



Published in final edited form as:

*Appetite*. 2013 April ; 63: 18–23. doi:10.1016/j.appet.2012.12.007.

## Favorite Foods of Older Adults Living in the Black Belt Region of the United States: Influences of Ethnicity, Gender, and Education

Yongbin Yang<sup>1</sup>, David R. Buys<sup>2,3,4</sup>, Suzanne E. Judd<sup>5</sup>, Barbara A. Gower<sup>1,4,7</sup>, and Julie L. Locher<sup>2,3,4,6,7</sup>

<sup>1</sup>Department of Nutrition Sciences, University of Alabama at Birmingham (UAB)

<sup>2</sup>Center for Outcomes and Effectiveness Research and Education, UAB

<sup>3</sup>Division of Gerontology, Geriatrics, and Palliative Care, UAB

<sup>4</sup>Center for Aging, UAB

<sup>5</sup>Department of Biostatistics, UAB

<sup>6</sup>Department of Health Care Organization and Policy, UAB

<sup>7</sup>Nutrition and Obesity Research Center, UAB

### Abstract

The purpose of this study was to examine food preferences of older adults living in the Black Belt Region of the Southeastern United States and the extent to which food preferences vary according to ethnicity, gender, and educational level. 270 older adults who were receiving home health services were interviewed in their home and were queried regarding their favorite foods.

Descriptive statistics were used to characterize the sample. Chi-square analysis or one-way analyses of variance was used, where appropriate, in bivariate analyses, and logistic regression models were used in multivariate analyses. A total of 1,857 favorite foods were reported (mean per person = 6.88). The top ten favorite foods reported included: 1) chicken (of any kind), 2) collard greens, 3) cornbread, 4) green or string beans, 5) fish (fried catfish is implied), 6) turnip greens, 7) potatoes, 8) apples, 9) tomatoes, fried chicken, and eggs tied, and 10) steak and ice cream tied. African Americans and those with lower levels of education were more likely to report traditional Southern foods among their favorite foods and had a more limited repertoire of favorite foods. Findings have implications for understanding health disparities that may be associated with diet and development of culturally-appropriate nutrition interventions.

© 2012 Elsevier Ltd. All rights reserved.

Corresponding Author: jlocher@uab.edu [Julie L. Locher].

**Publisher's Disclaimer:** This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

#### Statement of the Point of the Paper

The purpose of this study was to examine food preferences of older adults living in the Black Belt Region of the Southeastern United States and the extent to which food preferences vary according to ethnicity, gender, and one measure of socioeconomic status—namely, educational level.

None of the authors have a conflict of interest to report, financial or otherwise.

## Keywords

Food preferences; Older Adults; Ethnicity; Gender; Southern United States

---

## Introduction

Food choices of older adults, typically thought of as those 65 and older, are influenced by many varied factors (Bisogni, Connors, Devine, & Sobal, 2002; Drewnowski & Shultz, 2001; Falk, Bisogni, & Sobal, 1996; Payette & Shatenstein, 2005). Several qualitative studies have found that attitudes and beliefs underlying food choices, including specifically those of older adults, are especially rooted in individuals' sense of social and personal identities, including, among other factors, region, age, ethnicity, gender, and socioeconomic status (Bisogni et al., 2002; Falk et al., 1996; Fischler, 1988; Locher et al., 2009; Lupton, 1996). The purpose of this study was to examine food preferences of older adults living in the Black Belt Region of the Southeastern United States and the extent to which food preferences vary according to ethnicity, gender, and one measure of socioeconomic status—namely, educational level.

The Black Belt is a region of the Deep South located within the Southern United States so named initially because of its dark soil and later in the nineteenth century by its high percentage of African Americans comprising the population. The Black Belt of Alabama, where this study took place, is a rich agricultural region with a history notable for its yeoman farmers and to a lesser extent plantation farming; it is also characterized historically and presently by higher rates of poverty and poor health and lower levels of educational attainment compared with other areas of the United States (The Kaiser Family Foundation, 2011; Atkins, Flynt, Rogers, & Ward, 1994). The food and methods of preparing food that comprise Southern cuisine was influenced by the Scotch-Irish, Spanish, French, Native American, and especially the English and African cultures (Auchmutey, 2002; Egerton, Egerton, & Clayton, 1987). African American foodways, or what is frequently thought of as “soul food”, is characterized by its content (pork, pork fat, chicken, collard and turnip greens, black-eyed and field peas, yams, and cornbread) and preparation styles (slow stewing and frying) (Whitehead, 1992, 2003; Wiggins, 1990; Williams-Forson, 2006); and this style of cooking is nearly identical to traditional Southern cuisine as it is known in Alabama by both African and European Americans (Locher & Cox, 2004). Foodstuffs from Native American culture, especially corn and squash, figure prominently in the southern diet here, as well.

The extent to which older African Americans and European Americans who reside in the Alabama Black Belt prefer the same foods prepared the same way as their ancestors did is not known. Previous work conducted with some participants in this study found that motivations underlying food selection that were reported most frequently as “very important” for the study sample included sensory appeal (i.e., tastes good), convenience, and price; and the most frequently reported barriers to consuming the foods or meals that participants wanted to eat included health, being on a special diet, and not being able to shop for oneself (Locher et al., 2009). These varied little according to social demographic characteristics of ethnicity, gender, or education level. Additionally, while 53% of participants reported that it was important to them that the food they eat was what they usually eat, was familiar, or was like the food they ate when they were a child (familiarity), the study did not examine the actual foods that people preferred.

This study is influenced by the theoretical frameworks of several scholars whose works focuses on the symbolic significance of foodways. Fischler (1988) observed that food

symbolically represents for a society “its diversity, hierarchy, and organization, and at the same time both its oneness and the otherness of whoever eats differently” (p. 275). In *The Body and Society*, Turner observed based upon earlier work by Maus (Mauss, 1973) that “eating can be conceived of as a fundamental ‘body technique’ (Turner, 1996), that is an activity which has a basic physiological function, but which is heavily mediated by culture” (p. 176). Individual and societal dietary patterns and food preferences are deeply embedded within larger cultural and social systems; and these patterns and preferences serve to define one’s social and personal identity. Among those identities that are most salient to individuals and among those that have been most frequently examined in regard to numerous phenomena, including foodways, are ethnicity, gender, and social class (with education comprising one dimension of class). Furthermore, foodways, which are largely regionally defined, symbolize one important aspect of a cultural group; and these representations may evolve over time as a consequence of numerous factors related to both production and consumption (Warde, 1997). Food preferences and tastes are socially constructed and may change over time as a result of ongoing quests for symbolic markers of distinction (Bourdieu, 1984) or similarly as a consequence of the possession of greater cultural capital (Mennell, 1995). The extent to which traditional foodways within specific geographical boundaries exists among the older adult population has not been so well-studied, particularly with respect to the role that ethnicity, gender, and higher levels of education may play in influencing food preferences.

Therefore, the present study examines the actual food preferences of people living in the southern Black Belt and analyzes whether important group characteristics of ethnicity, gender, *and* education level matter in selecting their favorite foods.

## Methods

### Participants

Participants for this study are drawn from two studies of older adults who were receiving Medicare home health services. One sample was comprised of 230 homebound older adults who were participants in a study designed to comprehensively examine multiple factors associated with eating behaviors among homebound older adults and outcomes associated with those eating behaviors. The second study included 40 participants enrolled in a randomized controlled trial designed to improve nutritional intake among persons who were at especially high risk for experiencing under-nutrition. Data was collected between 2002 through 2011.

In order to be eligible to participate in either of the studies, participants had to meet Medicare’s definition of homebound status (i.e., an “individual [who] has a condition. . . that restricts [one’s] ability to leave his or her home except with the assistance of another individual or the aid of a supportive device . . . or [who] has a condition such that leaving his or her home is medically contraindicated”) (“Public Law 106–554,” 2000). Additionally, participants had to be community-dwelling; able to communicate or have a caregiver who was able to communicate in English; free of significant cognitive impairment; free of terminal illness; not being tube-fed; and not dependent on a ventilator. Participants were recruited from area home health agencies, a university-affiliated geriatric medicine outpatient clinic, a university-affiliated inpatient rehabilitation facility, and area churches. Study protocols were reviewed and approved by the University Institutional Review Board.

### Design

Participants were visited in their homes and administered a face-to-face questionnaire consisting of items related to medical, functional, economic, oral health, social, religious,

and psychological factors that could potentially affect eating behaviors. Demographic information was collected as well.

## Measures

Most relevant to this study, participants were administered the Vailas Food Enjoyment Questionnaire (Locher et al., 2009; Vailas, Nitzke, Becker, & Gast, 1998). This was the first instrument administered to all participants. The questionnaire begins with this icebreaker: "To begin with, let's talk about some of the foods you like to eat. What are some of your favorite foods?" This was the only open-ended question in the instrument. Results of the close-ended questions have been previously reported (Locher et al., 2009). Participants were able to provide up to eight of their favorite foods in no particular order. Favorite foods were recorded verbatim and were examined as individual foods. Additionally, in some instances, categories were collapsed when favorite foods were similar. This occurred specifically in regard to the following foods: 1) potatoes includes any potatoes, potato salad, mashed potato, baked potato, fried potato, potato chips and French fries; 2) beef includes steak beef, roast beef, beef stew and beef general; 3) pies includes all kinds of pies; 4) beans includes both green beans and string beans; 5) okra includes okra prepared in any way, including fried, stewed, boiled or otherwise; 6) pork includes pork chop, pork general, barbecue ribs, and bacon. Chicken (general) and fried chicken (specific) were kept separate in the analyses.

## Statistical analysis

All statistical analyses were performed using PASW Statistics 18 (IBM SPSS Statistics). Level of significance was assessed at  $\alpha = 0.05$ . Descriptive statistics were used to characterize the sample. Student's t-test or one-way analyses of variance (ANOVA) was used where appropriate to evaluate differences in food preferences with respect to ethnicity, gender, and education. Logistic regression models were used to calculate odds ratios (OR) in multivariable models and the OR confidence intervals (CI) were adjusted using the Wald statistic.

## Results

Demographic characteristics of the sample are presented in Table 1. The average age of participants was 79.4 years ( $SD = 8.5$  years; range: 60 – 99 years). There were 56 males and 214 females, of which 107 were African Americans, 162 were whites, and one was Asian. The majority of participants had at least a high school education.

The 270 participants reported a total of 1,857 favorite foods in the questionnaire, which averages 6.88 favorite foods reported per participant. There was no difference in the number of favorite foods reported between African Americans and European Americans (6.79 versus 6.94, respectively;  $t[267] = -0.783$ ,  $p = .435$ ). However, European Americans reported a greater *variety* of favorite foods compared with African Americans (total = 1,124 versus 733, respectively). Men and women significantly differed in the numbers of favorite foods they reported (6.43/360 for male, 7.00/1,497 for female;  $t[268] = -2.431$ ,  $p = .045$ ). Participants with different education levels also responded significantly differently with respect to their favorite foods (6.59/593 for middle school or less, 6.88/956 for high school or junior college, 7.51/308 for college or beyond;  $F[2, 267] = 5.033$ ,  $p = .007$ ). The most frequently reported favorite food was chicken (of any kind), and there were dozens of foods that were mentioned only once, like soy milk and bagels. The top ten favorite foods reported included in order of those most often reported: 1) chicken (of any kind), 2) collard greens, 3) cornbread, 4) green or string beans, 5) fish (fried catfish is implied unless otherwise specified), 6) turnip greens, 7) potatoes, 8) apples, 9) tomatoes, fried chicken, and eggs tied, and 10) steak and ice cream tied.

Table 2 presents the most frequently chosen favorite foods broken down according to ethnicity, gender, and education levels. In bivariate analyses, differences were observed across all sub-groups. African Americans were more likely than European Americans to describe collard greens, turnip greens, and cabbage as their favorite foods; while European Americans were more likely to describe salad and potatoes as their favorite foods. Women were more likely than men to describe apples and corn as being among their favorite foods; and men were more likely to describe eggs as one of their favorite foods. Participants with higher levels of education were much more likely to select steak, roast beef, and beef of any kind among their favorite foods; while persons with lower levels of education were more likely to describe butter beans as one of their favorite foods.

Table 3 presents the results of the binary logistic regression models that simultaneously controlled for ethnicity, gender, and education level, for those foods that were significantly different in the bivariate analyses. In all cases, results of the bivariate analyses remained in the multivariate analyses.

## Discussion

This paper studied food preferences among older adults in the Alabama Black Belt and differences in regard to those preferences according to ethnicity, gender, and education level. Our results indicate a strong persistence of Southern cuisine or soul food within this group of older adults who were living in the Black Belt. Many of the most frequently reported favorite foods are soul foods, like cornbread, collard greens, turnip greens, okra, green beans, chicken, pork, and fried catfish. This was the case across all groups. However, gender and ethnicity did have significant influences in older adults' report of favorite foods that played out in interesting ways.

An illustrative example of this is in the case of collard greens—a staple vegetable of southern US cuisine. Both African Americans and European Americans reported collard greens as among one of their top ten favorite foods; however African Americans were more than three times as likely to report collards as among their favorite foods compared with European Americans (43.5% versus 13.6%, respectively). Similar patterns were observed for other traditional Southern vegetables, including turnip greens and cabbage. In contrast, European Americans were much more likely to report salad and potatoes (i.e., white/not sweet) among their favorite foods in comparison to African Americans. These same patterns were observed for educational level where regardless of education, collards were a favorite food, but were least preferred among those with a college degree compared to those with less than a high school education and those with a high school degree (14.6% versus 33.7% and 23.7%).

Cornbread, pork, and fried chicken were staples of the Southern table for both African American slaves and poor white southerners (Locher & Cox, 2004). Of note, is that no statistically significant differences were observed between ethnic groups in report of these foods being among their favorites. In fact, nearly identical proportions of African American and European Americans reported chicken and fried chicken, in particular, among their favorite foods. Of additional note, however, is that, while not statistically significant, reported preferences for each of these foods dropped consistently and precipitously as education level rose. Results related to differences observed in food preferences between persons with varying levels of education are similar with previous research that finds those who are more educated are more likely to prefer a wider variety of foods, particularly from outside one's own culture (Bourdieu, 1984). It is also the case that those with higher levels of education and income are exposed to and have greater access to different foods. In the present study, we find that African Americans compared with European Americans and less

educated persons compared with more educated persons have more limited repertoires of food preferences, even though favorite foods are the same.

An additional finding of significance is that participants with higher levels of education were more likely to choose beef (steak, roast, all beef) as their favorite foods. Higher levels of education are associated with higher social status. Historically, and especially for this age group, beef products have been associated with higher levels of prestige. Our findings are consistent with those of others demonstrating that as incomes rise so, also, does the consumption of meat—thus, indicating its desirability (Beardsworth & Keil, 1997). This finding is internally consistent with other findings in this study wherein preference, for example, for butter beans (an alternative, much less expensive protein source) is more likely to be preferred by those with less education.

Finally, we note that similar numbers of people, regardless of group membership, chose iced tea, milk and soda/coke as their favorite foods. We might presume with high confidence that iced tea means “sweet” iced tea. Previous writers have noted the high consumption of both sweetened beverages and milk among Southerners (Locher & Cox, 2004; Whitehead, 1992; Wiggins, 1990; Williams-Forsen, 2006).

Food is necessary for biological survival. The nutritional status of an individual or population is related to the availability and accessibility of foodstuffs, which is not only a function of the nutritional capacity of the physical environment but a function of social and cultural influences (Ford, 1977). Traditionally-prepared southern cuisine tends to be high in starch, fat, sodium, cholesterol and calories, which are very likely related to the high rates of high blood pressure, diabetes, stroke and cancer in the south. Some most frequently reported favorite foods, like “fish, nonspecific,” were presumed to be fried based on findings from other populations (Nahab et al., 2011). Fried food contributes a lot of fat, sodium and cholesterol, depending on what kind of cooking oil is used. Greens, like collards and turnips, are rich sources of several vitamins, but traditional methods of cooking soul food vegetables require high temperatures and/or long time periods, which may severely cause the loss of water-soluble vitamins. These vegetables are also prepared with salt pork that has high amounts of both fat and sodium. Last, preferences for sweetened beverages, including tea and soda, may contribute to higher rates of metabolic disorders, including diabetes, in the South among both African Americans and European Americans.

Findings from this study demonstrate the endurance of the traditional Southern diet among older African Americans and European Americans living in the Black Belt region of the US and its waning persistence among those with higher levels of education. In a large nationally representative study examining racial and regional differences in stroke, substantive differences in macronutrient and micronutrient intakes were present across race and region. In general, black women residing in the South had higher intakes of carbohydrates compared with European American women in any region (P. K. Newby et al., 2012) but had lower intakes of saturated fat. This finding was similar in men but not nearly as pronounced (P. K. Newby et al., 2011). Such findings can be used to better understand dietary patterns and their effects on health outcomes and to tailor nutritional interventions targeted at specific populations that take into account persons’ actual food preferences that are culturally bound (Quandt et al., 2009).

This study is limited by its focus on a single region, non-random sample, and rather small sample size. We might speculate that persistence of regional foodways exists among older adults in other regions of the country and world, as well. The group of frail elders that we studied is the fastest growing age-related segment of the entire US population, as well as other nations throughout the world. They are also the group for whom elderly nutritional

services are most needed and frequently targeted. The focus on this population's food preferences is critical to maximize the benefit that such supportive programs might offer. This study was labor-intensive and combines data from two studies. The focus of the first was to identify factors associated with eating behaviors among older adults and the second was to develop individually-tailored nutrition interventions in at-risk older adults. In both studies, ascertainment of food preferences was central to the foci. Future larger-scale surveys involving randomly selected participants may be warranted, especially in high-risk populations such as those of the REasons for Geographic And Racial Differences in Stroke (REGARDS) study. Studies in other populations are also needed to evaluate generalizability..

## Acknowledgments

We thank especially the leadership and staff at Alacare Home Health and Hospice, HomeCare Plus, the William Clifford and Margaret Spain McDonald Clinic, Spain Rehabilitation Center, and the Acute Care for Elders Unit of UAB Hospital for referral of study participants.

This work was supported by the National Institutes of Health/National Institute on Aging K01AG00994 and AG027560 and the UAB Center for Clinical and Translational Science Grant Number UL1TR000165 from the National Center for Advancing Translational Sciences (NCATS) and National Center for Research Resources (NCRR) component of the National Institutes of Health (NIH). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the NIH.

## References

- Auchmutey, J. The South. In: Katz, SH.; Katz, J.; Weaver, WW., editors. *Encyclopedia of Food and Culture*. Gale; 2002. p. 465-469.
- Beardsworth, A.; Keil, T. *Sociology on the Menu: An Invitation to the Study of Food and Society*. London: Routledge; 1997.
- Bisogni C, Connors M, Devine C, Sobal J. Who we are and how we eat: a qualitative study of identities in food choice. *Journal of Nutrition Education and Behavior*. 2002; 34(3):128-139. [PubMed: 12047837]
- Bourdieu, P. *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, MA: Harvard University Press; 1984.
- Drewnowski A, Shultz JM. Impact of aging on eating behaviors, food choices, nutrition, and health status. [Review]. *The Journal of Nutrition Health and Aging*. 2001; 5(2):75-79.
- Egerton, J.; Egerton, AB.; Clayton, A. *Southern food: at home, on the road, in history*. New York: Knopf; 1987.
- Falk LW, Bisogni CA, Sobal J. Food Choice Processes of Older Adults: A Qualitative Investigation. *Journal of Nutrition Education*. 1996; 28(5):257-265.
- Fischler C. Food, self and identity. *Social Science Information*. 1988; 27(2):275-292.
- Ford T. Contemporary rural America: Persistence and change. *Rural USA*. 1977:4.
- The Kaiser Family Foundation, statehealthfacts.org. 2011 Retrieved from <http://www.statehealthfacts.org>.
- Locher JL, Cox DL. Clabber, corn pone, and cured hog. *Alabama Heritage*. 2004; (74):6-13.
- Locher JL, Ritchie CS, Roth DL, Sen B, Vickers KS, Vailas LI. Food choice among homebound older adults: motivations and perceived barriers. *The Journal of Nutrition, Health & aging*. 2009; 13(8): 659-664.
- Lupton, D. *Food, the Body and the Self*. Thousand Oaks, CA: SAGE Publications; 1996.
- Mauss M. Techniques of the body. *Economy and Society*. 1973; 2(1):70-88.
- Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000 (Public Law 106-554), 2763A-2463 § 501-508, 1395f(n), 1395(n), 1395fff(b), 1395(x)(v). 2000
- Mennell, S. *All Manners of Food: Eating and Taste in England and France from the Middle Ages to the Present*. Urbana, IL: University of Illinois Press; 1995.

- Nahab F, Le A, Judd S, Frankel M, Ard J, Newby P, Howard V. Racial and geographic differences in fish consumption: the REGARDS study. *Neurology*. 2011; 76(2):154–158. [PubMed: 21178096]
- Newby P, Noel S, Grant R, Judd S, Shikany J, Ard J. Race and region have independent and synergistic effects on dietary intakes in black and white women. *The Journal of nutrition*. 2012; 11:25.
- Newby PK, Noel SE, Grant R, Judd S, Shikany JM, Ard J. Race and region are associated with nutrient intakes among black and white men in the United States. *The Journal of Nutrition*. 2011; 141(2):296–303. [PubMed: 21178088]
- Payette H, Shatenstein B. Determinants of healthy eating in community-dwelling elderly people. *Canadian journal of public health. Revue canadienne de santé publique*. 2005; 96(Suppl 3):S27–S31. [PubMed: 16042161]
- Quandt SA, Bell RA, Snively BM, Vitolins MZ, Wetmore-Arkader LK, Arcury TA. Dietary fat reduction behaviors among African American, American Indian, and white older adults with diabetes. *Journal of Nutrition For the Elderly*. 2009; 28(2):143–157. [PubMed: 20396599]
- Rogers, WW. *Alabama: the history of a Deep South state*. Tuscaloosa, AL: University of Alabama Press; 1994.
- Turner, BS. *The body and society: explorations in social theory*. London: Sage Publications; 1996.
- Vailas LI, Nitzke SA, Becker M, Gast J. Risk indicators for malnutrition are associated inversely with quality of life for participants in meal programs for older adults. *Journal of the American Dietetic Association*. 1998; 98(5):548–553. [PubMed: 9597027]
- Warde, A. *Consumption, Food and Taste*. London: SAGE Publications; 1997.
- Whitehead, TL. In search of soul food and meaning: Culture, food, and health. In: Baer, H.; Jones, Y., editors. *African Americans in the South : issues of race, class, and gender*. Athens, GA: University of Georgia Press; 1992.
- Whitehead, TL. African American Foodways. In: Katz, SH.; Weaver, WW., editors. *Encyclopedia of Food and Culture: Obesity to Zoroastrianism*. New York: Scribner; 2003.
- Wiggins, WH. *O Freedom: Afro-American Emancipation Celebrations*. Knoxville: University of Tennessee Press; 1990.
- Williams-Forsen, PA. *Building Houses out of Chicken Legs: Black Women, Food, and Power*. Urbana, IL: University of North Carolina Press; 2006.



### Highlights

- Older, Southern African and European Americans prefer traditional Southern foods.
- Older, Southern African Americans report a limited repertoire of favorite foods.
- Ethnicity, gender, and education influence older Southerners' food preferences.

**Table 1**

Descriptive characteristics of the participants (N = 270)

Characteristic		Value
Age		79.4 ± 8.5 <sup>1</sup>
Ethnicity	African American	107 (39.6) <sup>2</sup>
	White	162 (60)
	Asian	1 (0.4)
Gender	Male	56 (20.7)
	Female	214 (79.3)
Highest Education Level	Middle or less	90 (30.3)
	High school or junior college	139 (51.5)
	College or beyond	41 (15.2)

<sup>1</sup>Mean ± SD (all such values),<sup>2</sup>n (%)

**Table 2**  
Favorite Foods of Older Adults Residing in the Black Belt Region of the US

Food	Ethnicity			Gender		Education Level			p Value		
	Frequency (%) (n = 270)	African American (n = 107)	White (n = 162)	p Value	Male (n = 56)	Female (n = 214)	p Value	Middle school (n = 90)		High school, junior college (n = 139)	College (n = 41)
Chicken, general	71 (26.3)	32 (29.6)	39 (24.1)	.326	10 (17.9)	61 (28.5)	.126	22 (24.4)	39 (28.1)	10 (24.4)	.795
Collard green	69 (25.56)	47 (43.5)	22 (13.6)	.000	11 (19.6)	58 (27.1)	.304	30 (33.3)	33 (23.7)	6 (14.6)	.059
Combread	55 (19.26)	25 (23.1)	27 (13.7)	.207	9 (16.1)	43 (20.1)	.572	17 (18.9)	32 (23.0)	3 (7.3)	.081
Fish, nonspecific	50 (18.52)	25 (23.1)	25 (15.4)	.113	10 (17.9)	40 (18.7)	1.00	22 (24.4)	24 (17.3)	4 (9.8)	.115
Potatoes, any	42 (15.56)	12 (11.1)	30 (18.5)	.123	10 (17.9)	32 (15.0)	.679	9 (10.0)	24 (17.3)	9 (22.0)	.157
Tumip green	40 (14.81)	24 (22.2)	16 (9.9)	.008	10 (17.9)	30 (14.0)	.526	14 (15.6)	23 (16.5)	3 (7.3)	.334
Apples	33 (12.22)	15 (13.9)	18 (11.1)	.570	2 (3.6)	31 (14.5)	.023	8 (8.9)	16 (11.5)	9 (22.0)	.100
String bean	31 (11.48)	12 (11.1)	19 (11.7)	1.000	5 (8.9)	26 (12.1)	.640	9 (10.0)	17 (12.2)	5 (12.2)	.864
Tomato	31 (11.48)	15 (13.9)	16 (9.9)	.334	5 (8.9)	26 (12.1)	.640	11 (12.2)	14 (10.1)	6 (14.6)	.697
Chicken, fried	30 (11.11)	12 (11.1)	18 (11.1)	1.000	8 (14.3)	22 (10.3)	.473	13 (14.4)	11 (7.9)	6 (14.6)	.227
Eggs	30 (11.11)	7 (6.5)	24 (14.8)	.050	12 (21.4)	19 (8.9)	.016	13 (14.4)	13 (10.1)	4 (9.8)	.557
Steak, beef	29 (10.74)	7 (6.5)	22 (13.6)	.073	8 (14.3)	21 (9.8)	.337	3 (3.3)	20 (14.4)	6 (14.6)	.021
Ice cream	29 (10.74)	10 (9.3)	19 (11.7)	.555	4 (7.1)	25 (11.7)	.468	6 (6.7)	20 (14.4)	3 (7.3)	.136
Sweet potato	28 (10.37)	12 (11.1)	16 (9.9)	.839	5 (8.9)	23 (10.7)	.809	9 (10.0)	15 (10.8)	4 (9.8)	.972
Macaroni w/cheese	28 (10.37)	13 (12.0)	15 (9.3)	.542	4 (7.1)	24 (11.2)	.467	11 (12.2)	13 (9.4)	4 (9.8)	.777
Butterbean	27 (10.00)	9 (8.3)	18 (11.1)	.538	6 (10.7)	21 (9.8)	.805	17 (18.9)	8 (5.8)	2 (4.9)	.003
Squash	27 (10.00)	13 (12.0)	14 (8.6)	.410	3 (5.4)	21 (11.2)	.315	10 (11.1)	13 (9.4)	4 (9.8)	.909
Salad	26 (9.63)	4 (3.7)	22 (13.6)	.006	3 (5.4)	23 (10.7)	.311	4 (4.4)	17 (12.2)	5 (12.2)	.124
Corn	26 (9.63)	12 (11.1)	14 (8.6)	.532	1 (1.8)	25 (11.7)	.022	9 (10.0)	13 (9.4)	4 (9.8)	.986
Cake	26 (9.63)	15 (13.9)	11 (6.8)	.060	6 (10.7)	20 (9.3)	.799	7 (7.8)	16 (11.5)	3 (7.3)	.557
Pork chop	25 (9.26)	7 (6.5)	18 (11.1)	.284	7 (12.5)	18 (8.4)	.436	12 (13.3)	11 (7.9)	2 (4.9)	.222
Green bean	24 (8.89)	9 (8.3)	15 (9.3)	.831	2 (3.6)	22 (10.3)	.184	9 (10.0)	11 (7.9)	4 (9.8)	.844
Banana	24 (8.89)	9 (8.3)	15 (9.3)	.831	4 (7.1)	20 (9.3)	.794	8 (8.9)	10 (7.2)	6 (14.6)	.339
Roast beef	23 (8.52)	9 (8.3)	14 (8.6)	1.000	7 (12.5)	16 (7.5)	.280	4 (4.4)	10 (7.2)	9 (22.0)	.003
Cabbage	23 (8.52)	17 (15.7)	6 (3.7)	.001	3 (5.4)	20 (9.3)	.430	8 (8.9)	11 (7.9)	4 (9.8)	.922
Shrimp	21 (7.78)	5 (4.6)	16 (9.9)	.163	3 (5.4)	18 (8.4)	.582	3 (3.3)	15 (10.8)	3 (7.3)	.119

Food	Ethnicity			Gender		Education Level					
	Frequency (%) (n = 270)	African American (n = 107)	White (n = 162)	P Value	Male (n = 56)	Female (n = 214)	P Value	Middle school (n = 90)	High school, junior college (n=139)	College (n = 41)	p Value
Salmon	21 (7.78)	7 (6.5)	14 (8.6)	.645	5 (8.9)	16 (7.5)	.779	6 (6.7)	12 (8.6)	3 (7.3)	.857
Broccoli	20 (7.41)	6 (5.6)	14 (8.6)	.478	1 (7.8)	19 (8.9)	.086	3 (3.3)	13 (9.4)	4 (9.8)	.195
All potato <sup>2</sup>	81 (30)	23 (21.3)	58 (35.8)	.014	19 (33.9)	62 (29.0)	.513	26 (28.9)	40 (28.8)	15 (36.6)	.607
All beef <sup>3</sup>	61 (22.6)	20 (18.5)	41 (25.3)	.235	16 (28.6)	45 (21.0)	.281	12 (13.3)	35 (25.2)	14 (34.1)	.018
All pie <sup>4</sup>	35 (13)	10 (9.3)	25 (15.4)	.195	8 (14.3)	27 (12.6)	.823	11 (12.2)	16 (11.5)	8 (19.5)	.394
Green/string bean <sup>5</sup>	53 (19.6)	20 (18.5)	33 (20.4)	.756	7 (12.5)	46 (21.5)	.185	17 (18.9)	27 (19.4)	9 (22.0)	.916
All okra <sup>6</sup>	27 (10)	10 (9.3)	17 (10.5)	.837	5 (8.9)	22 (10.3)	1.000	8 (8.9)	12 (8.6)	7 (17.1)	.260
All pork <sup>7</sup>	56 (20.7)	21 (19.4)	35 (21.4)	.760	16 (28.6)	40 (18.7)	.137	24 (26.7)	28 (20.1)	4 (9.8)	.084

<sup>1</sup> n (%);

<sup>2</sup> includes any potatoes, potato salad, mashed potato, baked potato, fried potato, potato chips and French fries;

<sup>3</sup> includes steak beef, roast beef, beef stew and beef general;

<sup>4</sup> all kinds of pies;

<sup>5</sup> includes both green bean and string bean;

<sup>6</sup> includes okra and fried okra;

<sup>7</sup> includes pork chop, pork general, barbeque ribs and bacon

**Table 3**

Binary logistic regression of food preferences and demographic factors (gender, ethnicity and education level) among older adults living in the Black Belt Region of the US

<b>Food</b>	<b>Factors</b>	<b>Odds Ratio [95% CI]</b>	<b>p Value</b>
Collard green	African American (vs white)	4.903 [2.721, 8.835]	<.001
Turnip green	African American (vs white)	2.607 [1.311, 5.183]	.006
Eggs	African American (vs white)	0.339 [0.165, 0.961]	.040
Salad	African American (vs white)	0.245 [0.082, 0.732]	.012
Cabbage	African American (vs white)	4.857 [1.849, 12.761]	.001
All potato	African American (vs white)	0.485 [0.277, 0.851]	.012
Apple	Male (vs female)	0.219 [0.051, 0.943]	.042
Eggs	Male (vs female)	2.799 [1.266, 6.188]	.011
Corn	Male (vs female)	0.137 [0.018, 1.037]	.054
Steak beef	Education level (vs College or beyond)		.039
	Middle school or lower	0.201 [0.048, 3.849]	.029
	High school, junior college	0.980 [0.365, 2.631]	.969
Butterbean	Education level (vs College or beyond)		.005
	Middle school or lower	4.451 [0.997, 20.677]	.050
	High school, junior college	1.191 [0.243, 5.841]	.830
Roast beef	Education level (vs College or beyond)		.006
	Middle school or lower	0.165 [0.048, 0.575]	.005
	High school, junior college	0.276 [0.103, 0.735]	.010
All beef	Education level (vs College or beyond)		.021
	Middle school or lower	0.297 [0.122, 0.720]	.007
	High school, junior college	0.649 [0.306, 1.375]	.259

Note. CI = confidence interval.