



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

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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**
 - Food, Conservation, and Energy Act of 2008, Pub. L. No. 110-246 § 4302.

FTSP Background

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

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.farmentoschool.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

- Ex: “Schools are encouraged to source fresh fruits and vegetables from local farmers where practical.”

- 2=required/definitively in place

- 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

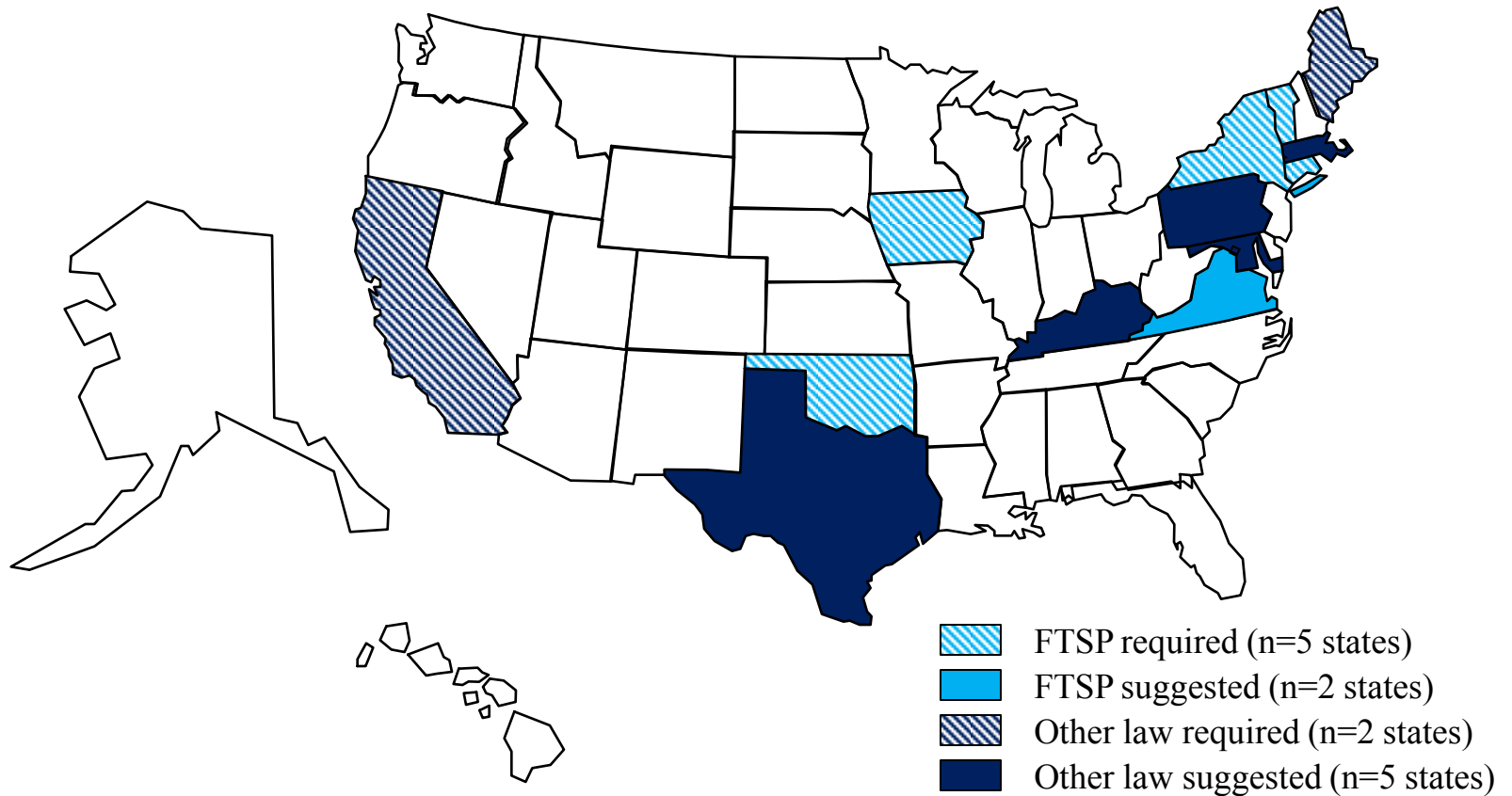
- All analyses conducted using STATA MP v. 10
- Univariate and bivariate analyses
- Multivariate logistic regression models predicting district policy (dichotomized from original variable) and school practice
 - Controlled for state, district and school level factors
- State-district and state-school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



RESULTS



Findings: State FTS-related Laws



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)

Factor	OR	95% CI	P value
State Law: FTSP required	1.38	(.35-5.52)	ns
% adult overweight (state level)	.31	(.14-.67)	.003**
% adult obese (state level)	.51	(.38-.69)	.000***
Majority African American student pop. (district level)	0.15	(0.02, 1.09)	0.06

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)

Factor	OR	95% CI	P value
State Law: FTSP required	2.57	(1.1, 6.0)	0.03*
% adult overweight in state	0.64	(0.44, 0.95)	0.03*
Proportion FRP participation at school level	6.27	(1.41, 27.73)	0.02*
Proportion African American students	0.15	(0.02, 1.09)	0.06

Findings: Factors Associated with Public School FTSP

(multivariate models linking district-level data with school-level data)

Factor	OR	95% CI	P value
District FTS policy	2.48	(.94-6.57)	.06+
Proportion FRP participation at school level	8.83	(1.38-56.4)	.022*
Proportion African American students	.14	(.03-.68)	.015*

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.



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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

- Ky. Rev. Stat. Ann. § 45A.645

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

- Me. Rev. Stat. Ann. 7, § 213

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

- Mass. Ann. Laws. Ch 7, § 23B

Oklahoma

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

Pennsylvania

- 3 Pa. Cons. Stat. §§ 2502—2510

Vermont

- Act 145

Appendix: Timeline of FTS legislation

2007 (N=6)

Iowa

- Iowa Code §§ 190A.1—190A.4

Kentucky

- Ky. Rev. Stat. Ann. § 260.031(2)(d)

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

2008 (N=6)

(not included in analysis)

Maryland

- Md. Code Ann. Agric. § 10-1601

Michigan

- Mich. Comp. Laws Serv. Preceding §§ 388.841—388.844

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

Alaska

- AK H.B. 70

Georgia

- GA H.B. 698
- GA H.B. 847

Hawaii

- HI H.B. 797
- HI H.B. 1416
- HI H.B. 1434
- HI S.B. 507
- HI S.B. 813
- HI H.B. 992
- HI S.B. 1179

Illinois

- IL H.B. 78
- IL H.B. 2521
- IL H.B. 3990

Iowa

- IA S.F. 446

Massachusetts

- MA H.B. 448
- MA H.B. 446
- MA H.B. 2092
- MA S.B. 260

Missouri

- MO H.B. 1080

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