LOCAL FOODS &
SCHOOL MEAL DEMAND

PD: Brian E. Roe
Co-PI: H. Allen Klaiber
Key Personnel: Elizabeth Robison & Greg Howard

1AED Economics, Ohio State University
2US FDA – Office of Planning
3Economics, East Carolina

*The authors acknowledge funding from USDA’s National Institute of Food & Agriculture grant 2014-67023-21810
Objectives

1. Better predict how policy and regulatory interventions impact the ‘trilemma’ faced by these programs (Ralston et al. 2008), i.e., balancing nutrition, program cost and student participation.

2. Assessing how the inclusion of different levels of locally grown food into school meals affects school lunch participation, meal demand and foodservice profitability.

• Our long-term goal is to better understand the decision making process governing household nutrition decisions for children involved in Federal Child Nutrition Programs.
Activities

- Data Integration
  - Farm to School (FTS) Census (1\textsuperscript{st} and 2\textsuperscript{nd} rounds)
  - USDA Food Atlas
  - Census of Ag

- Analyses
  - Cross Sectional Analysis (completed – in 3\textsuperscript{rd} round peer review + dissertation)
    - Relative association of school, agricultural and community characteristics with School District-level FTS Participation plus spatial spillovers
  - Panel Analysis (ongoing – school IDs linked between FTS Census rounds)
    - Leverage repeated school district observations from FTS Census to disentangle causality between school participation and local food supply response

- Select insights from cross sectional analysis
  - Significant positive spatial spillovers for school district participation (no crowding)
    - Increasing in local density of participation
  - Recent participation (entered in 2012/13 vs. earlier) more weakly associated with
    - Local food infrastructure (farm direct sales rates, food hubs, farmers markets)
    - School size
Activities

- Data Collection – parent/child dyads on school day lunch decision
  - In person in Ohio (~100) completed, some analyses published in Botkins dissertation
  - Online national survey – 300 collected in May ‘17/ 900 scheduled for fall

- Analyses
  - Determinants of current NSLP participation
  - School lunch choice experiment (child alone, parent alone, joint)

- Select insights – In-person surveys and dyads
  - More intense NSLP lunch attendance among those reporting that their school featured local foods
  - In choice experiments
    - Children were only concerned about perceived meal palatability
    - Parents were concerned meal palatability first and perceived nutrition second
    - When joint decisions made, both meal palatability and nutrition were significant
    - Local foods in a meal had mixed effects on choice
    - Parent & Child
      - More likely to agree on meal choice if both independently viewed the meal as highly palatable
      - Less likely to agree on meal choice if child doesn’t currently participate in NSLP
Select insights – 1st 300 online dyads

• Good internal validity for Choice Experiments
  • Price highly significant driver of choice in expected direction
  • Those who report no NSLP participation are
    • More likely to prefer the status quo to CE options for lunch at school and
    • More price sensitive
  • Those given larger ‘credit lines’ in CE scenario less likely to choose the status quo

• What would make you more likely to participate in NSLP
  • Most important: improve taste of food (4.42 out of 5)
  • Least important: more of his/her friends started eating NLSP (3.61/5.0)
  • Add more local foods to meals (3.68/5.0, not sig diff from ‘friends start eating’)

• Main entrees featuring local foods are more likely to drive meal choice than local fruit or local veg offerings

• Differences and similarities between parent and child choices
  • Similar price sensitivities and affinity for entrees with local food
  • Parents have stronger preferences for local fruit and local veg
Next

• Panel analysis featuring linked waves of Farm to School Census

• In person dyads
  • Add more data collected late spring and summer 2017
  • Advanced analysis of similarity of preference structures and decision making power

• Online Survey
  • Do respondents’ stated school participation in ‘local’ food promotion match FTS Census classification
  • Is FTS Census classification of school district participation related to stated NSLP participation and satisfaction with school food
  • WTP for local entrée, fruit and veg offerings
  • Projections of changes in NSLP participation and net revenues from adding local entrée, fruits and vegetables