



H/O/me on the range: Back vowel fronting in Kansas

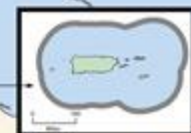
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Kansas State University
ADS Washington, DC 1/7/16



H/O/me on the r/ey/nge: Mid tense vowel trajectory change in the Midwest

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Cooperative Ecosystem Studies Units

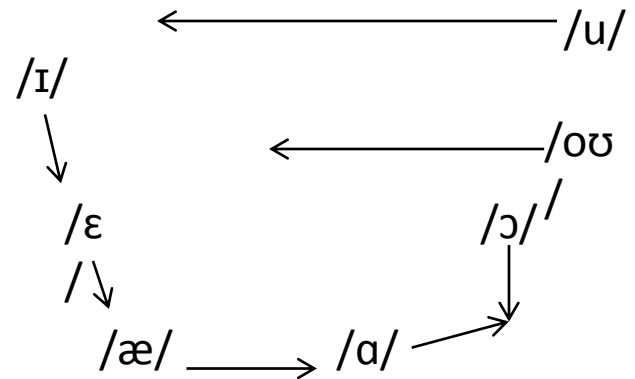


Labov, Ash, and Boberg 2006



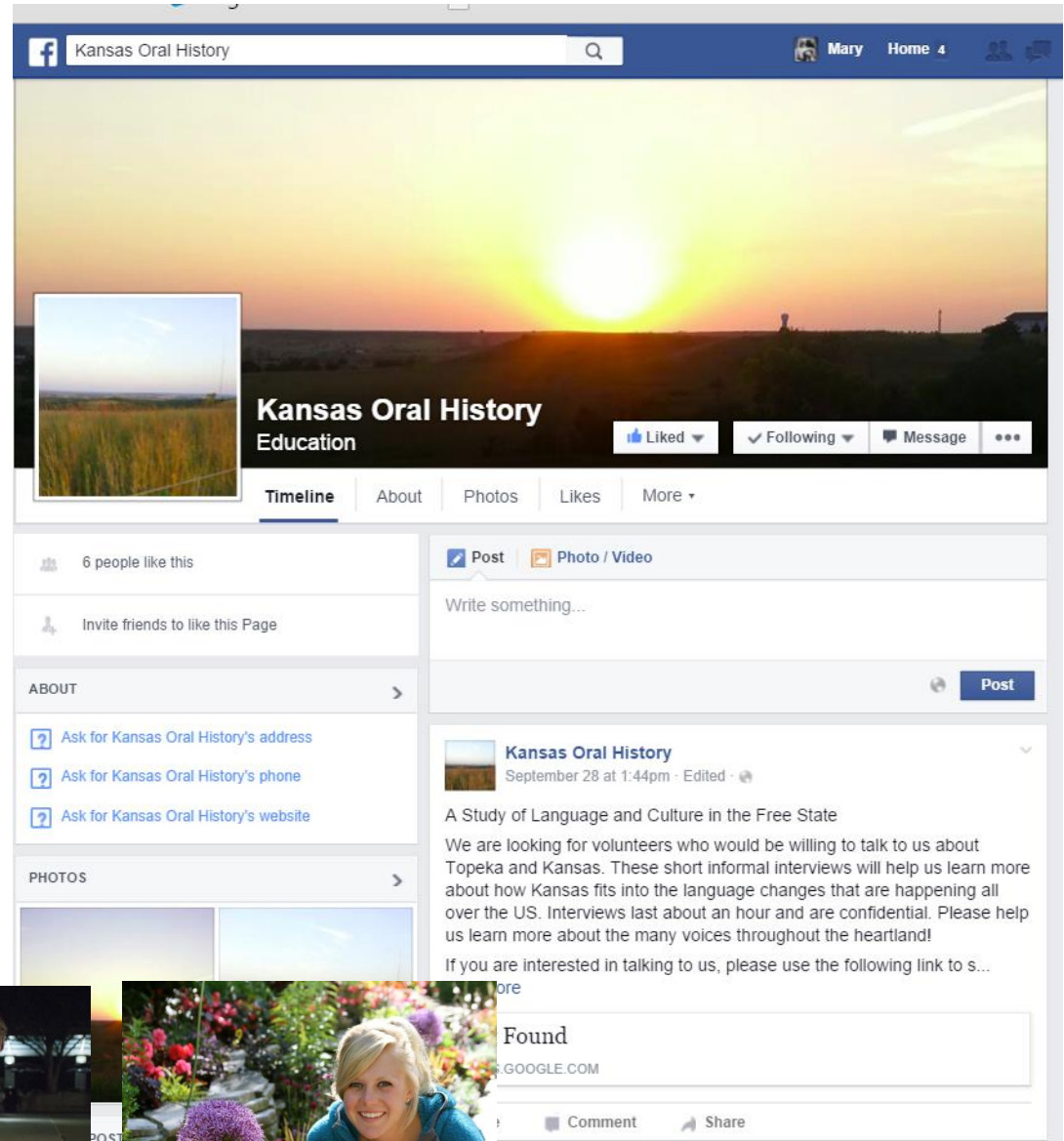
- Previous dialectology-style research in Wichita (Wyatt 1976) and Kansas (Hook 1990, Murray 1990, Von Schneidemessen 1990) shows a confluence of influences as well as few marked regional items
- Kansas City shows evidence of Third Dialect Shift (Strelluff 2014, Lusk 1974)
- Oklahoma shows some participation in the Southern Shift (Bakos 2013, Preston 2015)

Third Dialect Shift



Kansas Speaks

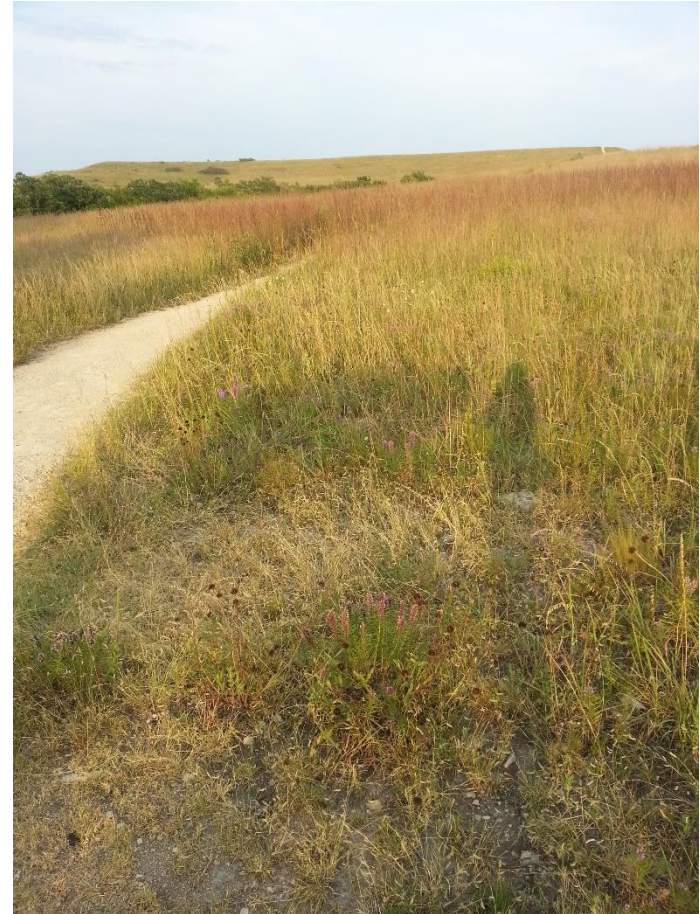
- 5 field sites
- 6 members
- 65 interviews
- 37 transcribed
- ~ 15 hours
- 28 aligned and extracted



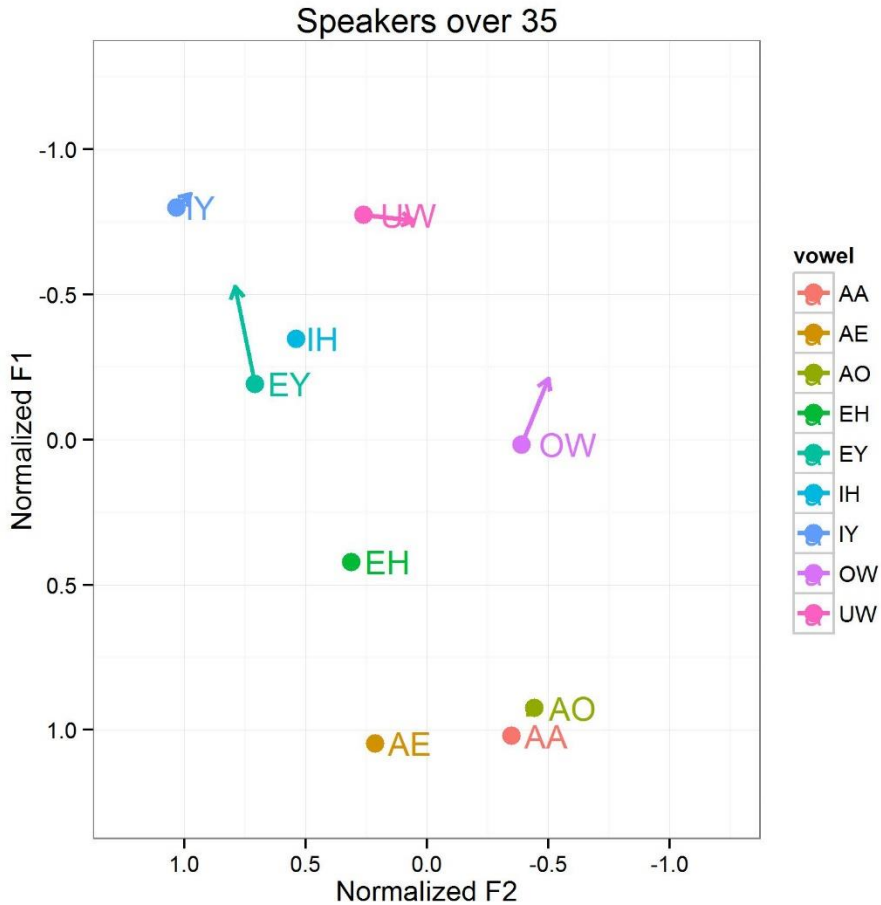
Goal 1: Document sound change in the central Great Plains region

Goal 2: Situate sound changes in reference to other regional sound changes in the US

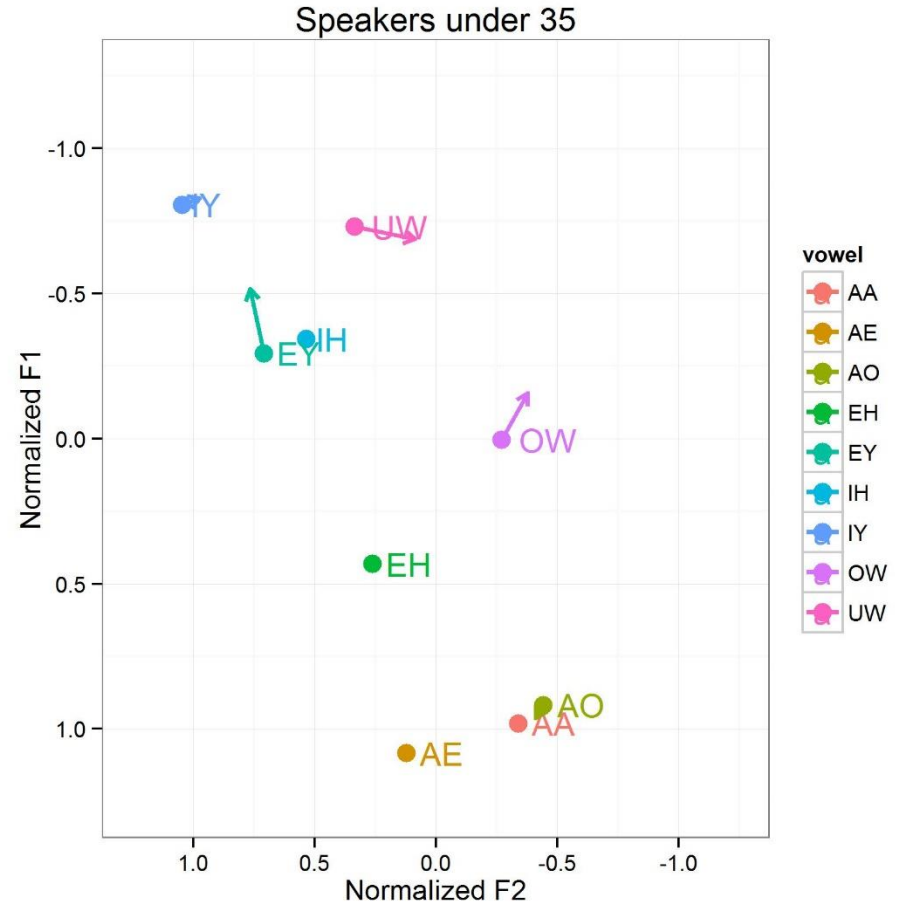
Goal 3: Identify whether sound change patterns are distinct across rural, suburban, and urban communities, or whether patterns appear more uniform in this region



3rd Vowel Shift in Progress



“When his **dad** was alive”



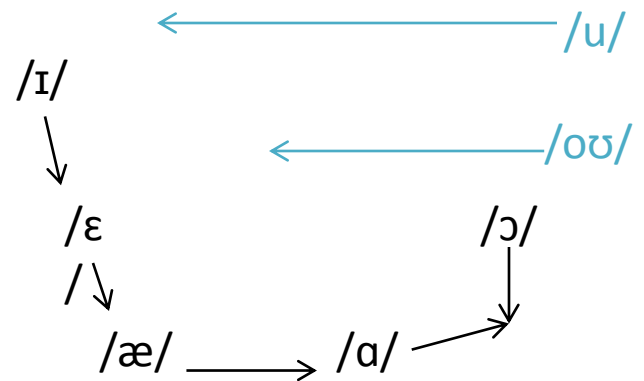
“And my **dad**”



Back Vowel Fronting

- Found in some 3rd shift regions (Labov, Ash, and Boberg 2006)
- But also found in other regions such as the South
- Fronting patterns may be distinguished across regions by trajectory patterns (ex: Koops 2010). Yet, trajectory studies are still uncommon

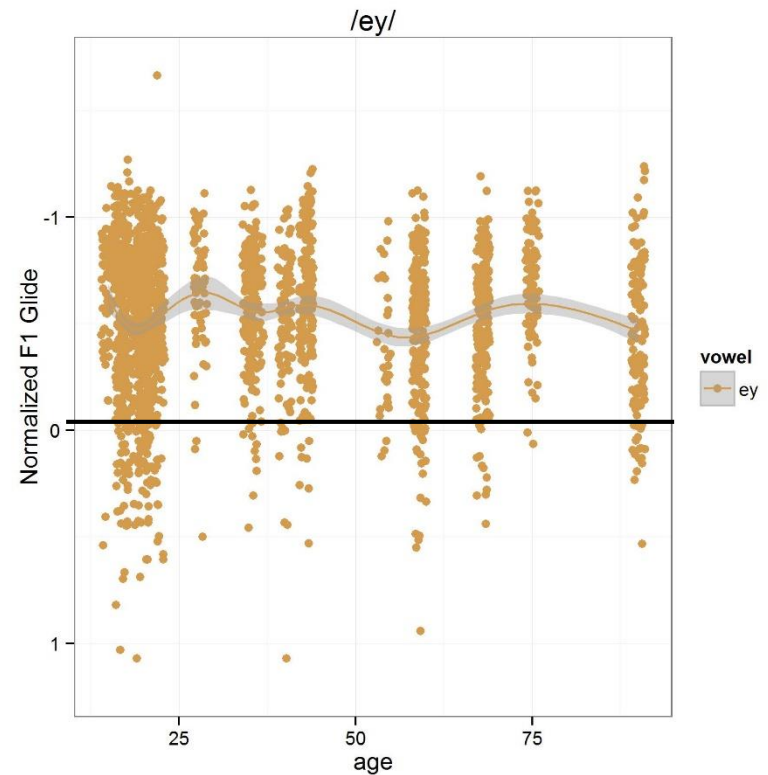
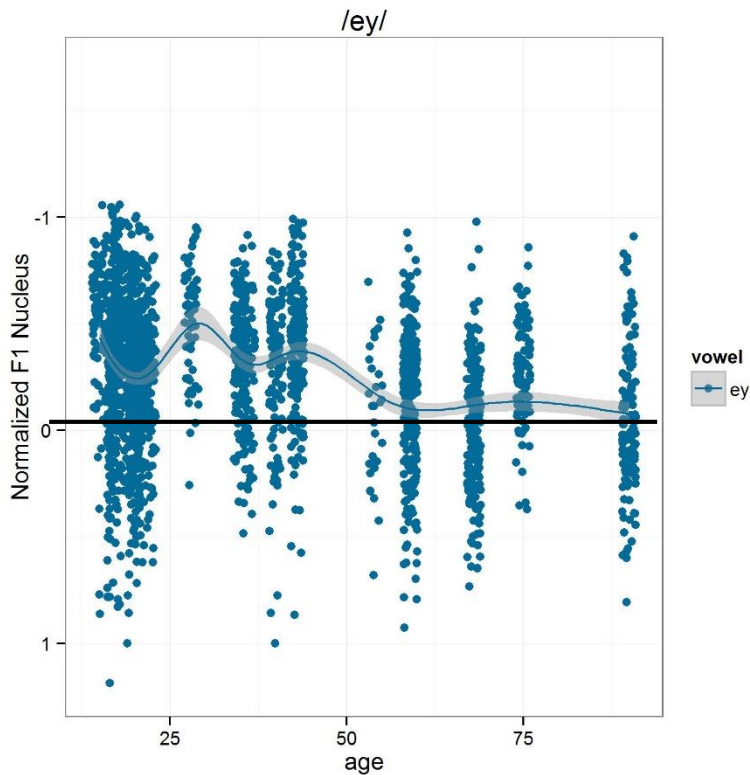
Third Dialect Shift



H/ey/:

Another reason to explore trajectories

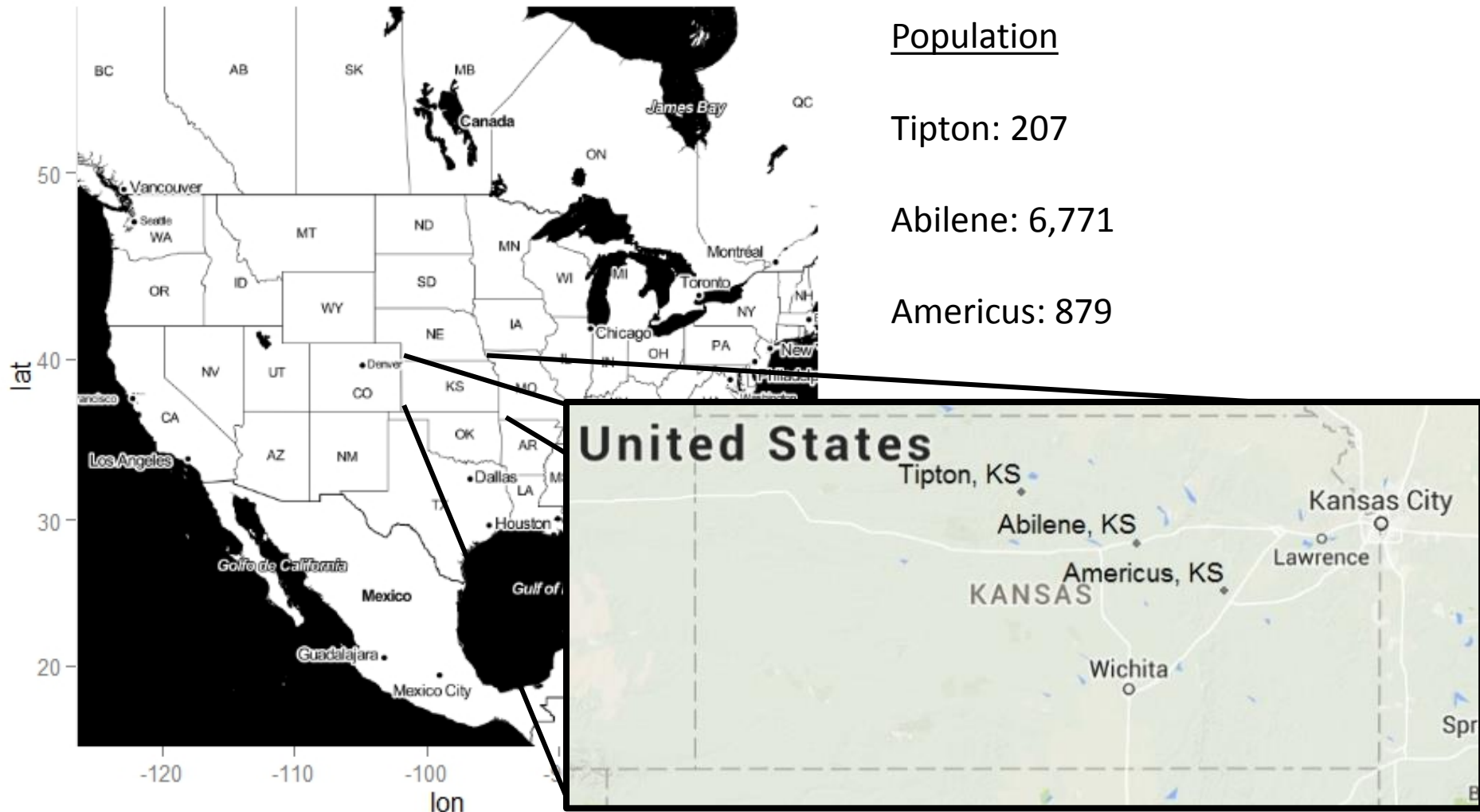
*“And then some mainly just stayed
and I know”*



1. To what extent is Kansas participating in back vowel fronting?
2. Are vowels fronting through increased diphthongization, or does the quality of the trajectory stay the same across generations?
3. Is there a tendency towards monophthongization of the mid tense vowels over time?



Communities



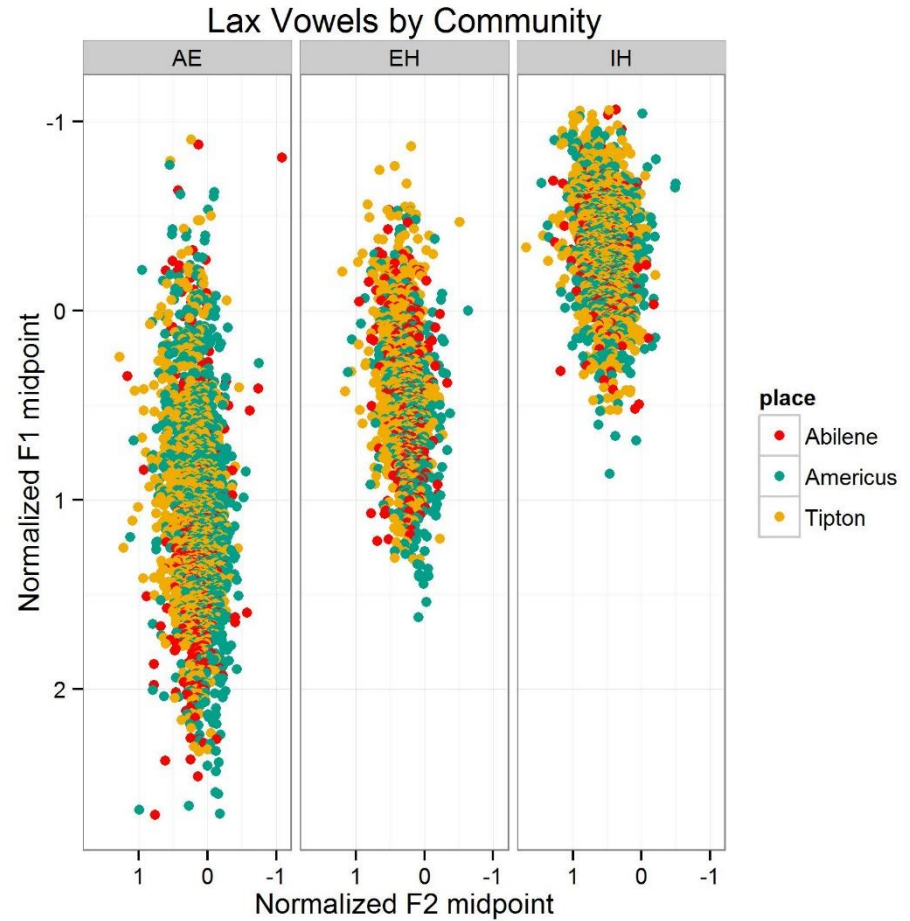
Speakers

	Tipton		Abilene		Americus		
Age Group	Female	Male	Female	Male	Female	Male	<i>Totals</i>
>35	2	1	3	2*	5	1*	14
<35	5	2	2	1	1	2	13
<i>Totals</i>	10		8		9		27

*Our two youngest speakers were removed from the 25 person analysis due to alignment issues

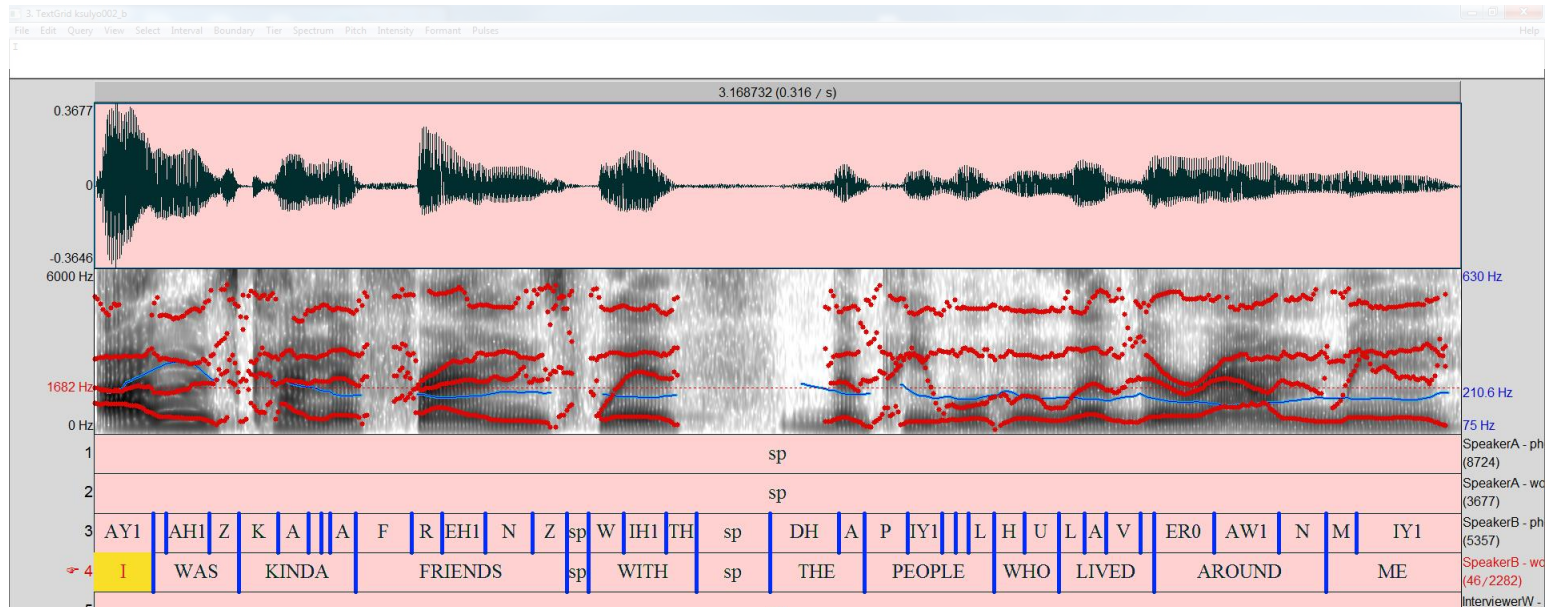
Previous Analysis

Despite socio-demographic differences across communities, sound change progresses uniformly across each community



Methods

- Interviews conducted by fieldworkers with close community ties
- Transcribed in Praat, double checked prior to and after alignment
- Unstressed tokens, tokens surrounded by liquids, frequent function words excluded from analysis
- Normalized using Lobanov (1971)



Hand extraction

/ey/	/ow/	/uw/	total
1362	904	801	3067

- Initial analysis extracted over 24,000 vowels
- Current analysis focuses on 3067 tokens that were individually re-measured at 21 time points with visual inspection

TRAJECTORIES MATTER

Across dialect regions (Farrington, Kendall, & Fridland 2015; Fox & Jacewicz 2013; Hillenbrand et al. 1995;)

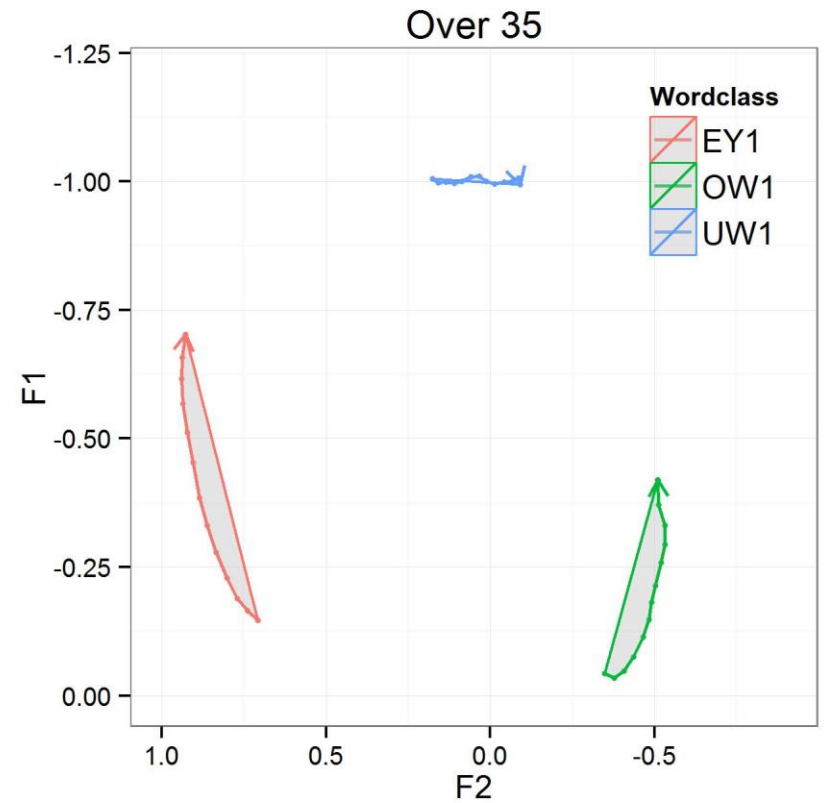
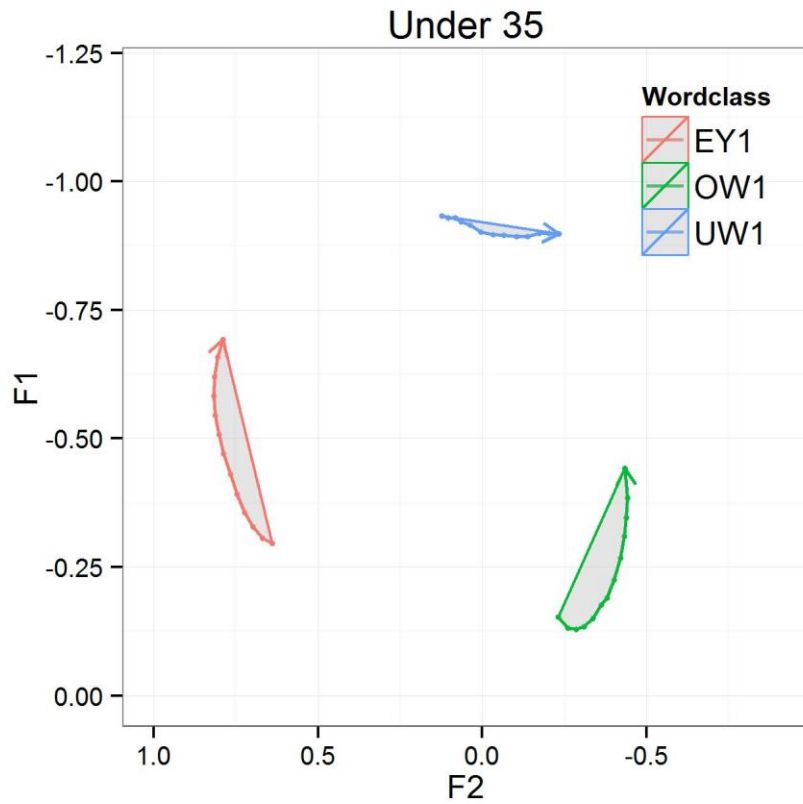
Across ethnolects (Risdal and Kohn 2014; D'Onofrio & Van Hofwegen 2015)

Across generations in the South (Koops 2010; Hinrichs, Bohmann, Gorman 2013),

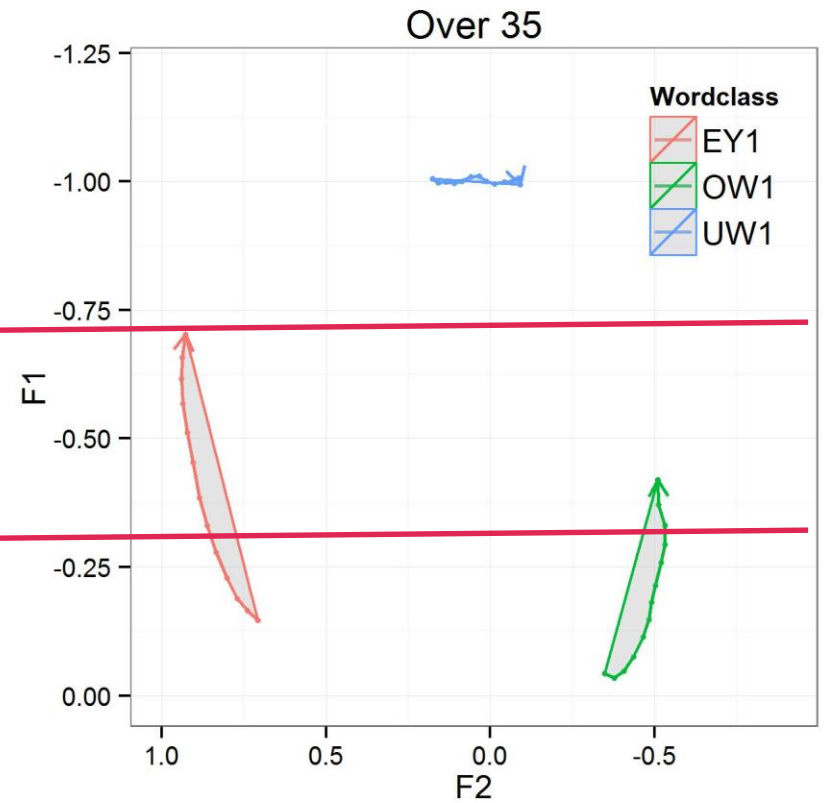
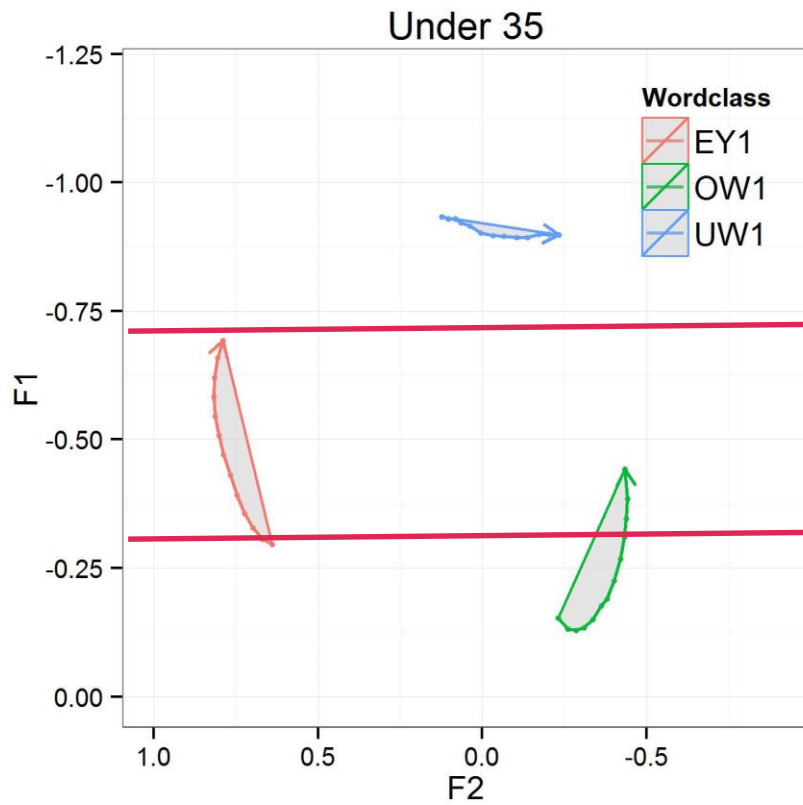
Though generational change outside of the South, particularly for back vowel fronting, has received less attention



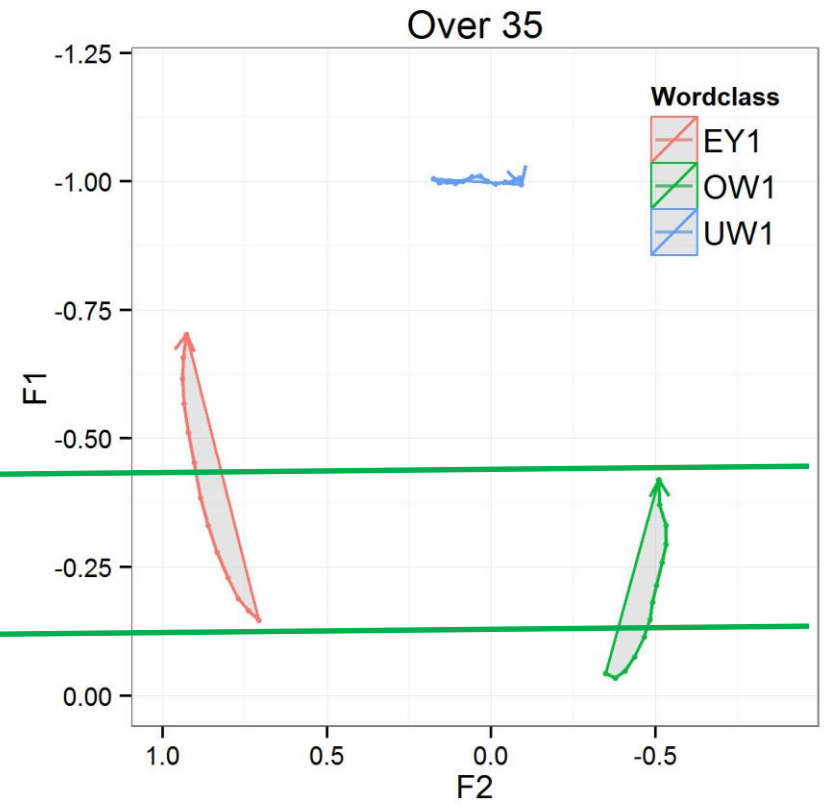
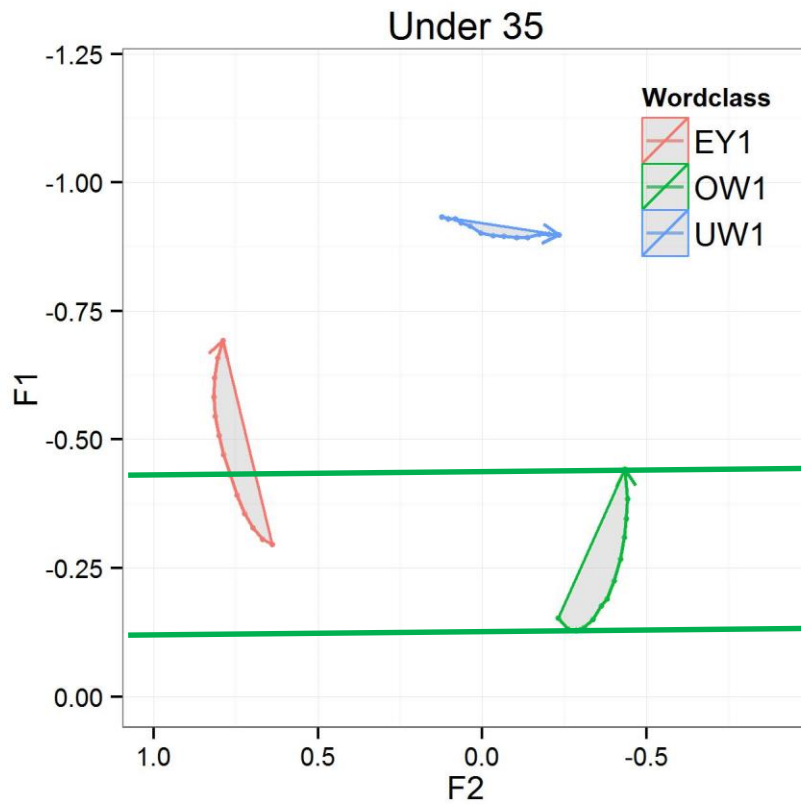
Generational Change



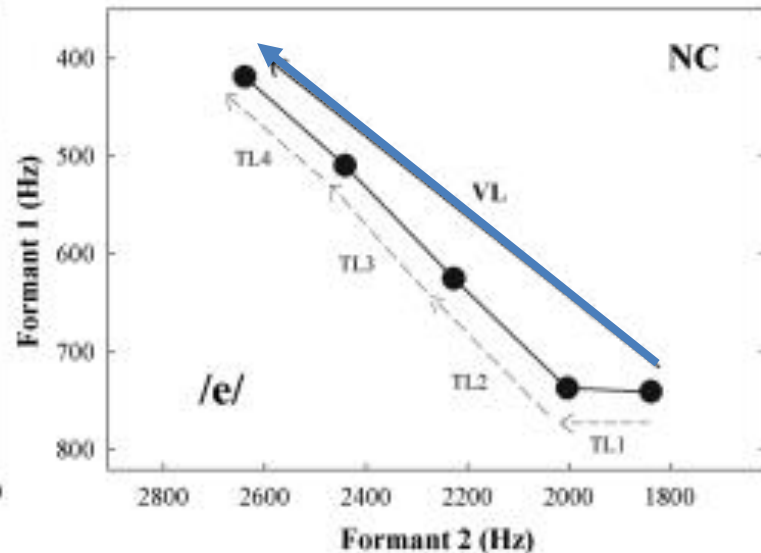
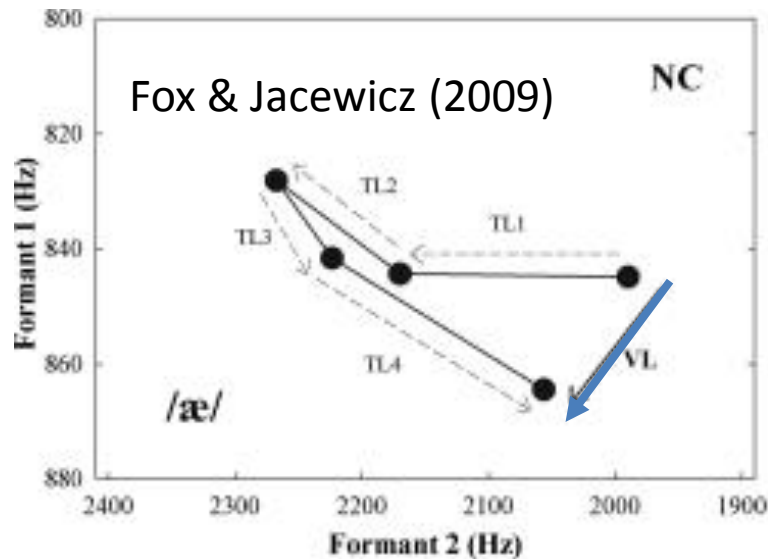
Generational Change



Generational Change



Today's approach*



- Vector Length: Euclidean Distance 20%- 80%
- Trajectory Length:
 Σ Euclidean Distance 20%-35%, 35%-50%, 50%-65%, 65%-80%
- Spectral Rate of Change: $TL/0.6 \times \text{Duration}$

(See Fox & Jacewicz (2009), Farrington et al. (2015), D'Onofrio & Van Hofwegen (2015), etc..)

* See Risdall & Kohn (2014), Nycz & De Decker (2006), among others for alternative methods

Model selection

Dependent Variables

- F1 35%
- F2 35%
- VL
- TL
- ROC

Random Effects

- Speaker
- Word

Independent Variables

- Age Group
- Sex
- Preceding and Following environment
- Duration
- Community
- Duration*Age Group

/EY/ AND /OW/

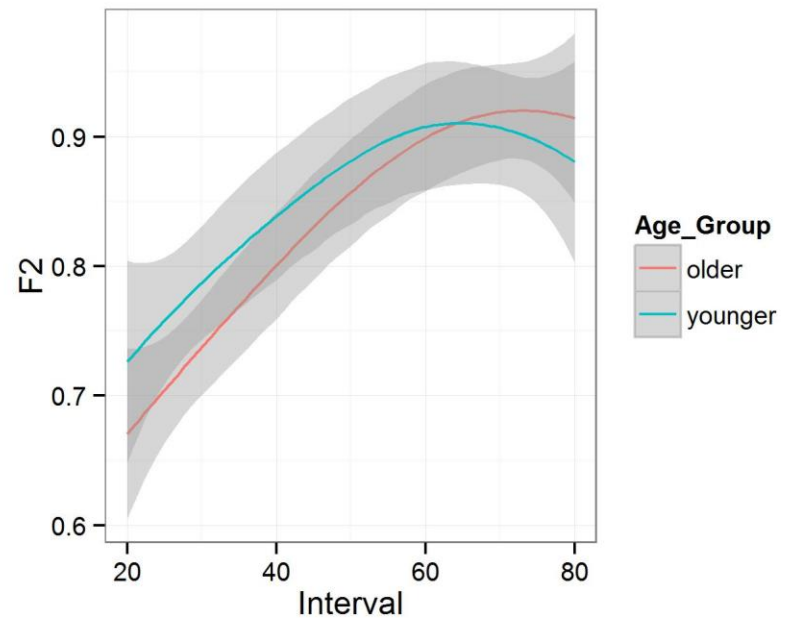
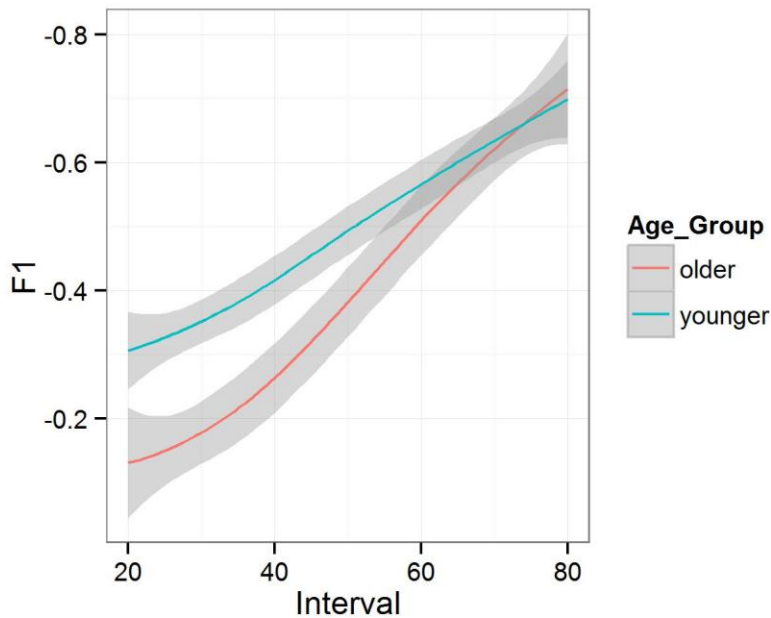
Decreased trajectories over time

/EY/

- F1 35% -0.14 t = -2.13*
- VL -0.16 t=-3.5**
- TL -.13 t=-2.26*
- ROC -2.88 t=-4.57***

Younger participants have SHORTER glides as a result of HIGHER nuclei

Community does not improve the model



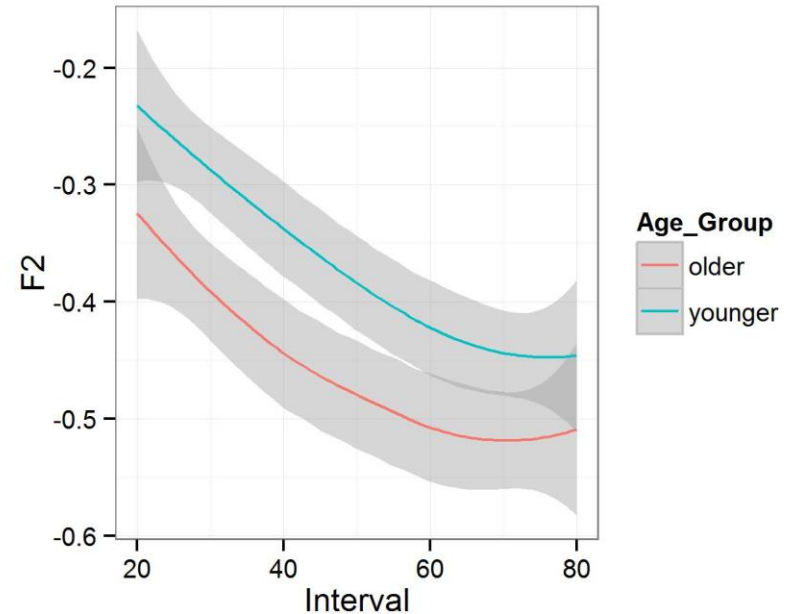
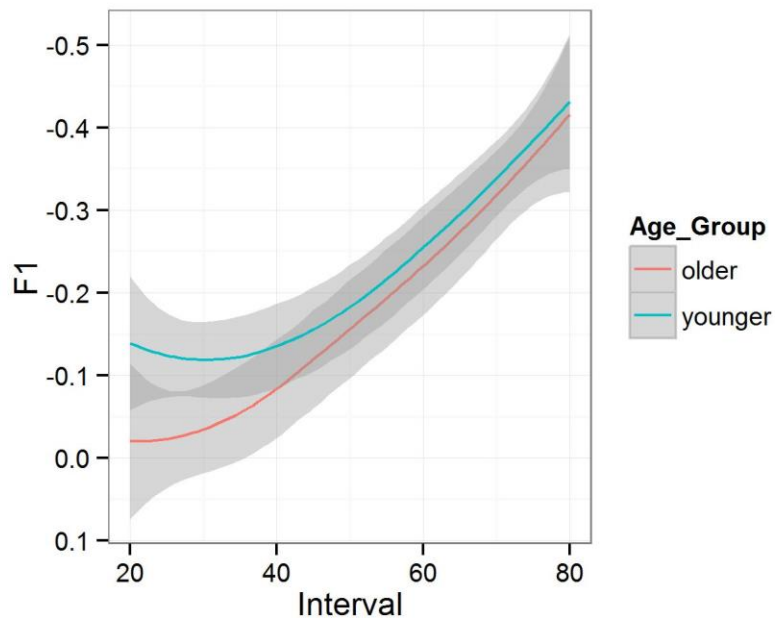
Graphs represent LOESS curves over mean values between 20% and 80% of the vowel

/OW/

- F1 35% n.s.
- F2 35% 0.12 t=2.01*
- VL -0.10 t=-2.3*
- TL -.02 t=-2.29*
- ROC -3.12 t=-2.4*

Younger participants have FRONTER tokens and SHORTER glides, though differences in F1 nuclei are not significant

Community does not improve the model



Graphs represent LOESS curves over mean values between 20% and 80% of the vowel

/EY/ AND /OW/

BOTH HAVE SHORTENED TRAJECTORIES

**/OW/ IS FRONTING IN APPARENT TIME, BUT NOT
LOWERING AS IN THE SOUTH (E.G. THOMAS 2001)**

**MEASURES AT NUCLEUS AND OF THE FULL TRAJECTORY
ARE NECESSARY TO CHARACTERIZE THE CHANGE**

Decreased trajectories over time

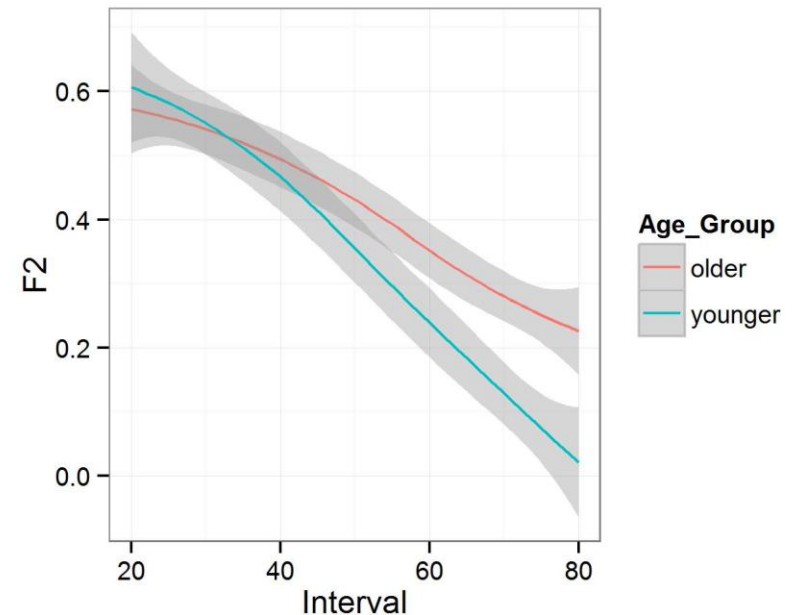
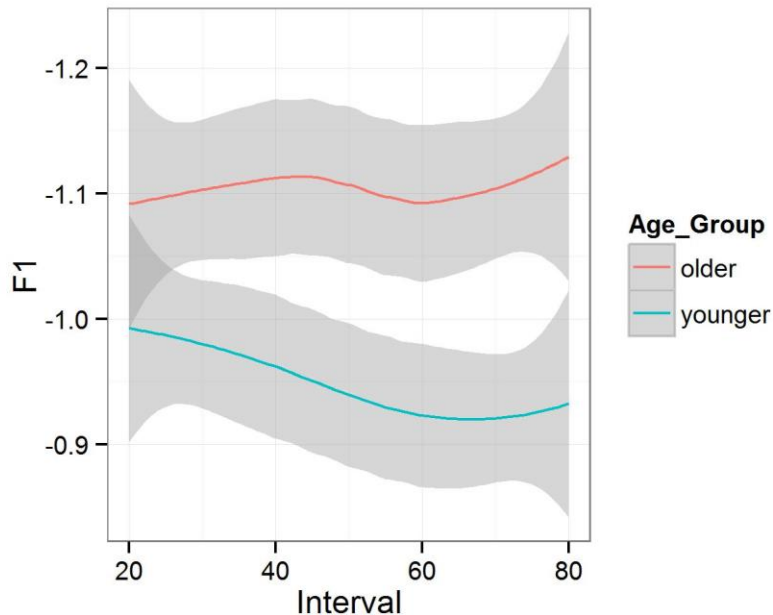
/UW/

A change that has come to completion?

/UW/

- F1 and F2 35% n.s.
- VL n.s
- TL n.s.
- ROC n.s.

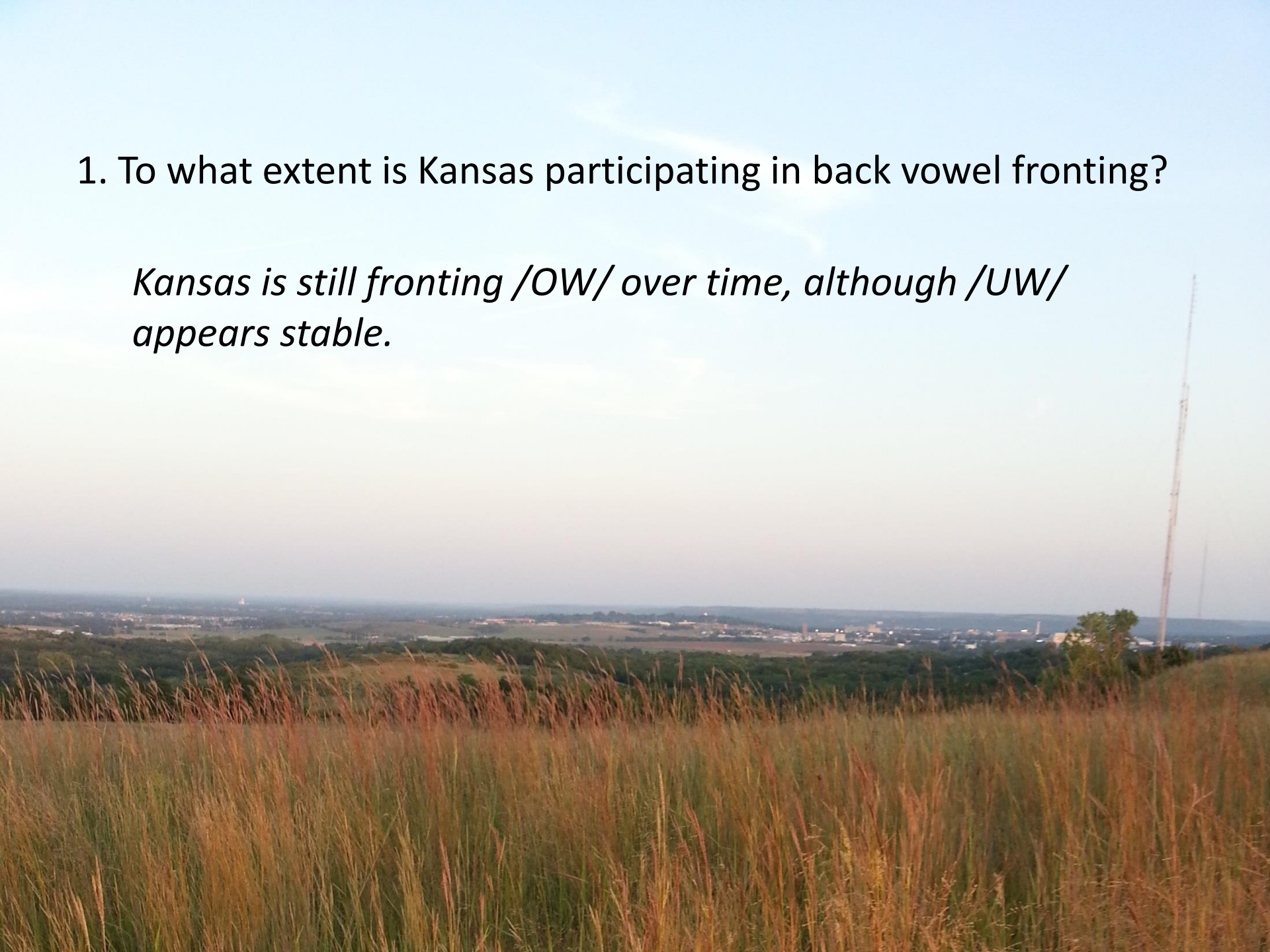
Effectively, when controlling for word, duration, and phonetic environment, there is no significant difference between age groups, communities



Graphs represent LOESS curves over mean values between 20% and 80% of the vowel for post-coronal tokens

1. To what extent is Kansas participating in back vowel fronting?

Kansas is still fronting /OW/ over time, although /UW/ appears stable.



2. Are vowels fronting through increased diphthongization, or does the quality of the trajectory stay the same across generations?

/OW/ is NOT fronting through increased diphthongization, keeping it distinct from Southern varieties of fronted back vowels. Instead, the glide is shortening, even as the vowel is fronting.



3. Is there a tendency towards monophthongization of the mid tense vowels over time?

Yes. Like the Urban South (Dodsworth and Kohn 2012) and Philadelphia (Labov, Rosenfelder, and Fruehwald 2013), the mid tense vowels ARE undergoing increased monophthongization, especially for /EY/



Trajectory information can easily supplement traditional measures to provide greater insight into the exact nature of regional variation and change

While multiple dialect regions appear to undergo back-vowel fronting, formant trajectories likely create distinguishing patterns among each region

As such, it is important to move beyond the SVS and contact varieties to consider trajectory information for all systems

My H/O/me on the range is not quite the same as
your Sweet H/O/me Alabama....

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Tipton

- Self-sufficient community
 - Nearest city is 30 miles away
- School is independent from the public school system
 - Owned and operated by town members
- There has been only one church in town, the Catholic Church, for nearly 50 years
- Average commute in Mitchell county in 2013 was 10 min., up from 9 min in 1990
- Compare to national average 22.4 min in 1990, 25.8 min in 2013 (US Census American Community Survey)



Americus

- 10 miles from Emporia
- Traditionally a farming community, it has been transitioning to a commuter town
- While Americus has a high school, several of our participants attended schools in Emporia for better course selection and after school programs
- Lyon county commutes were 15 min. in 1990, 17 min in 2013



Abilene

- Established as part of a major cattle trail
- 25 miles to Junction City
- Manufacturing jobs (farming equipment, Russel Stover) employ the majority of people outside of education, healthcare, and service
- Commute time in Dickinson in 1990 was 17 min, up to 22 min in 2013

