



Evaluating Farm to School in Mississippi: Defining Participation Using Mixed Methods Approach

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ABSTRACT

The Mississippi Farm to School Network strives to enhance child nutrition and eradicate food insecurity in the state by connecting school systems with their local food systems. The framework for reaching this goal consists of three central components: local procurement in the cafeteria, school gardening, and nutritional education. To better understand these initiatives in the state and help plan for the future, the UM Center for Population Studies has partnered with the network to evaluate farm to school in Mississippi. The first phase of the evaluation was conducted using publicly-available secondary data, primary data collected from interviews with school district food service directors, and surveys of the Mississippi Farm to School Network and Mississippi Farm to School Conference. Initial findings show potential gaps due to lack of available data reported from the US Department of Agriculture (USDA), US Department of Defense (DoD), and the Mississippi Department of Education (MDE). Based on the secondary data collected, it is suggested that the definition of participation in farm to school be reexamined to better understand sustained involvement within the state.

INTRODUCTION

As it wraps up its second full year of service, the Mississippi Farm to School Network (or Network) required an in depth evaluation to track its progress and plan for the future. In 2016 and early 2017, the Center for Population Studies (or Center) helped with this evaluation by using a mixed methods approach. A mix of available secondary data and primary data was compiled and analyzed in order to track farm to school participation in the state. The Center used the following secondary sources to measure farm to school: US Department of Agriculture Farm to School Census (USDA), US Department of Defense (DoD), and Mississippi Department of Education (MDE). These data are valuable in understanding which school districts are participating in various farm to school initiatives, and the can help the Network with planning future programs and events. Potential gaps were identified due to lack of available data reported from the secondary sources, so the Center expanded by adding interviews and survey evaluations for a comprehensive approach.

METHODS

In 2015, the USDA released its second farm to school survey which questioned public school districts, private schools, and charter schools about their activities in farm to school for the 2013-2014 school year. The survey was voluntary and all of the data was self-reported. Of the 148 school districts and in Mississippi, 68% responded, and 50% of those who responded reported some level of farm to school involvement. Ten additional private or charter schools responded to the survey.

Due to the lack of detail in the survey, the Network wanted to further investigate the activities taking place in the top performing school districts. The census data was supplemented with interviews of food service directors from Harrison County, Biloxi, Jackson County, Oxford, and Tupelo school districts.

The interviews took place from August to October 2016, and covered the following domains: local procurement, school gardens, education, training and professional development, promotion and media, and planning, coordination, and evaluation.

METHODS

Following the interviews, we defined three indicators of participation, measured by school district:

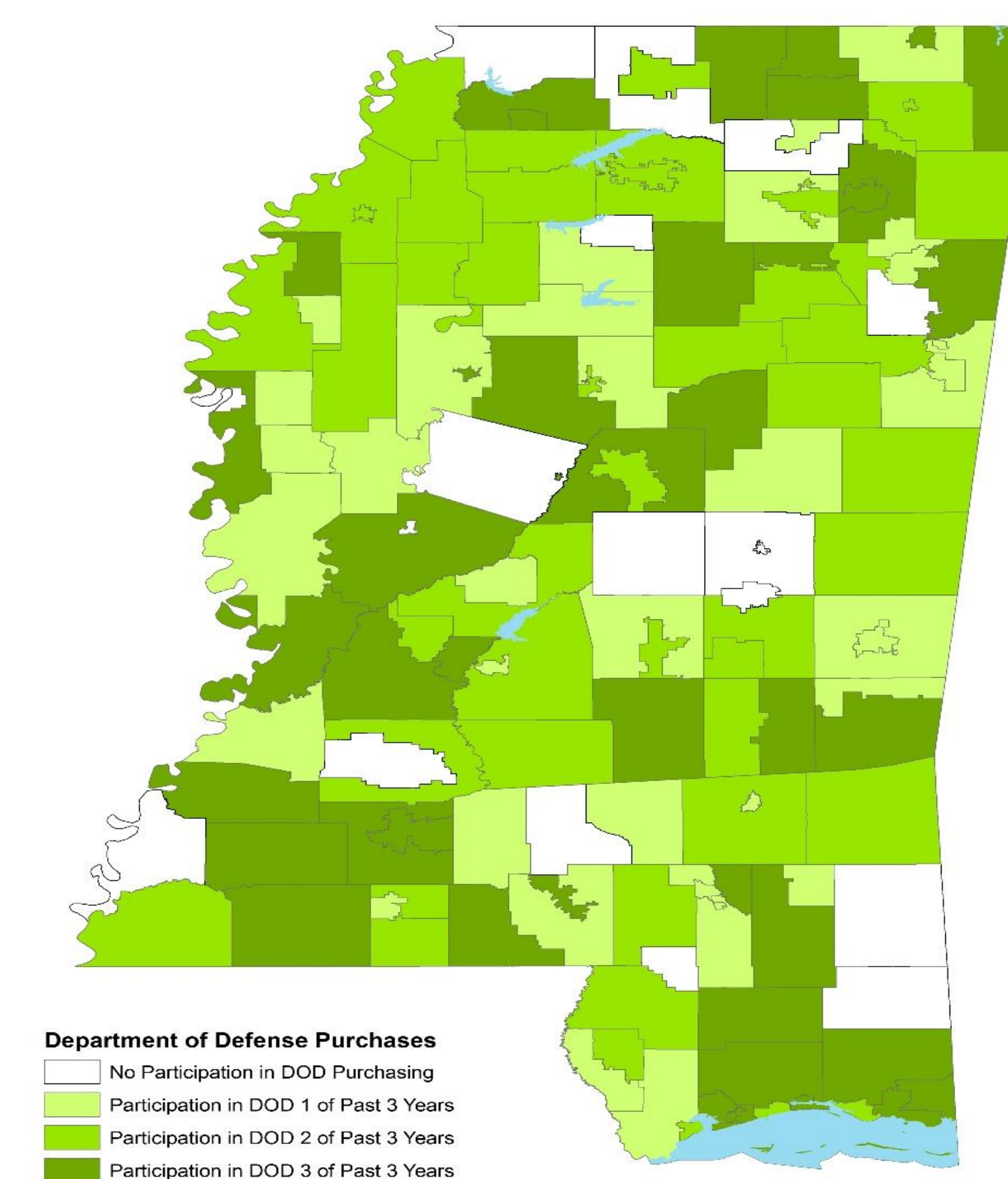
- Direct Procurement- Procuring locally grown/processed foods directly from a farmer, local food distributor, local producer, and/or local farmers markets.
- DoD Procurement- Procuring local fruits and vegetables from the DoD Fresh program at least once from 2014-2017.
- School Gardens- Having one or more school gardens.

The next phase of the evaluation included retrieving sources for DoD and School Garden participation across the state. DoD participation was tracked by MDE, so we received a spreadsheet that included all districts and private schools that used the program for the 2014-2015, 2015-2016, 2016-2017 school years. We generated a map of the results shown in figure 1.

The Center used a multi-method approach for finding school gardens in the state and analyzed three reliable sources tracking school gardens: MSDA's Growing School Lunch grantee list, The Edible Schoolyard Project's list of school gardens in the state of MS, and primary data from the interviews.

A map was created to display these findings (refer to Figure 2). Two surveys were distributed as part of the evaluation of the Network. The first survey focused specifically on evaluation of the 2016 annual Farm to School Conference hosted by the Network. 32 returned questionnaires were counted as valid. The second was an overall network evaluation sent out to the 401 members of the Network with 77 valid responses.

Figure 1: DoD Participation in Mississippi by school districts



Department of Defense Purchases
 No Participation in DOD Purchasing
 Participation in DOD 1 of Past 3 Years
 Participation in DOD 2 of Past 3 Years
 Participation in DOD 3 of Past 3 Years

Sources: DoD participant master lists for the years 2014-15, 2015-16, and 2016-17 obtained from the MS Department of Education, Office of Child Nutrition. Additional analysis and mapping conducted through the University of Mississippi Center for Population Studies. Produced on 10-25-16.

FINDINGS

Analysis of secondary sources and interviews yielded the following findings on farm to school participation:

- 35 public school districts and 18 private or charter schools (total = 53) had 1 or more school garden sites.
- 124 public school districts procured local food from the Department of Defense for one to three years from 2014-2017. 43 districts purchased from the DoD all three years, and 68 districts for the 2016-2017 school year.
- 40 public school districts purchased food directly from local producers.

Interviews revealed additional details about farm to school efforts in the top performing districts. Every district interviewed was procuring local vegetables, primarily: carrots, cucumbers, sweet potatoes, and tomatoes. Two districts procured meats, seafood, poultry, fluid milk, and baked goods. Each district also offered nutrition-based education and training in safe handling practices.

The evaluation of the 2016 Farm to School Conference provided a wealth of information on each of the conference's events, as well as its goals of fostering networking between attendants and building interest in farm to school activities. The following is a list of key findings:

- Half (16/32) of respondents were currently participating in farm to school programming and activities, and of those not participating, 81% (13/16) were interested in becoming involved in farm to school after attending the conference .
- Respondents reported making many connections at the conference. The range offered on the survey was 0 to 10 or more connections made. The minimum reported was 2 and the maximum reported was 10 or more with a mean of 5.93 and median of 6.00.

The following is a list of key findings from the Network member evaluations conducted in November 2017:

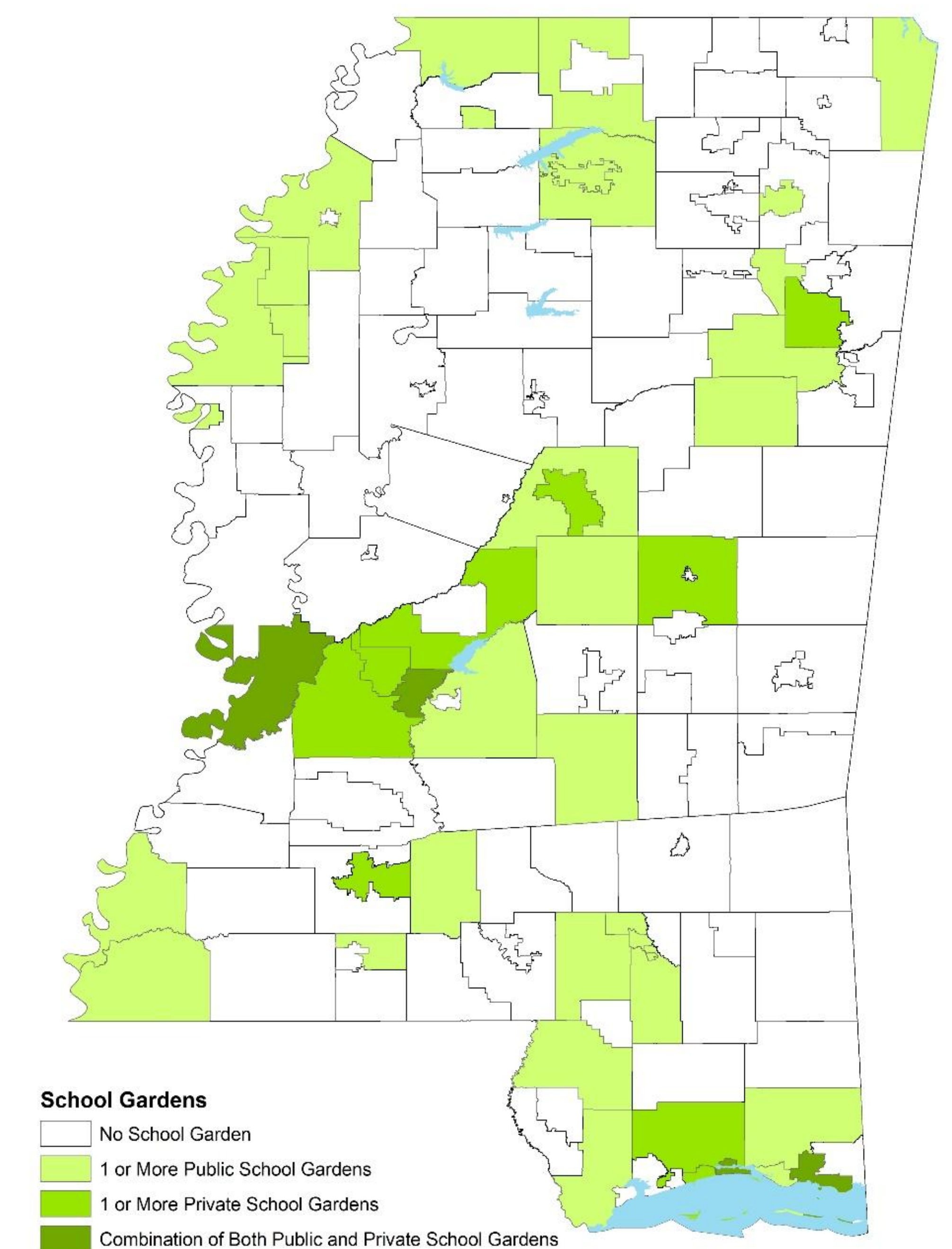
- More than three quarters of participants were working with farm to school on behalf of an organization, the remaining respondents participated individually.
- The highest concentration of involvement comes from central Mississippi (58%) this statistic coincides with our farm to school garden map where there is a high concentration in central MS.
- The survey showed Network improvements in the form of ratings from 1-10 (no improvement to greatly improved) where the majority voted above "5" in the following areas: meeting other people/organizations interested in farm to school related issues, accessing new information about farm to school related issues, communicating with others in my organization about farm to school related issues, public communication about farm to school related issues, resource development to enhance farm to school related work, and partnering with other organizations and institutions for farm to school related work.

REFERENCES

- The Edible Schoolyard Project. 2017.
 Mississippi Department of Agriculture Growing School Lunch Grantees Master List. 2016.
 US Department of Defense Master Lists. 2014-2017. Obtained from MS Department of Education.
 USDA Farm to School Census. 2015.
 Additional analysis provided by the Center for Population Studies.

FIGURE 2

Figure 2: School Gardens in Mississippi: Mapped by Public School District



School Gardens
 No School Garden
 1 or More Public School Gardens
 1 or More Private School Gardens
 Combination of Both Public and Private School Gardens