 4). Following will be a conclusion chapter, where the results from

both experiments are synthesized and a discussion is had on the significance of the findings.

### 3 Experiment 1: The Draw-a-map Task

#### 3.1 Designing the Map

For both experiments in this study, a map tool was needed as a means of data collection. To create the map of Utah, a free software called Gimp (similar to Adobe Photoshop) was used wherein a map of Utah was traced that uses a Geographic Coordinate System (GCS). This is opposed to a Projected Coordinate System (PCS). GCS maps are based on how the points would appear on the surface of the earth whereas PCS maps are the points a computer would use to create a map on a flat surface (such as a printed map or one seen on a computer screen). This distinction wasn't apparent when the pilot data was collected. However, as data was being processed for the draw-a-map task in the present study (Experiment 1 of 2), it became more important to understand which coordinate system is in use. Essentially, on a map that uses PCS, the west and east boundaries of Utah would be parallel with one another. Because the map for this study uses GCS, the west and east boundaries aren't parallel. Rather, the boundaries run on a convergent course, eventually colliding at the North Pole. The map used for the experiments in this study can be seen in *Figure 5*.



*Figure 5 – Left: Utah map used in both experiments; Right: Utah map with each landmark labeled<sup>5</sup>*

As can be seen in *Figure 4b*, the map contains little detail. The objective of designing the map this way is to help participants orient themselves within the state without giving them so much detail that they feel they should circle individual cities. This was an issue with some of the preliminary work done by Stanley (2022), where the map used had many cities in Utah labeled by name. What Stanley (2022) found in Utah specifically was that participants gave labels to individual cities but left large portions of the map unlabeled. Level of detail in the draw-a-map task is also studied by Lameli, Purschke & Kehrein (2008) wherein seven different maps of Germany were used with differing levels of geographic information provided. They found that differences in map

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<sup>5</sup> These labels were not included in the maps for either experiment. For a more detailed map of Utah, see Section 6.1 in the appendices of this paper.

type play a significant role in determining how participants conceptualized a given linguistic space. Jeon (2013) similarly found in a study of Korea that participants were more likely to perceive linguistic variation when the boundaries of Korea's six provinces were provided on the map. The present study hopes to accommodate for this by marking only major landmarks in Utah. For the map in the present study, six of Utah's major cities are marked: Logan, Brigham City, Ogden, Provo, St. George (marked by dots), and Salt Lake City (Utah's capitol, marked by a star). The Great Salt Lake and the main freeways that run through Utah are also labeled: I-15 (north-south), I-80 (east-west in Northern Utah), I-84 (southeast to northwest in northern Utah), and I-70 (east-west in central Utah).

This map was designed based off of those used by Bucholtz et al. (2007) and Evans (2013). Bucholtz's map of California only included major cities in California (without names), including the state capitol, Sacramento, which was marked with a star. Evans' map of Washington state contained a little more detail, with major cities labeled by name and the inclusion of the main freeways and mountain ranges that run through Washington. The map created for this study strikes a balance between these two, including major cities without names like Bucholtz's California map, but also including main freeways and other landmarks like Evans' map.

### 3.2 Survey Design

As part of the draw-a-map task used in the present study, participants were asked to draw lines designating where they believe there are dialectal differences in Utah English. This is in line with other draw-a-map surveys used in the past, most closely

aligning with the methods used by Bucholtz et al. (2007, 2008). Specifically, participants were given the following instructions (Appendix A contains a copy of the survey):

1. Draw lines around where you think English is spoken differently in Utah.
2. How would you label that area and the English spoken there (if you can think of a label for it)? If you can, give an example of what is different there (Ex: Is there a certain word that they pronounce differently?).

Following these instructions, the map described above was presented to participants. It's important to note that the map was placed with about two inches of white space on each side between Utah's borders and the edges of the survey paper. Above and below the Utah map was about a half inch of space as well. Below the map was a third question asking participants to provide their age and the place they are originally from. As previously stated, this survey is relatively straightforward, following closely the blueprint left by other draw-a-map studies.

Because participants' amount of time spent in Utah gives insight into their perceptions of Utah English (Baker, Eddington & Nay 2009), the draw-a-map survey also includes questions about some of participants' demographic information, to help further understand the role of time spent in an area and having insights about that area's spoken variety. After completing the map on the survey, participants were asked to specify: (1) their age and (2) where they are originally from.

### 3.3 Choosing a Target Demographic

To gain valuable insight into Utah English, one of the first things that needed to be determined was the target demographic for our experiments. When the methods for

this study were being developed, originally it was open to all BYU students or those who have spent any amount of time in their lives living in Utah. Roughly 96% of BYU students are from the U.S. and of those, a little less than two thirds are from other states outside of Utah (Brigham Young University 2021). While all these students technically have had experience living in Utah, they may not all have helpful insights into Utah English because of inadequate exposure to the variety. There are many as well who may have lived in Utah for an extended period, but have since moved to a different state in the U.S. Because their exposure to Utah English may have been several decades ago, their insights may not be valuable for this study, which looks at current perceptions of Utah English.

With this, a target demographic was chosen where subjects would have adequate exposure to Utah English, but also exposure that is current and relevant, providing useful insights for the study. The decision was made to limit the subject pool to those who have spent at least one year of the past 10 years living in Utah. Those with greater exposure to a variety will be able to more accurately identify that variety and provide insights based on actual linguistic phenomena rather than stereotypes (Baker, Eddington & Nay 2009). Because of this, having subjects with greater exposure to Utah English is a necessity, but those with less exposure can still provide insight or at least uphold the pre-established stereotypes of Utah English. Since BYU offers a wide variety of students with varying exposure to Utah and its variety of English, BYU's campus was chosen as a recruiting ground for subjects in the experiments (namely the draw-a-map task).

### 3.4 Data Collection

The draw-a-map survey was distributed at the student center at BYU (the Wilkinson Student Center), which contains the university's primary cafeteria as well as several spaces for holding large meetings and events. It is the center of activity on BYU's campus and therefore serves as an ideal location for recruiting subjects from a variety of backgrounds. A booth was set up in a prominent location in a heavily-trafficked part of the building. Some passersby completed the survey, but most people were approached directly and filled out the survey as they ate lunch. This choice of location for data collection presented some challenges, however. Although the student center is perhaps the busiest building on campus, many of the students that frequent it are freshmen from out of state. This presented an issue because many of them hadn't lived in Utah long enough to have any relevant opinions or insights about how English is spoken in Utah. One student, a freshman, when looking at the map on that survey, was surprised to see what Utah actually looked like, stating "I didn't even know Utah looked like that". Suffice it to say he was not given a survey to fill out.

For those who did fill out the survey, many of them (including native Utahans) struggled to provide specific areas and labels on the map. Many participants would circle the entire state and add a list on the side of the map of various features they had heard from their Utahn friends. Some participants for both surveys struggled to understand landmarks (major cities and freeways) on the map, perhaps viewing the freeways as arbitrary ways of dividing the state. Over the course of 2 two-hour periods, 193 participants completed the draw-a-map survey.

### 3.4.1 Participant Demographics

As was discussed in Section 3.2 about Survey design, the final question included on the draw-a-map survey was one asking participants to provide a couple pieces of demographic information. These include the participant's age (at the time of taking the survey) as well as where the participant is originally from. Although the demographics won't be discussed too thoroughly in this paper, seeing them will help contextualize the results of this experiment. First, ages and their frequencies will be discussed.

*Table 1 - Frequencies of ages in the draw-a-map task*

Levels	Counts	% of Total	Cumulative %
18	20	11.9 %	11.9 %
19	6	3.6 %	15.5 %
20	16	9.5 %	25.0 %
21	33	19.6 %	44.6 %
22	43	25.6 %	70.2 %
23	26	15.5 %	85.7 %
24	14	8.3 %	94.0 %
25	4	2.4 %	96.4 %
26	1	0.6 %	97.0 %
27	1	0.6 %	97.6 %
34	1	0.6 %	98.2 %
49	1	0.6 %	98.8 %
64	1	0.6 %	99.4 %
70	1	0.6 %	100.0 %

As *Table 1* shows, nearly 97.6% of the participants in the draw-a-map task were below the age of 30. This is expected, considering all surveys were collected on a university campus. The age with the highest representation in the survey is 22, with roughly a quarter of participants being this age. An interesting facet of these

demographics is the dip in 19-year-old participants when compared to 18 and 20-year-olds. BYU, where these surveys were collected, is a private university owned by the Church of Jesus Christ of Latter-day Saints. In the Church, it is common practice for young men and women to leave to serve religious missions for the Church. Men can leave beginning at age 18 for 2 years and women at age 19 for 1.5 years. Because of this, the age 19 demographic is represented much less than its surrounding ages.

Now, the states represented by participants in the draw-a-map task will be discussed. The frequency of various states in the draw-a-map task can be seen below in

*Table 2:*

*Table 2 - Frequency of states in the draw-a-map task*

Levels	Counts	% of Total	Cumulative %
AK	1	0.6 %	0.6 %
AL	3	1.8 %	2.3 %
AR	3	1.8 %	4.1 %
AZ	7	4.1 %	8.2 %
Argentina	1	0.6 %	8.8 %
CA	20	11.7 %	20.5 %
CO	3	1.8 %	22.2 %
CT	1	0.6 %	22.8 %
Canada	1	0.6 %	23.4 %
FL	1	0.6 %	24.0 %
GA	1	0.6 %	24.6 %
HI	2	1.2 %	25.7 %
ID	6	3.5 %	29.2 %
IL	1	0.6 %	29.8 %
IN	2	1.2 %	31.0 %
KS	2	1.2 %	32.2 %
KY	3	1.8 %	33.9 %
MI	2	1.2 %	35.1 %
MN	5	2.9 %	38.0 %
Mexico	2	1.2 %	39.2 %
NC	2	1.2 %	40.4 %
NE	1	0.6 %	40.9 %
NM	1	0.6 %	41.5 %
NV	4	2.3 %	43.9 %
NY	1	0.6 %	44.4 %
Norway	1	0.6 %	45.0 %
OH	2	1.2 %	46.2 %
OK	1	0.6 %	46.8 %
OR	4	2.3 %	49.1 %
PA	5	2.9 %	52.0 %
SC	2	1.2 %	53.2 %
TN	1	0.6 %	53.8 %
TX	8	4.7 %	58.5 %
UT	49	28.7 %	87.1 %
VA	6	3.5 %	90.6 %
WA	14	8.2 %	98.8 %
WV	1	0.6 %	99.4 %
WY	1	0.6 %	100.0 %

As can be seen above in *Table 2*, like age, the frequency of states represented by participants in the draw-a-map task is close to an accurate representation of BYU's demographics. According to numbers published by BYU in 2021, the top states

represented by the student body at BYU are: Utah (36%), California (12%), Arizona (6%), Texas (6%), Idaho (5%), and Washington (5%) (Brigham Young University 2021).

For the 49 Utahn participants specifically, the majority of them included their native city as well, representing a wide variety of cities in Utah. Rather than listing every city represented by a participant<sup>6</sup>, representation for various regions of Utah will be displayed instead. The regions used here to divide Utah are the same used in the perceptual audio survey. A map of the regions (*Figure 24*) and a more in-depth discussion of each region can be found in Section 4.3. *Table 3* below shows Utah regions represented by participants in the draw-a-map task.

*Table 3 - Frequency of Utah regions in the draw-a-map task*<sup>7</sup>

Levels	Counts	% of Total	Cumulative %
I-15	1	2.0 %	2.0 %
Logan	1	2.0 %	4.1 %
Ogden-Layton	7	14.3 %	18.4 %
Provo-Orem	13	26.5 %	44.9 %
Salt Lake City	16	32.7 %	77.6 %
St. George	2	4.1 %	81.6 %
Other	9	18.4 %	100.0 %

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<sup>6</sup> A complete list of cities can be found in Section 6.4 in the Appendices of this paper.

<sup>7</sup> The “other” category is used here to refer to participants who labeled their hometown as “Utah” but didn’t leave a specific city.

Something unexpected about these results is that although BYU (where the data was collected) is in the *Provo-Orem* region, the *Salt Lake City* region had a higher representation among participants in the draw-a-map task.

While it would be interesting to compare results in the draw-a-map task across cities in Utah, since this isn't the focus of the present study, this will not be discussed here. Instead, the demographics above are presented to provide context for the results of the draw-a-map task. These results show that the participants in the draw-a-map task have varying exposure to and experience with Utah English.

## 3.5 Data Processing

### 3.5.1 Georeferencing

For processing and presenting the data, a geography software called ArcGIS was used (cf. Evans 2011)<sup>8</sup>. Although ArcGIS is primarily used for creating maps, it really is a tool that can be used in a variety of fields, including linguistics. For this experiment, ArcGIS was used as a means of presenting the collected data in a digestible way. The methods used for data processing and presentation here are inspired by those used by Betsy Evans and the Linguistics Department at the University of Washington in their study of linguistic perception in Washington State.

In Chapter 3, a distinction was made between Geographic Coordinate Systems (GCS) and Projected Coordinate Systems (PCS). While setting up the parameters for the

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<sup>8</sup> Montgomery & Stoeckle (2013) and Jeon & Cukor-Avila (2015) both provide other examples and instructions on how to use ArcGIS or other GIS software to process perceptual dialectology data.

ArcGIS environment that was used, it was important to use a GCS so that maps from the draw-a-map task and their labels would align properly with the underlying map of Utah.

Through a process called georeferencing, every map that was collected was aligned with the base map of Utah. Basically, this process consists of placing the map scans as new layers over the base map and then clicking on the corners of the survey maps and aligning them to the corners of Utah on the base map. This made it possible to align the circled areas on the 193 maps to each other, as if all participants had completed the task on the same map, and for those regions to be associated with real geographic locations.

### 3.5.2 Classification

With each map aligned, the process began of creating individual features<sup>9</sup> for each shape/border drawn by the participants. Many participants drew shapes that extended beyond the borders of the survey map, using its white space. These shapes were recorded as such—expanding beyond the map borders. For each feature created, its label (as written by the participant) was listed in a table containing all features. In total there were 482 features across the 193 maps. Once features were created for each of the labels, each label was searched for keywords so that the designated labels could be added to different data categories. It's important to understand that a single label could be counted toward

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<sup>9</sup> It's important to note here that "feature" is being used in the Arc GIS sense, to denote a circled region on a map. This is opposed to "feature" being used in the linguistic sense to describe an aspect of one's speech.

multiple categories. Generally, these categories were created based off what was seen occurring most often throughout the collected maps. *Table 4* shows the label categories as well as what keywords would result in a label being added to the specified category. The table also contains a column noting how many labels were counted for each category. Certain keywords that were used interchangeably by participants and have been treated the same in other draw-a-map studies are added to the same category. The *Rural* category in particular, contains many keywords (Evans 2013) .

*Table 4 - Categories counted in draw-a-map surveys with target keywords and totals for each category.*

Category	Keywords	Count
Rural	<i>hick, country(side), redneck, Southern, rural, farmer, cowboy, twang, sticks, boonies, small town, uneducated, Texan, drawl, western, pioneer</i>	128
Standard	<i>standard, normal, average, resembles western U.S. dialect, city, urban</i>	11
Mormon	<i>Church, Mormon, do not cuss (ex. fetch, flip, oh my heck, etc.), religious, General Conference, missionary, LDS, censored language</i>	20
Utah	<i>Utah</i>	78
California	<i>California, Valley Girl</i>	14
Idaho	<i>Idaho</i>	5
Mountain	<i>mountain, button, fountain, Layton, T-dropping, don't pronounce 'Ts', straightener</i>	56
CARD-CORD Merger	<i>Switching o's and a's, born-barn, fark-fork (Spanish Fark), our-are, car-kor</i>	7
Pre-lateral Merger	<i>feel-fill, mail-mel, meal-mill, Camille-Camill, pillow-pellow, milk-melk, well-whale, nail-nell, deal-dill, treadmeal-treadmill</i>	21
Sundee	<i>Saturdee, Wensdee, Sunday = Sundeh</i>	10
WH Aspiration	<i>strong "wh", wh as just h sound, white</i>	5
All State	*Participant circled entire state or wrote comment describing entire state	10

As for the *Standard* category, originally this was divided between *Standard* and *Urban*. Because keywords for these individual categories didn't appear very often

throughout the maps, they were referenced together enough times to count towards the same label category. This on its own reveals something interesting about how Utahns perceive urban areas as the origin place of standard speech. For the *Rural* category, keywords were grouped based on if they referenced some aspect of rural or Southern life.

As seen in *Table 4*, “western” by itself was classified as *Rural*, while a label like “resembles western U.S. dialect” was classified as *Standard*. This is because the term “western” can be interpreted at least two ways: 1) “western” as relating to “a western movie” involving cowboys or the “country western” genre of music which could be assumed is more fitting of the *Rural* category, or 2) “western” as in “the West”, which includes California and may be seen as the most standard variety of American English. As one participant wrote: ““urban’, resembles western U.S. dialect closest mostly in accent”, justifying its inclusion in the *Standard* category. Another participant wrote “Spanish Fork ‘Western’”, which was added to the *Rural* category, since Spanish Fork is often seen as the southern boundary of urban Utah<sup>10</sup>. In this label, there appears to be an implication by the participant that English is spoken differently (based off their perceptions of what is “standard”) specifically in Spanish Fork, warranting the participant giving Spanish Fork its own label. Because of examples like these, the label “western” was carefully classified into one of these two categories.

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<sup>10</sup> Lillie (1998) establishes general dialect boundaries for varieties of Utah English, also placing Spanish Fork as the Southern boundary for the area she refers to as “Northern Utah”. In her study, she explains that Northern is the dialect area that speaks the variety closest to a general Western American variety of English.

It may also be the case that some participants may have chosen to use “western” to describe a variety they consider Southern-sounding, but opted out of using “southern” to describe it, because they know Utah is not considered part of the American Southern region. In this case, “western” may be synonymous with “country” or “rural.” However, it was too difficult to identify this sense clearly enough to classify those labels into the *Rural* category. Future research on perceptions of speech in the (rural) Western United States may need to be cautious of the multifaceted meaning of the term *western*.

For the *Mormon* category, any reference to slang terms and lingo generally associated with members of the Church of Jesus Christ of Latter-day Saints were included. This includes any references to a lack of swearing in everyday speech.

Among the labels, there were many that referenced a few states as well, leading to these states receiving their own categories. Idaho and Arizona were mentioned a handful of times (generally where Utah borders with them). However, the most intriguing of the referenced states is California, which had 14 mentions (including “valley girl”), considering that it doesn’t border Utah. A handful of states were also mentioned once or twice, with the most obscure probably being New York.

For the individual features, most of them have been studied and there is evidence they exist in Utah. The *mountain* feature is one that has been studied a great deal, as explained previously (Eddington & Savage 2012; Stanley & Vanderniet 2018; Eddington & Brown 2021; Stanley 2023). As can be seen in the results above, it is also the most well-known and likely most stereotypical feature of Utah English. For the CARD-CORD category, this merger is still present in some varieties of Utah English, but as Bowie (2012) finds, it has been in decline in recent decades. Generally, the CARD-CORD was

used by participants to refer to the pronunciation of the cities Spanish *Fork* and American *Fork*. The pre-lateral merger was the next most referred to feature of Utah English after *mountain*. This feature, like *mountain*, has also been well-documented by Di Paolo & Faber (1990). WH aspiration has been studied in Utah English, particularly in an apparent-time study looking at how the feature decreased in use over time (Bowie 2021). *Sundee* is a feature not necessarily native to Utah specifically, but it's studied in Eddington & Bowie (2022) and was mentioned enough times that it's evident it's at least perceived by many as a feature of Utah English.

The *All State* category includes every instance of a participant circling the entire state or putting a comment that referred to the entire state speaking the same. As Evans (2013) points out in her draw-a-map study of Washington state, the perception that there is no variation in a region is a valuable perception in and of itself.

### 3.5.3 Data visualization

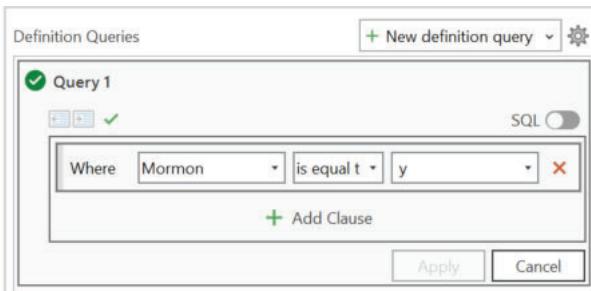
With each label separated into the categories above, the process of creating representations of the data based on each category could begin. On ArcGIS, this is done by creating a symbology for a feature class<sup>11</sup>. In this case, the feature class was simply labeled “UtahEnglish” and contains every label written by a participant. By way of the symbology, each of the categories in *Table 4* could be represented with its own map. To create a map for each category, the symbology of the feature class titled “UtahEnglish”

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<sup>11</sup> Here, “feature” is used to denote a feature in the ArcGIS sense to describe a region on a map.

This is opposed to “feature” being used in the linguistic sense to denote an aspect of one’s speech.

was altered. From there, individual maps were created containing only the polygons assigned to a specific category in the feature class. To do this, the “properties” menu of “UtahEnglish” was accessed and a definition query was added. This allowed each feature to be targeted and a separate layer to be created containing only the polygons for that category. *Figure 6* is a screenshot of an example of a definition query as seen in ArcGIS, using “Mormon” as the target category. Based on the definition query below, a layer only containing the “Mormon” polygons was created and applied to the base map.



*Figure 6 - Definition Query window in ArcGIS*

Once the layer was created, it was then exported using “feature export” in the data submenu of the UtahEnglish base layer. This process was repeated for the other categories as well. To create the illusion of a heatmap, the transparency of the polygons on a mass level was adjusted. Altering the transparency made the areas with a greater focus of labels darker and those less marked by participants lighter. With the layers all created, which layers were being viewed could be toggled on and off. Because the polygons are all transparent, this even allowed for viewing multiple feature sets at a time, presenting some interesting opportunities for analysis.

### 3.5.4 Issues with Processing

While processing the data, there were several issues that led to questions about how to quantify certain labels provided by participants. The main label type in question was when no circles or regions were drawn at all, and the participant simply wrote outside the map about how the entire state speaks the same. One such label was placed outside the map by a participant and reads “I think of all Utahns speaking the same. The one example I can think of is we don't pronounce the ‘t’ in many words. Example) ‘Layton’ is pronounced ‘Lay-on’ and ‘mountain’ is ‘moun-ain.’” For labels such as these (where no specific circle or region was assigned), the assumption was made that the participant was referencing the entire state and created polygons that filled in the borders of Utah.

Another issue that arose during processing was determining how to quantify labels that didn’t accompany any circle or region of any kind, but were simply placed somewhere on the map. An example of such label can be seen in *Figure 7*:



*Figure 7 - Example of a label referring to an ambiguous area on the map*

In this label there isn’t any clear region assigned to the comment “does anyone even live here”, so a polygon around the comment was created, assuming that the participant likely meant the area near their comment. Luckily for this experiment, there weren’t many of these labels and most of them weren’t in any of the target categories listed in *Table 4* above.

Another difficulty presented during processing was determining how to quantify labels where a participant simply drew a line to one of the cities and then added a label to where the line was pointing. An example can be seen in *Figure 8* with a participant drawing a line pointing to Salt Lake City:

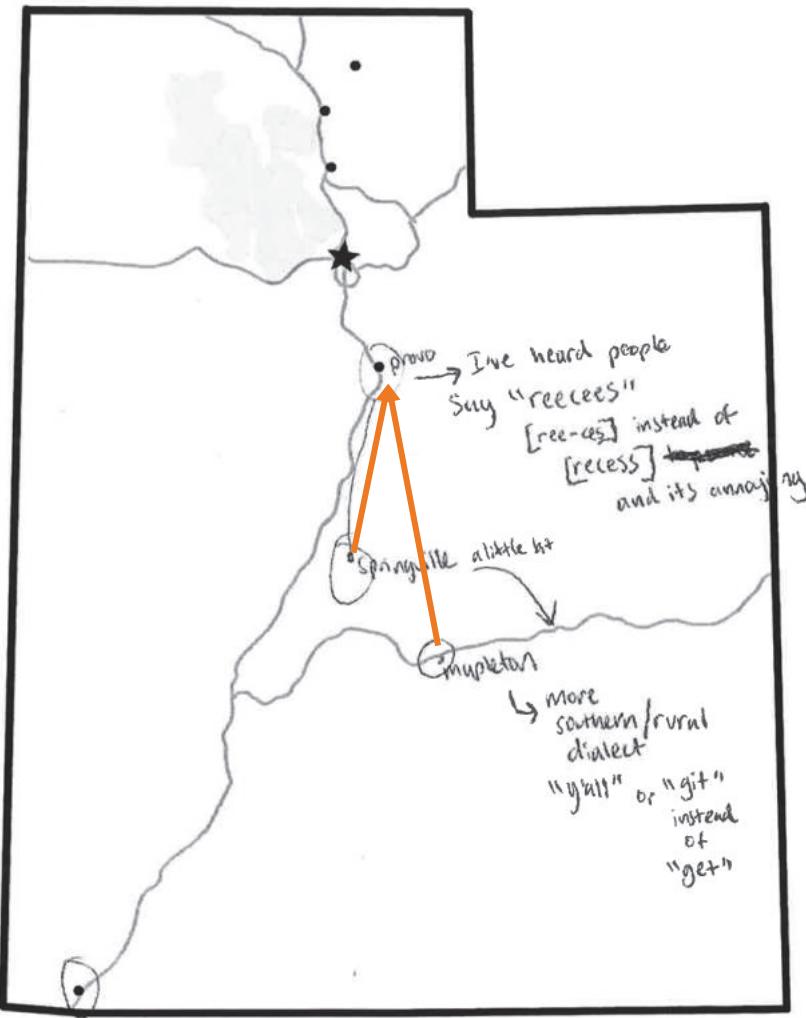


*Figure 8 - Example of a label pointing to a certain point on the map but the designated area for the map feature is ambiguous*

It's difficult to tell here if the participant meant Salt Lake City (since that's where their line is pointing) or the Utah Valley area because they labeled it as "Utah Valley". "Utah Valley" is the name of the valley where cities like American Fork and Provo (which is the city on the survey map just south of Salt Lake City) are found. As can be seen in the image above, the assumption was made that the participant was referencing Salt Lake City, so the polygon associated with this comment was drawn around Salt Lake City.

Finally, as explained in Section 4.3 about data collection, some participants simply had difficulty reading the map and so their labels were vastly inaccurate (this could be an explanation for the "Utah Valley" example above). This is not uncommon among draw-a-map experiments done in the past (Bucholtz et al. 2007; Evans 2013). In one such example, the participant perceived the cities Springville and Mapleton to be much further south than they are, leading to their labels for those cities being placed inaccurately on the map. Realistically, both cities are within 10 miles southeast of Provo,

whereas this participant placed Mapleton over 150 miles away from Provo. The participant's map can be seen in *Figure 9* with arrows pointing roughly to where these cities should be:



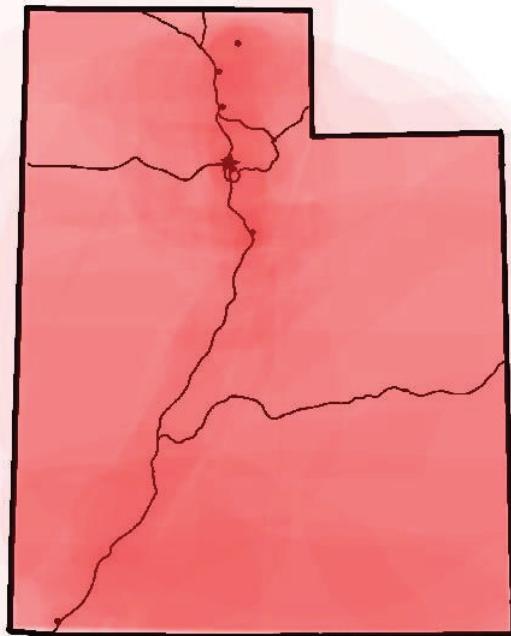
*Figure 9 - Example of a participant greatly misinterpreting the map*

Because of cases like this, some of the labels were difficult to accurately quantify. To maintain consistency across the experiment though, the decision was made to leave each circle/region where it was, regardless of its accuracy in placement by the participant.

### 3.6 Results and Discussion

This section presents the results from the draw-a-map experiment. *Table 4* in the previous section shows the counts for each token. Here, we will look at how the map features counted towards each category appear overlapped with one another, providing an illustration of patterns for each category.

In the following sections, we will discuss each map, what patterns appear, and how these are similar to findings in other studies of language regard in both Utah and other states in the U.S. *Figure 10* is a map of all labels containing a reference to *Utah*, as described in the table in the previous section. There don't appear to be any noticeable patterns on display here, aside from what could potentially be a focus of Utah labels around Salt Lake City and the Wasatch Front area.



*Figure 10 - Utah Labels*

### 3.6.1 Urban/Standard vs. Rural

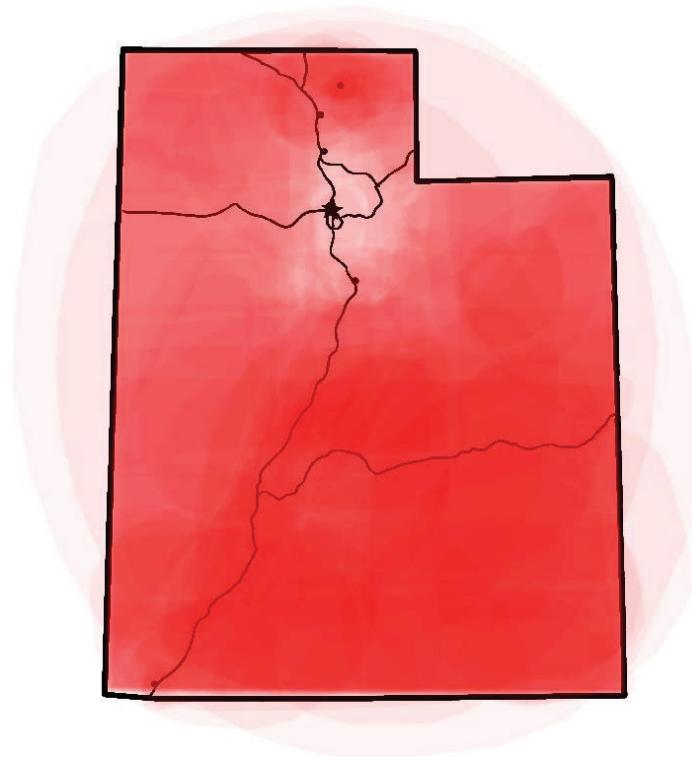
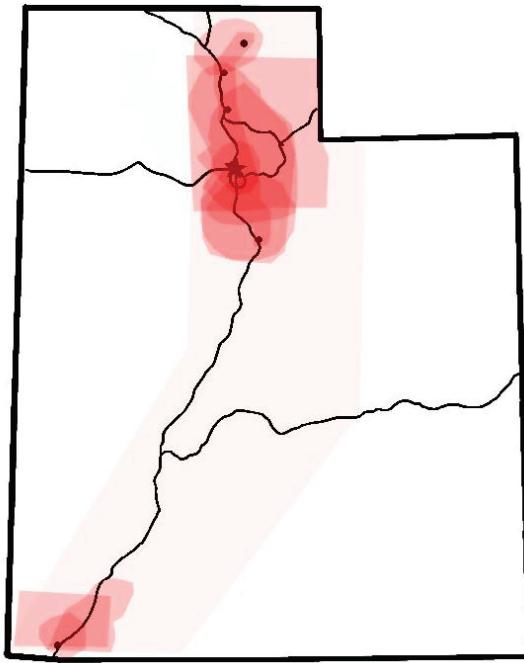


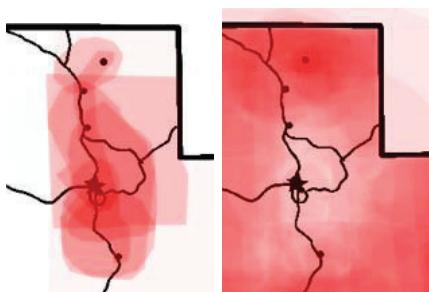
Figure 11 - Rural Labels

Not surprisingly, the lowest concentration of *Rural* labels is found around Salt Lake City, the largest metropolitan area in the state. In the *Rural* map above, there is a clear lack of *Rural* labels overlapping over Salt Lake City. The highest concentration of *Rural* labels appears to be most of Eastern and Southern Utah. As discussed in Section 1.3 where “Rural” and “Urban” are defined in the context of this study, the counties in Southeastern Utah are among Utah’s lowest populated. So, it makes sense why there is a higher likelihood of these areas being counted as rural. Like what was seen by Evans (2013) and discussed somewhat in Section 3.5 (where data processing methods for this experiment are discussed), a common label that seems synonymous with “rural” is “Southern”.



*Figure 12 - Standard/Urban Labels*

Generally, areas marked as *Standard* (and *Urban*) and those marked as *Rural* complement each other in their placement. As is likely expected, Salt Lake City has the highest concentration of *Standard* labels with most of Utah Valley and Logan also being labeled similarly. Ogden (about 38 miles north of Salt Lake City) also appears to have a relatively lower concentration of rural labels, as does Provo (about 45 miles south of Salt Lake City). Likewise, Ogden and Provo have a higher concentration of labels under the *Standard* category. A comparison of these regions from both maps can be seen below:



*Figure 13 - Concentration of labels in the Salt Lake City region (Left: Standard; Right: Rural)*

When comparing *Urban (Standard)* vs. *Rural*, perhaps the most interesting region to look at is St. George, a rapidly growing city in the southwest corner of the state. As we can see in the *Standard* map, St. George was considered by several participants to be a *Standard* or *Urban* area. If we look at the *Rural* map, however, there doesn't seem to be any preferential treatment given to St. George (the southern-most marked city) as an urban area by most participants.

One possible reason for this is that St. George was marked as *Urban* because it was one of the six marked cities on the map alone. Perhaps some participants assumed St. George was urban enough to be marked on the map, so they must also consider it an urban area. Another reason for this could be that St. George is in sort of an in-between phase of growth where it's slowly becoming more populated and therefore more recognized as an urban hub. Logan (the northernmost marked city on the map) sees something similar with it being marked as both rural and urban. When looking at USA Urban Areas<sup>12</sup> as designated by the 2010 U.S. Census, the Logan and St. George urban areas have roughly the same populations with Logan having 94,983 and St. George 98,370 ("USA Urban Areas"). St. George is definitely a popular travel destination (at

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<sup>12</sup> These Urban Areas become much more important in Experiment 2, but something important to note is that they often include not just the population of the city they're named after (usually the biggest city in the area), but populations of neighboring cities as well. The *Logan* metropolitan area, for example, contains the populations of Smithfield, North Logan, Logan, Providence, Nibley, Hyrum, and Wellsville. The City of Logan by itself has a population closer to 50,000 ("Census Bureau Data").

least in Utah), so it could be that Utahns perceive it as urban because it's a desirable place to visit.

### 3.6.2 Mormon Speech

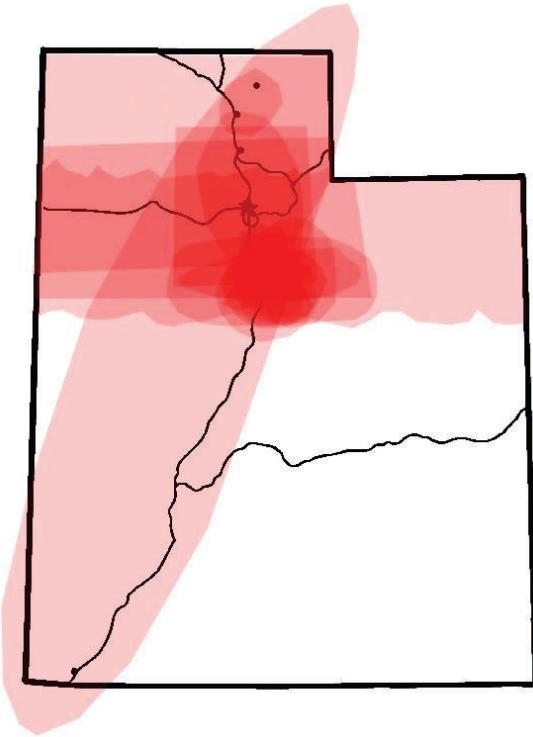


Figure 14 - Mormon Labels

As was expected, Utah Valley was the area with the highest concentration of labels relating to a person's Mormon-ness. Provo specifically appears to have the most labels regarding "Mormon". The number of labels is so great in *Figure 14* so to obscure the dot marking Provo. The Church of Jesus Christ of Latter-day Saints is headquartered in Downtown Salt Lake City, as is the Salt Lake City Temple (an icon of the Mormon faith and the state of Utah). Salt Lake City is also the home of the Conference Center, where semi-annual General Conferences are broadcast by the Church of Jesus Christ of Latter-day Saints. Based off this alone, it might have been expected that Salt Lake City would've had the highest concentration of "Mormon" labels. Utah County (Provo

specifically), however, has a higher concentration of Church members than Salt Lake, with 72% claiming affiliation with the Church of Jesus Christ of Latter-day Saints (PRRI - American Values Atlas 2021) while Salt Lake County is closer to 49% as of 2018 (Los Angeles Times 2018).

While Salt Lake City has many important locations for the Church of Jesus Christ of Latter-day Saints, the Church's largest university, Brigham Young University (BYU) is located in Provo. The findings of this survey show that although the Church is headquartered in Salt Lake City, at least according to participant perceptions, Provo is where Mormon speech is its most prominent. Perhaps Provo is seen as the source of most speech trends associated with Mormons.

### 3.6.3 California

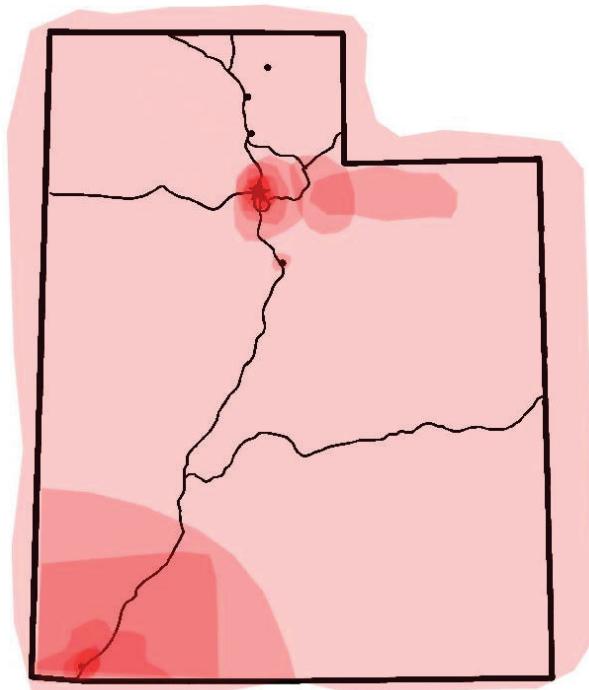


Figure 15 - California Labels

Based off the surveys, there seems to be a belief that speakers from Salt Lake City and St. George are perceived to sound like Californians. There were also a couple of people who circled areas just east of Salt Lake City. When looking at the individual survey responses, it becomes apparent that these participants were trying to circle Park City specifically. Park City is a relatively small town located in the mountains just east of Salt Lake City and it's known as a hub for tourists who come to Utah to ski at one of the local resorts. It could be that Utahans are perceiving these tourists to mostly be visiting from California, which could lead to the idea that people in that area sound like Californians.

Salt Lake City has the highest concentration of *California* labels. Since Salt Lake City also has the highest concentration of *Standard (Urban)* labels as well, the connection could be made that Utahns generally perceive California English (or English spoken in the West generally) as the most standard variety of English. As mentioned above, St. George also had several *California* labels assigned to it by participants. St. George is the closest major city to Zion National Park, one of Utah's most popular tourist attractions. A possible reason for it being considered more "Californian" is that, like Park City, St. George is often populated by a lot of tourists. St. George, unlike most of Northern Utah, also has a much warmer climate (like Arizona and Nevada), which could lead to the perception by Utahns that it is more "Californian". St. George being along I-15 could also play a part in this "Californian" perception, seeing as those traveling from Utah to California/Las Vegas or vice versa are likely to stop in St. George along the way.

Another possible explanation is that *California* may be a metonym for *non-Mormon*. BYU (where the data for the draw-a-map task was collected) is occupied

predominantly by members of the Church of Jesus Christ of Latter-day Saints. As explained previously, the predominant religion in Utah is also the Church of Jesus Christ of Latter-day Saints. Because Salt Lake City, Park City, and St. George are tourist attractions, they attract people from around the world who likely aren't members of the Church. As (Baker & Bowie 2010; 2015) show in their study of religious affiliation as a correlate of linguistic behavior, there are linguistic differences in the speech of Utahns who openly identify as active members of the Church and those who are less-active or nonmembers. Perhaps there is a perception by Church members that nonmembers sound like Californians. There isn't enough evidence in this study to show this, but it would be an interesting topic to investigate further.

### 3.6.4 Idaho

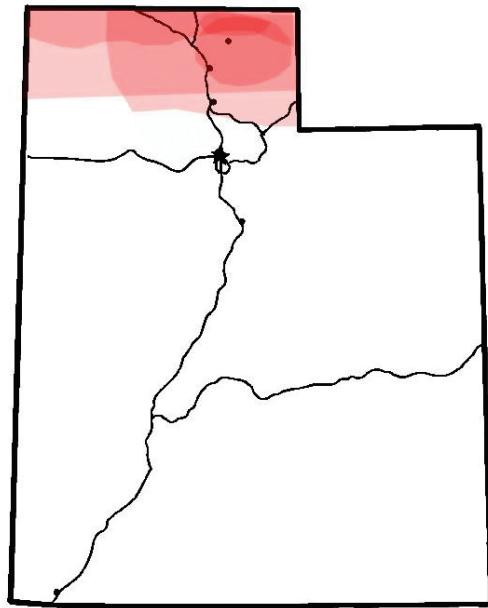


Figure 16 - Idaho Labels

Aside from California, Idaho also appeared several times throughout the survey responses. Unsurprisingly, Northern Utah had the highest concentration of Idaho labels since Idaho shares a border with northern Utah (*Figure 16*). Specifically, there was a decent amount of overlap slightly north of Logan (the northernmost city on the survey map) in cities like Richmond and Smithfield. Because there aren't many Idaho labels, there aren't any concrete conclusions that can be made here. However, for Experiment 2, there are a handful of Idaho English speakers. In Chapter 5, we will discuss the overlap between the results of this and the following experiment.

### 3.6.5 Features of Utah English

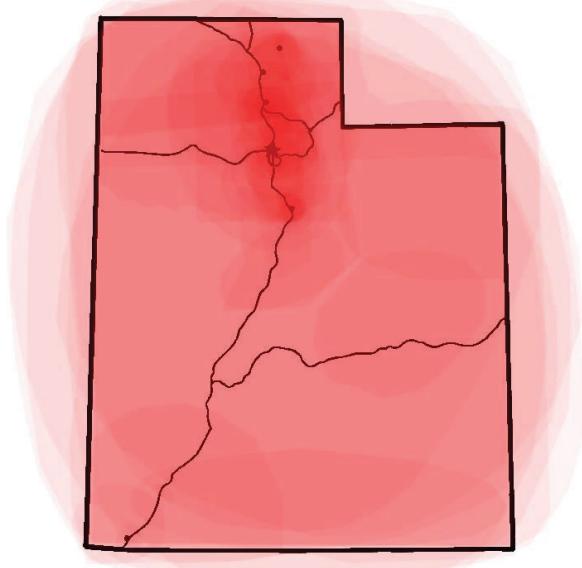


Figure 17 - Mountain

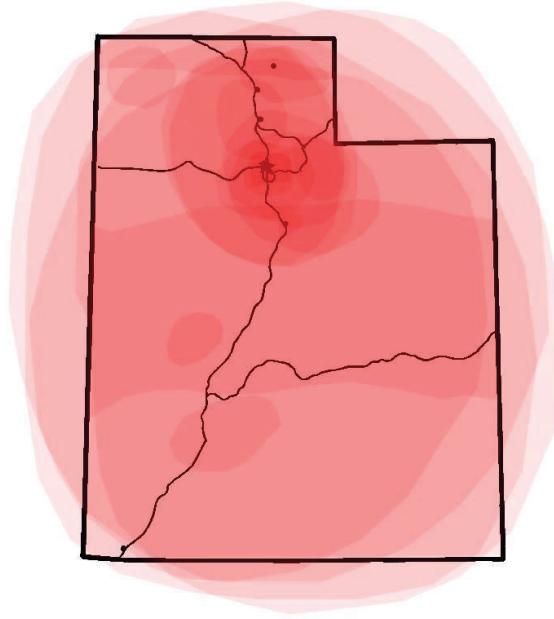


Figure 18 - Pre-lateral Merger

In this section, five features of Utah English and where Utahans perceive them to be most prevalent (*Figures 17-18*) are discussed. The features which appear in the most

labels are the realization of unstressed /tən/ as [ʔin] in words like “mountain” and the pre-lateral merger before tautosyllabic /l/ (Eddington & Savage 2012; Stanley & Vanderniet 2018). Because these features appear the most often across the surveys, it can be assumed that these are the features which Utahns are most aware of. What’s interesting is that these features (although perceived by some to be found throughout the state) are primarily found in Salt Lake City, more generally the Northern Utah region.

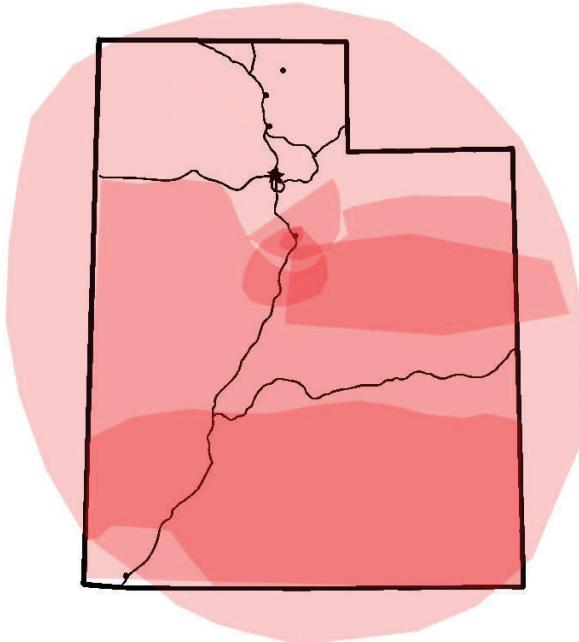


Figure 19 - CARD-CORD Merger Labels

The CARD-CORD merger on the contrary, is perceived to exist mostly in Southern Utah (*Figure 19*). As Bowie (2003; 2012) points out, although the CARD-CORD merger was prominent among many second and third-generation Utahns, it has been declining in use in recent years. As seen in this experiment however, Utahns are generally still very aware of this feature. Based on the results of this experiment, this feature appears to be associated primarily with Central and Southern Utah. One of the

main stereotypes that come into play with this feature is that cities with “Fork” in their names, namely American Fork and Spanish Fork, have “fork” pronounced [faɪk] by many of their residents. Both American Fork and Spanish Fork are in Utah County where Provo is also located (the city on the map just South of Salt Lake City). Likely because of this, there is a higher concentration of CARD-CORD merger-related labels in this area.

What's notable is that the CARD-CORD merger is specifically not found in Salt Lake City. As was found by Bowie (2012), the CARD-CORD merger is a feature of Utah English in decline. A possible reason for the placement of this feature on the map is that Utahns are under the impression this feature exists in Utah (based solely on stereotypes), but they don't know anyone who has this feature. So, participants just added the CARD-CORD merger to random areas throughout Utah, with a focus on Utah County, namely the two Forks: American and Spanish.

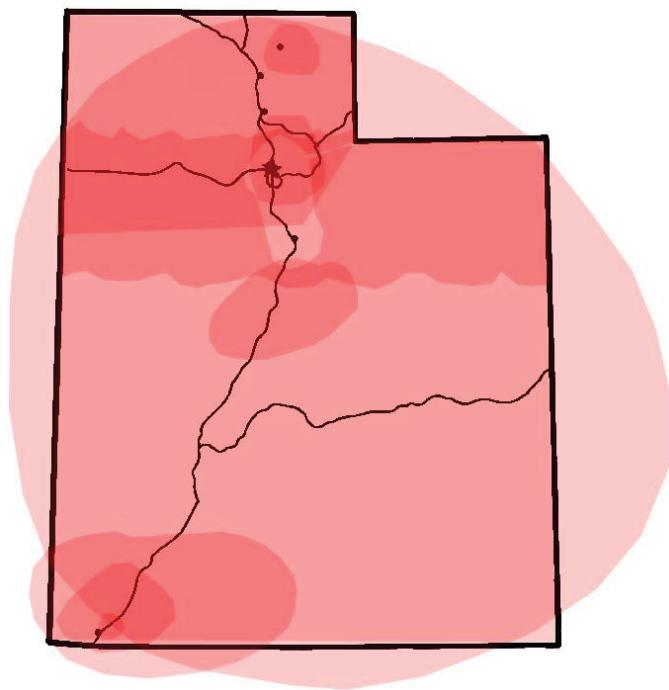


Figure 20 - Sundee Labels

One of the more surprising features to look at has been what is referred to here as “Sundee” or using [di] to pronounce “day” in the days of the week. This is another feature that participants perceive to be found throughout the state, but there are some areas of overlap. The region just north and east of Salt Lake City appears to have this feature the most prominently as well as certain regions near St. George. This area north of Salt Lake City is where cities such as Layton and Farmington are located. East of Salt Lake is where Echo, Coalville, and possibly Kamas are marked specifically. Just northeast of St. George is where Washington, Utah is located, which also has a high concentration of “Sundee” labels.

WH-aspiration is the only other feature of Utah English that appeared somewhat frequently in the draw-a-map results. Because this feature doesn’t have nearly as many tokens as some of the other features, it’s difficult to make any conclusions about where this feature is perceived to exist in Utah. The only place with several labels overlapping is in Washington, Utah, which is also one of the areas where there was a higher concentration of “Sundee” labels. A little more north of St. George there is some more overlap, this time closer to cities like Beaver and Circleville. Again, out of all the data collected, there were only 5 tokens of WH-aspiration labels, so concrete conclusions can’t be drawn, but it is interesting to speculate regardless.

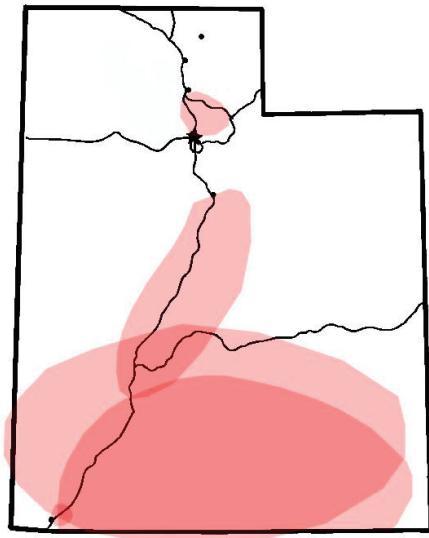


Figure 21 - WH-Aspiration Labels

### 3.6.6 It's All the Same

One final category that will be discussed is one seen in other draw-a-map studies, namely Evans (2013) and her study of English in Washington state. This category is the perception that everyone in the state sounds the same. Something interesting about the findings from this study when compared to those in Evans (2013) is that many participants, while perceiving the entire state to sound the same, still listed features they associate with all of Utah. This is unlike what was found in Evans (2013) wherein participants would simply write a line outside the map denoting the entire state speaks the same. This was found in the present study as well, but it wasn't as prominent.



Figure 22 - Example of a map where participant perceives no language variation

Of the 194 responses for this survey, there were only 9 that either circled the entire state of Utah or just wrote a label outside the state, referring to the entire state. In 5 of these responses, participants added features they perceive as state-wide features. Many of the features included are those already discussed in previous sections of this chapter, namely realization of the second syllable in “mountain” (and related words), the *feel-fill* merger, and “day” in the days of the week pronounced as [di]. One participant (I believe this is the only token of this in all responses) mentioned a feature first studied by Stanley & Vanderniet (2018) of [t]-epenthesis in /ls/ clusters in words such as “Nelson” or “else” pronounced [nɛltsən] and [ɛlts] respectively.

It’s likely that certain features of Utah are found throughout the entire state and not associated with a specific region. One hypothesis is that perhaps in Utah English, certain features are divided generationally rather than regionally which could be why there is a perception that certain features are found throughout the state. Age will be

discussed at length in the next chapter about the perceptual audio survey, as well as in the conclusion where hypotheses based on the results of both experiments will be given.

### 3.7 Summary of Findings

The draw-a-map task resulted in many significant findings regarding Utah English and the study of perceptual dialectology in the state. In line with the findings from Eddington (2022), most regions outside of Salt Lake City and the Wasatch Front are considered *Rural* by Utahns. New findings in this experiment are the perception of Provo and its surrounding areas as the most *Mormon* of all of Utah. Also, St. George and Logan are what will be dubbed “swing-cities” in terms of them being simultaneously perceived as both *Urban* and *Rural*. Eddington (2022) includes Logan (Cache County) in the dialect area he deems “Extended Wasatch Front”, but St. George is included in the “Non-Wasatch Front” dialect area which contains mostly rural Utah areas. So, the findings in the present study are similar, but at least according to perceptions in this experiment, St. George probably should be included in the same dialect region as places like Logan. Perhaps a different name for this region that includes both St. George and Logan other than “Extended Wasatch Front” would be more fitting.

Another finding that’s interesting and would make for an interesting follow-up study is that Utahns are fascinated with labeling certain areas of Utah as “Californian”. As has been stated in this chapter, there could be an association between sounding Californian and less active or non-members of the Church of Jesus Christ of Latter-day Saints. This idea stems from seeing areas like Salt Lake City (which have a lower

percentage of Church membership) and Park City and St. George (which have high tourism from out-of-state) as being the most “Californian”.

Finally, there were a handful of participants who labeled the entire state as sounding the same. This is like what Evans (2013) finds in her study of Washington (as well as other draw-a-map studies). However, what differs in the present study is that many of the participants who did label the entire state as sounding the same included a list of features found throughout the state. This has led to the hypothesis that certain features of Utah English may not be differentiated regionally. A possible explanation for this could be that they are differentiated generationally instead. This possible explanation will be discussed more thoroughly in the following chapters.

## 4 Experiment 2: Perceptual Audio Survey

### 4.1 Survey Design

For this experiment, a new research method was developed for gathering perceptual data. This method, like the draw-a-map task, is done to help understand the perceptions held by individuals towards their spoken variety. The perceptual audio survey was developed in Qualtrics, utilizing the platform’s heatmap feature to collect data.

In the experiment, participants are presented with audio recordings of native English speakers from various areas of the U.S. After hearing each recording, listeners were presented with a map of Utah and were asked to click on the map where they believe the target speaker is from. It’s important to note here that participants weren’t strictly told in the survey instructions that the speakers are from Utah, but due to the nature of the survey being about Utah English, this is greatly implied. The map used for

this survey is the same one used for the draw-a-map task (See Section 3.1). The survey consists of 13 recordings which are all from the Speech Accent Archive (George Mason University 2023), each from a different geographic area of the continental U.S. Each speaker in the Archive reads the passage as seen below:

*Please call Stella. Ask her to bring these things with her from the store:*

*Six spoons of fresh snow peas, five thick slabs of blue cheese, and maybe a snack for her brother Bob. We also need a small plastic snake and a big toy frog for the kids. She can scoop these things into three red bags, and we will go meet her Wednesday at the train station.*

Since one of the focuses of this study is to understand perceived “countryness” or “Southerness” in Utah English, many of the recordings were chosen based on if the speakers were from the South or more rural areas of the U.S. Another objective was to see if certain areas of Utah are generally associated with what has been described as “valley girl” or the variety of English associated with Southern California and the Silicon Valley (Bucholtz et al. 2007). This was done after seeing certain regions labeled as “California” by participants in preliminary data collected for the draw-a-map task.

Because the recordings all use the same passage, participants’ perceptions of where each speaker would live in Utah are entirely based off the participant’s perceptions of that speaker’s phonetic features of their variety. This is opposed to participants listening for terms and jargon used by a speaker that would serve as shibboleths of that speaker’s origin. In their study of Country Talk, Hall-Lew & Stephens (2012) found that

individuals would often identify others as speakers of Country Talk by whether or not they used certain terms and jargon. Some of these terms included *y'all*, *fixin' to*, and *ain't*. Because these and similar terms don't appear in the reading passage, as stated above, participants' perceptions of each speaker are based entirely on the speaker's phonetic features. This is similar to a study done by Plichta & Preston (2005) wherein they sought to establish a north-south continuum of /ai/-monophthongization in the Midwest. Both studies require participants to place a speaker on a map based solely on that speaker's phonetic features. The perceptual audio survey is greatly inspired by matched-guise tests and comes close to fulfilling the same function, but without manipulation of the audio.

Like the draw-a-map task, a basic qualification to participate in this survey is that the participant must have lived in Utah 1 out of the past 10 years. To filter for qualified participants, the first question of the survey asks whether participants have lived in Utah at least 1 out of the past 10 years. If participants answer "No" to this question, they will be brought to the end of the survey. Following this question, the subject is asked to provide their birthyear and a description of their residential history.

Once the administrative questions are finished, the next section of the survey contains instructions on how to fill out each survey question. While piloting the survey, we realized the importance of eliminating any sort of selection bias that participants could face during the survey. This bias could arise from participants failing to understand that 1) multiple speakers could be assigned to the same location on the map, 2) participants could choose to assign only one speaker to a certain area, and 3) not every area on the map needed to have a speaker assigned to it. While there ended up being

some shortcomings with these instructions (See Section 5.2 Shortcomings), most participants were able to complete the survey according to the objectives of the experiment. The instructions given are as follows:

*In the following questions, you will hear recordings of speakers reading a passage aloud. Please listen to the recording and click on the map of Utah where you would think the speaker is from. Every area may not be selected and multiple speakers can be assigned to the same area.*

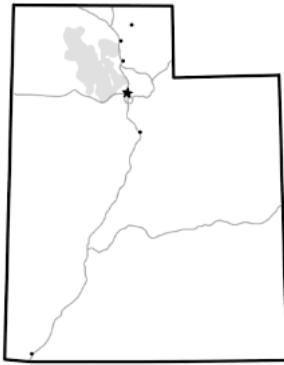
The bulk of the survey questions are divided into two sections comprised of 13 questions each with a different recording. The second of the two sections contains 9 questions in a randomly generated order. The first section contains 4 questions with recordings meant to prime the participants. Each of the recordings from these 4 questions is of a speaker from the Western U.S. Some of the speakers from later questions in the survey speak varieties of English that are much more distinct and easily distinguishable from Utah English. Had these questions been placed earlier in the survey, participants would likely have been more attentive to differences in the speakers' speech, affecting where participants placed the speakers on the map (or if they placed them within the state lines at all). To be clear, it was not explicitly stated in the instructions that the speakers in the recordings were all native to Utah, so participants weren't necessarily lied to. However, the intention was for participants to believe the speakers were all from somewhere in Utah and this is suggested to participants by the survey being about Utah English. Regardless, many participants saw through this ruse.

*Figure 23* is an image of how all questions in the survey were presented.

Participants are asked where they think the speaker is from, an embedded audio clip with the recording is included, followed by the map itself.

Where would you say this speaker is from in Utah?

▶ 0:00 / 0:26 ━━ ⏸ :



*Figure 23 - Screenshot depicting layout of survey questions*

## 4.2 Selecting Audio Recordings

*Table 5 - Information about each speaker<sup>13</sup> whose recording is featured in the survey<sup>14</sup>.*

Question #	Age	Sex	City and State
1	21	M	San Diego, CA
2	21	F	Boise, ID
3	32	F	Spokane, WA

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<sup>13</sup> Although it would clarify the nature of each speaker to know when each recording was done, this information is not available through the Speech Accent Archive. The closest information available is that on the website, each student involved in the project is credited by year. According to the site, the Speech Accent Archive project began with a Fall 1998 class and the latest listed class is from Summer 2021. So, the recordings featured in the present study were all recorded at some point during that period.

<sup>14</sup> Questions 5–13 were presented randomly to participants and are marked by their shading.

4	75	M	Mesa, AZ
5	32	M	Idaho Falls, ID
6	29	F	Ogden, UT
7	31	F	San Diego, CA
8	22	F	Berkeley, CA
9	50	M	Charleston, SC
10	30	M	West Jordan, UT
11	52	M	Pine Bluff, AR
12	59	F	New Orleans, LA
13	60	F	Milwaukee, WI

As seen in *Table 5*, the audio recordings represent a diverse assortment of speakers of differing ages and locations with a focus on speakers from the Western U.S. Like the deliberate choice to make the order of the first four recordings static for the participants, the focus on speakers from the Western U.S. was done to draw attention away from the speakers who are further removed from Utah geographically and linguistically. In this section, linguistic features of some of the speakers will be discussed, shedding light on why they were chosen.

#### 4.2.1 Southern U.S. English (SUSE)

As was seen while gathering pilot data for this study, there is perceived “Southerness” in Utah English. So, it became essential to include recordings in this experiment that highlight various features of Southern American English. Because /ai/-monophthongization is a feature well-documented in both Southern (Labov, Ash & Boberg 2008) and Utah English (Morkel 2003; Sykes 2010).

Of the speakers chosen for this experiment, the 50-year-old male speaker from Charleston, South Carolina has a couple of features found in both SUSE and Utah English. In the recording, this can be heard on how he pronounces *five* as [fav]. This

speaker also has another feature commonly associated by Utahns with Utah English, wherein he pronounces “day” in *Wednesday* as [wenzdi] instead of the more common [wenzdeɪ].

The 59-year-old female speaker from New Orleans, Louisiana has several Southern features in her speech as well, but the ones she uses are different than those used by the male speaker. The Louisiana speaker’s Southern features mostly come down to using diphthongs for many of the vowels in her speech which are generally monophthongal in other American English varieties. Examples of these are using [au] for the vowel in *call* and *small*, [əu] for the vowel in *spoons*, and [ou] for the vowel in *snow*.

Arkansas, although on the border of the American South, is generally considered to be part of this geographic region (Encyclopedia of Arkansas 2023), so it will be discussed here as well. Also, because of its close proximity to Texas and Oklahoma, it’s likely that the variety of English spoken in rural Arkansas is closest to the Country Talk studied by Hall-Lew & Stephens (2012). The 52-year-old male speaker from Pine Bluff, Arkansas exhibits many features of SUSE. Like the New Orleans speaker, the Arkansas speaker diphthongizes many canonical monophthongs. Examples of this can be seen with the speaker’s pronunciation of *these* [ðəiz], *spoons* [spəunz], and *snow peas* [snəo pəiz], to name a few. This speaker also has /ai/-monophthongization in his pronunciation of *five* [fa:v]. This speaker also exhibits features of the Southern Vowel Shift (Labov, Ash & Boberg 2008) with the /i/-fronting with *kids* [kiədz] instead of [kidz], and DRESS-raising and the *pin-pen* merger with *Wednesday* [winzdeɪ] instead of [wenzdeɪ]. Because this speaker exhibits so many features of Southern American English in his speech, based on

my perceptions, he is the most rural sounding of all the speakers selected for this experiment.

#### 4.2.2 California English

During the piloting phase of this study, another trend that was seen was the tendency to relate certain areas of Utah to California. In response to this, while selecting recordings for this study, it was decided to select several from California which have certain features characteristic of California English. Two California speakers are from Southern California, San Diego specifically, and the third is from Berkeley in the San Francisco Bay Area.

Of the speakers, the female San Diego speaker has the features which are most characteristic of the California vowel shift. This speaker has a backed TRAP vowel which can be heard in words such as *ask* [əsk], *slabs* [slebz], and *snack* [snek], to name a few. This speaker also has a fairly backed nucleus in her /ai/ diphthong in *five* [faɪv].

#### 4.2.3 Inland Northern American English

Among the speakers selected for this experiment, one of them is a speaker from Milwaukee, Wisconsin. This speaker has features of the Northern Cities variety of English, including elements of the Northern Cities Shift. There isn't any evidence of a perceived Northern Cities variety in Utah, the decision to include this speaker was purely based on curiosity alone. Just like with the other speakers, the question was asked “where in Utah will people place someone who sounds like they're from the Midwest?”

As explained, the Wisconsin speaker has a few features of the Inland Northern American variety of English. Features of this speaker's variety of English include BAG-raising in *bags* [begz]<sup>15</sup> and LOT-fronting in *Bob* [ba:b]. Compared to other speakers from the Northern Cities, this speaker has relatively few features. In the results section of this paper, we will discuss how well participants were able to pick up on this speaker's features and how that affected their decision where to place this speaker.

#### 4.2.4 The Intermountain West and Pacific Northwest

Many of the speakers in this survey are from what Labov, Ash & Boberg (2008) refers to as the “Intermountain West” region of the U.S. Two of these speakers are from Utah; a 30-year-old male from West Jordan and a 29-year-old female from Ogden, two are from Idaho; a 32-year-old male from Idaho Falls and a 21-year-old female from Boise, and one is from Arizona; a 75-year-old male from Mesa. The Arizona speaker has some features that are distinct, including the use of diphthong on *kids* [kjɪdz]. This speaker also pronounces *Wednesday* as [wenzdi] as opposed to the more common Western U.S. pronunciation [wenzdeɪ]. Considering this is a feature several people associate with Utah English (as seen in the draw-a-map task), it’s interesting to see how placement of this speaker in this experiment lines up with where people marked this feature in the draw-a-map task. This will be discussed in greater detail in the next chapter of this paper.

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<sup>15</sup> BAG-raising was first studied in Zeller (1997) in Wisconsin.

There is also one speaker, a 32-year-old speaker from Spokane, Washington, who could be included in this same group as well. Spokane, Washington is on the border of Washington and Idaho, so its variety of English is likely closer to what is found in Idaho than what is found in speakers along the west coast of Washington. So, it feels appropriate to group her with these speakers from the Intermountain West. These speakers don't appear to have any features of their speech that distinguish them from other speakers. This isn't to say that other speakers from the same geographic regions don't exhibit distinguishing features in their speech, but these speakers specifically don't seem to have any of these features.

#### 4.3 Designating Regions

For Qualtrics to reveal a count of how many clicks were assigned to a specific area, they require regions to be designated on each map<sup>16</sup>. The regions were created based on a combination of several factors: county lines, population density, and main freeways. On Qualtrics, each region must be entered in manually through a process of placing a box on the target image and then dragging the corners to increase the size and adding additional points to create the desired shape. At the present time, there does not appear to

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<sup>16</sup> This is something I wasn't aware of while developing the parameters for this experiment.

Regions were assigned after the data collection process was already completed. Because regions cannot be copied and pasted from one question to another (unless the entire question is copied), I resorted to a little bit more of a primitive method: Once I was satisfied with my regions, I 1) traced the map and regions using a dry-erase marker on my monitor, 2) lined up my drawing with the maps for each of the other questions, and 3) created regions for each of the other maps.

be a way to apply map data from a software like ArcGIS in the heatmap feature, so we had to settle with more generalized, boxy shapes. While making their selection on the map, participants are not aware of where each region is. Also, due to the lack of detail in the map, participants may be clicking on one point mistaking it for somewhere else. Because the map itself is not exact, it provides justification for the regions themselves not being exact either.

Nine regions<sup>17</sup> in total were designated for this experiment: *Logan, Ogden-Layton, Salt Lake City, Provo-Orem, St. George, I-15, West Utah, East Utah, and Southeast Utah*. These regions were chosen based on a variety of factors, but most notably population and geography. In this section, the various regions will be outlined and justification will be provided for choosing them. *Figure 24* shows the map with the 9 designated regions.

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<sup>17</sup> Note that regions will be designated using italicized font going forward. When a name is italicized, that indicates I'm referring to one of the 9 regions and not the actual cities themselves.

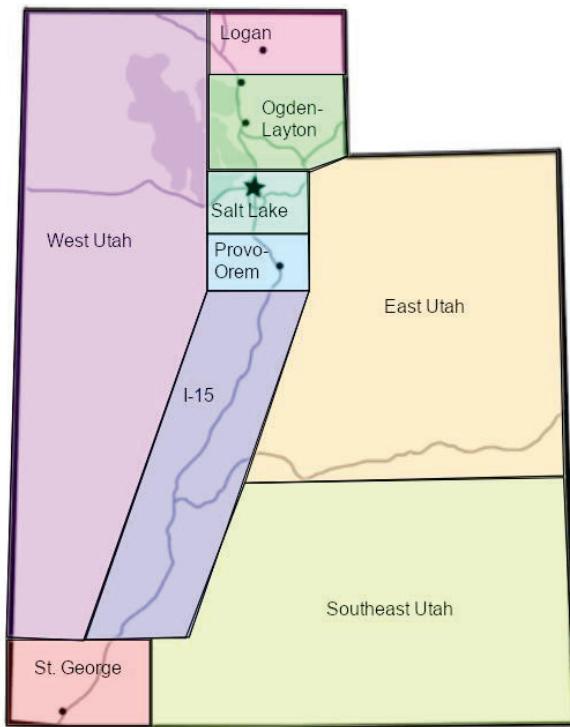


Figure 24 - Map showing the 9 designated regions where clicks were counted towards

#### 4.3.1 Logan

Using ArcGIS to represent their data, the U.S. Census Bureau has designated certain regions throughout the U.S. as urban or metropolitan areas ("USA Urban Areas"). These urban areas were used to designate the 9 regions for the perceptual audio survey. The first of the 9 regions that will be discussed here is the *Logan* region. According to the 2010 U.S. Census, this region includes one urban area labeled as *Logan*, which had a population of 94,983 as of 2010. The *Logan* region used in this study contains most of Cache and Rich Counties. Generally, this region could be referred to as "Northern Utah".

*Figure 25* below presents a map showing the Logan metropolitan area in Arc GIS as designated by the U.S. Census Bureau.

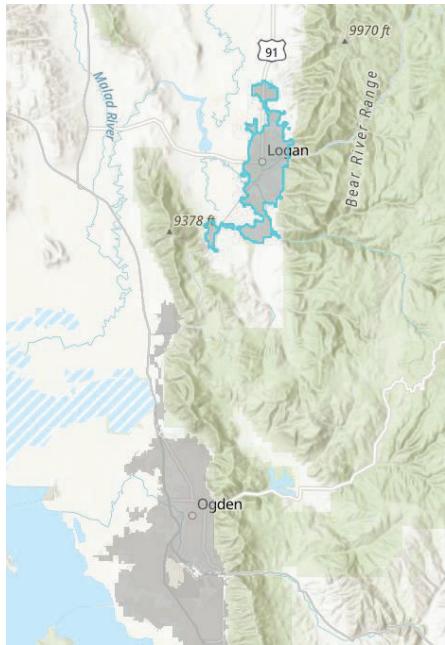


Figure 25 - The Logan metropolitan area

#### 4.3.2 Ogden-Layton

The *Ogden-Layton* region covers the counties just north of Salt Lake, including Davis, Morgan, and Weber, with parts of Summit and Box Elder Counties as well. Also contained here are two of the marked cities on the map used in the experiment. These cities are (from North to South) Brigham City and Ogden. Using ArcGIS, the U.S. Census Bureau shows that this region contains the *Ogden-Layton* population area, which can be seen in *Figure 26* below. This area had a population of roughly 546,026 according to the 2010 U.S. Census. The southernmost boundary of the Ogden-Layton population area is roughly where the Salt Lake valley begins, prompting the beginning of the *Salt Lake City* region.

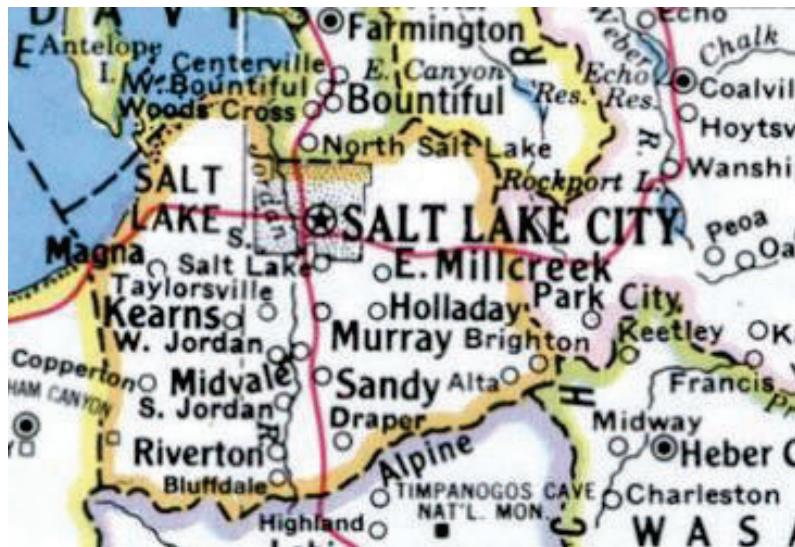


Figure 26 - The Ogden-Layton metropolitan area

#### 4.3.3 Salt Lake City

This was perhaps the most obvious region to assign. Salt Lake City is the capitol city of Utah and the state's most densely populated area. The *Salt Lake City* region in this experiment primarily includes Salt Lake County. Slightly to the east of Salt Lake City resides Park City and Heber, which are both slightly more populated than their surrounding rural areas. Although Park City and Heber aren't in Salt Lake County, it was decided to include them with the more urban *Salt Lake City* region seeing as the speech patterns are likely much different than the rest of Eastern Utah. Culturally, these areas are likely also more similar to Salt Lake City than Eastern Utah, which is a highly rural area. Salt Lake County consists of the Salt Lake Valley with the southern border being what is referred to by Utahans as "the point of the mountain" which denotes the southern end of

the valley. Below is a map of the county lines (*Figure 27*) as well as maps of the *Salt Lake City*, *Park City*, and *Heber* urban areas according to the U.S. Census Bureau (*Figure 28*).



*Figure 27 - A map showing the boundaries of Salt Lake County*



*Figure 28 – A map depicting the Salt Lake City, Park City, and Heber metropolitan areas (shaded in gray)*

#### 4.3.4 Provo-Orem

The *Provo-Orem* region consists primarily of Utah County with the Northern border at the “point of the mountain”<sup>18</sup>. The northernmost major cities in this region are Lehi and Alpine, with the region extending down as far south as Payson. The *Provo-Orem* urban area, after *Salt Lake*, is the next most densely populated area in Utah. Although Utah County itself still extends farther south, these areas are less populated and therefore felt better- included in other regions. The *Provo-Orem* urban area, according to the census bureau, can be seen below in *Figure 29*:



*Figure 29 - The Provo-Orem metropolitan area*

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<sup>18</sup> The “point of the mountain” generally refers to the top of the mountain that divides the Salt Lake and Utah Valleys. The I-15 freeway goes over this point, so it’s often used as a point of reference by locals when discussing traffic conditions or giving directions.

#### 4.3.5 St. George

The St. George urban area according to the U.S. Census Bureau isn't that large, so the *St. George* region was based more-so around the boundaries of Washington County where St. George is found. The *St. George* region also includes what is referred to as the "Hurricane" urban area. Below are maps of the Washington County lines (*Figure 30*) as well as a map of the St. George urban area (*Figure 31*) according to the Census Bureau.



Figure 30 - Washington County lines



Figure 31 - St. George metropolitan area

#### 4.3.6 I-15

Aside from the regions listed above and St. George, there aren't really any other clear population centers in Utah. Because of this, we had to get somewhat creative in defining the other regions. I-15 is the main interstate freeway that runs north and south in Utah. As they are means of connecting different areas of the U.S., highways are generally where populations reside and it was assumed they would be more likely to be exposed to more linguistic variants<sup>19</sup>. With that (and remembering that I-15 is also labeled on the map from the survey), the stretch of I-15 between the *Provo-Orem* and *St. George* regions was given its own region.

#### 4.3.7 West Utah, East Utah, and Southeast Utah

Again, outside of the regions listed above, the remainder of Utah is composed of rural areas. Because of this, it became slightly more difficult to divide the areas into designated regions. So, the entire area west of I-15 and North of St. George is *West Utah*, the area east of I-15, but north of I-70 is *East Utah*, and everything south of I-70 and east of I-15 is *Southeast Utah*. Using the main freeways as a way of dividing the state into regions came naturally considering these are some of the main landmarks on the map used in the experiment. Notably, while East Utah was divided into two regions, West Utah was not. The area north of I-80 in West Utah is mostly comprised of the Great Salt Lake Desert and the Great Salt Lake itself, so there aren't any significantly populated

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<sup>19</sup> This has likely been found explicitly at some point. While researching for this paper, however, I was unable to find any studies that specifically make this claim.

areas in this region. With that, it felt necessary to combine the areas north and south of I-80 into one region: West Utah.

#### 4.4 Survey Distribution

Data Collection for this experiment was done almost entirely through online channels. When setting up the booth in the student center at BYU, a QR code was available for participants willing to complete another survey past the draw-a-map task, but this brought in few responses. I shared the survey link on both my personal Instagram and Facebook accounts which brought in some responses, as well as through the BYU Linguistics Instagram page. However, most responses were acquired via links posted to various Utah subreddits on the social media forum site Reddit.com. The links to all the subreddits used for this experiment were found via the main Utah state subreddit, r/Utah. Because there are a seemingly endless number of subreddits, using Reddit as a source of recruitment allowed my survey to reach people in almost every corner of Utah. *Table 6* shows a list of the subreddits the survey link was posted to.

*Table 6 - List of subreddits where the link to the perceptual audio survey was posted, divided by the day the link was posted to each subreddit.*

Day 1	Day 2	Day 3	Day 4	Day 5
r/Logan	r/SpanishForkUT	r/vernal	r/uvu	r/SLCC
r/stgeorge	r/Tooele	r/hebervalley	r/PriceUT	r/weber
r/Layton	r/southernutah	r/UtahValley	r/RivertonUT	r/byu
r/ogden				
r/SaltLakeCity				

While posting the survey link to the above subreddits, the number of subreddits posted to each day was limited to 3 (aside from the first day). This was done to try and

increase the chances of someone coming across the survey if they are a member of multiple of the above subreddits, but only check Reddit every couple of days or so. Ideally, this would also prevent people who are members of multiple of the above subreddits from seeing the survey in the same day. Of the 3 subreddits posted to each day, 3 subreddits were chosen which represent different areas of Utah. For example, because Tooele is in western Utah, someone who is a member of the Tooele subreddit (r/Tooele) would be less likely to also be a member of the southern Utah subreddit (r/southernUtah) than someone who is also a member of the St. George subreddit (r/stgeorge), since St. George is in Southern Utah. Because of this, the link could be posted to r/Tooele and r/southernutah on the same day.

The data collected for this write-up of the results was collected between October 3, 2022 and February 14, 2023. Despite the data collection process for this paper being completed, the survey link is still active and has continued to be taken by participants sporadically at the time of writing.

#### 4.4.1 Participant Demographics

Through various means of online distribution methods, 159 people completed the perceptual audio survey. As it was explained in Section 4.1 about survey design, participants were asked to provide three pieces of information before beginning the survey:

1. *Have you lived in Utah for more than 1 year in the past 10 years?*
2. *What year were you born?*
3. *Please list your residential history:*

The first question, as mentioned previously, was asked to filter out unqualified participants. Here, participant responses to the second two questions will briefly be discussed. There is potential with these results to have a more in-depth discussion about the effects of age and region on perceptions of language variation (Baker, Eddington & Nay 2009), but this data would not be able to sufficiently explore this effect, and it's outside the scope of this project. Rather, like the demographics for the draw-a-map task, the demographics of participants in the perceptual audio survey are presented to help provide context for understanding the results of the perceptual audio survey as a whole. First, birth year will be discussed. The number of participants from each birth year can be seen in *Figure 32* below:

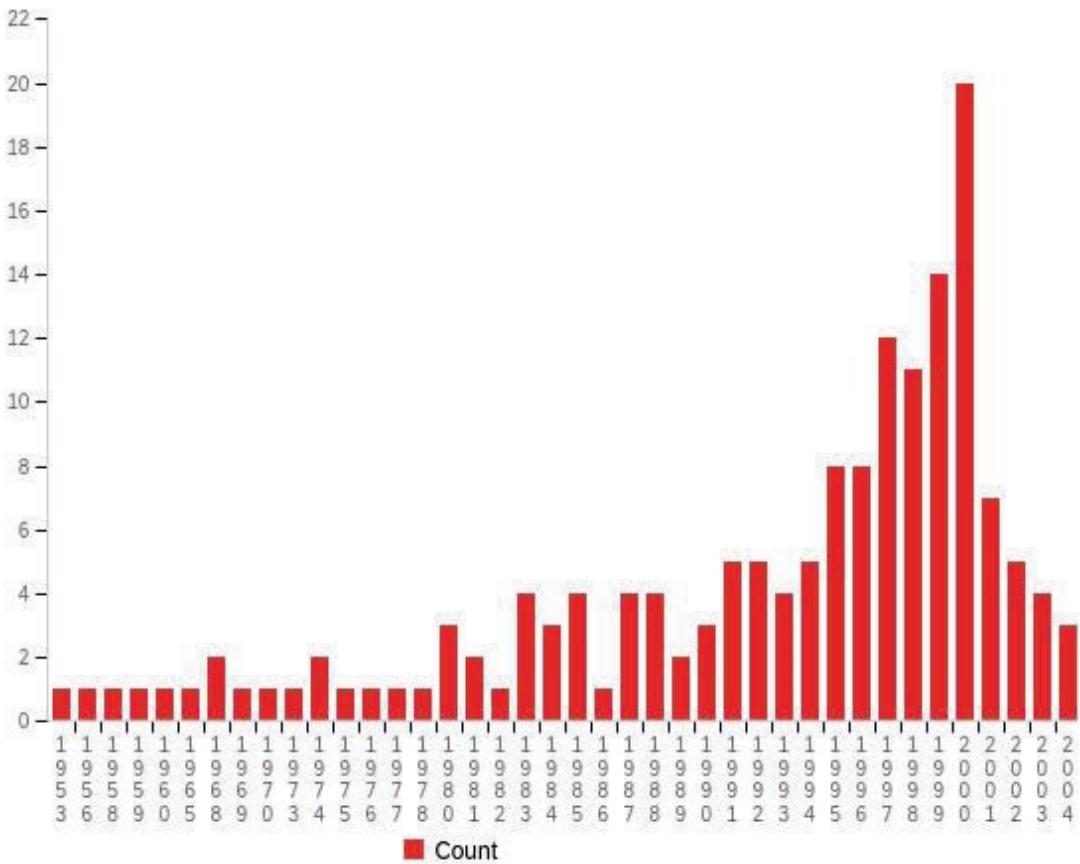


Figure 32 - Participant birth years in the perceptual audio survey (Note: this question used a fill-in-the-blank prompt, so there are many years missing from the graph above)

Because the survey was distributed through Reddit and my personal social media channels, participants tend to be skewed towards the younger demographic. This also lines up with Reddit's overall demographics, where a reported 64% of users are ages 18–29 (Gitnux 2023). A similar trend is seen in the demographics of the present survey, with 61% being born between 1994–2004, or being between ages 18 and 29. The birth year with the highest representation among participants is 2000, making up roughly 13% of all respondents. Participants born this year would be between the ages of 21 and 23 at the time of taking the survey.

As for residential history, because it required participants to answer by providing a list of locations and times, quantifying this demographic was slightly more difficult. Each participant's hometown was determined as the residence they had lived at for the longest period of time between the ages of 4 and 18. The states represented by participants in the perceptual audio survey can be seen in *Table 7* below:

Table 7 – Frequency of States<sup>20</sup> represented in the Perceptual Audio Survey

Levels	Counts	% of Total	Cumulative %
AZ	3	1.7 %	1.7 %
BC	1	0.6 %	2.3 %
CA	9	5.2 %	7.5 %
CO	2	1.2 %	8.7 %
DE	1	0.6 %	9.2 %
FL	1	0.6 %	9.8 %
ID	5	2.9 %	12.7 %
KY	1	0.6 %	13.3 %
MA	4	2.3 %	15.6 %
MD	3	1.7 %	17.3 %
MI	1	0.6 %	17.9 %
MN	1	0.6 %	18.5 %
MS	1	0.6 %	19.1 %
MT	1	0.6 %	19.7 %
NC	1	0.6 %	20.2 %
NJ	2	1.2 %	21.4 %
NM	1	0.6 %	22.0 %
NV	1	0.6 %	22.5 %
NY	1	0.6 %	23.1 %
OH	1	0.6 %	23.7 %
OR	10	5.8 %	29.5 %
PA	1	0.6 %	30.1 %
TX	2	1.2 %	31.2 %
UT	100	57.8 %	89.0 %
Unknown	2	1.2 %	90.2 %
VA	5	2.9 %	93.1 %
WA	10	5.8 %	98.8 %
WI	2	1.2 %	100.0 %

As would be expected, Utah is the state with the highest representation among participants. It likely would be higher, but it's important to remember that this survey was also distributed among my personal social media channels. Since I'm not a Utah

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<sup>20</sup> The “Unknown” category includes participants who didn’t include a residential history or where it wasn’t clear where they spent most of their childhood. This would be due to an overabundance of listed locations over short time periods.

native myself, many of my contacts who have had exposure to Utah English are those like me who are transplants in Utah for school or other purposes.

Of the 100 participants who would likely claim Utah as their hometown, a breakdown will now be provided of which regions from Utah these participants are from. Like what was done with the demographics for the draw-a-map task, instead of listing every city, participants will be divided among the 9 regions used in the Perceptual Audio Survey (See *Figure 24* in Section 4.3). *Table 8* below shows the representation of each region for the 100 Utahn participants.

*Table 8 - Frequency of each region (See Figure 22b in Section 4.3) among Utah participants in the Perceptual Audio Survey*

Levels	Counts	% of Total	Cumulative %
East Utah	7	7.0 %	7.0 %
I-15	3	3.0 %	10.0 %
Logan	7	7.0 %	17.0 %
Ogden-Layton	8	8.0 %	25.0 %
Other	6	6.0 %	31.0 %
Provo-Orem	43	43.0 %	74.0 %
Salt Lake City	22	22.0 %	96.0 %
St. George	3	3.0 %	99.0 %
West Utah	1	1.0 %	100.0 %

As *Table 8* shows, the region with the highest participant representation is *Provo-Orem*. A possible explanation for this is that of the subreddits where the survey link was posted (See *Table 6* in Section 4.4), 4 of the 17 are *Provo-Orem* subreddits (r/SpanishForkUT, r/UtahValley, r/uvu, and r/byu). This doesn't necessarily explain why there's a higher representation from the *Provo-Orem* region, however, because 5 of the 17 subreddits are for the *Salt Lake City* region, yet *Salt Lake City* has roughly half the

representation of *Provo-Orem* among participants. As I've stated, aside from Utah subreddits, the survey link was also distributed through my personal social media channels. As a BYU student and Provo resident, many of my contacts are from the *Provo-Orem* region. Also, two of Utah's largest universities, BYU and Utah Valley University (UVU) are in the *Provo-Orem* region, which could be another possible explanation for the larger representation from this region. This would take into account that 13% of respondents were born in the year 2000, making them college age at the time survey data was collected.

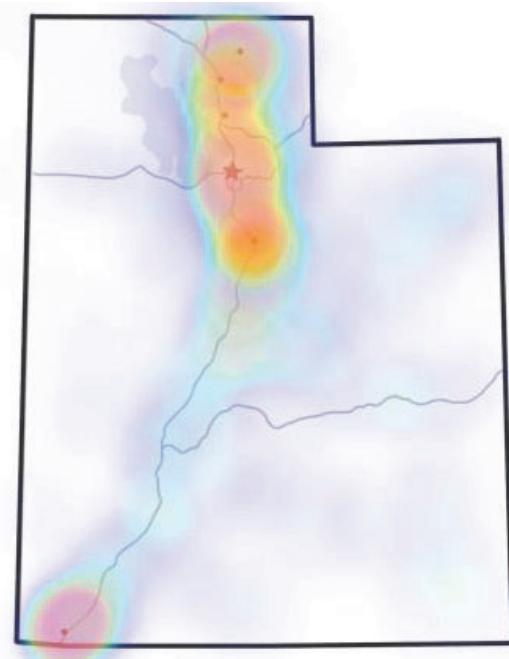
#### 4.5 Results and Discussion

In terms of data processing, Qualtrics compiled the data and created heatmaps for each question from the survey. In this section, each map in its heatmap form will be discussed as well as a bar graph displaying the placement of clicks across regions. Each section will also contain a discussion of patterns found in each map and their implications. For each graph, the "Other" category simply denotes that a participant clicked on an area outside of the Utah map.

In this section, various patterns that appear in the data collected in the perceptual audio survey will be examined. These patterns will begin with the most general and move down to more specific patterns based on individual speakers.

#### 4.5.1 General Placement of Clicks

Here, general observations will be made about the data in all 13 maps. In total, for 159 surveys, there were a total of 2073<sup>21</sup> clicks counted for the 9 regions and “other”. *Figure 33* shows a composite image of all 13 heatmaps which shows how clicks were dispersed generally, followed by *Table 9*, which shows the number of clicks in each region:



*Figure 33 - Composite heatmap of data from the 13 speakers*

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<sup>21</sup> Based on 159 surveys, there should be 2067 clicks, not 2073. Because Qualtrics’ heatmap feature is somewhat lacking in allowing for accurate placement of regions, some regions may overlap, leading to some clicks being counted for multiple areas. At least this is my theory for why there are more clicks than there should be.

Table 9 - Number of clicks per region and percentage of total clicks per region.

Region	# of Clicks	Percentage
Logan	189	9.1%
Ogden-Layton	350	16.9%
Salt Lake City	422	20.4%
Provo-Orem	323	15.6%
St. George	186	9.0%
I-15	207	10.0%
West Utah	97	4.7%
East Utah	200	9.6%
Southeast Utah	91	4.4%
Other	8	<0.1%
Total	2073	100%

To understand both the composite heatmap in *Figure 33* and the information in *Table 9*, it needs to be considered that each region (aside from *Salt Lake City* and *Provo-Orem* which are roughly the same spatial area) have different areas, so this factors in to how many clicks they are likely to have. For example, the *I-15* region covers a greater area than *St. George*, so there are more options for participants to select and therefore exists the possibility of having more clicks.

When looking at click placement generally, it's interesting to note the gradual decline in clicks when moving further away from *Salt Lake City*. *Provo-Orem* and *Ogden-Layton* each contain 15-17% of all clicks while *I-15*, *East Utah*, and *St. George* each contain about 9-10% of clicks.

Also, the regions with the least amount of clicks are *West Utah* and *Southeast Utah*, having 4.7% and 4.4% of all clicks respectively. *Southeast Utah* is the furthest region away from both *Salt Lake City* and *I-15*, so based on what was discussed in the last paragraph, this lines up. What's interesting though is that *West Utah* has roughly the same number of clicks, but it is significantly closer to both *Salt Lake City* and *I-15*, making it something of an anomaly. This could indicate a couple of things: (1) *West Utah*

and *Southeast Utah* are the least-populated regions of Utah making participants less-likely to be from or know someone from either of these regions, and (2) *West Utah* and *Southeast Utah* are not characterized as strongly as other regions by a certain variety of English in the minds of Utah residents. While I label these as two distinct conclusions, they very well could be related to one another.

#### 4.5.2 Age as a Distinguishing Factor

When comparing all 13 bar graphs, certain patterns begin to appear, with speaker age being one of the distinguishing factors. Younger speakers, or those between the ages of 20 and 49, have a higher likelihood of being placed in the more urban areas, most notably in the *Salt Lake* and *Provo-Orem* regions. Older speakers, or those aged 50 and higher, are more likely to be placed in rural areas or anywhere outside of the *Salt Lake* and *Provo-Orem* regions. Below are composite images of the heatmaps for speakers ages 20-49 and speakers 50+:

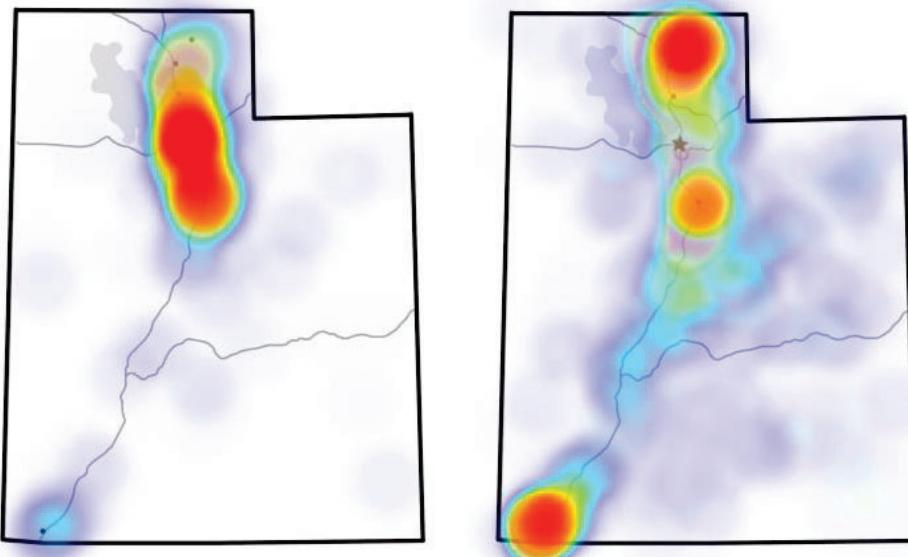


Figure 34 (Left) – Composite heatmap of age 20-49 speakers

Figure 35 (Right) - Composite heatmap of age 50+ speakers

If we break down the number of speakers in each age group, there are 8 speakers ages 20–49 and 5 speakers age 50+. With 159 surveys collected, there are 1275 responses for age 20–49 speakers and 798 responses for the age 50+ speakers. Of those 1275 responses for age 20–49 speakers, there were 398 clicks in *Salt Lake City* or about 30.8% of all clicks for the age 20–49 group. Meanwhile, of the 798 responses for age 50+ speakers, only 29 clicks were made in Salt Lake City, or 3.6%. This clearly shows that the older a speaker is, the more likely a person is going to be to associate that speaker with less urban areas. A breakdown of clicks and percentages between these age groups can be seen in *Table 10* below:

*Table 10 - Numbers and percentages of clicks divided into two speaker age groups: Age 20-49 and Age 50+.*

Region	Age 20-49		Age 50+	
	# of Clicks	Percentage	# of Clicks	Percentage
Logan	81	6.4%	108	13.5%
Ogden-Layton	266	20.9%	84	10.5%
Salt Lake City	393	30.8%	29	3.6%
Provo-Orem	257	20.2%	66	8.3%
St. George	66	5.2%	120	15.0%
I-15	72	5.6%	135	16.9%
West Utah	47	3.7%	50	6.3%
East Utah	69	5.4%	131	16.4%
Southeast Utah	20	1.6%	71	8.9%
Other	4	<.1%	4	<.1%
Total	1275	100%	798	100%

Looking at *Table 10* above, we can see that in *Logan, Ogden-Layton, Salt Lake City, Provo-Orem, and I-15/St. George*, there is almost an inverse relationship between younger and older speakers. *Salt Lake City* (30.8%) is the region with the highest concentration of clicks for age 20-49 speakers, then *Ogden-Layton* (20.9%) and *Provo-Orem* (20.2%), and finally *Logan* (6.4%), *East Utah* (5.4%), *I-15* (5.6%), and *St. George* (5.2%). For age 50+ speakers, *Logan* (13.5%), *East Utah* (16.4%), *I-15* (16.9%) and *St. George* (15%) are generally higher, followed by *Ogden-Layton* (10.5%) and *Provo-Orem* (8.3%), and finally *Salt Lake City* (3.6%).

#### 4.5.3 Southern = Rural

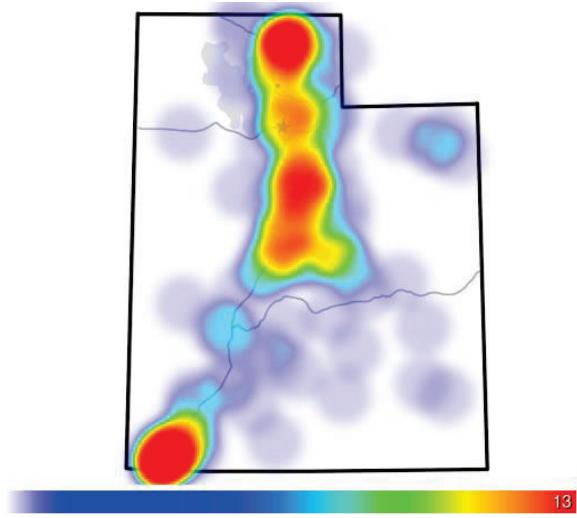


Figure 36 - New Orleans, LA, Female, 59 heatmap

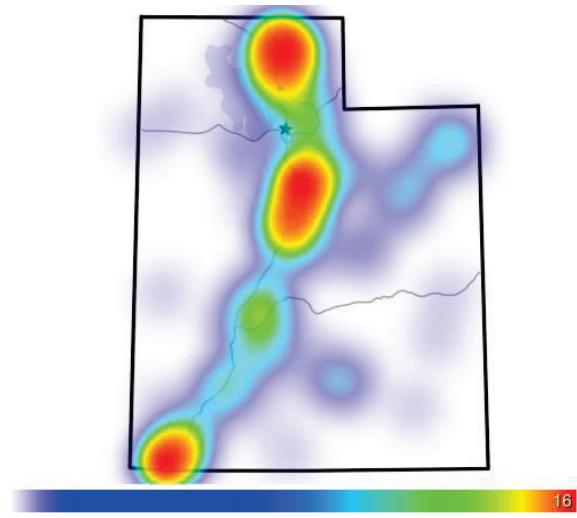
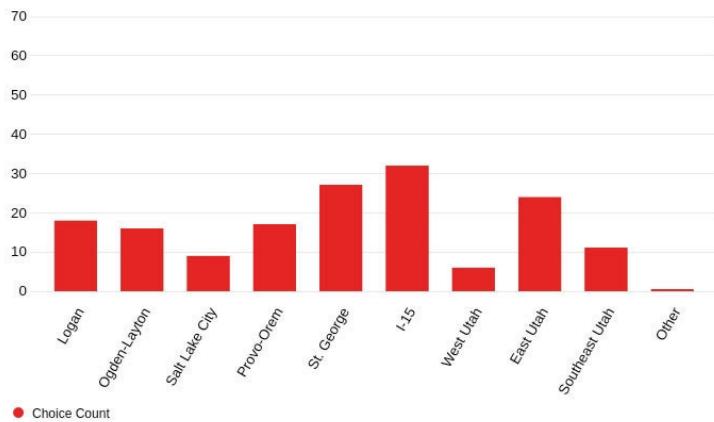


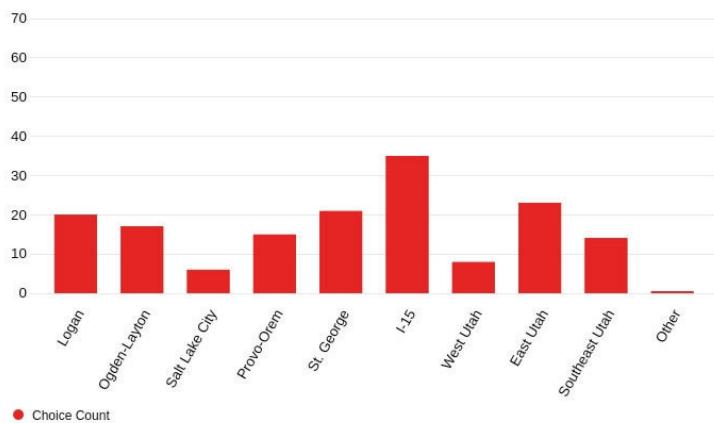
Figure 37 - Charleston, SC, Male, 50 heatmap

Perhaps one of the most interesting findings from this experiment is the striking similarity of placement which occurred for two individuals from different areas of the Southern U.S.: namely the Louisiana female and South Carolina male speakers. We can see the similarities of these two speakers in *Figures 34* and *35* above, but these

similarities become far more apparent when looking at the bar graphs side by side, which can be seen in *Figures 38* and *39* below:



*Figure 38 - New Orleans, LA, Female, 59 bar graph*

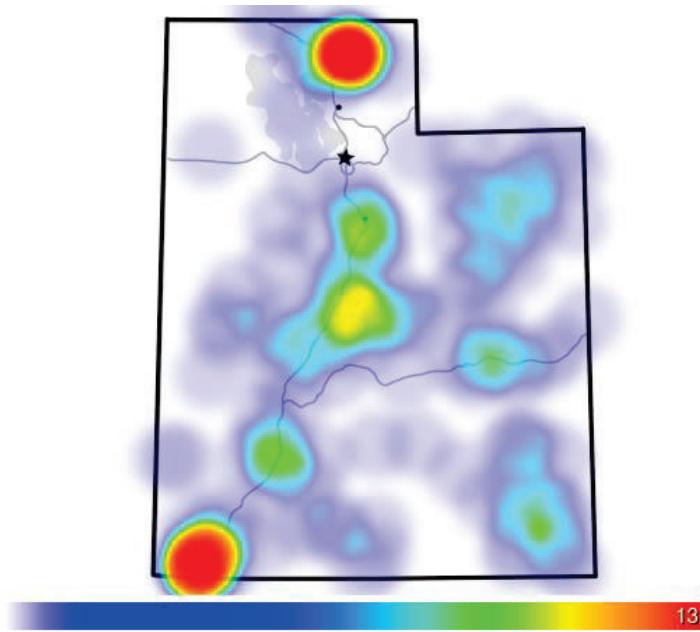


*Figure 39 - Charleston, SC, Male, 50 bar graph*

As we can see in these graphs, *I-15* is heavily characterized as being Southern. Looking at these graphs, it could be said that the more rural an area is, the more “Southern” a person from that area is going to sound, but the two most rural regions, *West Utah* and *Southeast Utah*, have some of the lowest clicks for these two Southern speakers. So, this isn’t necessarily a worthy conclusion. For whatever reason, the areas along *I-15* are what participants perceive to be the most Southern-sounding region in

Utah. Now, this isn't to say that speakers who have perceived Southerness aren't found in other regions of Utah, but participants might've been drawn to *I-15* simply because it was one of the landmarks on the map in the survey. Or, perhaps participants genuinely have more experience interacting with people in the *I-15* region and are therefore more likely to recognize how people in that region speak. *Logan*, *St. George*, and *East Utah* are noticeably high as well for these two Southern speakers, indicating perceived Southerness in these regions as well.

What's even more interesting is to look at the Arkansas male speaker and see his placement when compared to these other two Southern speakers. *Figures 40 and 41* below show the heatmap and bar graph respectively for the Arkansas speaker's placement across the 9 regions:



*Figure 40 - Pine Bluff, AR, Male, 52 heatmap*

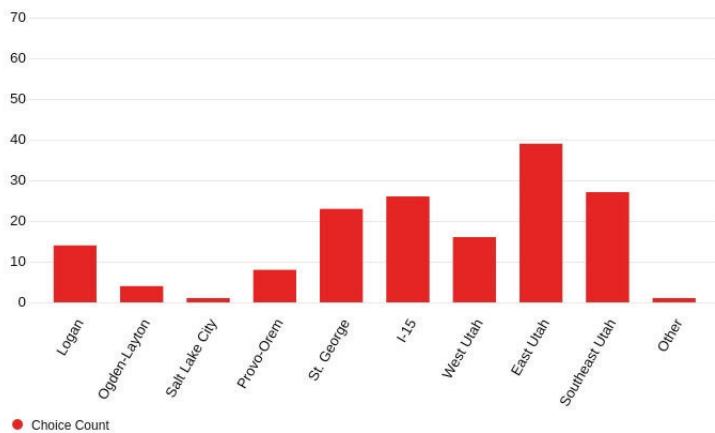


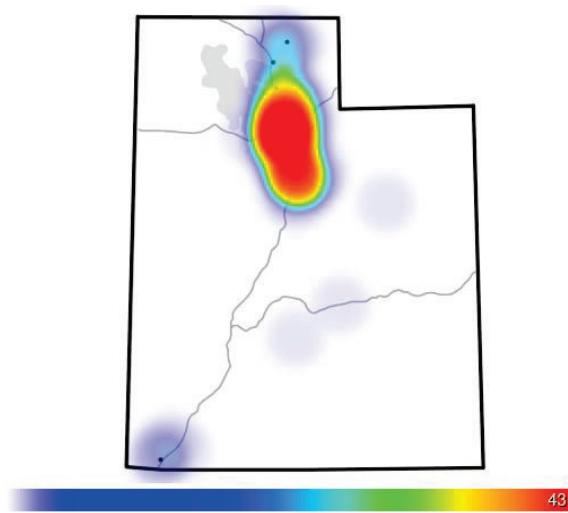
Figure 41 - Pine Bluff, AR, Male, 52 bar graph

As we can see in this graph, this speaker had the most clicks in *East Utah*. This is similar to the click placement of the other two Southern speakers, with their click placement being more concentrated in *I-15* than *East Utah*. The most interesting aspect of the Arkansas speaker is, however, that he has the least number of clicks in *Salt Lake City* of any speaker with only 1 click. If we operate under the assumption that the most urban area is where the most standard variety of speech is found, the Arkansas speaker has the least standard variety of speech according to participant perceptions. As we discussed in Section 4.2.1 explaining the background of these three speakers of American SUSE, the Arkansas speaker has the most features of SUSE. So, this adds credence to the theory that the more features of SUSE a speaker has, the more rural that speaker will be perceived as.

These observations seem to be in line with perceptions of participants, as per the comments left in the feedback section of the survey. One participant noted, “I feel like a lot of people speak more like they’re from the south in rural areas, especially older people.”

#### 4.5.4 Idaho, Utah, and Female California Speakers

Like has been discussed, operating under the assumption that there is a relationship between standard speech and urbanity, the Boise female speaker has the most standard speech according to participant perceptions. Of the 159 survey responses collected, 71 participants placed the Boise female speaker in *Salt Lake City*. This is nearly half of all responses for this speaker. Below is the heat map (*Figure 42*) and bar graph (*Figure 43*), illustrating this speaker's placement across the 9 regions:



*Figure 42 - Boise, ID, Female, 21 heatmap*

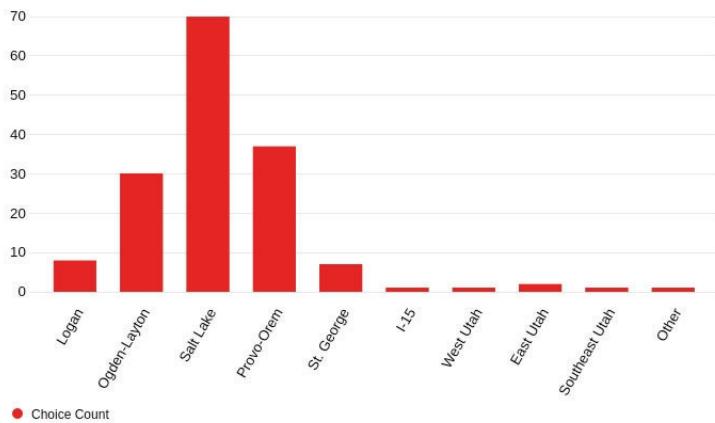


Figure 43 - Boise, ID, Female, 21 bar graph

Perhaps the most interesting finding with the Boise speaker is that she placed higher in Salt Lake City than two individuals who are from Utah: a male speaker from West Jordan and a female speaker from Ogden. By comparison, the male speaker from West Jordan (which is in the *Salt Lake City* region) only had 51 clicks in Salt Lake City. The Ogden female speaker had 53. The Idaho Falls male speaker had a similar number of clicks in *Salt Lake City* and also beat out both Utah speakers, but just barely with 56 clicks in the region. Considering Utah and Idaho are often included in the same dialect region of the Intermountain West (Labov, Ash & Boberg 2008), it's notable that Utahns decided to place these speakers in *Salt Lake City*. This finding shows that participants can generally identify speakers of their own variety and place them in what is considered the most "standard" region. This is in line with the findings of (Baker, Eddington & Nay 2009) which found that amount of experience in a region improves a person's ability to correctly identify their region's variety of speech. The heatmaps and bar graphs for these three speakers can be seen below in *Figures 44-49*:

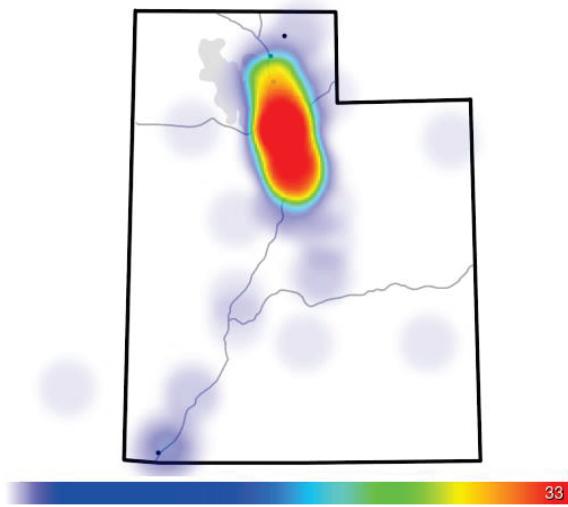


Figure 44 - Ogden, UT, Female, 29 heatmap

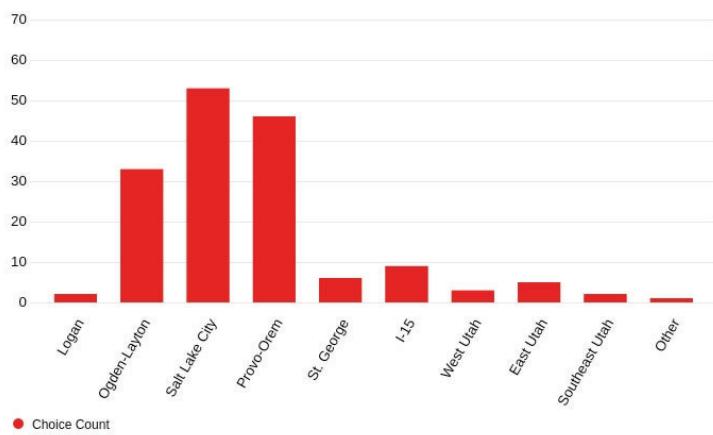


Figure 45 - Ogden, UT, Female, 29 bar graph

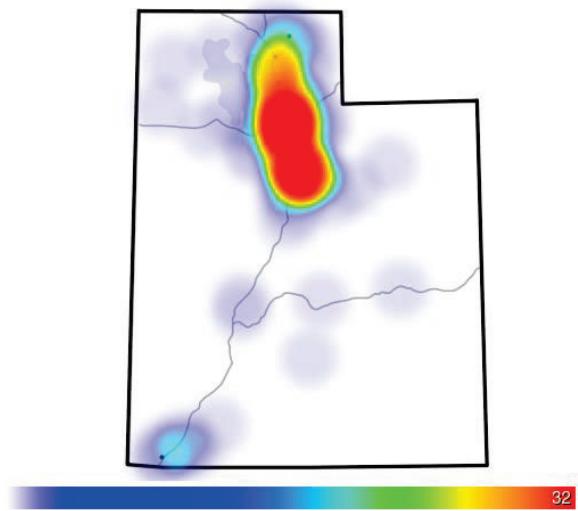


Figure 46 - West Jordan, UT, Male, 30 heatmap

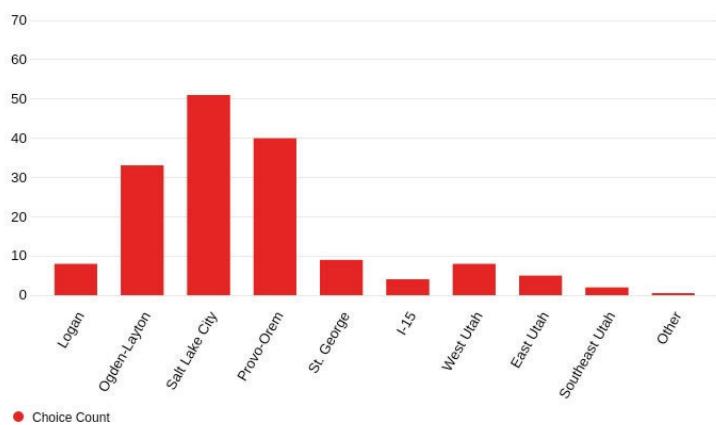


Figure 47 - West Jordan, UT, Male, 30 bar graph

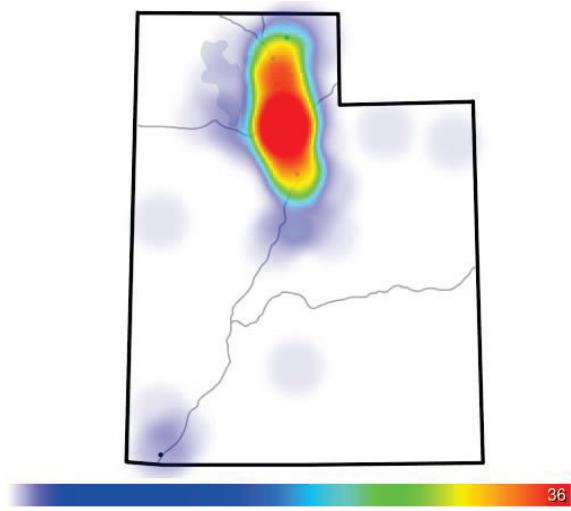


Figure 48 - Idaho Falls, ID, Male, 32 heatmap

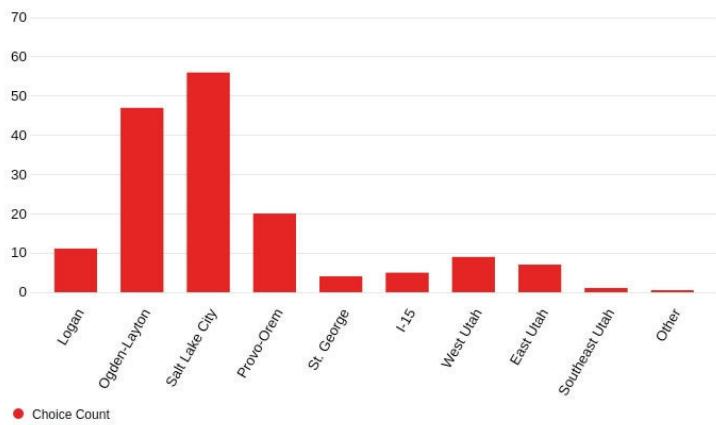


Figure 49 - Idaho Falls, ID, Male, 32 bar graph

The two California female speakers had similar results to the two Utah speakers and the Idaho Falls speakers, but slightly less placement in *Salt Lake City*. The San Diego female speaker had 46 clicks in *Salt Lake City* while the Berkley female speaker had 49 clicks. The heatmaps and bar graphs for these speakers can be seen below in *Figures 50-53*. Placement for the male San Diego speaker was somewhat more scattered, which will be discussed in the following section.

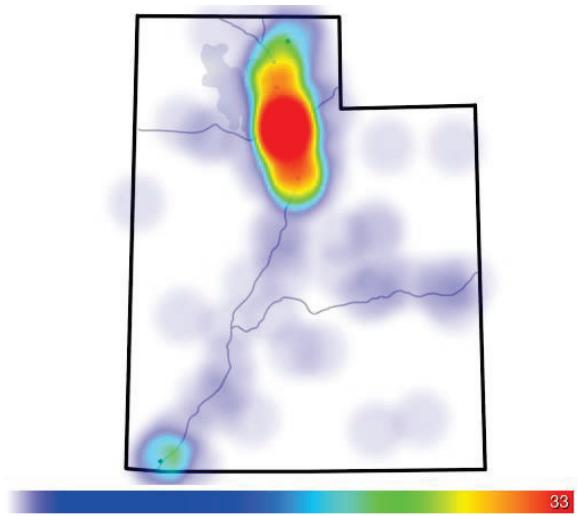


Figure 50 - San Diego, CA, Female, 31 bar graph

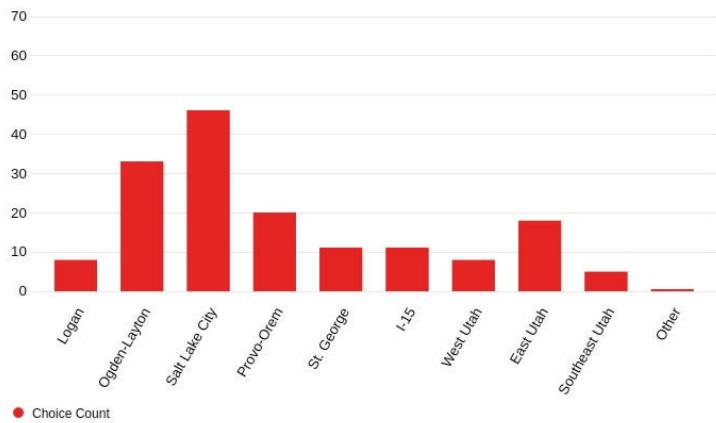


Figure 51 - San Diego, CA, Female, 31 bar graph

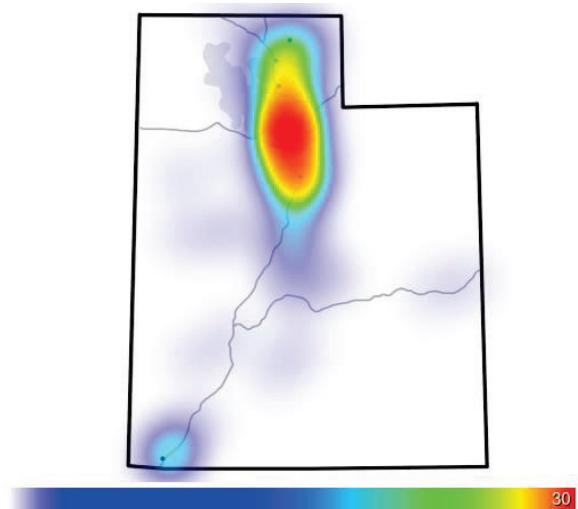


Figure 52 - Berkeley, CA, Female, 22 heatmap

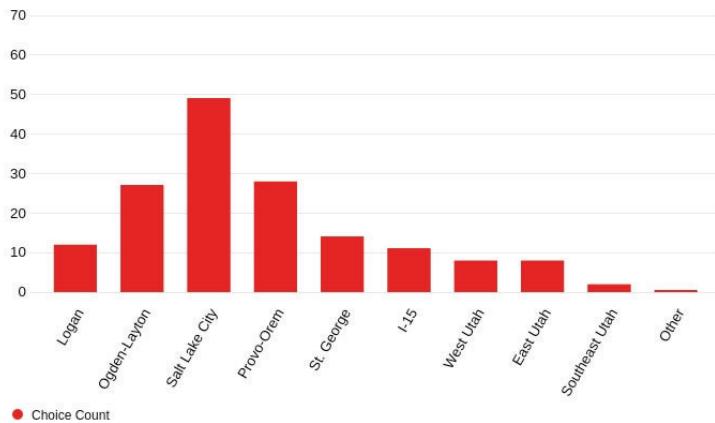


Figure 53 - Berkeley, CA, Female, 22 bar graph

#### 4.5.5 San Diego Male Speaker

The San Diego male speaker had results that differed from the other California speakers. This speaker, like the other age 20–49 speakers (aside from the Spokane speaker) had a higher concentration in *Salt Lake City* than either *Ogden-Layton* or *Provo-Orem*. However, the male San Diego speaker had the lowest concentration of clicks of all age 20–49 speakers in *Salt Lake City* with 32 clicks. Instead, this speaker had a higher concentration of clicks in *I-15* (20 clicks) and *East Utah* (17 clicks) than every other age 20–49 speaker. Because this speaker was the first presented to every participant, perhaps participants were more hesitant to place this speaker in *Salt Lake City*, thinking that couldn't be the answer to the first question. There is evidence to show this finding is still worth looking into further, however. After conducting a chi-squared test where placement between *Salt Lake City* and *I-15* is compared between the San Diego male and female speakers, the relation was found to be significant,  $X^2 (1, N = 109) = 4.9$ ,  $p = .027$ .

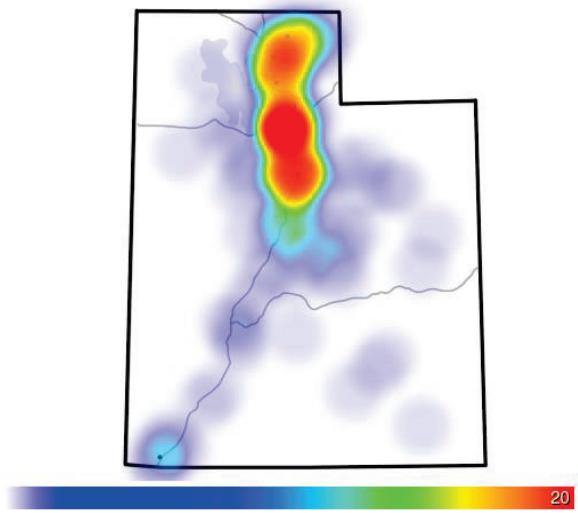


Figure 54 - San Diego, CA, Male, 21 heatmap

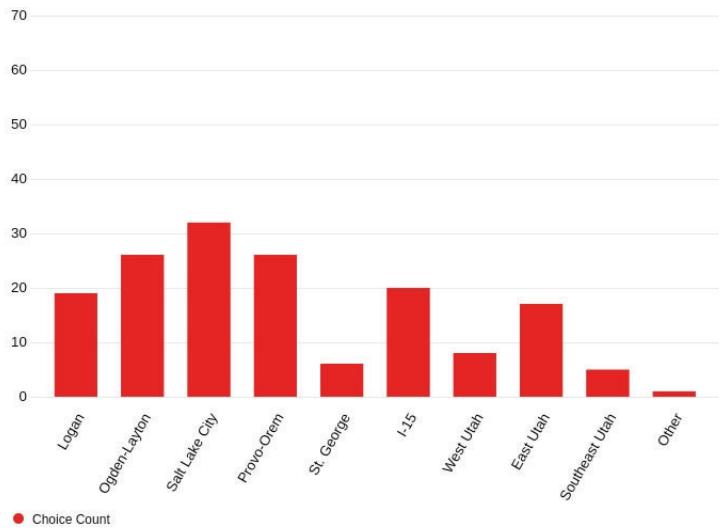


Figure 55 - San Diego, CA, Male, 21 bar graph

#### 4.5.6 Spokane Female Speaker

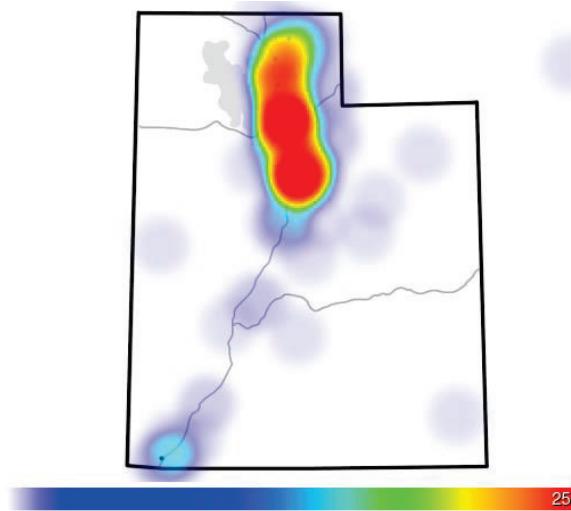


Figure 56 - Spokane, WA, Female, 32 heatmap

Perhaps the oddest results come from the Spokane speaker. The Spokane speaker, unlike the other speakers between the ages of 20-49, has a higher likelihood of being placed in either *Ogden-Layton* (37 clicks) or *Provo-Orem* (40 clicks) than in *Salt Lake City* (35 clicks). However, like the other age 20-49 speakers, the Spokane speaker still has the majority of her clicks in the more urban regions of Utah. We can see this below if we look at the number of clicks for this speaker's placement across the 9 regions, represented in the bar graph below:

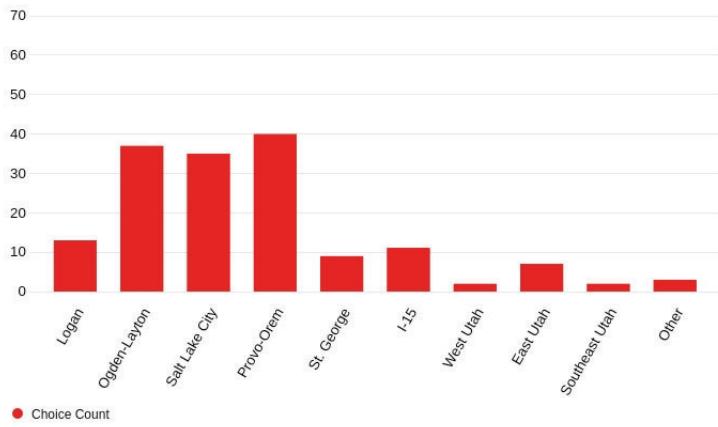


Figure 57 - Spokane, WA, Female, 32 bar graph

Like the differences between the two San Diego speakers, a chi-squared test was done between the Spokane and Boise female speakers<sup>22</sup> for the regions *Salt Lake City* and *Provo-Orem*. This test found that this relation is significant,  $X^2 (1, N=183) = 6.6$ ,  $p = .01$ . As stated in Section 4.2 when discussing why each recording was selected, this speaker doesn't appear to have any features that are distinguishable for her variety. After closer inspection, my thesis advisor, Dr. Stanley, noted that she has a slightly more backed /s/ forming a sort of lisp unlike the other speakers. It could also be that her voice has a higher pitch, implying more “kindness” or “niceness”. It’s possible that these are features participants keyed in on when placing this speaker, leading to her having somewhat different placement than most of the speakers from the West.

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<sup>22</sup> I decided to compare these two speakers here because the Boise speaker is the closest geographically to the Spokane speaker (of those tested in this experiment).

#### 4.5.7 Arizona Male Speaker

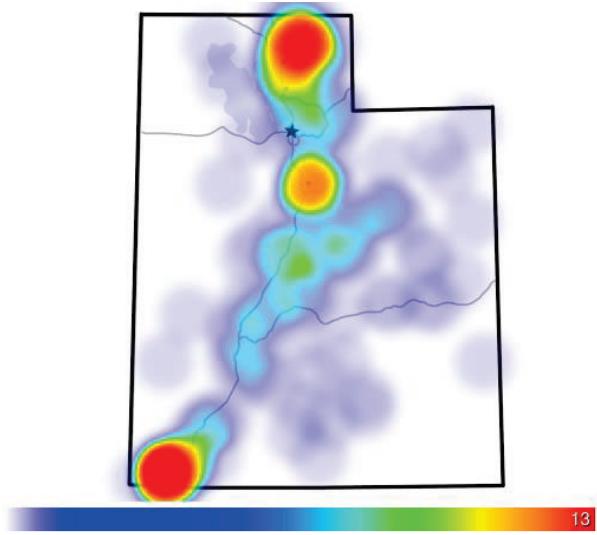


Figure 58 - Mesa, AZ, Male, 75 heatmap

The Arizona male speaker and Wisconsin female (which will be discussed in the next section) speakers have results that differ the most from the other Age 50+ speakers. This makes sense, considering the other three age 50+ speakers are all Southern American English speakers. What sets the Arizona male speaker apart from the other speakers is that participants favored placing this speaker in St. George more than any other area. Considering St. George is on the border of Arizona, perhaps this would be expected and indicate that participants were generally able to perceive this speaker as being distinctively Arizonian. What's more likely, however, is that this speaker was placed in St. George because participants were able to perceive this speaker as both old and having features of Western American English. Southern Utah, including St. George, has a much warmer climate than Northern Utah. Because of this, St. George is known for attracting a good number of older residents who retire there or live there during the colder

seasons of the year. This is likely why participants were more inclined to place this speaker in St. George than other areas.

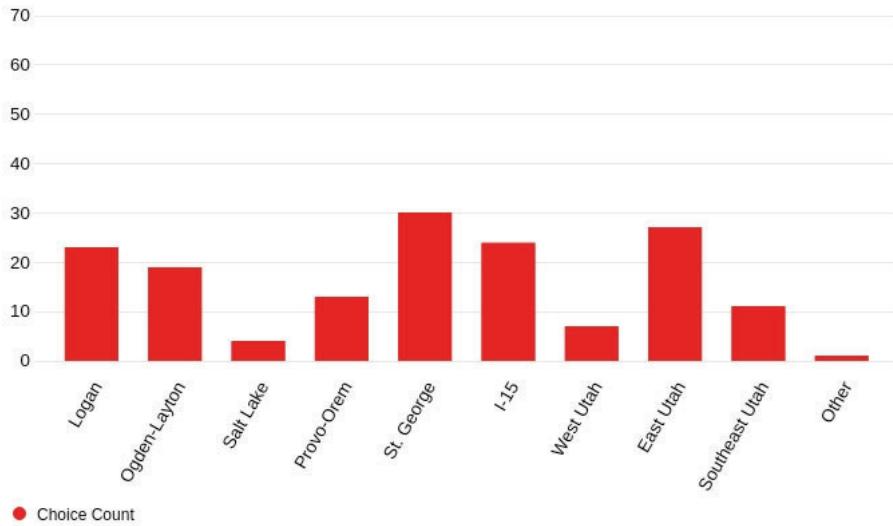


Figure 59 - Mesa, AZ, Male, 75 bar graph

#### 4.5.8 Wisconsin Female Speaker

There is no evidence to suggest that areas of Utah have participated in the Northern Cities Shift. Because of this, it's interesting to see how participants placed this particular speaker. As we can see in the bar graph, there was a tendency for this speaker to be placed in the more northern regions, namely *Logan* and *Ogden-Layton*, at least more than the other 50+ speakers. For this speaker's click placement, 33 (20.8%) of clicks were in *Logan* and 28 (17.6%) were in *Ogden-Layton*. Combined, this is over a third of all clicks for this particular speaker on what is relatively a small portion of the map. The heatmap (*Figure 60*) and bar graph (*Figure 61*) for this speaker can be seen below:

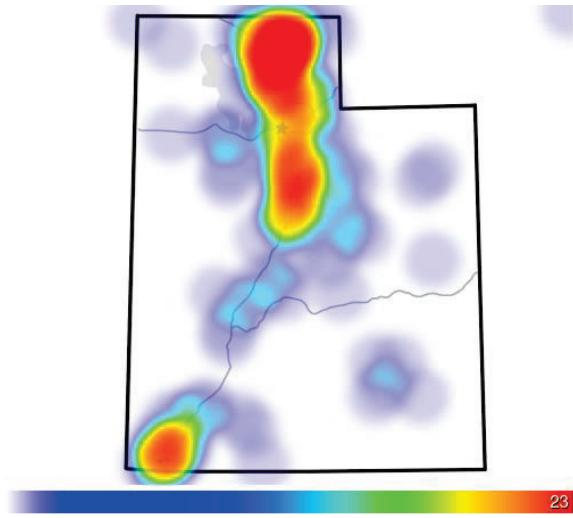


Figure 60 - Milwaukee, WI, Female, 60 heatmap

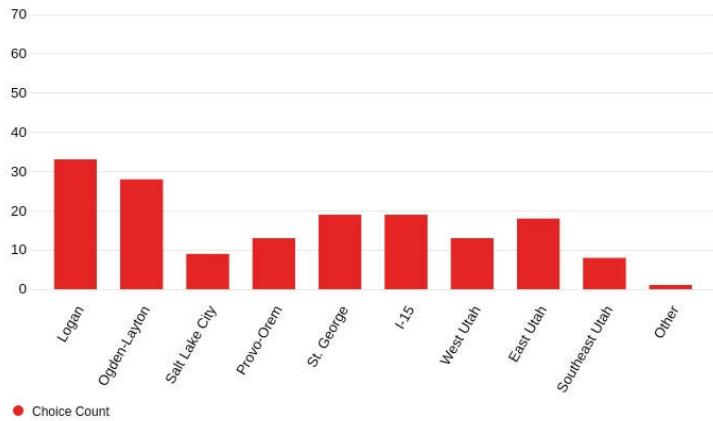


Figure 61 - Milwaukee, WI, Female, 60 bar graph

Based on the comments left by some participants, it appears that participants keyed in on the speaker's features of Northern Cities English and assumed they were *supposed to* place this speaker further north on the map. As one participant notes, “I feel like closer to Idaho to the north you get a sort of Canadian/Minnisotan [sic] vibe.” Another participant that picked up on the speaker’s BAG-raising, wrote in the feedback section: “I'd be curious to see if the ‘baygs’ were Utahns, because that's a thing I

associate with the upper midwest, and I think it's something I've heard in northern Utah/Cache Valley, but I'm not certain."

One participant guessed where the speaker was actually from and in rebellion to the survey, placed the speaker outside the map of Utah. In the Feedback section, they wrote "You can click outside the UT map, and one of them sounded so Wisconsin-y [sic] that I had to click as close to it as I could."

#### 4.6 Summary of Findings

Here, a summary will be given of the main findings of the Perceptual Audio Survey. Perhaps the key finding of this experiment is that participants were much more likely to place Age 50+ speakers in rural regions (or areas outside of *Salt Lake City*), whereas Age 20-49 speakers were much more likely to be placed in urban regions, especially *Salt Lake City*. This aligns with what is found by Eddington (2022) wherein older, more conservative features of Utah English are spoken primarily in rural regions. This includes /ai/-monophthongization, a feature of both SUSE and some varieties of Utah English (Morkel 2003; Sykes 2010).

Of the 13 speakers used, each tells a distinct story about how they were regarded by participants. There are some patterns that appear across participants, however. As would be expected, the speakers from Utah and Idaho (generally considered part of the same Intermountain West dialect region (Labov, Ash & Boberg 2008)), were the most likely to be placed in *Salt Lake City*. What is most interesting about this though, is that the two Idaho speakers used in the survey were more likely to be placed in *Salt Lake City* than the two Utah speakers. This could potentially indicate that Utahns regard the variety

of English spoken in Idaho as the most standard. The same pattern seen with the Idaho and Utah speakers is seen to a lesser extent with the California speakers wherein there is a preference for placing these speakers in more urban regions, namely *Salt Lake City*.

On the other hand, the greater number of features a speaker has of SUSE, the less standard they are to be perceived. This can be seen when examining all 3 speakers of SUSE, but particularly the Arkansas male speaker. As has been discussed, of the 13 speakers, this speaker has the most features of SUSE. This speaker also had the lowest number of clicks in *Salt Lake City*, showing evidence that speakers that are perceived as being more rural or Southern will also be perceived as less standard.

As stated, the data from each speaker offers its own interesting insights into how different speakers are regarded by participants. The 75-year-old Arizona male speaker, for example, was the most likely of any speaker to be placed in *St. George*, indicating that participants generally perceive *St. George* as having speakers that are older and speak some variety of Western American English.

The 60-year-old Wisconsin female speaker, on the other hand, was the most likely of the 13 speakers to be placed in the northern-most region, *Logan*. Based on comments left in the feedback section, it's evident that participants recognized this speaker's features of Inland Northern American English and placed her as far north on the map as possible. This doesn't necessarily indicate that features of Inland Northern American English exist in Utah, but rather that if participants are presented with a foreign variety, they'll likely default to placing that speaker as they would on a map of the U.S. In other words, because the Wisconsin speaker sounds like she's from the Northern U.S., she was placed in Northern Utah. Something similar can be said about speakers of SUSE, but

rather than placing them in Southern Utah, they are placed anywhere besides *Salt Lake City*.

Overall, the perceptual audio survey provides for many interesting findings in the field of language regard. There is a lot of potential with this tool for collecting further data on language regard, but there are certain shortcomings that need to be worked through. These shortcomings will be discussed in the following chapter.

## 5 Conclusion

In this chapter, the findings of both experiments; the draw-a-map task and the perceptual audio survey, will be synthesized. The synthesis of the two experiments will be followed by sections about the shortcomings of the present study (namely the perceptual audio survey) and ideas for future research. Finally, closing remarks will be made which will summarize the main findings of this paper and provide commentary on its significance for the study of Utah English and the field of language regard.

### 5.1 Synthesis

In this section, the results from both the draw-a-map task and perceptual audio survey will be compared. These observations and comparisons will provide the groundwork for additional theories and hypotheses.

#### 5.1.1 General Observations

When comparing the results of both studies, it's interesting to see how participants characterized certain areas versus how they placed speakers on the map. One

aspect of this worth looking at is comparing the regions perceived as being “Californian” in the draw-a-map task with where actual California speakers were placed by participants in the perceptual audio survey. What’s especially interesting about *California* as a label is that it appeared relatively frequently in the results of the draw-a-map task, but it doesn’t share a border with Utah, unlike Arizona and Idaho which were also mentioned in several responses. The *St. George* region, for example, was characterized as “Californian” by several participants in the draw-a-map task. When presented with the California speakers, however, few participants placed them in *St. George*, with the two female speakers being placed closer to *Salt Lake City*. The male California speaker, while more likely to be placed in a less-populated region, still had lower placement in *St. George* than other regions like *I-15* and *East Utah*.

Another comparison that can be made is one between *Idaho* labels in the draw-a-map task with where Idaho speakers were placed in the perceptual audio survey. Unsurprisingly, in the draw-a-map results, there’s a high concentration of *Idaho* labels in Northern Utah (near the Idaho border). The Idaho speakers from the perceptual audio survey, however, as discussed in Chapter 4, have heavy placement in *Salt Lake City*, *Provo-Orem*, and *Ogden-Layton*.

By cross-examining the results of both the draw-a-map and perceptual audio surveys, we can see that people’s perceptions don’t always line up. This conclusion could only be reached because the same map was used for both surveys.

### 5.1.2 California as a Metonym for Being Non-Mormon

In Section 3.6.3, which discusses the labels referring to *California* in the draw-a-map task, an idea was teased that perhaps in Utah, “California” is used as a metonym by active Mormons in Utah to describe the speech of non-Mormons or less-active Mormons. In the draw-a-map task, it was found that there was a high concentration of *California* labels around Salt Lake City, Park City, and St. George—areas known for being populated more heavily by non-Mormons and tourists. Baker & Bowie (2010; 2015) show that Utahns speak differently based on their level of activity in the Church of Jesus Christ of Latter-day Saints (Mormons). A comment left in the feedback section of the perceptual audio survey shows that there is some level of awareness held by Utahns regarding this linguistic variation. The comment reads:

*“I think that people from Salt Lake City usually talk more like someone from the [sic] California, where Utah Valley seems to have its [sic] own really specific accent, especially for women who are active in the [Mormon] church.”*

Salt Lake County has been declining in percentage of the county being members of the Church of Jesus Christ of Latter-day Saints, with *The Salt Lake Tribune* reporting the percentage dropping below 50% as of 2018 (Canham 2018). Although there isn’t enough evidence in the present study to conclude that California is definitively a metonym for non-Mormon in Utah, the comment

above, combined with the results from the draw-a-map task, show that this is a hypothesis worth considering.

### 5.1.3 Age as a Distinguishing Factor

Perhaps the most common thread that exists across both experiments in this study is that age appears to be a distinguishing factor particularly in Utah English. Recapping what was discussed in Chapter 3, like what was found by Evans (2013), there is a perception among Utahns that all of Utah sounds the same. Most comments that either circled the entire state or wrote a comment referring to all of Utah listed several features they perceive as being found throughout the entire state. This led to the idea that features of Utah English may not be distinguished regionally, but rather generationally.

While this hypothesis is still possible, based on the results of the perceptual audio survey, there is still a divide between where older and younger speakers are placed in Utah. It's clear from the results that the further away a region is from Salt Lake City (the urban hub of Utah), the less likely participants were to place younger speakers in that region<sup>23</sup>.

Bowie (2021) did an apparent time study looking at the speech of sermons given by religious officials who had lived in Utah their entire lives, specifically looking at their vowels and pronunciation of word-initial WH. Generally, he found that these features remained unchanged over time. Perhaps features like WH aspiration, the CARD-CORD

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<sup>23</sup> This observation excludes West Utah and Southeast Utah, which are perceived as unpopulated (or at least not defined by any single variety of English) according to participant responses.

merger, /ai/-monophthongization, and pronouncing *day* in the days of the week as [di] are all part of “old” Utah English, while *mountain* pronunciation, [k]-epenthesis on *-ing* clusters, and [t]-epenthesis in *-ls-* clusters are part of “new” Utah English. It could also simply be that Utahns expect older people to live in more rural areas and younger people to live in urban areas.

Considering age was revealed as such an important factor in determining speaker placement by participants, something interesting to consider further would be if age of the participants in the perceptual audio survey affects placement of speakers. Unfortunately, in this study, of the 159 participants in the perceptual audio survey, only 11 of them were in the 50+ age group. Based on what little data there is, the placement of speakers by the age 50+ participants appears to be consistent with that of the age 18-49 participant group, but there isn’t enough evidence to make any solid conclusions one way or the other.

## 5.2 Shortcomings

Here, the shortcomings of this experiment will be examined and addressed. The issues discussed here are those that were mentioned by participants in the survey as well as those that arose while data was being processed and examined.

### 5.2.1 Map Design

There are a few flaws in the design of the map used for both surveys. The number of cities should have been limited not to include Brigham City. It’s one that people weren’t as familiar with as was expected. Logan and Ogden should have been the only

two cities north of Salt Lake. Because some participants had a difficult time understanding the map, it would have been ideal to explain in the instructions for the survey what each landmark represented, to not confuse them into thinking they were arbitrarily placed (which some people were confused by). One participant explained “I’d be interested to know why the lines were divided the way they were”, in reference to the major interstate freeways which were labeled on the map. Another wrote “I assumed that the dots on the map represented major cities in Utah, if they had been labelled, that would have been helpful”.

### 5.2.2 Explicit Use of Deception

While creating instructions for the perceptual audio survey, Dr. Stanley and I discussed the potential risks and benefits of deceiving participants into believing all recordings were of Utah Speakers. As stated in Chapter 4, participants weren’t explicitly told one way or the other whether the speakers in the recordings are from Utah or elsewhere. Because of the nature of the survey being about Utah English however, there is a general implication the speakers were all from Utah. This half-way deception resulted in some participants choosing to interpret the instructions more broadly, leading them to place certain speakers outside the Utah map. Perhaps had deception been used, with participants being explicitly told the speakers were all Utah natives, participants would have been less inclined to click outside of the Utah map. One participant commented “I could definitely spot the speakers with southern accents and a midwestern/Minnesota accent. I marked them on the Utah map, but maybe it would have worked better to have a ‘not Utahn’ option.” In future studies, it could be interesting to give participants the

option to click outside of the map. My main concern with this would be that the results would be similar to what was already studied by Baker, Eddington & Nay (2009) in which they examine the correlation between time lived in a region and ability to identify that region's dialect. Basically, people who have lived in Utah for a longer period would be able to more accurately identify who speaks Utah English and who does not.

### 5.2.3 Gaps in Speaker Ages for the Perceptual Audio Survey

This was touched on throughout Chapter 4, but one of the main issues in the perceptual audio survey lies in the speakers whose recordings were used. The speakers from the West are generally all younger (20s–30s) (aside from the Arizonian speaker) while the speakers from outside the west are generally older (50+). Also, there is generally a lack of middle-aged speakers (late 30s–40s). Data collected using speakers from this age range could reveal an interesting transition period between “young” speakers (20s–early 30s) and “old” speakers (50+). Perhaps the results of this could show something between the two more obvious groups found in this study. How the methods of the present study could be improved in future research will be discussed further in the following section.

## 5.3 Ideas for Future Research

When developing the parameters for this study (the perceptual audio survey in particular), there were countless directions that could've been taken with this revolutionary new sociolinguistic tool. As has been discussed at length in Chapter 5 of this paper, the direction taken yielded helpful and surprising results. Here we will discuss

various ways this study could be repeated on are larger or smaller scale as well as what variables could be controlled in further studies.

### 5.3.1 Limiting Speakers to Utah

It would be interesting to limit the recordings for the perceptual audio survey to only speakers from Utah and see what the results are. Based on the results of the current study, my hypothesis would be that older speakers would be placed in more rural areas, even if they are from a more urban area like Salt Lake City. This would be something more in line with the methods used in (Preston 1996:320) where participants are scored on how closely they can place a speaker in that speaker's native area. While using recordings of speakers all from Utah would surely be insightful, there still is merit in using recordings of speakers from throughout the U.S. This is especially true in Utah where previous data collected shows that Utahns perceive speakers from certain areas as sounding like they're from California or the American South. How this can be improved will be discussed in the following section.

For further research, this could also apply to any state in the U.S. or smaller geographic areas with greater linguistic diversity.

### 5.3.2 Expanding Speaker Demographics

As was discussed in Section 5.1., this study had several gaps in the data in terms of speaker selection for the perceptual audio survey. In future studies, it would be ideal to have more older speakers from the West (aside from the 75-year-old male from Arizona), and younger speakers from the South (which there were none in this study). Also, this

study missed an age demographic by not having any speakers ages 33–49. Seeing as age ended up being a significant factor in determining perceptions of rurality in a speaker, having speakers from this age group could yield some interesting results. It would be interesting to see if participants, after hearing a younger speaker with Southern features, would place that speaker in an urban area because of the speaker’s age, or if they would recognize the speaker’s features and place them in a rural area.

Like what was said in the previous section, this idea also has applications outside of Utah. The perceptual audio survey can really be used to measure perceptions of linguistic variation at any scale.

### 5.3.3 Speech Rate as a Potential Distinguishing Factor

A potential factor that could have played into speaker placement is speech rate. One participant noted “I absolutely had a tendency to mark older, slower sounding voice clips as being more rural while younger, quicker sounding voices sounded more urban to me.” Of course, this comment doesn’t apply to all participants and shouldn’t be taken as fact, but this is something worth considering when looking at the Spokane female and San Diego male speakers, specifically. Below is a table containing the times for each recording, along with the information contained in *Table 11* outlining the backgrounds for each speaker.

*Table 11 - Speaker demographics in the perceptual audio survey with times of each speaker’s recording.*

Question #	Age	Sex	City and State	Time (sec)
1	21	M	San Diego, CA	0:26
2	21	F	Boise, ID	0:22
3	32	F	Spokane, WA	0:18

4	75	M	Mesa, AZ	0:27
5	32	M	Idaho Falls, ID	0:23
6	29	F	Ogden, UT	0:19
7	31	F	San Diego, CA	0:27
8	22	F	Berkeley, CA	0:17
9	50	M	Charleston, SC	0:22
10	30	M	West Jordan, UT	0:22
11	52	M	Pine Bluff, AR	0:31
12	59	F	New Orleans, LA	0:22
13	60	F	Milwaukee, WI	0:21

The Spokane speaker's speech rate is on the faster side (0:18 seconds) while the San Diego male speaker's speech rate is on the slower side (0:26 seconds). However, there are age 20–49 speakers who complete the recording in similar amounts of time. The Berkeley female speaker's recording is 0:17 seconds and the San Diego female speaker's recording is 0:27 seconds, yet these speakers follow a more predictable pattern than the San Diego male and Spokane speakers.

Perhaps participants are listening to pauses as the speakers read the "Please Call Stella" script and subconsciously using those as a way of judging where the speaker is from. These pauses could even be triggered phonetically when certain pairs of phonemes are found in a person's speech. There isn't sufficient data in this study to make such conclusions, but this could provide the basis for future studies. An ideal way of testing this would be in a matched-guise survey where a handful of speakers are recorded several times reading a script and adding in pauses in different places. Use of the heatmap (or similar tool) would stay the same and even the "Please Call Stella" script could still be used, but the pauses themselves would be controlled. Ideally, the results would show whether participants are more prone to judge a person's rurality (or at least distance from an urban hub) based on these pauses.

## 5.4 Summary and Conclusion

Overall, the findings of this paper and its contributions to both the studies of Utah English and Language Regard are great. Concerning Utah English, the present study shows further evidence that rural regions of Utah are perceived as “Southern” or “country”-sounding by Utahns. As can be seen in the perceptual audio survey, rural regions of Utah are generally characterized by the Southern-sounding, older speakers as well. This is in line with the findings of Eddington (2022) wherein he finds that conservative features of Utah English are often preserved in rural areas as well as the findings of Stanley (2022) wherein rural areas were also labeled as “Southern”. When mapping perceptions of Southerners, Preston (2018b) also finds that Southerners are often perceived as being old (at least by Southeast Michiganders), which aligns with regard towards the speech of rural Utahns as found in the perceptual audio survey.

Along with these perceptions of Southern-ness, the present study also finds that urban areas are generally perceived by Western speakers in the age 20-49 age group. The age 21 Boise female speaker, out of all the speakers, had the highest placement in Salt Lake City, potentially indicating that Utahns see this speaker’s speech as the most standard or correct of any of the speakers. This assumption is made seeing as Salt Lake City was perceived as the most standard/urban area in the draw-a-map task.

The present study also presents evidence that certain regions of Utah are perceived as sounding “Californian” by Utahns. When cross-examining the results of both experiments, however, it’s revealed that Utahns perceive a region like St. George as Californian, but typically place California speakers in other regions, namely in or around

Salt Lake City. This finding shows that participant perceptions don't necessarily align across perceptual experiments. Perceptions of California-ness in Utah have led to a theory that California-ness could potentially be a metonym used by active members of the Church of Jesus Christ in Utah to describe the speech of non-members.

Although there are general patterns found in the results of the perceptual audio survey, the results from each speaker paint distinct pictures of how that speaker is regarded in Utah. With greater analysis, the results of each speaker could be explored in much greater depth. As was explained previously in this chapter, there are countless other applications for this approach to collecting language regard data, showing how valuable this tool can be.

Concerning the contributions of this paper to language regard as a whole, we will return to a quote from Dennis Preston that was shared in the introduction to this paper. Referring to speakers perceiving their spoken variety as “correct” or “standard”, despite hearing linguistic evidence otherwise, Preston (2018:11) explains, “your brain gets in the way of your ears.” The implications of Preston’s explanation are present throughout the present study, revealing Utahns’ biases toward certain regions of Utah. As has been explained, there is evidence that features of SUSE exist in Utah, namely /ai/-monophthongization (Morkel 2003; Sykes 2010). It’s possible Utahns are recognizing this feature in rural Utah and labeling areas where they heard the feature as “Southern”. However, what’s also likely is that participants perceive Southern-ness in the speech of these Utahns because they are regarded as matching participants’ archetype of a Southerner. As a result, participants likely think back to people they met from these areas and retro-actively assign them features of SUSE, regardless of potentially

contradictory linguistic evidence. Their brains get in the way of their ears, as Preston would say.

A final possibility is that “Southern” or “country” in a general sense doesn’t refer to a specific variety of Utah English, but rather any variety perceived as non-standard by Utahns. This non-standard variety of Utah English is one characterized by older speakers and is slowly being phased out for a variety closer to the “standard” or the Western U.S. variety of English. When looking at this generational divide through the lens of third wave sociolinguistic theory (See Eckert 1989; 2008; 2012), it can be assumed this variation is a choice being made by younger Utahns—one done with the intent of establishing an identity less in line with Utah’s heritage and more closely aligned with the greater Western U.S.

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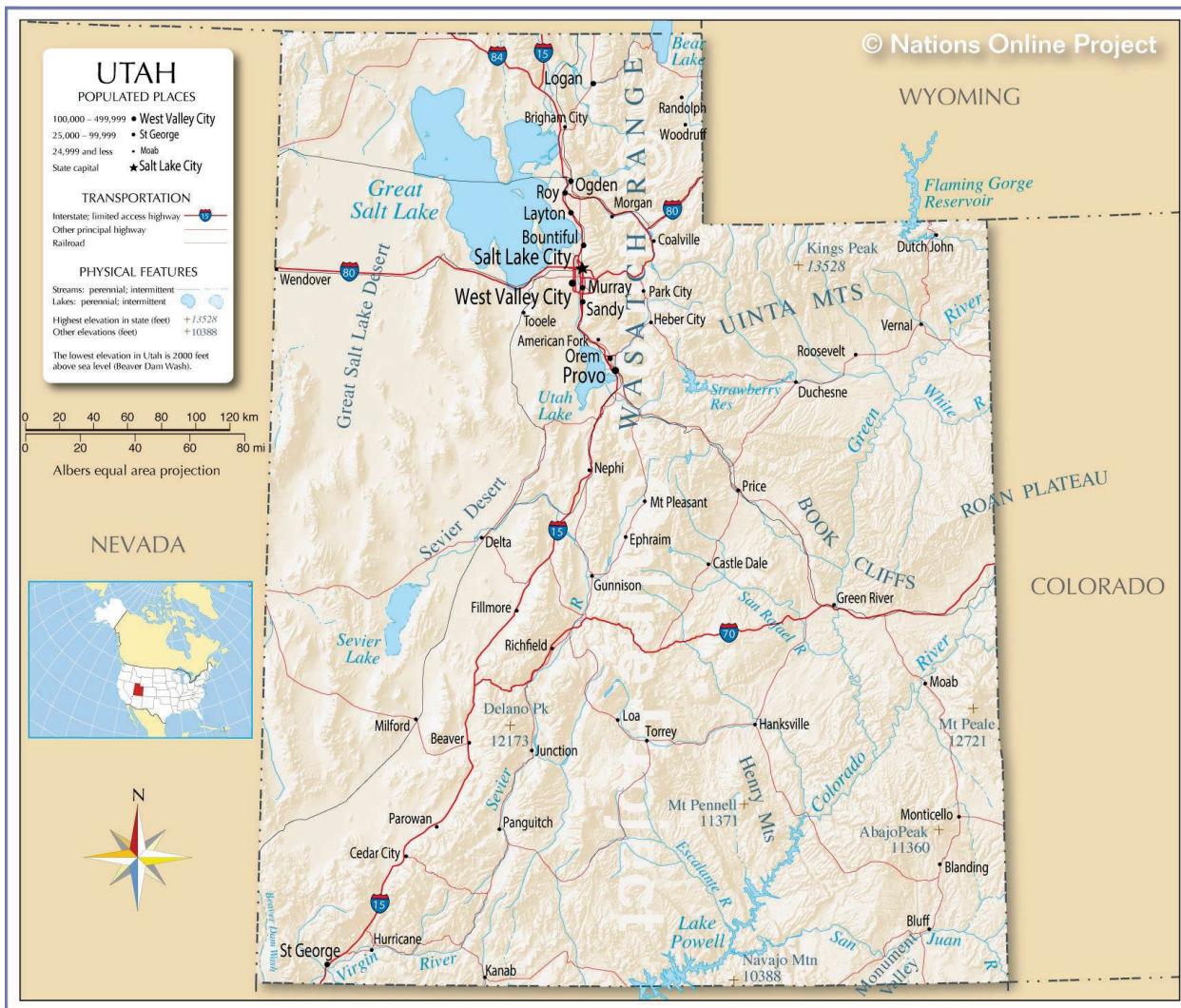
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## 7 Appendices

### 7.1 Map of Utah (nationsonline.org)

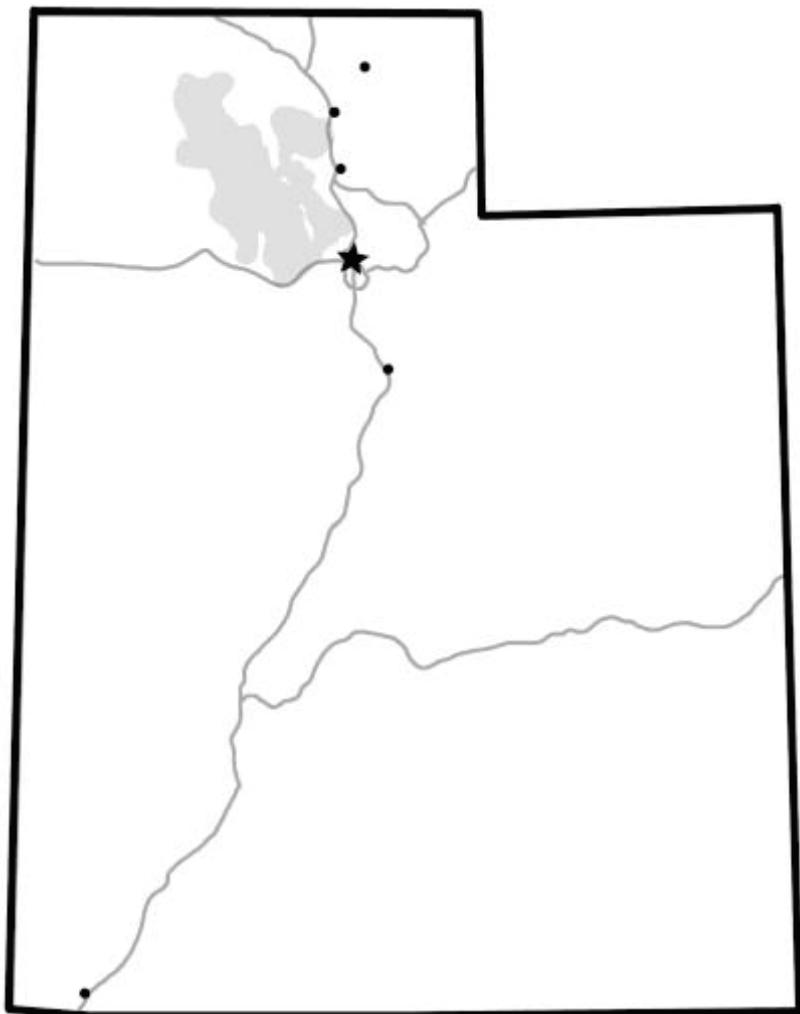


## 7.2 Draw-a-Map Task

### Dialects in Utah

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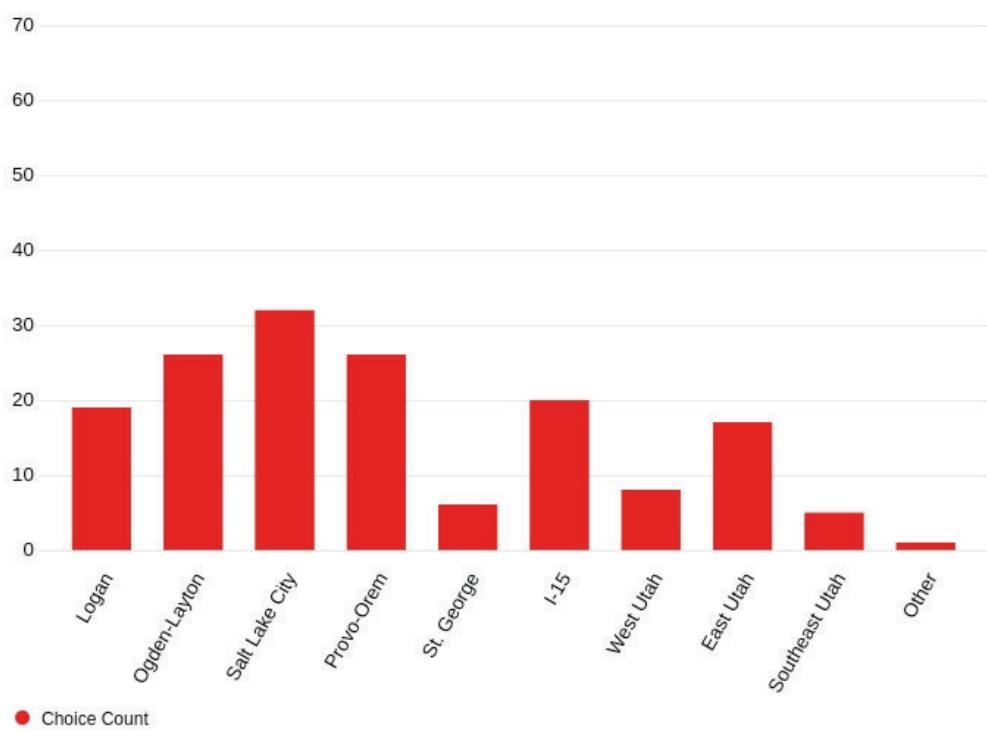
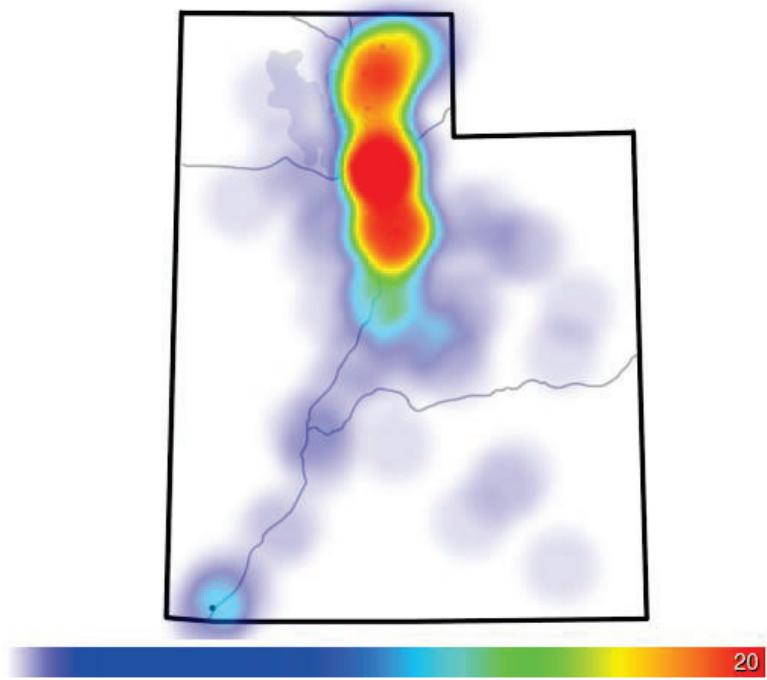
1. Draw lines around where you think English is spoken differently in Utah
2. How would you label that area and the English spoken there (if you can think of a label for it)? If you can, give an example of what is different there (Ex: Is there a certain word that they pronounce differently?).



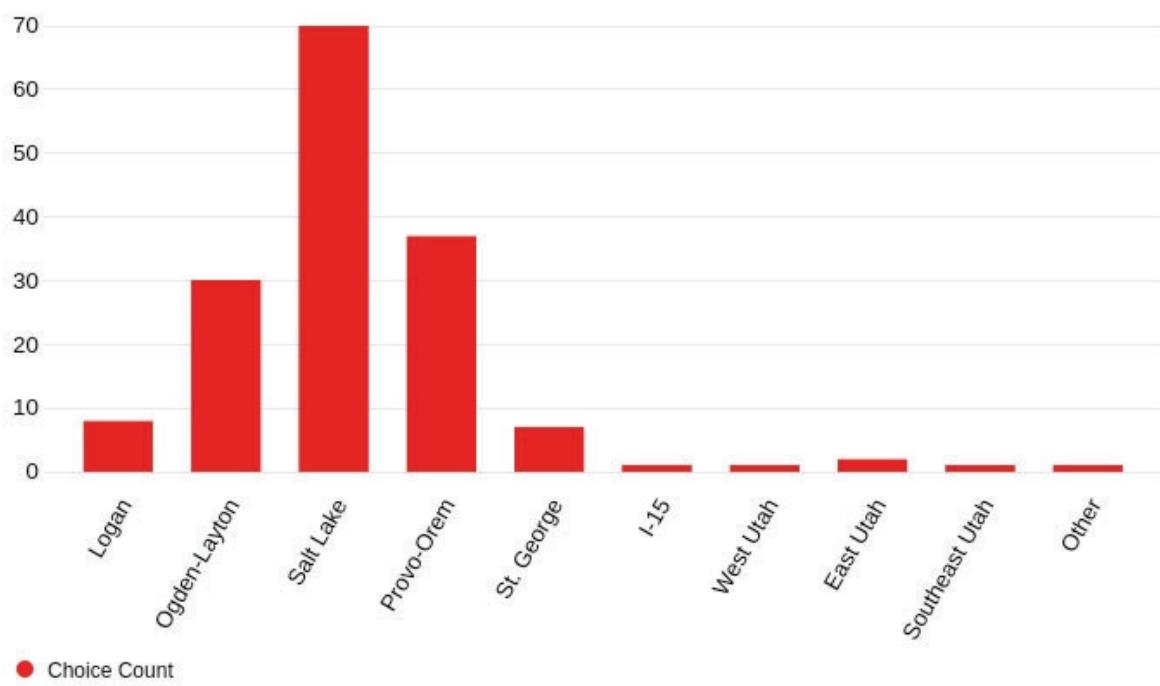
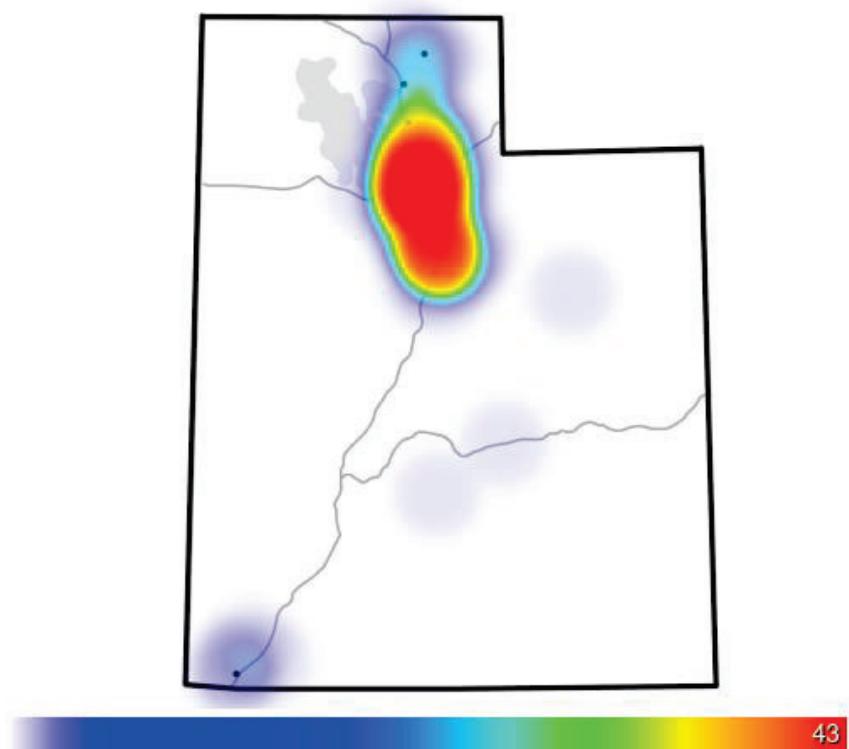
3. What is your age and where are you originally from?

### 7.3 Heatmaps and Bar Graphs from the Perceptual Audio Survey

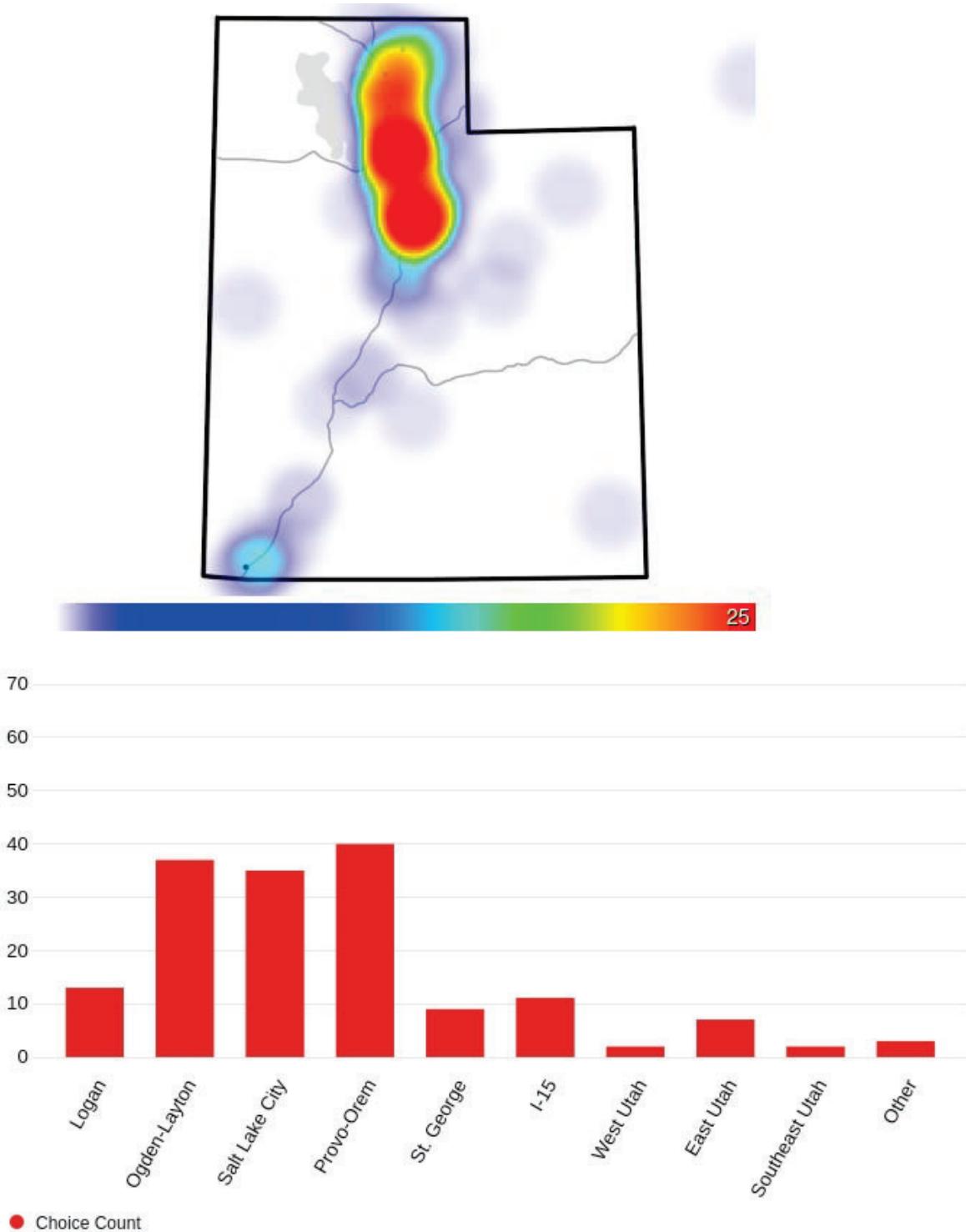
Recording 1: San Diego, CA, M, 21



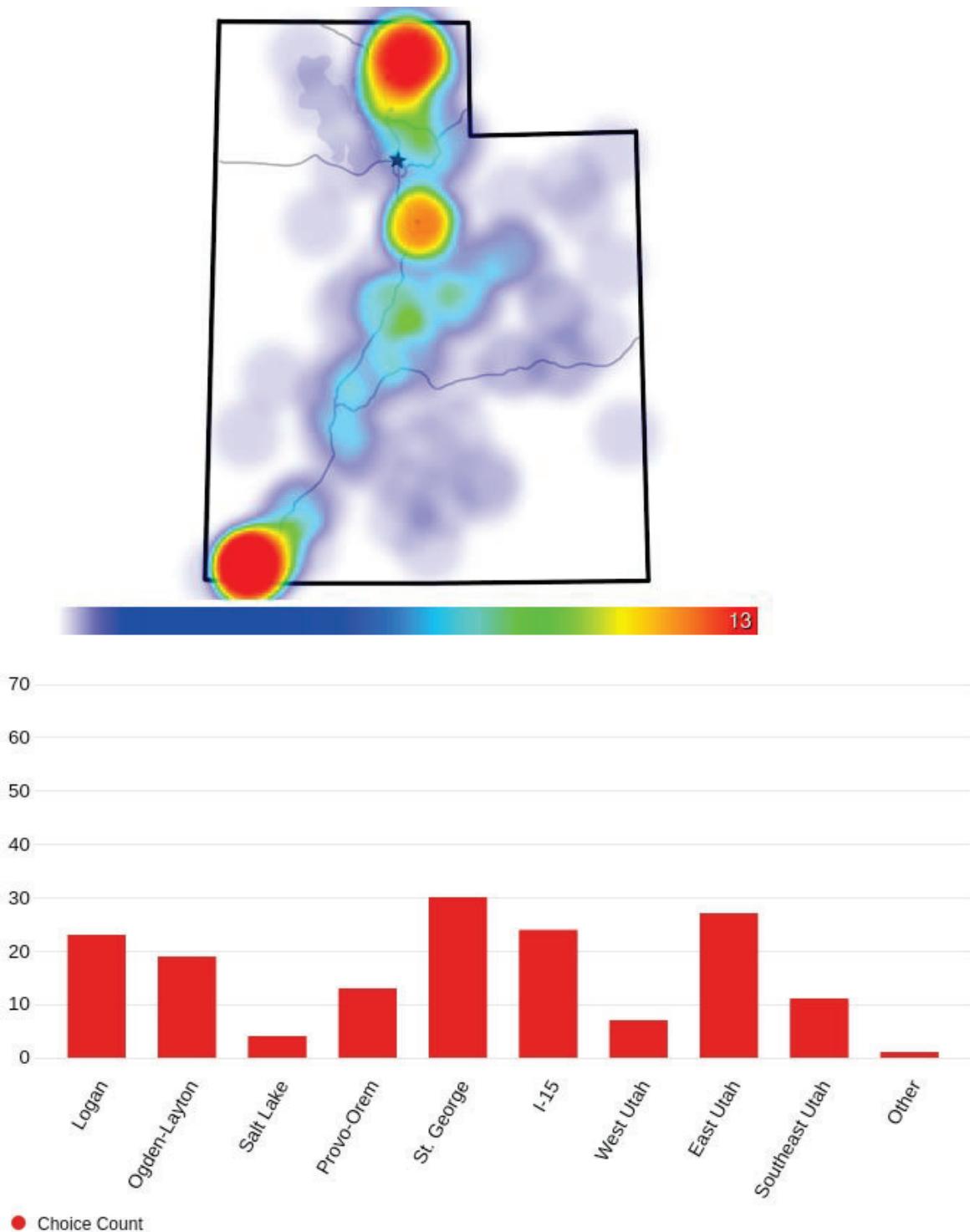
Recording 2: Boise, ID, F, 21



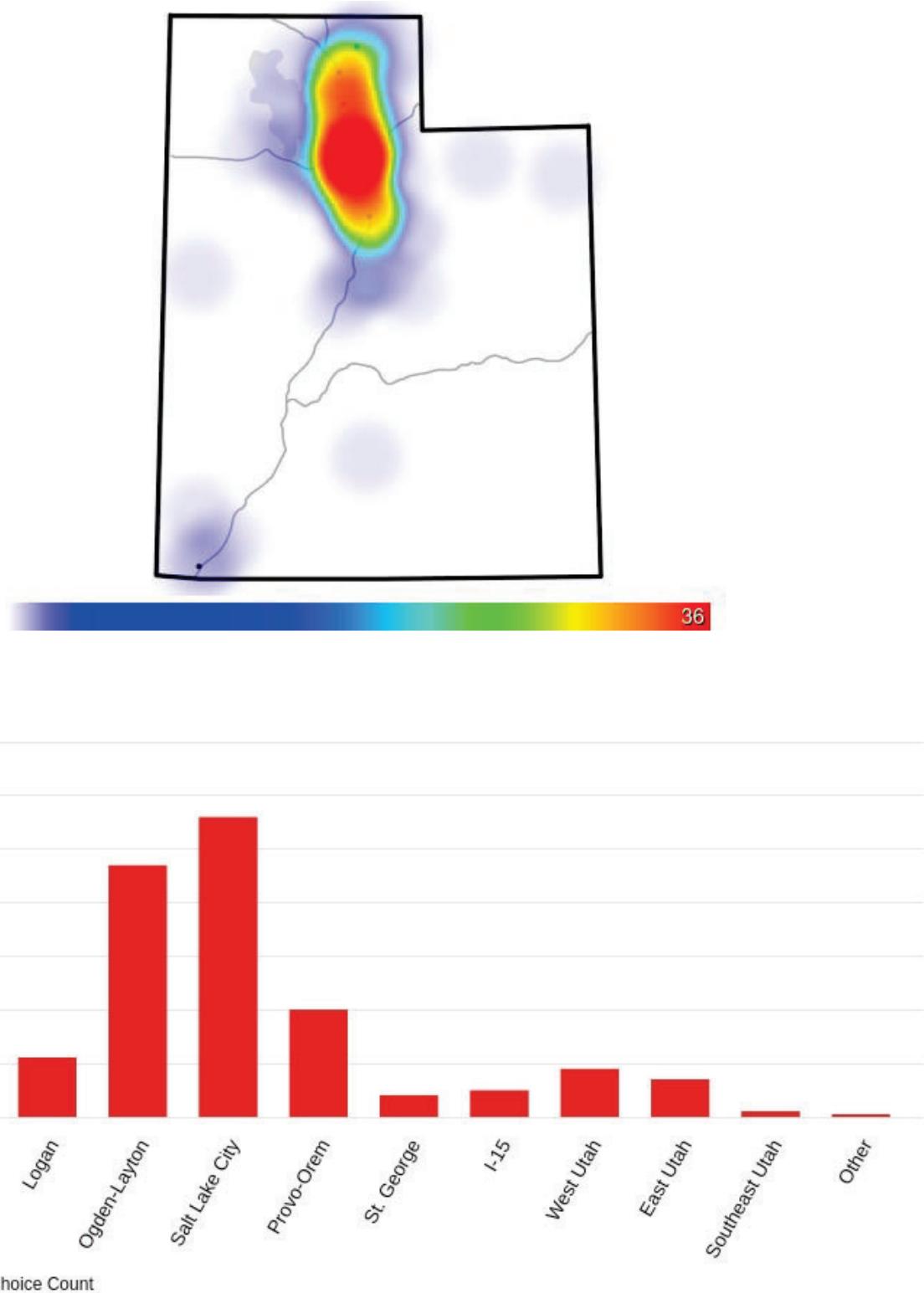
Recording 3: Spokane, WA, 32, F



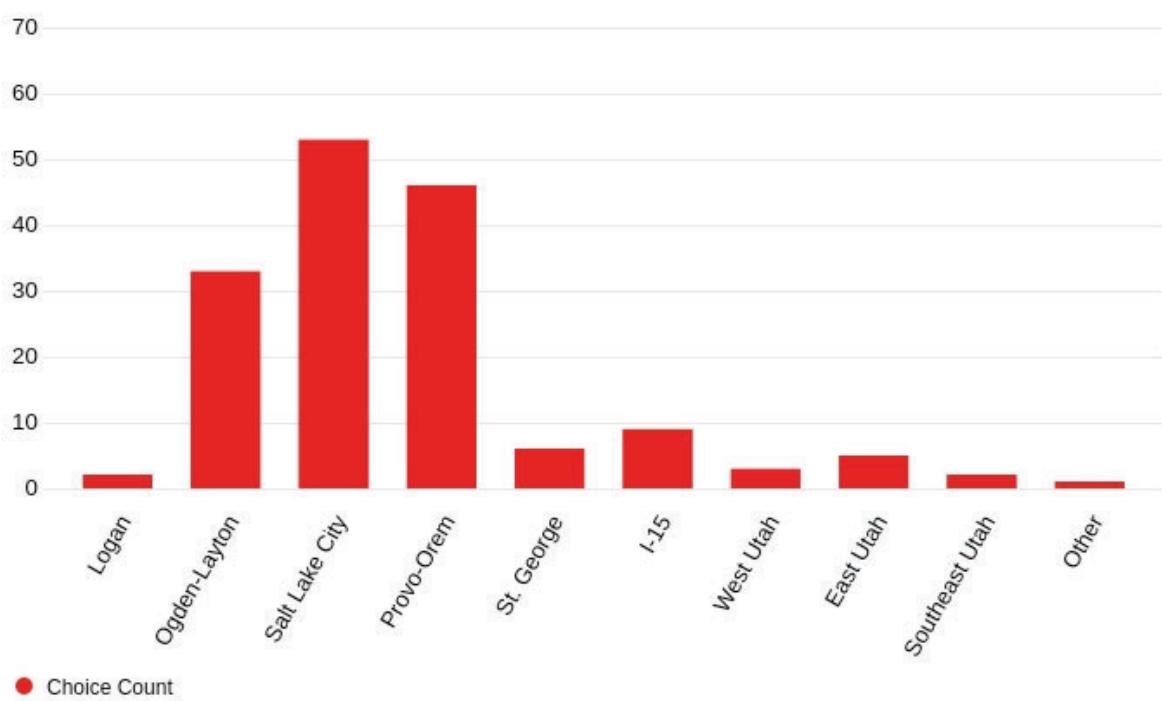
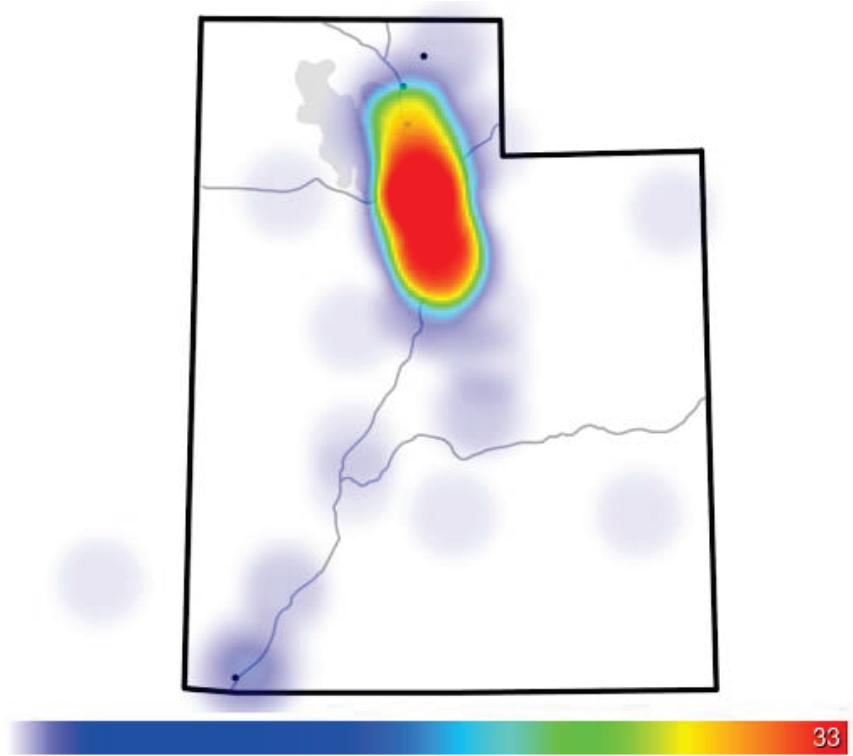
Recording 4: Mesa, AZ, 75, M



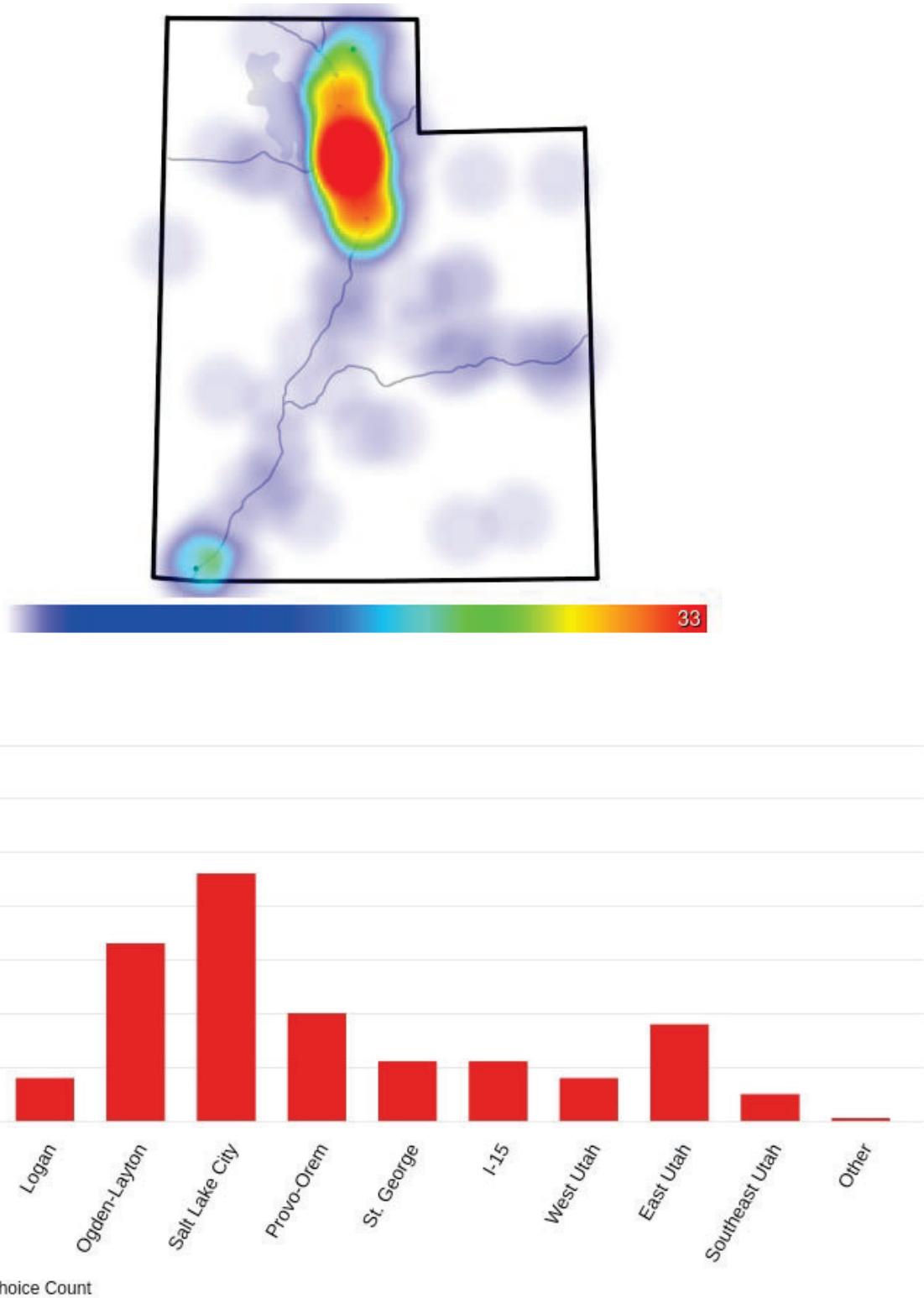
Recording 5: Idaho Falls, ID, 32, M



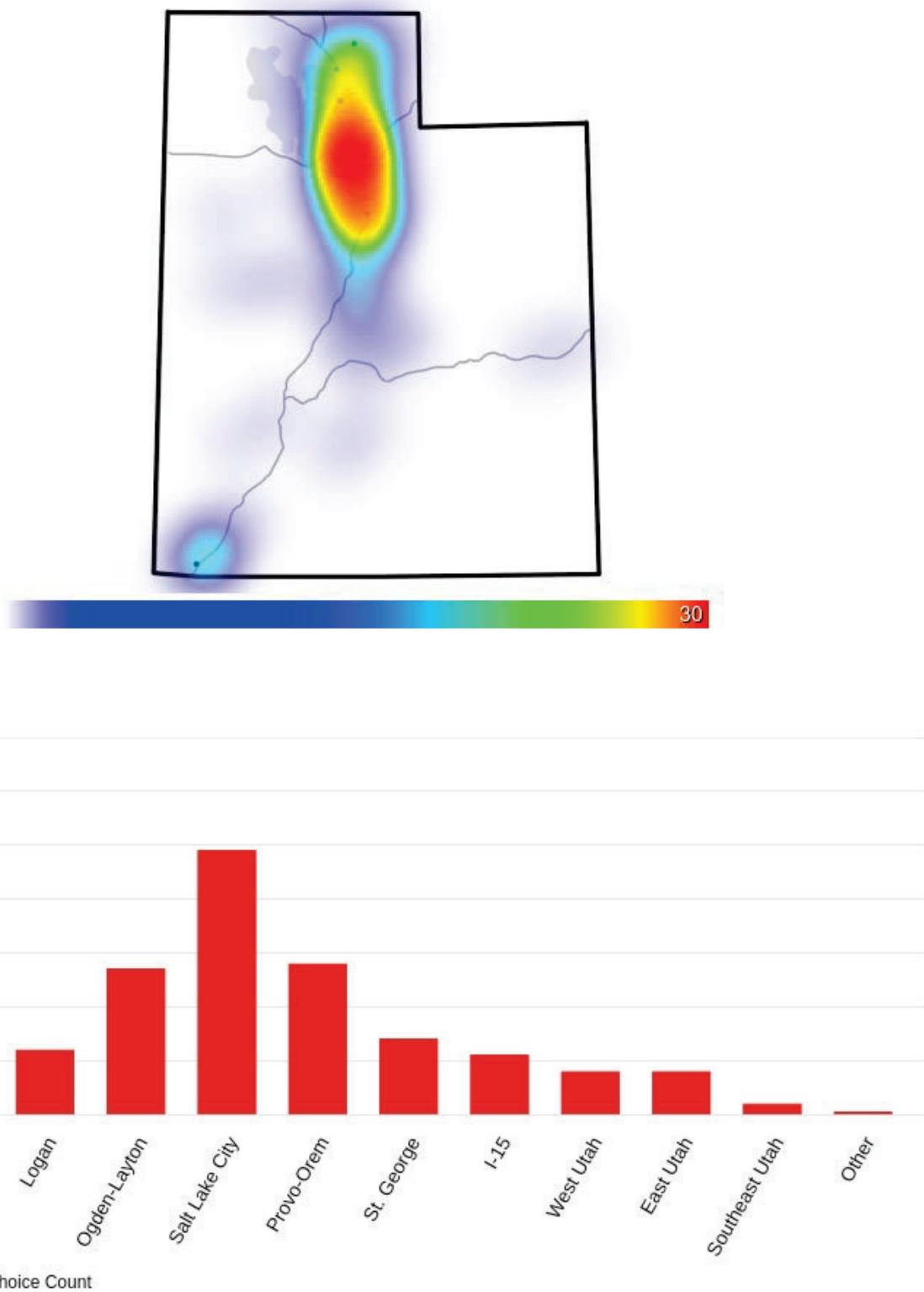
Recording 6: Ogden, UT, 29, F



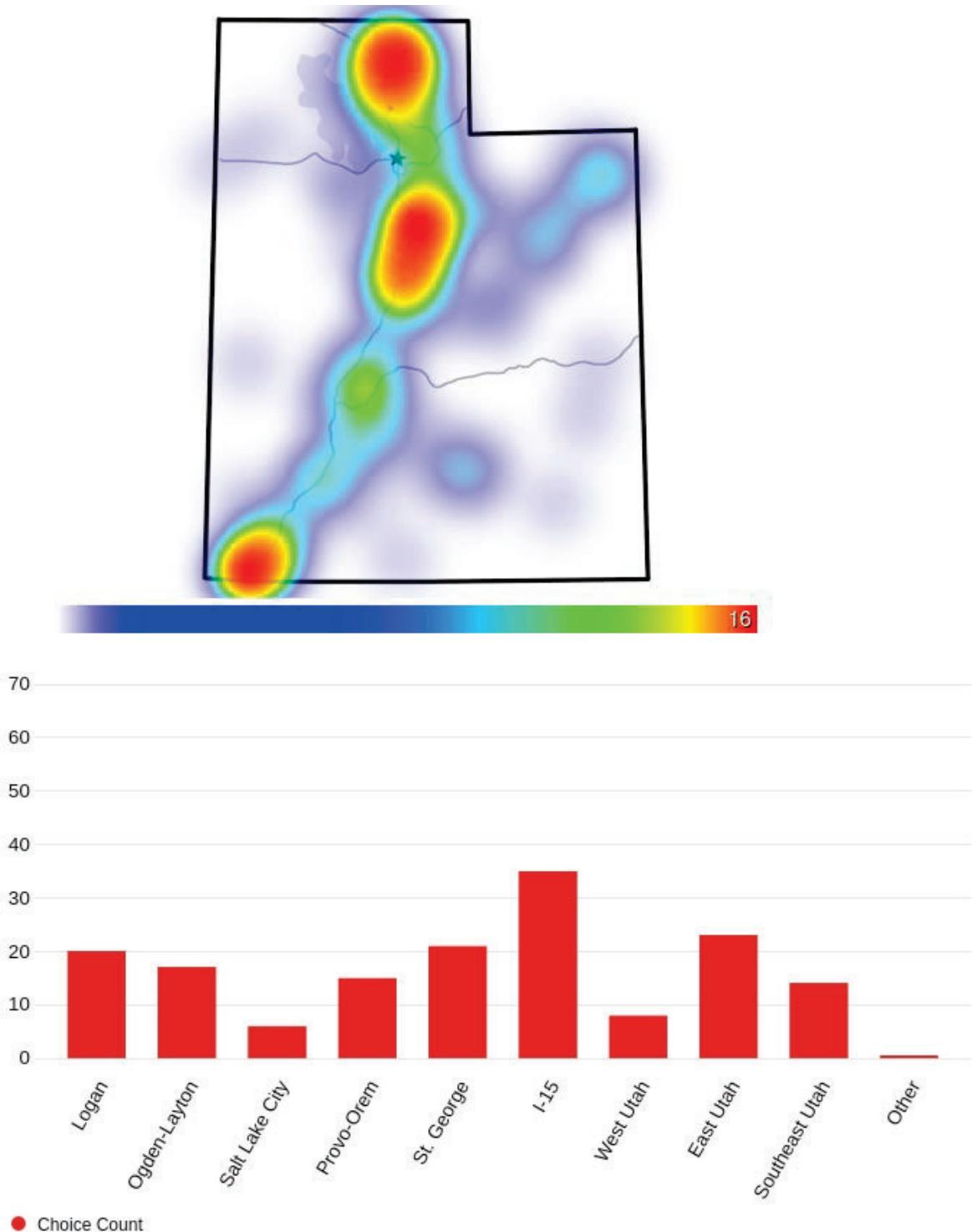
Recording 7: San Diego, CA, 31, F



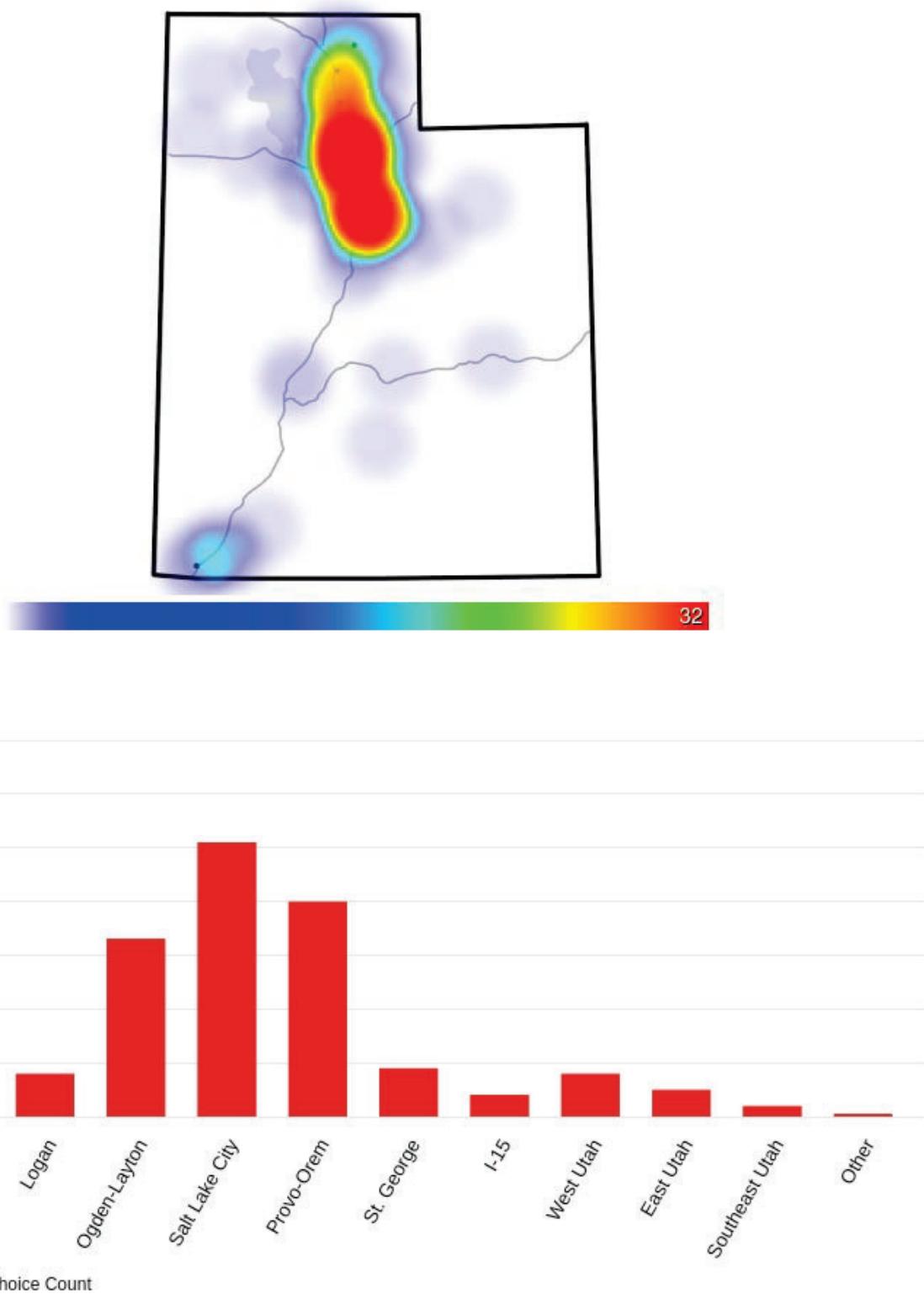
Recording 8: Berkeley, CA, 22, F



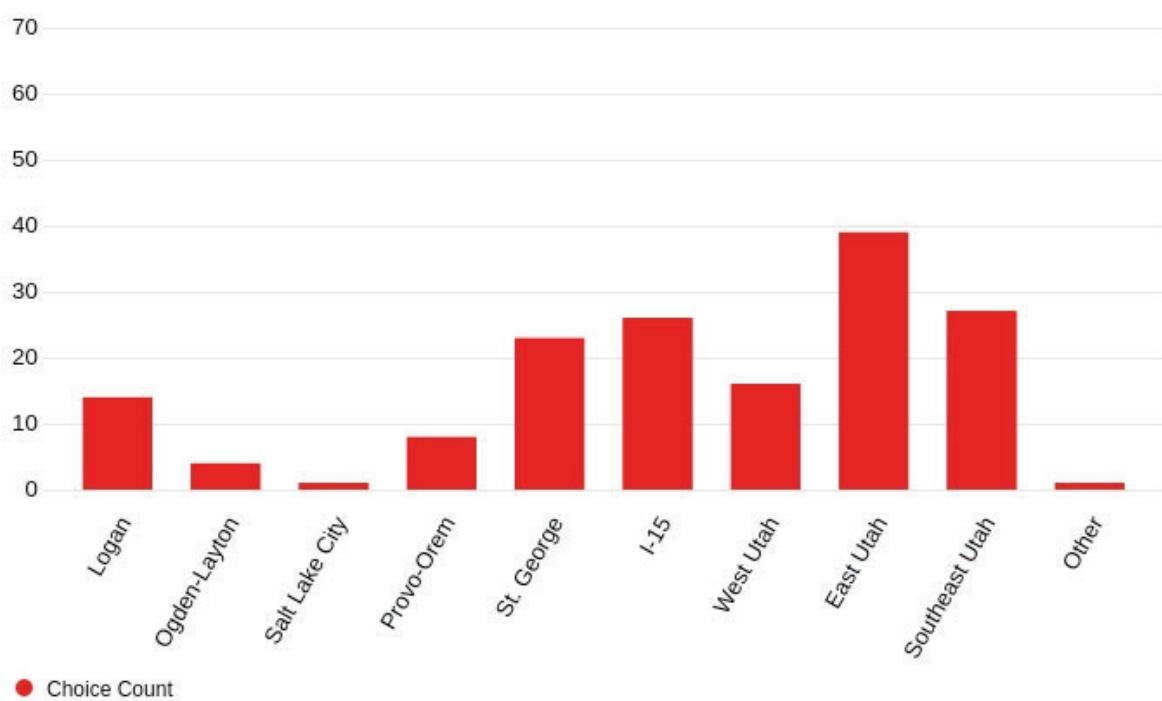
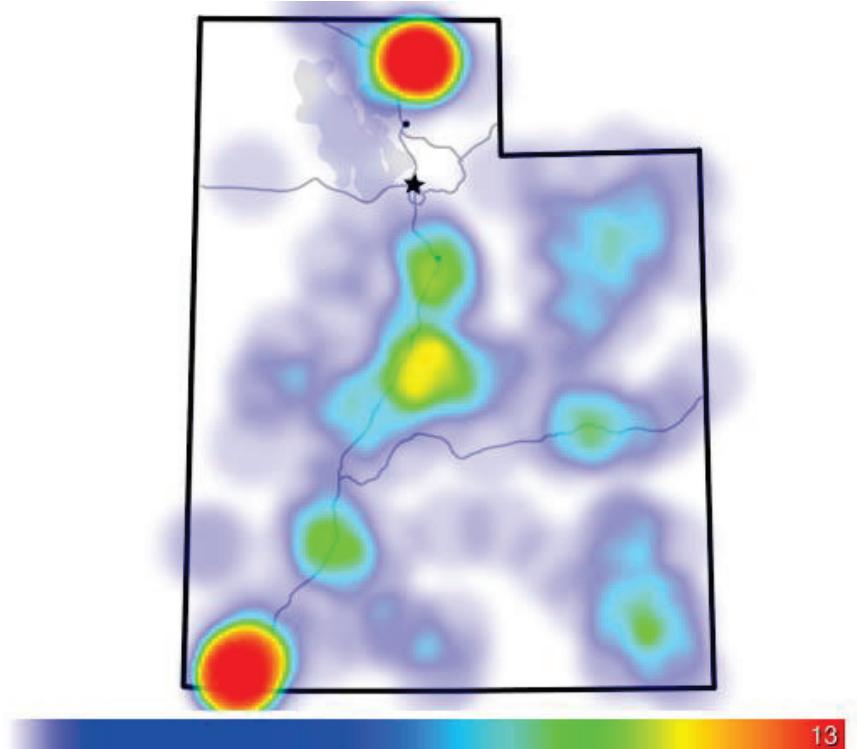
Recording 9: Charleston, SC, 50, M



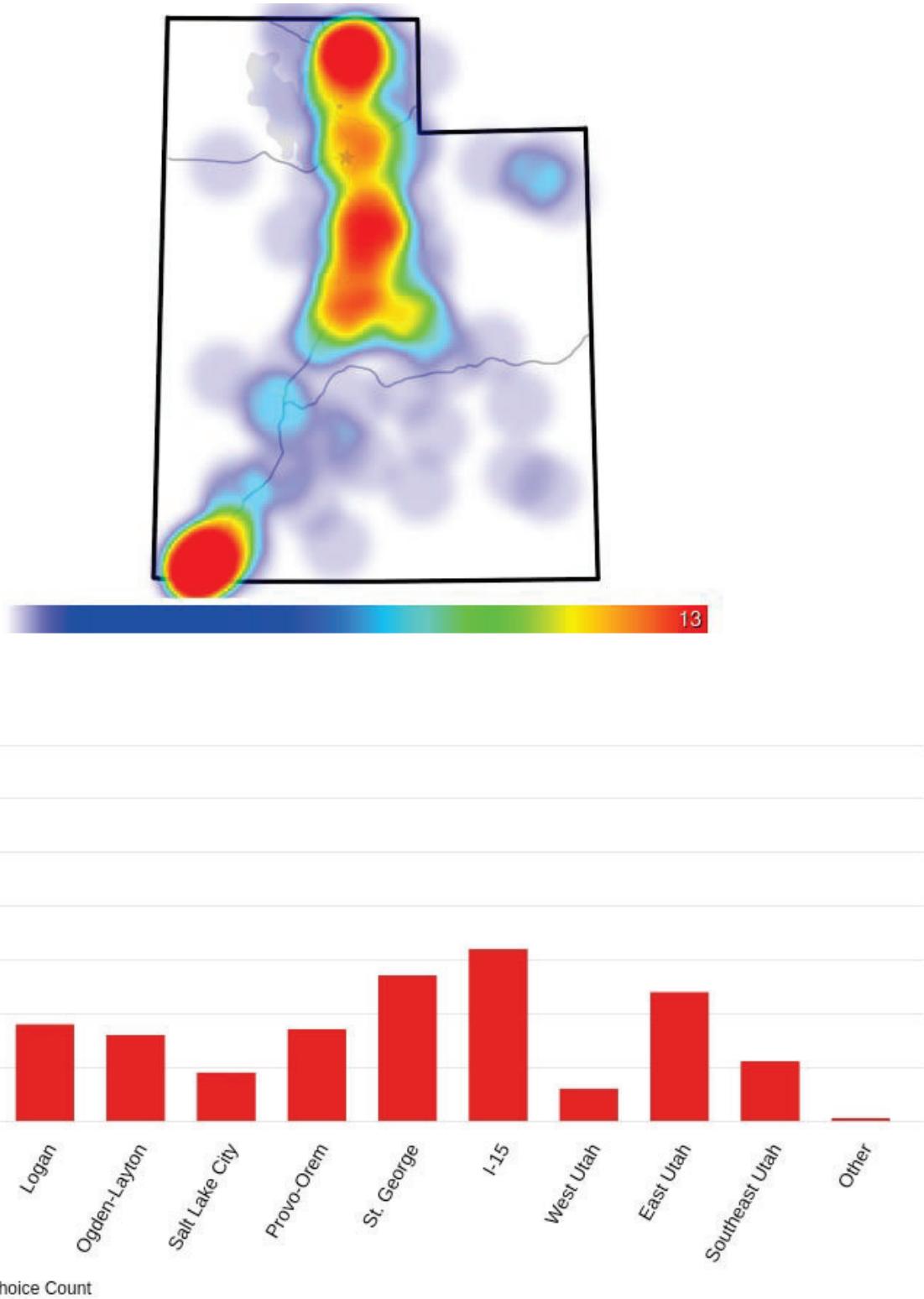
Recording 10: West Jordan, UT, 30, M



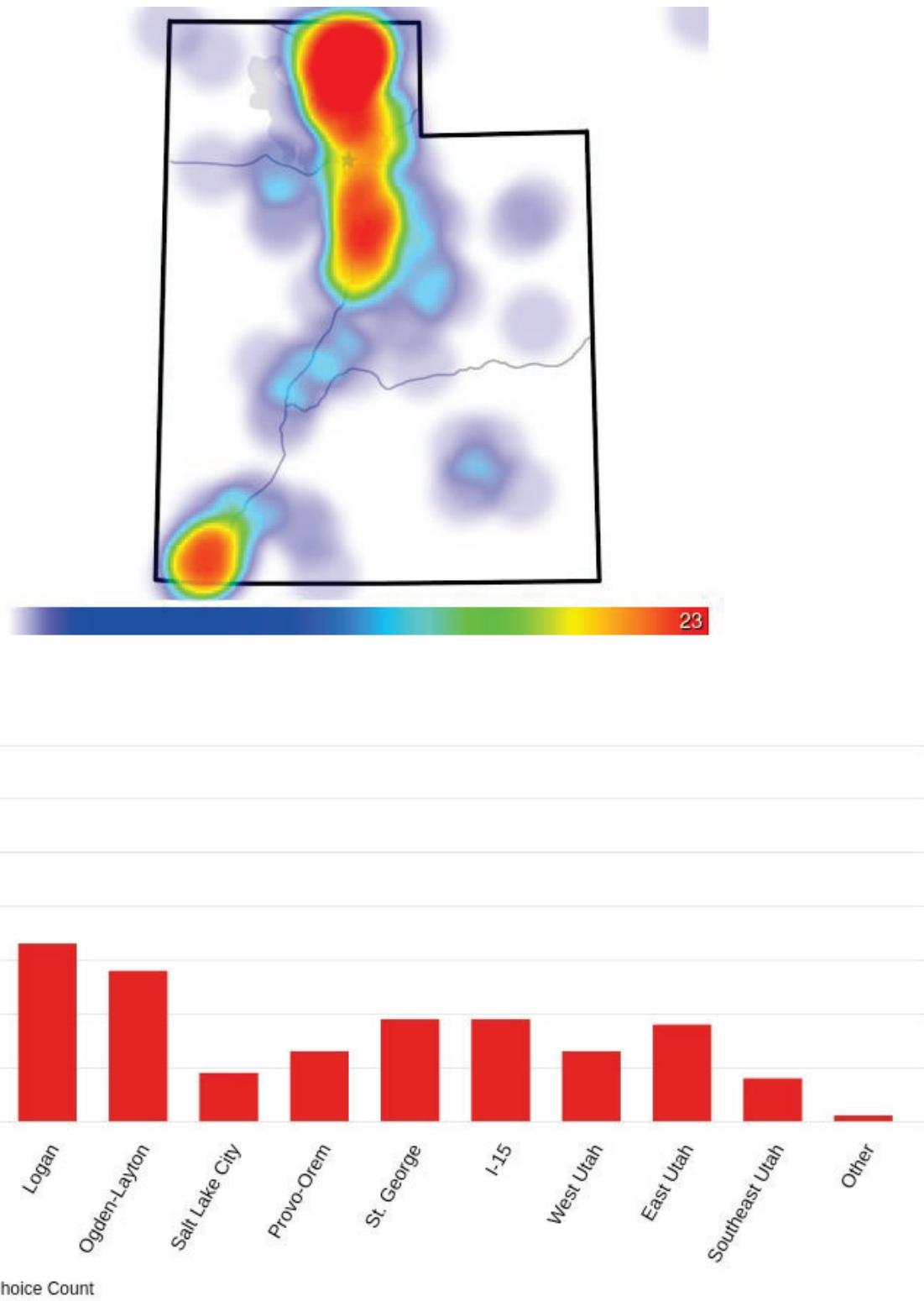
Recording 11: Pine Bluff, AR, 52, M



Recording 12: New Orleans, LA, 59, F



Recording 13: Milwaukee, WI, 60, F



## 7.4 Comments Left in the Feedback Section of the Perceptual Audio Survey

Do you have any comments about the contents of this survey?

As a lifelong resident of Utah, I was very sure when I heard people with what I call the "Ogden accent," but I also (I think) recognized a speaker from Europe and a speaker from the upper East Coast (New York or Jersey, perhaps).

I have family from rural Summit County but don't have a lot of familiarity with the idea of a southern/central Utah accent. Some of these accents I wouldn't have guessed were Utah at all.

This was interesting, thanks!

North of Salt Lake was the only region I didn't feel like I could stereotype with a typical accent.

Nope. Good luck!

I expect that there has been some harmonization of speech over time. In my experience, there seems to be more variation within a certain area than what I encounter in my travels around the state.

I hope you make better decisions in the future when considering your education.

I wasn't sure if I was supposed to restrict my guesses to the dotted cities.

I kinda had to guess at regions

It probably doesn't help that I am from Arizona and don't hear an accent here in Utah, so I am not sure if my answers are useful haha. I've never understood when people say Utahns speak differently so I hope my answers helped at least a little!

This was a really cool survey! Good luck with your research! :)

Since I didn't grow up in Utah, it was very difficult for me to discern where each person was from. Consequently, I felt like I was randomly guessing the entire time. Additionally, I assumed that the dots on the map represented major cities in Utah, if they had been labelled, that would have been helpful.

This is very interesting! I did some research on Utah English my freshman year, so I'd be interested to see your results.

I have no idea where places are on the map except Salt Lake, Provo, and St. George, so a lot of it was random guessing. The more southern accent they had, the more south I guessed.

While I've lived in UT for a while, I've only lived in Provo, UT, so while I'm exposed to people from all over UT (and from all over the country), I don't know where to geographically place the various "accents." I was also confused by some of the accents I heard that didn't sound like UT, until the explanation at the end, which makes so much more sense now, haha. Anyway, cool study! Really interesting. Good luck, hope the research goes well!

I feel like a lot of people speak more like they're from the south in rural areas, especially older people. I feel like closer to Idaho to the north you get a sort of Canadian/Minnisotan vibe. I think that people from Salt Lake City usually talk more like someone from the California, where Utah Valley seems to have its own really specific accent, especially for women who are active in the church.

I want to know the answers!!!

I understood some were not from Utah but that didn't seem like an option at first. I'd love to know more about your study! My grandma came from Malad Idaho and always said carn for corn. I recognize the differences in "bag" but I'm not sure where they come from. My mom grew up in Delta and my dad from WY. So interesting what you're doing.

Thank you for letting me participate. I absolutely had a tendency to mark older, slower sounding voice clips as being more rural while younger, quicker sounding voices sounded more urban to me. Very interesting study.

If I had no idea, I guessed near salt lake city.

I haven't noticed regional differences in Utah accents. It seems to be more cultural between rural and urban speakers. With urban speakers, I placed them at SLC, but could be anywhere along the wasatch front. For rural speakers and accents I don't recognize as Utah accents I just placed them out in the middle of nowhere outside the front. I don't actually associate them with those places, and I regularly encounter rural speakers integrated with urban speakers along the front.

Could have made the map a little easier to understand- for example dots were not clear what counts as an "important" city

Based on audio samples it sounds like you are looking at accents. Part of what can help find the nuance is looking at vocabulary used. Such as jimmies vs sprinkles, semi vs 18 wheeler, soda vs pop, etc. Linguistically, emphasis is placed on different parts of words so analyzing could be helpful. Such as moun'ain, lay'on, col'on, and fur instead of for. Depending on the depth of your study, you could look at articles, blogs, books, etc. And compare them to literary texts around the country to look for common or uncommon phrases and grammar structure. You could also look at the influence of genealogical influence on the language. Like, if a region, like Utah has many descendants of Scandinavia, how has that accent evolved to the modern day accent. Or how does being an indigenous descendant influence language, or foreigner, etc. In your survey, besides Utah residency history you might have included how many languages do the participants speak, and what the participants first language is.

Started to get really tedious after the first few. Honestly my guesses were random as I felt that outside of one or two examples, they sounded nothing like "Utah accent" and could come from anywhere.

I think I heard a Canadian accent. The one that said wendsdee instead of wednesday

Tricky stuff including people's voices not from utah. I ended up usually putting accents I wasn't familiar with in places I haven't been to often (in the odgon/Logan area).

Almost all of those sounded identical. I can recognize SLC because they use gay slang, but all of the words were the same. Gay slang is real, but a gay accent is not, so I have 0 clue.

It might have been nice to get uncertainty along with guessed locations, but I guess that will come from the variation in responses

Good luck with the study

I'm also a grad student in the Ling MA, and I'd love to see where everyone is actually from! I'm originally from Southeastern Washington State, but have spent a long time in Utah.

It was really hard to choose a region on these maps because there was virtually no detail. It would have helped a lot to have labels on towns/counties since I believe these areas vary wildly in their accents (e.g. Davis vs Ogden, Cedar vs Beaver, Heber vs Park City, etc).

I was surprised to see Brigham City and Logan both on the map. I don't believe I could distinguish speakers from those locations. I definitely noticed some of the voices as non-Utahn. One from the upper-midwest for sure. I wonder how useful a survey might be if it asked, "How likely would you say this speaker is from Utah?"

It's really hard to tell. I didn't really know where they were from.

It was hard to tell the difference for most people

Susie is deffo from Nephi

1) Did I have the option to choose "not from Utah?" I did nWas Stot see that option. 2) Found it difficult to determine which cities were on the map. Was the one in the NE Bear Lake? Logan? Was the one in the SW St George? Hurricane/ St George?

No, I don't really have any comments on the survey, but I think yellow is certainly a color of the rainbow

The obvious non-Utah speakers were random picks on the map with no real thoughts to where they would be from. I pick out a Utah accent among other American non-Utah accents almost always, but within Utah, I am not experienced enough to tell the difference between Eastern, Northern, and Central rural Utah accents. Urban and Suburban Wasatch front is also easy to pick out, but I can't differentiate Utah Valley, Salt Lake Valley, or Weber County. Southern Utah rural is distinct as well, but does blend into Central Utah accent I believe.

I hope you can read my dot placements on the map. I put them into a few groups: St. George, Southern Utah, Utah County, Greater Salt Lake area, Park City, Logan, and Vernal.

For the sake of increasing participation, it might have been fun at the end to show a map of where each person was actually from. Makes it a game of sorts, and people will forward to their friends and social media to see who can score highest.

I'd be interested to know why the lines were divided the way they were

I've mostly remained in Northern Utah, however I've done some personal research on Utahn dialects which, if at all reliable, colored my placements of a few of the more accented speakers. I'm from the East Coast, so I tend to associate accents in Western states as trending heavier in the southern part of each state.

You can click outside the UT map, and one of them sounded so Wisconsin-y that I had to click as close to it as I could.

the dots on the map were confusing, unsure why they were there

I've lived in Utah for 4 years, and I really couldn't tell you that I've noticed a difference in accent between the different cities here. I could definitely tell with the people who didn't sound like they were from Utah, but I didn't know how to assign them to a specific area. Also, I wasn't sure if I was supposed to click on one of the dots on the map, or if I could've clicked anywhere in Utah. It would've been nice to have that in the instructions

No

I put all the out of staters in salt lake where they belong haha. Good luck on your research!

While I feel like there were some people who had distinct differences in some words, or with different speed or cadence made a more of a difference between the perception of city vs more rural. I didn't have any audio examples where I felt certain where someone might be from.

Additionally I feel that I don't know enough people from different areas in UT to have strong

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opinions of placement outside of knowing more "country" and stereotyping it towards the south and faster talking as more city or metropolitan.

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I had no idea. I was guessing the entire time. Some sounded "normal" a few were very distinct but I have no idea where any of them were from.

I felt that I was guessing for all of those. I don't have strong opinions or indications of regional accents within Utah, apart from a rural vs urban divide.

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Locating places on the map was extremely vague.

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One thing I noticed in several recordings was that several people dropped the T in "meet her" for a glottal stop. Sounded like "mee' her". Just thought it was interesting that it occurred on more than one recording.

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There were a couple that were identifiably not from Utah for me (the last two read Australian who'd lived in California and Texas Cowboy to me, respectively) so I kind of threw them on the map. I'd be curious to see if the "baygs" were Utahns, because that's a thing I associate with the upper midwest, and I think it's something I've heard in northern Utah/Cache Valley, but I'm not certain. I heard a couple "Wednesdee"s in the readings (and even predicted one based on the reader's other vowels!). Those sound like rural southern Utah to me because of family that lives there. I look forward to seeing how this research pans out.

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I would have loved to have known the actual location of the speaker-- I was picking up more rural pronunciations than I'm personally used to hearing and I'd love to know which parts of Utah those are strongest in!

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I could definitely spot the speakers with southern accents and a midwestern/Minnesota accent. I marked them on the Utah map, but maybe it would have worked better to have a "not Utahn" option.

## 7.5 Frequency of Utah Cities in the Draw-a-Map Task

<b>Levels</b>	<b>Counts</b>	<b>% of Total</b>	<b>Cumulative %</b>
Alpine	1	2.0 %	2.0 %
American Fork	3	6.1 %	8.2 %
Bountiful	2	4.1 %	12.2 %
Brigham City	1	2.0 %	14.3 %
Cedar City	1	2.0 %	16.3 %
Centerville	2	4.1 %	20.4 %
Clinton	1	2.0 %	22.4 %
Farmington	2	4.1 %	26.5 %
Fruit Heights	1	2.0 %	28.6 %
Highland	1	2.0 %	30.6 %
Kaysville	1	2.0 %	32.7 %
Lehi	1	2.0 %	34.7 %
Logan	1	2.0 %	36.7 %
Orem	1	2.0 %	38.8 %
Other	9	18.4 %	57.1 %
Park City	2	4.1 %	61.2 %
Pleasant View	1	2.0 %	63.3 %
Provo	2	4.1 %	67.3 %
Riverton	1	2.0 %	69.4 %
Salt Lake City	3	6.1 %	75.5 %
Sandy	3	6.1 %	81.6 %
South Jordan	1	2.0 %	83.7 %
Spanish Fork	1	2.0 %	85.7 %
Springville	1	2.0 %	87.8 %
St George	1	2.0 %	89.8 %
St. George	1	2.0 %	91.8 %
Utah County	2	4.1 %	95.9 %
West Jordan	1	2.0 %	98.0 %
West Salt Lake	1	2.0 %	100.0 %

## 7.6 Frequency of Utah Cities in the Perceptual Audio Survey

Frequencies of Primary Residence

Levels	Counts	% of Total	Cumulative %
American Fork, UT	1	1.0 %	1.0 %
Bountiful, UT	1	1.0 %	2.0 %
Brigham City, UT	1	1.0 %	3.0 %
Cedar City, UT	1	1.0 %	4.0 %
Cedar Hills, UT	2	2.0 %	6.0 %
Central UT	1	1.0 %	7.0 %
Clinton, UT	1	1.0 %	8.0 %
Cottonwood Heights, UT	1	1.0 %	9.0 %
Draper, UT	1	1.0 %	10.0 %
Dutch John, UT	1	1.0 %	11.0 %
Elk Ridge, UT	1	1.0 %	12.0 %
Farmington, UT	1	1.0 %	13.0 %
Ferron, UT	1	1.0 %	14.0 %
Heber, UT	1	1.0 %	15.0 %
Highland, UT	1	1.0 %	16.0 %
Holladay, UT	1	1.0 %	17.0 %
Howell, UT	1	1.0 %	18.0 %
Hyrum, UT	1	1.0 %	19.0 %
Kaysville, UT	3	3.0 %	22.0 %
Kearns, UT	1	1.0 %	23.0 %
Layton, UT	1	1.0 %	24.0 %
Lehi, UT	4	4.0 %	28.0 %
Lindon, Utah	1	1.0 %	29.0 %
Logan, UT	4	4.0 %	33.0 %
Manti, UT	1	1.0 %	34.0 %
Mapleton, UT	3	3.0 %	37.0 %
Orangeville, UT	1	1.0 %	38.0 %
Orem, UT	6	6.0 %	44.0 %
Other	6	6.0 %	50.0 %
Payson, UT	2	2.0 %	52.0 %
Pleasant Grove, UT	3	3.0 %	55.0 %
Provo, UT	9	9.0 %	64.0 %
Richfield, UT	1	1.0 %	65.0 %
Riverton, UT	1	1.0 %	66.0 %
Salem, UT	1	1.0 %	67.0 %
Salt Lake City, UT	8	8.0 %	75.0 %
Sandy, UT	2	2.0 %	77.0 %
Saratoga Springs, UT	2	2.0 %	79.0 %
Smithfield, UT	2	2.0 %	81.0 %
Spanish Fork, UT	3	3.0 %	84.0 %
Springville, UT	2	2.0 %	86.0 %
St. George, UT	3	3.0 %	89.0 %
Stansbury Park, UT	1	1.0 %	90.0 %
Syracuse, UT	1	1.0 %	91.0 %
Tooele, UT	2	2.0 %	93.0 %
Utah County, UT	2	2.0 %	95.0 %
Vernal, UT	3	3.0 %	98.0 %
West Jordan, UT	2	2.0 %	100.0 %