

Farm to School in Arkansas: Policy and Planning Report



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PARTNERS AND COLLABORATORS

Arkansas Children's Hospital Research Institute, Childhood Obesity Prevention Research Program

Arkansas Agriculture Department

Arkansas Center for Health Improvement

Arkansas Department of Education – Child Nutrition Unit

Arkansas Department of Health

Arkansas Grow Healthy Study

University of Arkansas Division of Agriculture, Research and Extension

University of Arkansas for Medical Sciences

ABBREVIATIONS AND ACRONYMS

ACHRI – Arkansas Children’s Hospital Research Institute

AAD – Arkansas Agriculture Department

ACHI – Arkansas Center for Health Improvement

ADE CNU – Arkansas Department of Education – Child Nutrition Unit

ADH – Arkansas Department of Health

AGHS – Arkansas Grow Healthy Study

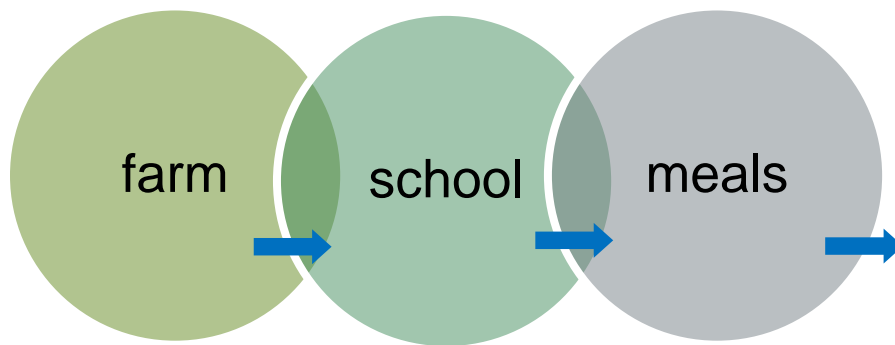
CES – Cooperative Extension Service, University of Arkansas Division of Agriculture

COPRP – Childhood Obesity Prevention Research Program

NFSN – National Farm to School Network

USDA – United States Department of Agriculture

SFC – Sustainable Food Center



INTRODUCTION

Farm to school is a movement now reaching more than 40,000 schools throughout the nation to connect cafeterias and classrooms with local producers resulting in improved nutrition, child health, and economic development.¹⁻⁶ The first farm to school pilot projects began in the mid 1990's in California and Florida. Realizing the success of those programs, the United States Department of Agriculture (USDA) began supporting the expansion of farm to school by financing the National Farm to School Program and encouraging schools to purchase local foods in 2000.^{7,8} These early efforts provided the foundation for many federal and state policies that built the capacity to support farm to school programs across the country.^{8,9}

At the federal level, two key policies are renewed every five years; The Farm Bill and the Child Nutrition Reauthorization offer grant funding for farm to school programs.⁸ At the state level, 38 states and the District of Columbia have supporting legislation and an additional eight states have proposed legislation.⁹ State legislative bills address farm to school through the establishment of a taskforce, the creation of a state or local farm to school coordinator position, funding to support program implementation, and state resolutions.

More than 20 Arkansas school districts have started periodic small-scale purchasing from local producers in their communities.¹⁰ Communities would like to expand existing programs or establish new farm to school programs, but the state currently lacks the resources to build this capacity with no current supporting legislation, no state program coordinator, no funding to establish farm to school programs, and no organized distribution channels. Arkansas lags behind in farm to school programming. While a growing priority for a number of Arkansas schools, farmers, health professionals, and community organizations, farm to school has yet to become a priority among government officials and policy makers in Arkansas.

This policy report describes the potential for expanding farm to school in Arkansas and provides recommendations from national and state stakeholders for actions to encourage its growth.

WHY FARM TO SCHOOL?

Arkansas, as with many other states, is faced with a growing portion of the population experiencing chronic diseases such as Type 2 diabetes, heart disease, cancer, and illnesses associated with poor dietary intake, limited physical activity, and obesity.¹¹

- Arkansas ranks 49th in overall health outcomes.¹²
- 80% of Arkansans do not meet dietary recommendations for fruit and vegetable consumption.¹¹
- About two in three adults are considered overweight or obese in Arkansas.¹³
- About one in three children ages 2 to 19 years are considered overweight or obese in Arkansas.¹³

As of 2012, about half of all U.S. adults—117 million people—have one or more chronic health conditions. One of four adults has two or more chronic health conditions.¹⁴

Reducing the risks for childhood obesity continues to be a public health priority with Arkansas health professionals, government officials, and policy makers feeling the pressure to find solutions. As other states began to see a leveling off of obesity rates in 2013, Arkansas saw its rates increase.¹⁵

Public health and medical professionals continually look for evidence-based interventions to support changes to healthier eating, increased physical activity, and reductions in the risks for obesity. Increasing consumption of fruits and vegetables, however, continues to be a critical behavior change necessary to improving health and reducing risks for chronic disease.^{16, 17}

Comprehensive farm to school programs offer an opportunity to address many of these health issues by connecting communities to healthy, local food and food production. Food to school programs include some or all of these key components:¹⁸

- Encompasses efforts that bring local or regionally produced foods into school cafeterias
- Provides hands-on learning activities such as school gardening, farm visits, and culinary classes
- Integrates food-related education into the regular, standards-based classroom curriculum
- Increases exposure to and consumption of healthy foods and strong food values
- Provides economic opportunities for local producers
- Builds community engagement and parent involvement in schools

National Farm to School Network, leading efforts across the U.S. since 2007 –

Farm to school enriches the connection communities have with fresh, healthy food and local food producers by changing food purchasing and education practices at schools and preschools. Students gain access to healthy, local foods as well as education opportunities such as school gardens, cooking lessons and farm field trips. Farm to school empowers children and their families to make informed food choices while strengthening the local economy and contributing to vibrant communities.¹⁹

EVIDENCE FOR FARM TO SCHOOL

CHILD HEALTH

A review of nine farm to school programs found student meal participation rates increased between 3% and 16% after implementing farm to school programs. Because of increased meals participation and the competitive pricing of local products, schools have been able to cover their additional costs for labor and equipment needs for supporting their programs.⁵

A study of one particular school cafeteria found that after starting a farm to school program, school lunch participation rose by:⁵

- 4.0% for students receiving free lunches
- 5.3% for students receiving reduced price lunches
- 8.5% for paid students.
- 26.9% for adults
- 9.0% overall



A study in three Los Angeles schools showed students increased their fruit and vegetable consumption from 2.8 servings to 4.2 servings per day after a farm to school salad bar was introduced.⁵ Farm to school programs offer children the choice of healthier options in school meals and has resulted in consumption of more fruits and vegetables at school and at home.⁵

Over time this increased consumption of fruits and vegetables could lead to healthy eating habits and therefore decrease obesity rates among students.

COMMUNITY AND ECONOMIC DEVELOPMENT

Efforts through farm to school programs such as bringing farmers into schools or providing targeted nutrition education is carried home with students. A 2006 case study review of several farm to school programs showed increased parent involvement and broader community engagement in schools after implementation.²⁰

A school making local food purchases helps farmers connect with new market opportunities that supports the expansion of farm production capacity and with extension of growing seasons that is shown to provide a significant boost to local economies.³ A \$1.00 investment in Oregon and Wisconsin farm to school local food purchases resulted in a significant multiplier effect of other consumer spending, ranging from \$1.30 to \$3.40, respectively.^{3, 4}

Of the \$7 billion that consumers spend on food annually in Arkansas, \$6.3 billion goes to purchase food grown in other states.²¹

The University of Minnesota Cooperative Extension Service conducted an economic impact analysis on shifting a portion of the \$4.2 million school food budget in the central region of Minnesota to local purchases. They found a potential annual economic impact from the shift to local foods ranging from \$20,000 for a monthly one-time specialty local food item to \$427,000 for sourcing a large amount of easily accessible products served over the year for central Minnesota schools.⁶

If Arkansas public schools sourced 15% of the food purchased for school meals from Arkansas producers, \$14 million in new income could be generated for Arkansas farmers.²²

If Arkansas consumers purchased just 15% of the fruits and vegetables they consume at home from Arkansas farmers, nearly \$100 million in new income could be generated for Arkansas fruit and vegetable producers.²¹

Further research is needed to determine the potential economic impact for schools and families making purchases from Arkansas farmers.



STATE OF ARKANSAS FARM TO SCHOOL

Arkansas public school child nutrition programs purchase food from independent distributors and supplement their meal programs with food from the USDA commodity program.²³

Arkansas child nutrition directors spend a combined \$95 million each year on food for public

school children.²² Relatively few schools report utilizing farm to school programs to make their school menus.¹⁰

Arkansas Programs

Farm to school programs are emerging throughout the state with a few schools having comprehensive, year round programs that include hands on nutrition education, to the more common practice of school districts that partner with one local farmer to purchase produce when it is seasonally available, according to Mr. Andrew Carberry the Program Administrator with the Arkansas Grow Healthy Study (described below) who has engaged with many Arkansas schools interested in farm to school (May 2014). A survey conducted by Arkansas Food Corps showed that 50 schools report having school gardens that were established through various programs like the Arkansas Delta Garden Study²⁴, Arkansas Food Corps, and other community-driven efforts, as reported by Ms. Rachel Spencer with Arkansas Food Corps (email communication, April 2014). While this is a great start, the farm to school concept has yet to expand in Arkansas to the scale that it has in other states. Child nutrition directors in Arkansas have expressed interest in serving more products from local producers, but find it difficult to connect to farmers in their communities, to understand the national, state, and local food safety regulations, and to navigate the process of local purchasing and distribution, as shared by Ms. Sheila Chastain, Assistant Director of Fresh Fruits and Vegetables in the Arkansas Department of Education Child Nutrition Unit (January 2014). Training and technical assistance could assist schools with establishing comprehensive farm to school programs.

The Arkansas Grow Healthy Study, housed in the Arkansas Children's Hospital Research Institute, Childhood Obesity Prevention Research Program (ACHRI, COPRP) is a USDA Agriculture and Food Research Institute (AFRI) funded study to expand farm to school programs in the state and ultimately improve fruit and vegetable consumption among students.²⁵ This research study was funded from 2011 – 2016 to build capacity for farm to school program development and to support local food distribution in pilot communities in Arkansas. Two elementary schools and four Head Start (Pre – K) programs were chosen as pilot sites for the farm to school intervention, set to begin sourcing local produce in August of 2014.



A community advisory board (CAB) with multi-agency representation offered guidance on for the studies pilot project on program planning, implementation, evaluation, and community outreach and education for the study. CAB members identified the need for hiring a full-time farm to school coordinator position that would be solely devoted to supporting state farm to

school program development beyond the scope of the research study for farm to school to be a success in Arkansas.

POLICY ANALYSIS METHODS

In the fall of 2013, Dr. Judy Weber, co-principal investigator of the Arkansas Grow Healthy Study with ACHRI COPRP, updated the Arkansas Child Healthy Advisory Committee on the progress of the farm to school pilot program. Dr. Weber shared CAB's recommendation for Arkansas to support hiring a statewide coordinator and to follow other states in proposing legislation. Amanda Philyaw Perez, a doctoral candidate in the Fay W. Boozman College of Public Health at the University of Arkansas for Medical Sciences, attended the presentation and suggested to Dr. Weber that a national and state policy analysis be conducted to explore the need and support for creating a state-level farm to school coordinator position. With CAB's support, Philyaw Perez designed and implemented the policy analysis plan in January of 2014.

The policy analysis examined efforts to develop farm to school coordinator positions in other states and to explore the interests of state agency administrators in the development of a position in Arkansas.

METHODS

National – A review of national legislation and a list of farm to school coordinators provided by the Arkansas Grow Healthy Study and National Farm to School Network informed the selection of national case study sites. Six states were identified with farm to school coordinator positions in December 2013 and contacted by email with a follow-up telephone call to request participation in a telephone interview. Four states and six interviews were completed; one interview was conducted with the National Farm to School Network Policy and Strategic Partnerships Director. Interview time ranged from 40 minutes to 117 minutes with an average telephone interview completed in 64 minutes.

State – Arkansas states agencies with interest in child health, nutrition, and agriculture were selected to participate in small group interviews. Agencies included the Department of Education – Child Nutrition Unit, Department of Health, Arkansas Agriculture Department, Cooperative Extension Service of the University of Arkansas Division of Agriculture, and Arkansas Center for Health Improvement. Agency administrators and staff were contacted by email, with a follow-up telephone call, to request participation in the small group interviews that discussed interest in supporting farm to school in Arkansas. Interview times ranged from 44 minutes to 114 minutes with an average small group interview completed in 57 minutes. The number of attendees at meetings ranged from two to four participants with the average attendance of three participants. All meetings included upper level administrator participation.

Interviews were recorded for accuracy and field notes were taken during the interview. Following each interview the researcher reviewed the recorded discussion and made additional field notes. A qualitative research analysis approach was used to analyze the data from the in-depth, open-ended interviews.²⁶ The field notes were then reviewed in conjunction with audio recordings in a process of reflexive, iterative analysis. A grounded theory approach was used to review the final notes with code and theme development using constant comparison of the data until saturation of coding themes was reached.^{27, 28} Key themes were identified where similar issues consistently arose across participants. This method of reflexive, iterative analysis allowed for naturalistic inquiry, studying real-world experiences among national and state participants inductively to generate rich narrative descriptions and to construct case studies.

NATIONAL POLICY ANALYSIS

NATIONAL CASE STUDIES

By reviewing national case examples, this study provided insights into how other states navigated the process of establishing a farm to school coordinator position by garnering federal or state support or through state legislation. This national policy analysis is not an exhaustive review of national efforts to create farm to school coordinator positions, but a set of cases that offer Arkansas options for next steps in building capacity for farm to school.

CASE 1: TEXAS

Key Legislation: Senate Bill 1027 of 2006, Establishing an Interagency Farm to School Coordination Task Force.

Funding: Leveraged federal USDA school food service administrative dollars to create the farm to school coordinator position. The state did not secure funding through legislative appropriations.

Position and Agency: Farm to School Program Specialist at the Texas Department of Agriculture Food and Nutrition Division.

Key actions for developing the farm to school coordinator position: Texas began its early farm to school focus with the Sustainable Food Center (SFC), a nonprofit organization committed to improving access to healthy, sustainably produced food. The SFC secured Robert Wood Johnson Foundation grant funding to establish a pilot farm to school program in Austin. The program's success led to a multi-agency partnership that prepared a policy paper to educate legislators and others in the state to build support for farm to school. As state interests grew, policy makers began to prioritize the farm to school concept and passed the 2006 bill to establish a state taskforce to explore opportunities to support coordination of similar programs. The taskforce

recommended hiring a state level farm to school coordinator. The taskforce identified funding available through the school food service administrative funds and created the position. State policy makers continue to support state efforts to address local foods and farm to school as they continue to explore additional policy opportunities, as demonstrated through recent policy efforts.

CASE 2: VERMONT

Key Legislation: House Bill 287 of 2011, Creating a Local Foods Coordinator Position at the Agency of Agriculture.

Funding: Two USDA grants provided the initial funding for a farm to school program in Burlington, VT. Funding came from Growing Farms, Growing Minds and the Farm to School Grant. A position created with these grants was later funded by Burlington school cafeteria revenue from the sales of school meals. In 2011, the Vermont legislature passed a comprehensive bill that allocated \$125,000 for a state level program coordinator, program implementation and infrastructure development.

Position and Agency: Farm to School Coordinator at Burlington School District. Program Coordinator at the Vermont Agency of Agriculture, Food and Markets to support local foods and farm to school program development.

Key actions for developing the farm to school coordinator position: Vermont's program development began with Vermont FEED nonprofit securing two USDA grants (described above). These grants and the overall program development evolved out of powerful community partnerships that led to Burlington School District hiring a farm to school coordinator. In addition to sourcing local foods for school meals, the Burlington School District developed comprehensive food programs that included afterschool programs, school gardens, job training programs, and other food related education programs. The district's success and many other state efforts around local food attracted legislative support that led to a set of policies being passed to support local foods, farm to school, and the creation of a local foods coordinator position for the Vermont Agency of Agriculture. Vermont has an expansive local foods system that supports many local foods initiatives and farm to school programs.

CASE 3: MINNESOTA

Key Legislation: No state legislation exists to support or that led to the creation of a farm to school coordinator position.

Funding: Minnesota leveraged multiple sources of funding from the Minnesota Institute of Agriculture and Trade Policy, Cooperative Extension Service, University Regional Development

Partnership, Sustainable Agriculture Research and Education (SARE) grant and USDA SNAP-Ed grant program to create multiple positions throughout the state.

Position and Agency: Many positions created through the Cooperative Extension Service and Department of Health that included a Farm to School Director and a Community Food Systems Director, each with a small staff to support state efforts; one school region hired a part-time farm to school consultant with grant funding. Extension employed 17 people until cuts to SNAP-Ed. There are now seven staff members. All six community food systems educator positions were eliminated but the state is pursuing opportunities to rebuild capacity.

Key actions for developing the farm to school coordinator position: Minnesota support for farm to school developed organically over a period of several years with the creation of multi-agency partnerships (identified above) that provided funding, training, and technical assistance to interested communities or working on community food system development. Minnesota communities continue to request financial support for expanding local food programs and the state is working to rebuild the capacity needed to work on education, policy, systems development, and environmental change.

CASE 4: OKLAHOMA

Key Legislation: House Bill 2655 of 2006, Oklahoma Farm-to-School Program Act

Funding: \$100,000 to establish a director position and for program development.

Position and Agency: Program director at the Oklahoma Department of Agriculture, Food, and Forestry to support training and technical assistant for school food service directors and farmers.

Key actions for developing the farm to school coordinator position: Oklahoma efforts to support farm to school programs began with the development of a food policy council in 2002 with leadership by the Oklahoma Department of Agriculture and the Kerr Center for Sustainable Agriculture. The council surveyed community leaders at schools, hospitals, and other organizations to determine interests in local foods and the findings revealed interests in local food but they did not know how to initiate procurement. This led to the development of a pilot a project through grant funding to source local watermelons to Oklahoma schools. The program was so successful that the council suggested working with the Fit Kid Coalition to advocate for state legislation creating a farm to school coordinator position. Because of strong advocacy work and support from Oklahoma policy makers, the state was able to pass a bill in 2006 to create the position. The position allowed Oklahoma to become a leader in the farm to school movement with many comprehensive programs continuing to-date.

OVERALL NATIONAL FINDINGS

These national case studies revealed several key strategies for supporting the development of a farm to school position. Strategies include:

- **Stakeholder engagement:** Establish strong partnerships that include representation from multiple state agencies (departments of agriculture, education, health, human services, and the Cooperative Extension Service), parents, school leaders, farmers, ranchers, policy makers, local and state officials, university faculties, and leaders of advocacy organizations.
- **Make the case:** Determine the impact of farm to school programs on health, , agriculture, and community and economic development. Conduct research, create strong evaluations, and share the results through reports, policy briefs, meetings, news releases, farm tours, and meetings with state and local officials by presenting the issue as a win for kids, families, and farms.



“This is a triple win for farmers, kids, and families.”

– Helen Dombalis, National Farm to School Network,
Policy and Strategic Partners Director

- National interviewees were asked to describe the farm to school coordinator's day-to-day activities, roles, and responsibilities. Those roles are depicted in the word cloud below.



STATE POLICY ANALYSIS

STATE AGENCY ADMINISTRATIVE INTERVIEWS

Small-group meetings were undertaken to examine Arkansas state agency interests and support for farm to school programs and establishing a farm to school coordinator position. A set of agencies (described above in Methods) were selected based on their historical role in supporting child health and community food issues. The findings will provide Arkansas farm to school stakeholders with options for next steps in building capacity.

OVERALL STATE FINDINGS

Current agency efforts to support farm to school, child health, and related programs.

Arkansas Agriculture Department

Established the Arkansas Grown and Arkansas Made programs as a marketing tool for Arkansas producers to use in promoting their agricultural products; publishes multiple materials to educate Arkansans about available agricultural products through the Arkansas Grown and the Farm and Food magazines; engages Arkansas producers to promote their locally produced foods; and offers Specialty Crop Block Grants that could be used for farm to school.

Arkansas Department of Education, Child Nutrition Unit

Offers trainings and workshops to child nutrition directors about developing farm to school programs using local produce in the Fresh Fruit and Vegetable program, and about strategies for connecting with farmers.

Arkansas Department of Health

Established the Arkansas Coalition for Obesity Prevention (ArCOP), which hosts annual regional Growing Healthy Communities summits that include workshops on starting farm to school programs, school and community gardens.

Arkansas Center for Health Improvement

Led the collection of the Body Mass Index reporting for public school children since 2004; partnered to host the Arkansas Farm to School Summit in 2009; served on the Arkansas Food Policy Council; engages state businesses and nonprofit organizations to support farm to market opportunities.

Cooperative Extension Service

County extension office agents identify local farmers; manages the MarketMaker online portal for connecting farms to markets including schools; provides legal education on food policy regulation and case law through the National Agriculture Law Center; offers food safety and training to producers and schools; educates students about food and farming through the Farm to You education program; provides access to a certified kitchen on University of Arkansas campuses in Fayetteville and Pine Bluff for food processing.

Potential value of a farm to school coordinator position.

Agency representatives expressed support for the creation of a farm to school coordinator position and said the position would be of value to the state for managing the many roles and responsibilities while leveraging resources and developing relationships throughout the state. The word cloud below represents the value and responsibilities identified.



Considerations for establishing the position.

While agency representatives expressed interest in the creation of the position, they identified several challenges or critical factors to consider before moving forward.

- **Funding:** All agency representatives identified the challenge of creating a state-based position that required state funding because of a hiring freeze, the competition for positions between and within agencies, and the importance of other funded programs. One agency administrator suggested considering a private-based position that could be initiated through industry partnerships and private investment. All interviewees

suggested using a multi-faceted approach to securing funding, but recognized the limitations of depending on grant funding alone.

- **Job Description:** All interviewed groups expressed the need for a document that demonstrated the roles, responsibilities, and potential impact of the position to move forward with the discussion.

“We are missing the person that could come and take a school from A to Z [with farm to school].”

– Leesa Frasier, Arkansas Department of Health

- **Stakeholder Engagement:** Several agency representatives suggested that efforts moving forward should continue to educate stakeholders about the value, economic impacts, and the long-term benefits to farmers, families and their communities. It was suggested that a business plan be developed to showcase the potential for Arkansas.
- **Administrative Agency:** Interviewees spent a significant amount of time discussing where a farm to school coordinator position would be housed without coming to a consensus. Representatives expressed support for locating the position in the Arkansas Agriculture Department, Arkansas Department of Education – Child Nutrition Unit, or Cooperative Extension Service at the University of Arkansas System Division of Agriculture. Coordination between the three agencies with perspectives from nutrition, agriculture, and outreach would be essential to overall success. The groups recommended this discussion continue with the three agency administrators involved. When asked about a jointly-housed position, agency representatives presented examples of the difficulty in meeting the demands of multiple agency responsibilities but no consensus was achieved about a recommendation.
- **Role of policy:** All agency representatives recognized the potential for legislation to support the creation of the position if there was significant political support, but most thought that getting support to fund a position could prove challenging with the current competition over existing state funding. To be successful, agency representatives participating in the interviews expressed the need for advocacy organizations or policy makers to be supportive of farm to school.

CONCLUSIONS

This policy analysis provides an overview of national efforts to support farm to school programs through the creation of farm to school coordinator positions and includes input from several state agencies about the value and opportunity for creating such a position in Arkansas. In summary, these findings offer preliminary information to support the subsequent work of implementing farm to school programs in Arkansas schools.

NEXT STEPS

The set of findings from the national and state interviews will assist stakeholders in Arkansas to build support for the creation of a farm to school coordinator position. The Arkansas Grow Healthy Study Community Advisory Board and other interested stakeholders can use the information provided in this report to establish a strategy and action plan for implementing farm to school in Arkansas schools.



BIBLIOGRAPHY

1. McAleese JD, Rankin LL. (2007). Garden-based nutrition education affects fruit and vegetable consumption in sixth-grade adolescents. *J Am Diet Assoc.* 107(4): p. 662-665.
2. Morris JL, et al. (2002). Garden-enhanced nutrition curriculum improves fourth-grade school children's knowledge of nutrition and preferences for some vegetables. *J Am Diet Assoc.* 102(1): p. 91-93.
3. Joshi A. et al. (2008). Do farm-to-school programs make a difference? Findings and research needs. *J Hunger & Envtl Nut*, 3:229 - 230.
4. Slusser W, Neumann C. (2001). Evaluation of the effectiveness of the salad bar program in the Los Angeles school district. [Report] Los Angeles: School of Public Health, University of California, Los Angeles.
5. Joshi A, Azuma AM. (2004). Bearing Fruit: Farm to School Program Evaluation Resources and Recommendations. [Report] Center for Food & Justice, UEPI, Occidental College to the California Endowment.
6. Tuck B, Haynes M, King R, and Pesch R. (2010). The economic impact of farm to school lunch programs: a central Minnesota example. [Report] University of Minnesota Extension Center for Community Vitality.
7. USDA Food and Nutrition Service (2010). USDA Farm to School: Opportunities to increase local food in school meals. [Presentation] Accessed April 9, 2014 at: http://www.fns.usda.gov/sites/default/files/Presentation_handouts.pdf
8. USDA Food and Nutrition Service (2012). Legislative history of farm to school. [Report] Accessed April 9, 2014 at: http://www.fns.usda.gov/sites/default/files/F2Sleg_history.pdf
9. National Farm to School Network (2014). State farm to school legislative survey: 2002-2013. Vermont Law School Center for Agriculture and Food Systems, South Royalton VT. Accessed April 9, 2014 at: http://www.farmtoschool.org/Resources/State_Farm_to_School_Legislative_Survey_4_2014.pdf
10. USDA Food and Nutrition Service (2014). The Farm to School Census, 2011 – 2012. [Online Report] Accessed March 3, 2014 at: <http://www.fns.usda.gov/farmtoschool/census/#/>

11. Centers for Disease Control and Prevention (2008). Arkansas: The burden of chronic disease. [Online Report] Accessed April 2, 2014 at: <http://www.cdc.gov/chronicdisease/states/arkansas.htm>
12. United Health Foundation (2013). America's health ranking. [Online Report] Accessed April 10, 2014 at: <http://www.americashealthrankings.org/>
13. Centers for Disease Control and Prevention (2012). Arkansas: State nutrition, physical activity, and obesity profile. [Online Report] Accessed May 1, 2014 at: <http://www.cdc.gov/obesity/stateprograms/fundedstates/pdf/arkansas-state-profile.pdf>
14. Ward BW, Schiller JS, Goodman RA (2014). Multiple chronic conditions among U.S. adults: A 2012 update. *Prev Chronic Dis.*;11.
15. Trust for Americas Health (2013). F as in fat: How obesity threatens Americas future. Robert Wood Johnson Foundation [Report] Accessed May 1, 2014 at: <http://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf407528>
16. U.S. Department of Agriculture and U.S. Department of Health and Human Services (2010). Dietary guidelines for Americans. Accessed May 1, 2014 at: www.dietaryguidelines.gov
17. Boeing, H., Bechthold, A., Bub, A., Ellinger, S., Haller, D., Kroke, A., & Watzl, B. (2012). Critical review: vegetables and fruit in the prevention of chronic diseases. *European Journal of Nutrition*, 51(6), 637-663.
18. USDA Food and Nutrition Service (2014). Farm to school. Accessed March 3, 2014 at: <http://www.fns.usda.gov/farmentoschool/farm-school>
19. National Farm to School Network (2014). Connecting and strengthening the farm to school movement. Accessed March 3, 2014 at: <http://www.farmentoschool.org/>
20. Joshi A, Kalb M, and Beery M (2007). Going Local: Paths to success for farm to school programs. National Farm to School Program. [Report] Center for Food & Justice, Occidental College and Community Food Security Coalition Los Angeles, CA.
21. Meter, K (2011). Arkansas Farm and Food Economy: Highlights of a data compilation. Crossroads Resource Center. Produced for Heifer Project International.

22. Arkansas Department of Education Child Nutrition Unit. Facts and Figures. Accessed April 27, 2012 at: http://cnn.k12.ar.us/programs/program-operations/facts-and-figures_copy1.aspx
23. USDA Food and Nutrition Service (2014). Commodity Supplemental Food Program. Accessed April 7, 2014 at: <http://www.fns.usda.gov/csfp/commodity-supplemental-food-program-csfp>
24. Arkansas Children's Hospital Research Institute Childhood Obesity Prevention Research Program (2014). Arkansas Delta Garden Study. Available at: <http://www.arteengarden.com/>
25. Arkansas Children's Hospital Research Institute Childhood Obesity Prevention Research Program (2014). Arkansas Grow Healthy Study. Available at: <http://growhealthy.uark.edu/>.
26. Halcomb EJ, Davidson PM (2006). Is verbatim transcription of interview data always necessary? *Appl Nurs Res.* 19: 38-42.
27. Glaser, B. G. (1998). *Doing grounded theory*. Mill Valley, CA: Sociology Press.
28. Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York, NY: Aldine.



**Childhood
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