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USDA Snack Food and Beverage Standards: How Big of a Stretch for the States?

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Abstract

Background: The USDA snack food and beverage standards take effect in school year (SY) 2014–2015. Although the USDA standards will provide nationwide requirements, concerns exist about compliance. This study examined whether existing state laws are aligned with the USDA standards to determine whether some states may be better positioned to facilitate compliance.

Methods: Codified state statutory and regulatory laws effective for SY 2012–2013 for each of the 50 states and the District of Columbia were identified through Boolean keyword searches using the Westlaw and LexisNexis databases. Laws were analyzed for alignment with 18 snack food and beverage provisions contained within the USDA standards.

Results: Thirty-eight states had snack food and beverage standards; 33 states' laws exceeded restrictions on foods of minimal nutritional value. Of the 33 states, no states' laws fully met the USDA's standards, 16 states' laws fully met and 10 states' laws partially met at least one USDA provision, and seven states' laws met no USDA provisions. One state's law met 9 of 18 provisions. On average, states met 4 of 18 provisions. States were more likely to meet individual USDA beverage than snack provisions.

Conclusions: Implementation and compliance with the USDA standards may be facilitated in states with laws already containing provisions aligned with the USDA standards and may be more difficult in states with fewer or no provisions in alignment, suggesting possible geographic areas for the USDA to target with technical assistance and training efforts and for advocates to work in to facilitate compliance.

Introduction

The sale of foods and beverages that are high in fats, sugars, calories, and/or sodium in US schools is relatively common.^{1–3} Also known as “competitive foods and beverages” because these items are sold in “competition with” the school meal programs, their sale has primarily been regulated by state and district policies.^{4–6} Before the enactment of the federal Healthy, Hunger-Free Kids Act of 2010 (HHFKA),⁷ the only federal regulation governing what items may be sold outside of meal programs prohibited the sale of foods of minimal nutritional value (FMNV; *i.e.*, carbonated beverages and certain candies) in competition with the meal programs.⁸

With the passage of the HHFKA in December 2010, Congress gave the USDA the authority to regulate the sale of foods and beverages sold outside of meal programs well beyond the FMNV rule.⁷ On June 28, 2013, the USDA issued an interim final rule to provide the first nationwide standards governing the sale of foods and beverages in schools outside of school meal programs, including items sold through à la carte lines in the cafeteria, vending machines, school stores, canteens and snack bars, and in-school

fundraisers on campus during the school day.⁹ Table 1 summarizes the main provisions of the USDA rule.⁹

One of the chief concerns expressed in the public comments submitted in response to the USDA's initial proposed rule related to compliance.⁹ One factor that may facilitate compliance with the USDA standards is whether the state law governing school foods previously contained standards comparable to (if not stronger than) the USDA standard(s). Evidence from one study suggests, for example, that having both state and district policies governing competitive foods and beverages facilitated elementary school compliance by virtue of the reinforcing effect of the policy.¹⁰ Thus, taken a step further, one might expect that compliance with specific USDA standards may be easier in states whose laws were already aligned with or equivalent to the USDA standards. This article seeks to provide baseline information on state law alignment with the USDA standards.

Methods

Codified state statutory and administrative laws for each of the 50 states and the District of Columbia (hereafter referred to collectively as “states”) were compiled using

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Table 1. Summary of USDA Healthy Snack and Beverage Standards Analyzed

Snack items	USDA limit
All snack items must meet the standards in this row <i>and</i> the nutrient standards noted below.	Grain product containing $\geq 50\%$ whole grains by weight or have as first ingredient a whole grain <i>or</i> Have as first ingredient one of the nongrain major food groups: fruits, vegetables, dairy or protein foods (including meat, beans, poultry, seafood, eggs, nuts, and so on) <i>or</i> Be a combination food containing $\frac{1}{4}$ cup of fruit and/or vegetable <i>or</i> Through June 30, 2016, contain 10% of the recommended dietary allowance of a nutrient of public health concern based on the most recent Dietary Guidelines for Americans (e.g., potassium, calcium, fiber, and vitamin D)
Total sugars	$\leq 35\%$ of total <i>weight</i> from sugars Exemptions for dried whole fruits or vegetables, dried whole fruit or vegetable pieces, dehydrated fruits or vegetables with no added nutritive sweeteners; dried fruits with nutritive sweeteners that are required for processing and/or palatability purposes; canned fruit packed in juice or light syrup; and frozen fruit with added sugar not to exceed “light syrup” amount
Fats	$\leq 35\%$ of total <i>calories</i> from fat and $< 10\%$ total calories from saturated fat Exemptions for reduced fat cheese and part-skim mozzarella cheese, nuts, seeds, nut or seed butters, products consisting of only dried fruit with nuts and/or seeds with no additive nutritive sweeteners or fat, and seafood with no added fat
Trans fats	Trans fat free
Sodium—snacks	July 1, 2014–June 30, 2016: ≤ 230 mg July 1, 2016: ≤ 200 mg
Sodium—entrées	≤ 480 mg
Calories	≤ 200 calories per portion as packaged or served for snacks; ≤ 350 calories for entrées
Beverage items	USDA limit
Only plain water, 1%/nonfat milk, 100% juice allowed	ES/MS: only plain water, 1%/nonfat milk, 100% juice allowed HS: other beverages allowed (see below)
Water	Plain water (carbonated or uncarbonated)
Milk fat	1% or nonfat milk or nutritionally equivalent milk alternatives (as permitted by school meal requirements)
Sugars in milk	Flavored milks allowed if nonfat milk
Juice	100% fruit or vegetable juices <i>or</i> 100% fruit or vegetable juices diluted with water or carbonated water
Caffeine	ES/MS: Caffeine free HS: Allowed
Other beverages	HS: Calorie-free, flavored, and/or carbonated water and other calorie-free beverages containing < 5 calories/8-ounce serving (or ≤ 10 calories/20 ounces)—with a maximum of 20 ounces HS: Beverages of no more than 40 calories/8 ounces or 60 calories/12 ounces in no more than 12-ounce servings are also allowed
Beverage portion sizes (except water, which is unlimited)	ES: 8 ounces MS: 12 ounces HS: 12 ounces (qualifying milk, 100% juice)

Source: Adapted from USDA.⁹

ES, elementary school; MS, middle school; HS, high school.

primary legal research methods^{11,12} from subscription-based legal research services, LexisNexis¹³ and Westlaw.¹⁴ Boolean keyword searches and reviews of the indices and/or tables of contents of the codified laws for each state were conducted using the state law databases from each commercial provider. State laws were defined to include the codified laws as well as state standards embedded by reference into the codified law (*e.g.*, the Connecticut Nutrition Standards¹⁵). Laws were deemed relevant if they were effective as of the day after Labor Day 2012, which served as a proxy for the beginning of school year (SY) 2012–2013. Where possible, the existence of state laws was verified against publicly available secondary sources,^{5,6,16–19} which contained information on states with relevant laws (including three sources^{6,16,17} that had similar schemes comparing state laws to other standards, such as the Institute of Medicine standards²⁰), although none of the existing sources coded for the extent to which state laws aligned with the USDA standards as presented herein. Noncodified state policies that were not embedded by reference into codified law (*e.g.*, the Hawaii Department of Education Nutrition Standards²¹) were excluded from the analysis because they are not considered “primary law.”^{22,23}

All relevant state laws were reviewed and verified by two of the study researchers with support provided by additional legal and policy researchers and analysts. All state laws were qualitatively reviewed for each provision identified in Table 1, and states were assigned to one of the following categories for each provision: 0 = no law; 1 = law does not meet USDA standards and only encourages or suggests standards at the state level; 2 = law does not meet USDA standards, but requires standards at the state level; 3 = law partially meets USDA standards; and 4 = law fully meets USDA standards. The level ‘3’ code of partially meets refers to state laws that apply to some, but not all, grade levels (*e.g.*, elementary only) or that apply to some locations (*e.g.*, only applies to à la carte lines and vending machines, but no other locations of sale) or certain times of the day (*e.g.*, only after lunch). The level ‘2’ code of state requirement includes states with required provisions that do not meet USDA standards and, for food items only, states that meet the USDA Standards, but allow for exceptions beyond what the USDA regulations allow (*e.g.*, allowing exceptions to the total sugar requirement of $\leq 35\%$ of total weight from sugars for yogurts, pudding, and so on).

Results

Thirty-eight states had codified laws addressing competitive foods and beverages as of the beginning of SY 2012–2013; five of those states’ laws only regulate foods of minimal nutritional value (FMNV) and are excluded from the remaining discussion. Competitive food and competitive beverage provisions beyond FMNV limits were included in 32 and 31 states’ laws, respectively, for a total of 33 states with some type of codified competitive food and/or beverage law beyond FMNV restrictions.

Eighteen total items contained within the USDA standards were examined for this analysis (10 food/nutrient-

related items and eight beverage-related items; see Table 1 for a list of items). No states’ law met the USDA standards on more than one half of the items. As illustrated by Figure 1, only 16 of the 33 states with codified laws beyond the FMNV provisions contained provisions that met any of the USDA items, with an average of four provisions (and a maximum of nine provisions in Massachusetts).

Supplementary Appendices A and B (see online supplementary material at <http://www.liebertpub.com/chi>) provide state-by-state tables for each provision of interest. Supplementary Appendix A addresses food items, and Supplementary Appendix B addresses beverage items. Notably, no state law fully met the USDA standards because no state law met the minimal requirements for whole grains, fruits, and/or recommended daily allowance of specific nutrients. However, some states did meet individual components of the USDA standards—particularly the beverage standards. Specifically, 14 states’ laws met at least one USDA beverage standard and nine states’ laws met at least one USDA food standard. Additionally, 10 states’ and nine states’ laws partially met the USDA competitive food and beverage standards, respectively, by only applying to certain grade levels, times of the day, and/or locations of sale.

Table 2 summarizes the extent to which the states’ laws fully or partially aligned with specific USDA standards and/or included specific state standards or suggested provisions that did not meet the USDA standards. As indicated in Table 2, 11 states met the USDA standards for 100% juice, nine states met the water requirement, and eight states met the low-fat/nonfat milk requirement; however, only two states limited all beverages to only water, 100% juice, and low-fat/nonfat milks. Additionally, eight states fully met the caffeine requirements and four states met the USDA standards for beverage portion sizes. No state met the USDA standards for other beverages sold in high schools nor did any meet the flavored milk restrictions. In terms of snacks, only five states met the total fat restriction, one met the saturated fat limits, five met the calorie limits, six met the trans fat limits, and only one state met the sodium limits for snack foods.

At the same time, a substantial number of additional states partially met the USDA standards for specific beverage and snack food provisions (see Table 2 and Supplementary Appendices A and B) (see online supplementary material at <http://www.liebertpub.com/chi>). For example, nine states restrict beverages to only water, 100% juice, and low-fat/nonfat milks at the elementary level and, in New Mexico, at the middle school level. Similarly, six states met the USDA fat standards for snacks in elementary and/or middle schools and/or in certain locations (*e.g.*, à la carte, but not vending machines).

Discussion

The public comments submitted in response to the USDA’s proposed rule expressed concern about compliance.⁹

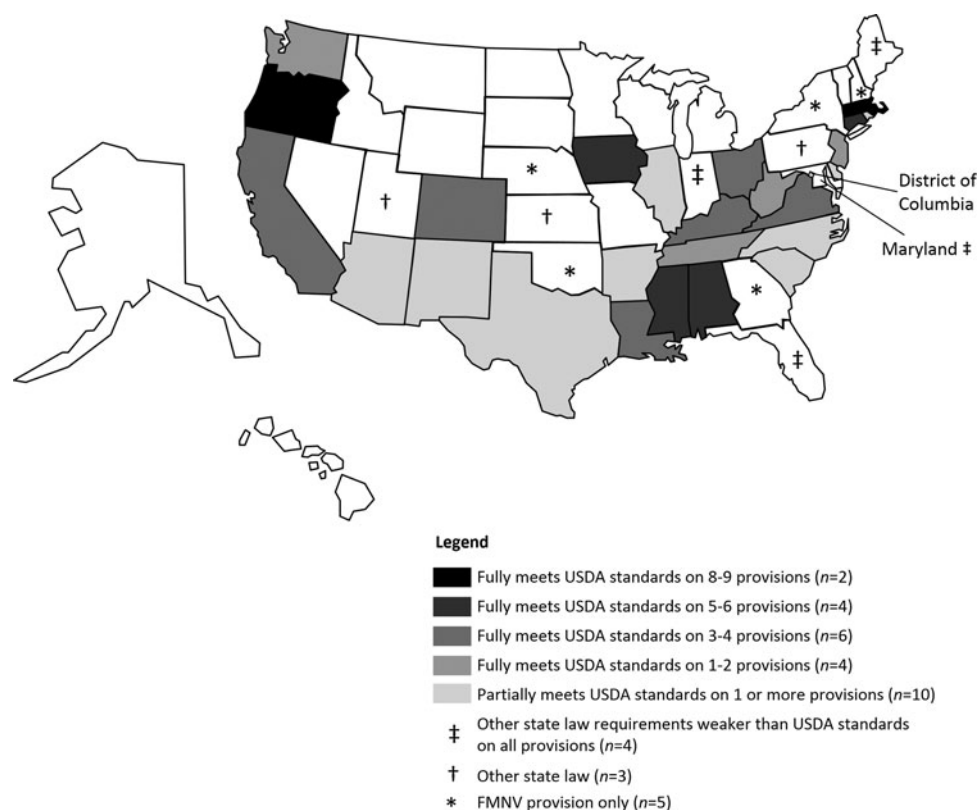


Figure 1. States with codified competitive food and/or beverage law by USDA standards alignment and/or state law status, school year 2012–2013 (maximum provisions = 18; N = 38 states with competitive food and/or beverage laws).

Encouragingly, the information presented herein suggests that a number of states do have provisions in place that will help to facilitate compliance with at least some of the USDA standards. Moreover, given that in-school availability of healthier foods and/or beverages tends to be higher in states (and districts) with stronger laws,²⁴ it is expected that school-level compliance with the USDA standards will therefore be easier in states where such standards already exist. The data from this study indicate that states are better positioned to comply with the USDA beverage standards than the food standards, which, likely, will pose more implementation and compliance challenges until schools have a thorough understanding of the standards and knowing which vendors are able to supply the products that adhere to the standards.

Given that no states' laws fully meet the USDA standards, it will likely take time for schools to come into full compliance because no schools are located in states with laws completely aligned with the USDA standards. However, the implementation challenges will vary. In Massachusetts, for example, the state law aligns with 9 of 18 USDA provisions and has seven other required provisions that are weaker than the USDA's, but could be revised to align completely. Thus, implementation challenges in Massachusetts may be lower than those faced by states with fewer, if any, provisions aligned with the USDA. The data presented herein included 33 states with laws that

went beyond simple restrictions on FMNV sold during meal times. Of the 33 states, 16 states' laws fully met the USDA standards on one or more provisions (with an average of four provisions), 10 states' laws partially met the USDA standards, and seven states' laws did not meet any USDA provisions. Thus, implementation will likely vary greatly across the states, with schools in states with more provisions aligned with the USDA standards expected to have a somewhat easier time complying with at least some of the USDA provisions than schools in states whose law does not meet USDA standards.

The information presented herein sought to provide an objective analysis of on-the-books codified state statutory and administrative laws. It is important to recognize that state Departments and Boards of Education (*e.g.*, Hawaii) also adopt noncodified policies that went beyond the scope of this analysis, but are equally important of which to be aware. Likewise, the study did not seek to assess the extent to which these laws are being implemented in practice; there is a growing body of literature that has been examining such implementation.²⁴ Thus, whereas the study was limited to codified laws (which are considered primary law), additional noncodified policies or policies "in practice" that states are following have not been captured herein because they are not considered primary law.^{22,23} Finally, school districts also have adopted and are implementing nutrition standards of their own.⁴ Previous research suggests that district nutrition standards are, in fact,

Table 2. Summary of State Laws Containing Snack Food and/or Beverage Provisions Included in USDA Standards, School Year 2012–2013

Provision	No. ^a of states with provisions	Fully meets USDA standards	Partially meets USDA standards	State requirement meets USDA standards with exceptions	State requirement weaker than USDA standards	State law suggests/encourages weaker than USDA standards
Snack food items						
Grains	10	0	0	NA	5	5
Fruits and vegetables	14	0	1	NA	9	4
Recommended dietary allowance	7	0	0	NA	5	2
Total sugars	28	4	3	5	11	5
Fats	29	5	6	7	6	5
Saturated fat	25	1	2	1	17	4
Trans fat	23	6	4	NA	9	4
Sodium (snacks)	12	1	2	NA	7	2
Sodium (entrées)	9	3	0	NA	5	1
Calories	19	5	5	NA	5	4
Beverage items						
Only water, 1%/nonfat milk, 100% juice	28	2	9	NA	15	2
Water for sale	28	9	9	NA	8	2
Milk fat	25	8	5	NA	10	2
Sugars in milk	19	0	0	NA	18	1
100% juice	29	11	8	NA	8	2
Caffeine	25	8	12	NA	3	2
Other beverages (HS)	10	0	0	NA	10	0
Beverage portion sizes	25	4	6	NA	13	2

^aN=33 states with relevant laws (five additional states only limit foods of minimal nutritional value and are not reflected in this table).
HS, high school; NA, not applicable.

the weakest element in congressionally mandated school district wellness policies, particularly at the secondary school level⁴; however, schools in districts and/or states with required snack food and beverage provisions are more likely to implement such policies and reduce the availability of unhealthy items.^{10,24} Future research might consider examining the extent to which district policies are aligned with the USDA standards to provide information to local officials as to the additional restrictions that schools will face upon implementation of the USDA standards.

Conclusion

Implementation of the USDA standards is scheduled to commence at the beginning of SY 2014–2015 (fall 2014). Though implementation and compliance likely will not

happen immediately, compliance may be facilitated in areas of the country where policy efforts have preceded the USDA and such policies are already being implemented statewide. This analysis provides important baseline information for the USDA as it develops its training and technical assistance materials to support implementation. Notably, most state laws (and district policies) vary greatly in terms of their applicability at elementary versus secondary school levels^{4,16,17,25}; however, the USDA standards only differentiate by grade level on certain beverage items.⁹ Thus, the USDA will likely need to focus efforts on implementation at the secondary school level where implementation challenges will likely be the greatest and where existing state laws (and district policies) are historically weak. At the same time, the USDA likely will need to direct its attention toward implementation in

more-affluent districts that historically rely more heavily on competitive food and beverage revenues.²⁶ Finally, this analysis also may provide useful information for the school food and nutrition community as it works toward implementation and for advocates interested in identifying areas to target in support of implementation of the federal standards.

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Author Disclosure Statement

No competing financial interests exist.

References

1. Turner LR, Chaloupka FJ. Student access to competitive foods in elementary schools: Trends over time and regional differences. *Arch Pediatr Adolesc Med* 2012;166:164–169.
2. Terry-McElrath YM, Johnston LD, O'Malley PM. Trends in competitive venue beverage availability: Findings from U.S. secondary schools. *Arch Pediatr Adolesc Med* 2012;166:776–778.
3. Johnston LD, O'Malley PM, Terry-McElrath YM, et al. School policies and practices to improve health and prevent obesity: National secondary school survey results: School years 2006–07 through 2010–11, volume 3. Bridging the Gap Program, Survey Research Center, Institute for Social Research: Ann Arbor, MI, 2013. Available at www.bridgingthegapresearch.org/_asset/gqq408/SS_2013_report.pdf Last accessed April 1, 2013.
4. Chriqui JF, Resnick E, Schneider LM, et al. School district wellness policies: Evaluating progress and potential for improving children's health five years after the federal mandate. School Years 2006–07 through 2010–11, volume 3. Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago: Chicago, IL, 2013. Available at www.bridgingthegapresearch.org/research/district_wellness_policies Last accessed February 28, 2013.
5. Trust for America's Health. F as in FAT: How obesity threatens America's future, 2013. Available at <http://healthyamericans.org/reports/obesity2013> Last accessed September 13, 2013.
6. Bridging the Gap. State laws for school snack foods and beverages. Laws for school snack foods and beverages vary widely from state to state. Available at <http://foods.bridgingthegapresearch.org> Last accessed January 31, 2014.
7. 111th Congress. Healthy, Hunger-Free Kids Act of 2010. Public Law 111-296. Available at <http://www.gpo.gov/fdsys/pkg/PLAW-111publ296/pdf/PLAW-111publ296.pdf> Last accessed February 24, 2014.
8. US Government Printing Office. Categories of foods of minimal nutritional value, 7 C.F.R. 210, appendix B. Available at <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=f330419e1f57d392de641e6255936fbc&rgn=div9&view=text&node=7:4.1.1.1.1.6.1.9.2&idno=7> Last accessed January 30, 2014.
9. US Department of Agriculture, Food and Nutrition Service. National School Lunch Program and School Breakfast Program: Nutrition standards for all foods sold in school as required by the Healthy, Hunger-Free Kids Act of 2010: Interim final rule. Fed Regist 2013;78:39068–39120. Available at www.gpo.gov/fdsys/pkg/FR-2013-06-28/pdf/2013-15249.pdf Last accessed April 3, 2014.
10. Chriqui JF, Turner L, Taber DR, et al. District and state policies are contributing to improved U.S. public elementary school competitive food and beverage environments. *JAMA Pediatr* 2013;167:714–722.
11. Mersky RM, Dunn DJ. *Fundamentals of Legal Research*. 8th ed. Foundation Press: New York, NY, 2002.
12. Cohen ML, Olson KC. *Legal Research in a Nutshell*, 6th ed. West Publishing Co.: St. Paul, MN, 1996.
13. LexisNexis. Available at www.lexisnexis.com Last accessed February 26, 2014.
14. Westlaw. Available at www.westlaw.com Last accessed February 26, 2014.
15. Connecticut State Department of Education. Connecticut nutrition standards for food in schools. Available at www.sde.ct.gov/sde/cwp/view.asp?a=2626&q=322422 Last accessed December 13, 2013.
16. Centers for Disease Control and Prevention. Competitive foods and beverages in U.S. Schools: A state policy analysis. US Department of Health and Human Services: Atlanta, GA, 2012. Available at www.cdc.gov/healthyyouth/nutrition/pdf/compfoods-booklet.pdf Last accessed February 17, 2014.
17. National Cancer Institute. Classification of laws associated with school students. School nutrition environment state policy classification system (SNESPCS). Available at <http://class.cancer.gov/download.aspx> Last accessed February 17, 2014.
18. National Conference of State Legislatures. Childhood obesity: Update of legislative policy options. Available at www.ncsl.org/issues-research/health/childhood-obesity-2012.aspx Last accessed February 17, 2014.
19. National Association of State Boards of Education. State school health policy database. Available at http://nasbe.org/healthy_schools/hs/index.php Last accessed February 17, 2014.
20. Institute of Medicine Committee on Nutrition Standards for Foods in Schools. *Nutrition Standards for Food in Schools: Leading the Way Toward Healthier Youth*. The National Academies Press: Washington, DC, 2007.
21. Hawaii Department of Education. Nutrition standards explained. Available at www.hawaiipublicschools.org/TeachingAndLearning/HealthAndNutritionStandards/Pages/ns.aspx Last accessed April 3, 2014.
22. Hilyerd W. Education law researcher: Using the law library: A guide for educators—part I: Untangling the legal system. *J Law Educ* 2004;33:213–224.
23. Hilyerd W. Education law researcher: Using the law library: A guide for educators: Part IV: Secondary sources to the rescue. *J Law Educ* 2005;34:273–292.

24. Chriqui JF, Pickel M, Story M. Influence of school competitive food and beverage policies on obesity, consumption, and availability: A systematic review. *JAMA Pediatr* 2014;168:279–286.
25. Hirschman J, Chriqui JF. School food and nutrition policy, monitoring and evaluation in the USA. *Public Health Nutr* 2012;16: 982–988.
26. Guthrie J, Newman C, Ralston K, et al. Nutrition standards for competitive foods in schools: Implications for foodservice revenues. United States Department of Agriculture, Economic Research Service: Economic information bulletin no. 114, June 2013. Available at www.ers.usda.gov/publications/eib-economic-information-bulletin/eib114.aspx Last accessed February 24, 2014.

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Supplementary Appendix A. Alignment of State^a Codified Laws with USDA Competitive Food Standards, School Year 2012–2013

State ^a	Grains	F & V	RDA	Total sugars	Fats	Saturated fat	Trans fat	Sodium (snacks)	Sodium (entrées)	Calories	No. of provisions by USDA/ state law alignment (N=10)				
											M	MP	SR	SE	No policy
Alabama	SE	SR	SR	SR	SR			SR			0	0	5	1	4
Arizona			SR	SR*	MP	SR	SR	SR	SR	SR	0	1	7 ^b	0	2
Arkansas		SR			SR		SR				0	0	3	0	7
California	SR	SR		M	MP	SR	M			MP	2	2	3	0	3
Colorado		SE					SE				0	0	0	2	8
Connecticut	SR	SR	SE	SR*	M	M	M	SR	M	MP	4	1	4 ^b	1	0
Delaware							MP				0	1	0	0	9
District of Columbia				MP	MP	MP	MP	SR	SR	MP	0	5	2	0	3
Illinois		MP		SR*	SR*	SR				SR	0	1	4 ^b	0	5
Indiana				SR	SR	SR	SR				0	0	4	0	6
Iowa	SR	SR		SR	M	SR	M	SR	SR	M	3	0	6	0	1
Kansas				SE	SE					SE	0	0	0	3	7
Kentucky				M	M	SR		SR	SR		2	0	3	0	5
Louisiana				SR	MP					MP	0	2	1	0	7
Maine			SR								0	0	1	0	9
Maryland				SE	SE	SE					0	0	0	3	7
Massachusetts	SR	SR		SR	M	SR	M	M	M	M	5	0	4	0	1
Mississippi	SE	SR	SR	SR*	SR*	SR	SR			M	1	0	6 ^b	1	2
New Jersey				SR	SR	SR	SR				0	0	4	0	6
New Mexico				SR	SR	SR	SR			SR	0	0	5	0	5
North Carolina	SE	SE		SR	MP	SR	SR			SR	0	1	4	2	3
Ohio			SE	SE	SE	SE	SE	SE	SE	SE	0	0	0	8	2
Oregon				M	SR*	SR	M			M	3	0	2 ^b	0	5
Pennsylvania	SE	SE		SE	SE	SE	SE			SE	0	0	0	7	3
Rhode Island	SR	SR		SR	SR*	SR	MP			SR	0	1	6 ^b	0	3
South Carolina				MP	SR*	SR*	SR				0	1	3 ^b	0	6
Tennessee				MP	MP	SR		MP	SR		0	3	2	0	5

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Supplementary Appendix A. Alignment of State^a Codified Laws with USDA Competitive Food Standards, School Year 2012–2013 *continued*

State ^a	Grains	F & V	RDA	Total sugars	Fats	Saturated fat	Trans fat	Sodium (snacks)	Sodium (entrées)	Calories	No. of provisions by USDA/ state law alignment (N=10)				No policy
											M	MP	SR	SE	
Texas		SR		SR	SR	SR	SR				0	0	5	0	5
Utah				SE	SE	SE	SE	SE		SE	0	0	0	6	4
Virginia			SR	SR*	M	SR	M	SR	M	M	4	0	4 ^b	0	2
Washington				M	SR*	SR					1	0	2 ^b	0	7
West Virginia	SE	SE		SR	SR*	MP	MP	MP		MP	0	4	2 ^b	2	2
Totals	10	14	7	28	29	25	23	12	9	19					
M	0	0	0	4	5	1	6	1	3	5					
MP	0	1	0	3	6	2	4	2	0	5					
SR	5	9	5	11	6	17	9	7	5	5					
SR*	NA	NA	NA	5	7	1	NA	NA	NA	NA					
SE	5	4	2	5	5	4	4	2	1	4					

^aOnly includes states with codified statutory and administrative (regulatory) competitive food laws (N=32 states). An additional five states' laws only regulate foods of minimal nutritional value and are excluded from the table and all computations: Georgia, Nebraska, New Hampshire, New York, and Oklahoma.

^bAt least one of the state requirements would meet or partially meet the USDA Standards, but allows extra exceptions beyond USDA standards.

F&V, fruits and vegetables; RDA, recommended dietary allowance; M, fully meets USDA standards; MP, partially meets USDA standards based on grade/location restrictions; SR*, other state requirement would meet or partially meet USDA standards, but allows extra exceptions; SR, other state requirement weaker than USDA standards; SE, other state law encouraged or suggested weaker than USDA standards; NA, not applicable.

Supplementary Appendix B. Alignment of State^a Codified Laws with USDA Competitive Beverage Standards, School Year 2012–2013

State ^a	Only water, 1%/Skim milk, 100% juice	Water for sale	Milk fat	Sugars in milk	100% juice	Caffeine	Other beverages (HS)	Beverage portion sizes	No. of provisions by USDA/state law alignment (N=8)				
									M	MP	SR	SE	No policy
Alabama	M	M	M	SR	M	M	SR	M	6	0	2	0	0
Arizona	MP	SR	SR	SR	MP	MP		MP	0	4	3	0	1
Arkansas	SR	MP	MP	SR	MP	SR		SR	0	3	4	0	1
California	SR	M	SR	SR	SR	MP			1	1	4	0	2
Colorado	MP	M	M	SR	M	MP	SR	M	4	2	2	0	0
Connecticut	SR	SR		SR	M	M	SR	MP	2	1	4	0	1
District of Columbia	MP	MP	MP		MP	MP		MP	0	6	0	0	2
Florida					SR				0	0	1	0	7
Illinois	SR	MP	SR	SR	SR				0	1	4	0	3
Indiana	SR	SR	SR		SR	SR		SR	0	0	6	0	2
Iowa	MP	M	M	SR	M	MP			3	2	1	0	2
Kansas	SE	SE	SE		SE	SE			0	0	0	5	3
Kentucky	SR	SR	M	SR	M		SR	SR	2	0	5	0	1
Louisiana	SR	MP	M	SR	M	M	SR	SR	3	1	4	0	0
Maryland	SR	SR		SR	SR		SR	SR	0	0	6	0	2
Massachusetts	SR	SR	M	SR	M	M		M	4	0	3	0	1
Mississippi	MP	M	M	SR	M	MP	SR	M	4	2	2	0	0
New Jersey	MP	M	SR		M	MP		SR	2	2	2	0	2
New Mexico	MP	MP	SR		MP	MP		SR	0	4	2	0	2
North Carolina	SR	MP	MP		SR	MP		SR	0	3	3	0	2
Ohio	SR	M			M	M	SR	SR	3	0	3	0	2
Oregon	M	M	M	SR	M	M	SR	MP	5	1	2	0	0
Pennsylvania	SE	SE	SE	SE	SE	SE		SE	0	0	0	7	1
Rhode Island	MP	SR	MP	SR	MP	MP		MP	0	5	2	0	1
South Carolina	MP	MP	SR		MP	MP		SR	0	4	2	0	2
Tennessee	SR	MP	SR		MP	M		MP	1	3	2	0	2
Texas	SR	MP	SR	SR	MP	MP	SR	SR	0	3	5	0	0

continued on page 4

continued on page 4

Supplementary Appendix B. Alignment of State^a Codified Laws with USDA Competitive Beverage Standards, School Year 2012–2013 *continued*

State ^a	Only water, 1%Skim milk, 100% juice	Water for sale	Milk fat	Sugars in milk	100% juice	Caffeine	Other beverages (HS)	Beverage portion sizes	No. of provisions by USDA/state law alignment (N=8)				
									M	MP	SR	SE	No policy
Utah								SE	0	0	0	1	7
Virginia	SR	SR	SR	SR	SR	SR		SR	0	0	7	0	1
Washington				SR					0	0	1	0	7
West Virginia	SR	M	MP		SR	M		SR	2	1	3	0	2
Totals	28	28	25	19	29	25	10	25					
M	2	9	8	0	11	8	0	4					
MP	9	9	5	0	8	12	0	6					
SR	15	8	10	18	8	3	10	13					
SE	2	2	2	1	2	2	0	2					

^aOnly includes states with codified statutory or administrative (regulatory) competitive beverage laws (N=31 states). An additional five states' laws only regulate foods of minimal nutritional value and are excluded from the table and all computations: Georgia, Nebraska, New Hampshire, New York, and Oklahoma.

M, fully meets USDA standards; MP, partially meets USDA standards based on grade/location restrictions; SR, other state requirement weaker than USDA standards; SE, other state law encouraged or suggested weaker than USDA standards.