Farm-to-School Programs: Linkages between State Laws, District Policies, and School Practices

Linda Schneider, Jamie F. Chriqui, Camille Gourdet, Lindsey Turner, and Frank Chaloupka

Bridging the Gap Program
Health Policy Center
Institute for Health Research and Policy
University of Illinois at Chicago
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Contact: Linda Schneider lschne4@uic.edu
Bridging the Gap is …

• A collaborative effort to assess the impacts of *policies*, *programs & other environmental factors* on a variety of adolescent health-related behaviors

• A Robert Wood Johnson Foundation initiative begun in 1997 with focus on adolescent alcohol, tobacco, and other drug use and related outcomes

• More recently expanded to include youth eating practices, physical activity, and weight outcomes
Presentation Purpose

• Provide an overview of Farm-to-School Programs (FTSP)
• Review the prevalence of state laws and school district policies governing FTSP
• Summarize school-level FTS practices
• Examine the relationship between:
  • State FTS laws and district policies
  • State FTS laws and school-level FTS practices
  • District policies and school-level FTS practices
• Identify suggestions for FTS policy and practice
FTSP History

- **1996-1997**
  - Birth of FTS pilot projects (FL, CA)

- **2000**
  - USDA Initiative for Future Agriculture and Food Systems (IFAFS) supports the establishment of National FTSP enabling program development, research, and policy

- **2001**
  - USDA Agricultural Marketing Service (AMS) began organizing FTS workshops around the country as part of the Small Farms/School Meals Initiative

- **2002**
  - 1st regional Farm-to-Cafeteria conference

- **2004**
  - National FTSP authorized in 2004 Child Nutrition Reauthorization Act (without federal funding)

- **2005-2007**
  - Increasing number of states pass FTS laws (refer to Appendix)

- **2008**

Source: http://www.farmtoschool.org
FTSP Background

• FTSP connects schools and local farms with the objectives of:
  o serving healthy meals in school cafeterias
    o salad bars
    o hot entrees/other meal items
    o classroom snacks
    o taste-tests
  o improving student nutrition & reconnecting students with where food comes from
    o Schools report a 3 to 16% increase in school meal participation when farm-fresh food is served, thus bringing more funds into the schools.
    o Increased consumption of fruits and vegetables with an average increase of one serving per day

Source: http://www.farmtoschool.org
FTSP Background

- providing agriculture, health and nutrition education opportunities
  - Chef/farmer in class, cooking demos
  - Farm tours
  - School gardens, composting, recycling
- supporting local and regional farmers
  - the transaction from farm to school keeps dollars in the local economy, thus strengthening local economies and creating jobs
  - Selling to schools opens up a substantial new market for small-to-medium sized farmers

Source: http://www.farmtoschool.org
METHODS
Methods: State Laws

• **Data Source: State Laws**
  - Statutory (legislative) and administrative (regulatory) laws effective as of September 2007 were examined using the Lexis-Nexis state legal databases for each of the 50 states and the District of Columbia to determine the presence and extent of FTSP-related provisions.

• **State Law Evaluation Topics**
  - Establishment of FTSP*
  - Initiatives to source locally grown F&V in schools*
  - Funding/grants for FTSP
  - Nutrition education
  - Training for food service personnel
  - Establishment of FTS council
  - Establishment of contact person b/w DOE and DOA
  - TA to districts to establish FTSP*  
  - Requirement of district to report to state on FTSP
  - State Evaluation and reporting on FTSP  
  *Focus at the state level
Methods: District Policies

- **Data Source: District policies**
  - Wellness policies effective as of the beginning of the 2007-08 school year were collected from a nationally representative sample of 577 school districts that contain an elementary-level school
    - When linked with the public school data, sample included 455 districts
  - Wellness policies reviewed to examine extent to which they addressed FTS-related sourcing
  - All data weighted to the % of districts nationwide

- **District Policy Variable**
  Farm-to-School or Farm-to-Cafeteria Program
  0=not mentioned
  1=suggested
  2=required/definitively in place
  - Ex: “Schools are encouraged to source fresh fruits and vegetables from local farmers where practical.”
  - Ex: “Produce from area farmers shall be sold/served where F&B are sold/served.”
Methods: School Surveys

• **Data Source: School practices**
  - Mail-back surveys from principals in 748 public schools located in 455 of the school districts for which wellness policies were obtained
  - Surveys collected during Spring/Summer 2008
  - All data weighted to the % of schools nationwide

• **Survey Question**

  Does your school currently participate in any “Farm to Cafeteria” programs that incorporate or offer locally produced food into meals at school?

  □ No  □ Yes

  - Item response rate=711 public schools (95% of responding public schools)
Analysis Methods

• All analyses conducted using STATA MP v. 10
• Univariate and bivariate analyses
• Multivariate logistic regression models predicting district policy (dichotomized from original variable) and school practice
  – Controlled for state, district and school level factors
• State-district and state-school models clustered on state; district-school models clustered on district
RESULTS
Findings: State FTS-related Laws

FTSP required (n=5 states)
FTSP suggested (n=2 states)
Other law required (n=2 states)
Other law suggested (n=5 states)
Findings--District Level:
Most District Wellness Policies are Silent on FTS

- 6.5% of districts suggested participation in FTSP/sourcing locally grown food
- 0.4% of district required participation in FTSP/sourcing locally grown food
Findings: Factors Associated with District FTS-related Policy
(multivariate models linking state-level data with district-level data)

<table>
<thead>
<tr>
<th>Factor</th>
<th>OR</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Law: FTSP required</td>
<td>1.38</td>
<td>(.35-.52)</td>
<td>ns</td>
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<tr>
<td>% adult overweight (state level)</td>
<td>.31</td>
<td>(.14-.67)</td>
<td>.003**</td>
</tr>
<tr>
<td>% adult obese (state level)</td>
<td>.51</td>
<td>(.38-.69)</td>
<td>.000***</td>
</tr>
<tr>
<td>Majority African American student pop. (district level)</td>
<td>0.15</td>
<td>(0.02, 1.09)</td>
<td>0.06</td>
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</tbody>
</table>

Note: Districts in South also had significantly higher odds of FTS policy than districts in NE, MW, W
Findings--School Level: Most Elementary Schools also Do Not have FTS Programs

- 7.3% of public elementary schools have a FTS program
- 5.7% of private elementary schools have a FTS program
Findings: Factors Associated with Public School FTSP
(multivariate models linking state-level data with school-level data)

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<thead>
<tr>
<th>Factor</th>
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<tbody>
<tr>
<td>State Law: FTSP required</td>
<td>2.57</td>
<td>(1.1, 6.0)</td>
<td>0.03*</td>
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<tr>
<td>% adult overweight in state</td>
<td>0.64</td>
<td>(0.44, 0.95)</td>
<td>0.03*</td>
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<tr>
<td>Proportion FRP participation at school</td>
<td>6.27</td>
<td>(1.41, 27.73)</td>
<td>0.02*</td>
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<tr>
<td>Proportion African American students</td>
<td>0.15</td>
<td>(0.02, 1.09)</td>
<td>0.06</td>
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</table>
Findings: Factors Associated with Public School FTSP
(multivariate models linking district-level data with school-level data)

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<th>Factor</th>
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<td>District FTS policy</td>
<td>2.48</td>
<td>(.94-6.57)</td>
<td>.06+</td>
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<td>Proportion FRP participation at school level</td>
<td>8.83</td>
<td>(1.38-56.4)</td>
<td>.022*</td>
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<tr>
<td>Proportion African American students</td>
<td>.14</td>
<td>(.03-.68)</td>
<td>.015*</td>
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Bivariate Results: 17% of schools with a FTSP are located in a district with a FTS policy; 83% of schools with FTSP are located in a district without a FTS policy; however, once control for school factors, the relationships are more pronounced as noted above)
Conclusions and Implications

• Although few schools participate in FTSP that source locally grown foods, these programs are more common in states that have passed laws that have established FTSP.

• FTSP present a unique opportunity for farmers and schools by creating new marketing outlets for farmers, while improving the school nutrition environment.

• Enacting more FTS state legislation may facilitate increased FTS participation by schools.
www.impacteen.org
www.yesresearch.org
www.monitoringthefuture.org
www.bridgingthegapresearch.org
Appendix: Timeline of FTS legislation

1987 (N=1)
New York
• N.Y. Comp. Codes R. & Regs. Tit. 8, § 114.3

1999 (N=1)
Texas
• Tex. Educ. Code § 44.042

2002 (N=2)
Kentucky

New York
• N.Y. Agric. & Mkts. Law § 16 (5-b)
• N.Y. Educ. Law § 305

2004 (N=1)
New York
• N.Y. Gen. Mun. Law § 103

2005 (N=3)
California
• Cal Ed Code § 49565
Connecticut
• Conn. Gen. Stat. § 4-6aa (C)
Maine
Appendix: Timeline of FTS legislation

2006 (N=7)

California
- Code Regs. Tit. 5, §§ 15566, 15568

Connecticut
- Conn. Gen. Stat. § 22-38d

Maryland
- Md. Code Regs. 21.11.07.08

Massachusetts

Oklahoma
- Okla. Stat. tit. 2, §§ 5-60.1—5-60.6

Pennsylvania

Vermont
- Act 145
Appendix: Timeline of FTS legislation

2007 (N=6)

Iowa
• Iowa Code §§ 190A.1—190A.4

Kentucky

Maryland
• Md. STATE FINANCE AND PROCUREMENT Code Ann. § 14-407 (3)(d)

Rhode Island
• R.I. Gen. Laws § 44-30-27

Vermont
• Vt. Stat. Ann. Tit. 6, §§ 4721—4723
• Act 38

Virginia
• Va. Code Ann. § 3.1-14.4
Appendix: Timeline of FTS legislation
(not included in analysis)

2008 (N=6)

Maryland
- Md. Code Ann. Agric. § 10-1601

Michigan

Oregon
- Ore. Laws 21

Tennessee
- Tenn Code Ann. § 49-6-2303

Virginia
- Va. Code Ann. § 3.2-102(B)(4)

Washington
- Rev. Code Wash. (ARCW) § 15.64.060
- Rev. Code Wash. (ARCW) § A.235.179
- Rev. Code Wash. (ARCW) § 28A.320.185

2009 (N=1)

Vermont
- Act 54
- Act 51
### Pending 2009 Legislation

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<td>Missouri</td>
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Pending 2009 Legislation

Nebraska
• NE L.B. 130

New York
• NY A.B. 4176
• NY S.B. 4153
• NY S.B. 5785

Ohio
• OH H.B. 68

Oregon
• OR H.B. 2800

South Carolina
• SC H.B. 3179

Texas
• TX H.B. 1840
• TX S.B. 1027
• TX S.B. 1089

Washington
• WA S.B. 5890

Wyoming
• WY H.B. 194