Achieving a State of Healthy Weight:

2013 Update

April 2014

National Resource Center for Health and Safety in Child Care and Early Education

National Resource Center for Health and Safety in Child Care and Early Education

University of Colorado Anschutz Medical Campus

Suggested citation: National Resource Center for Health and Safety in Child Care and Early Education. 2014. Achieving a state of healthy weight: 2013 update. Aurora, CO: University of Colorado Denver.

This project was supported by Grant Number U46MC09810 from the U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau.

The National Resource Center for Health and Safety in Child Care and Early Education (NRC) is a program of the Healthy Child Care America (HCCA) Cooperative Agreement Program, funded by the Maternal and Child Health Bureau (MCHB), Health Resources and Services Administration, U.S. Department of Health and Human Services. The NRC is operated by the College of Nursing of the University of Colorado, Anschutz Medical Campus, Aurora, Colorado.

Note: The *ASHW 2013 Supplement* (May 2014) contains additional details and state-specific information.

ACKNOWLEDGMENTS

NRC Director
Marilyn J. Krajicek, EdD, RN, FAAN

Research Associate and NRC Evaluator
Geraldine Steinke, PhD

2013 Healthy Weight Project Manager
Betty Geer, DNP, RN, CPNP

Rating Team
Linda Satkowiak, ND, RN
Caitlin Trucksess, BA
Lorina Washington, BA

Information Technologists
Doug Chapman, BS
Kent Hogue, MA

MCHB Project Officer
Barbara U. Hamilton, MA

Achieving a State of Healthy Weight: 2013 Update

ASHW 2013

Table of Contents

ASHW 2013 **findings are displayed in 4 sections as designated above. Click on the arrow to go directly to any section. An Appendix appears at the end of the report.**

National Resource Center for Health and Safety in Child Care and Early Education

Supported by MCHB Grant Number U46MC09810

College of Nursing
UNIVERSITY OF COLORADO
ANSCHUTZ MEDICAL CAMPUS

INTRODUCTION

Early care and education (ECE) programs have the potential to contribute to attainment of the national goal of stemming childhood obesity. The states may guide ECE providers toward this goal by establishing in their childcare licensing regulations clear expectations about the practices that further children's achievement and maintenance of healthy weight status.

In 2010, as early childhood obesity was an increasing focus of national attention, the Maternal and Child Health Bureau (MCHB) funded the National Resource Center for Health and Safety in Child Care and Early Education (NRC) to conduct an assessment of obesity prevention content in all states' child care licensing regulations for: child care centers, large or group family child care homes, and small family child care homes. Regulations were assessed for text consistent with best practices. The practices were drawn from selected standards in *Caring for Our Children*: *National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Ed. (CFOC3).* More specifically, the standards were those included in the CFOC-based topical collection, *Preventing Childhood Obesity in Early Care and Early Education: Selected Standards from Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, 3rd Edition* (*PCO2*).[1] The detailed report of the study methodology and findings was published by the NRC as *Achieving a State of Healthy Weight: A National Assessment of Obesity Prevention Terminology in Child Care Regulations 2010,* or *ASHW 2010*.[2]

ASHW 2010 is the baseline study against which each state's newly introduced or revised regulations may be compared to identify improvements or declines in obesity prevention practices that states require of licensed childcare programs. National reassessments that examined new and revised regulations followed for 2011 and 2012. Each ASHW study examines 47 practices (the ASHW variables) that were identified by the NRC's Healthy Weight Advisory Committee as high in impact upon childhood obesity if fully implemented in early care settings.[3] The variables are grouped into practices in three domains: Nutrition, Infant Feeding, and Physical Activity/Screen time. (See the Appendix, Source of ASHW Variables in *PCO2/CFOC3* Standards.) The NRC scaled each of the 47 variables, with instructions specific to the content of each healthy weight practice, to promote reliable ratings. The scales help raters determine whether pertinent regulatory text is:

- fully consistent with the recommended practice, *rating = 4*
- partially consistent with the recommended practice, *rating = 3*
- absent (no relevant content), *rating =2*
- conflicting with the recommended practice, *rating =1*[4]

Previous Assessments

In 2010, and subsequently in 2011 (when only Arizona, Arkansas, and North Dakota made pertinent regulatory changes), ASHW findings revealed that child care licensing regulations overall did little to support implementation of healthy weight practices, especially for physical activity and screen time healthy weight practices.

- 51% of the ratings performed on states' child care regulations indicated that no, or insufficient, obesity prevention terminology was identified.
- Only 13% of ratings indicated language fully consistent with high impact healthy weight practices.
- No one type of child care assessed—center-based care, large or group family homes, or small family child care homes—was substantially better regulated in terms of obesity prevention.
- States that led the nation were Delaware and Mississippi.

In 2012, 12 states had new or revised regulatory language related to one or more of the 47 variables: California, Colorado, Florida, Iowa, Kansas, Maryland, Nevada, New Mexico, North Carolina, Texas, Washington, and Wyoming. Document ratings revealed that:

- All 12 states made some improvements, although changes within states were few.
  - 89% of the changes strengthened obesity prevention practices in licensing regulations
  - 11% weakened them
- Washington, North Carolina, Nevada, Wyoming, and Iowa made the greatest numbers of positive changes.

2012 data also included improvements to ratings that accrue to those states that require licensed child care programs to follow the Meal Patterns of the USDA Food and Nutrition Services, Child and Adult Care Food Program (CACFP), which subsidizes programs that serve nutritious meals to low income individuals. Adherence to the CACFP Meal Patterns is a *CFOC3* recommendation that the NRC Healthy Weight Advisors rated high in impact upon obesity prevention. Consequently, the NRC rated the Meal Patterns on the ASHW nutrition and infant feeding variables. States that require adherence to the Meal Patterns receive the ratings assigned to CACFP, although additional state-specific text may raise or lower the ratings from those assigned to the Meal Patterns. In 2012, two healthy weight practices were affected by CACFP changes that yielded higher ratings, and were consequently assigned to eligible states (those that regulate adherence to the CACFP guidance for licensed childcare):

- 30 states received higher ratings for the practice *Serve 1% or skim milk to children 2 and older*

- 25 states received higher ratings for the practice *Make water available both inside and outside*

ASHW 2012 reflected the improved ratings resulting from the CACFP changes above. In addition, the report included changes that were identified in 2012 in newly enacted and revised documents produced by the 12 states. Together these two sources affected some changes in relative rankings of states, such that:

- Seven states' regulations fully supported more than 20% of the healthy weight practices consistently across all three child care types (in 2010, Mississippi, Delaware, Florida, and South Dakota—joined in 2012 by North Carolina, Alaska and North Dakota)
- Five states at least partially supported 70% of the practices in at least one child care type (Arizona, Delaware, Washington, Mississippi, and Virginia)

Nationally, as a result of CACFP changes and state-level document changes, NRC identified the first small, but positive, improvements in the regulatory landscape. The percentage of ratings indicating no pertinent content dropped slightly, from 51% (2010 and 2011) to 49% (2012). As in prior years, however, there was little improvement in the Physical Activity/Screen Time domain. Thus, as 2013 began, childcare regulations remained an under-developed resource for promoting healthy weight practices in ECE.

Changes for 2013

For *ASHW 2013*, NRC followed the same methodology as used in the preceding assessments. However, two important changes affected the findings and the way they are reported.

First, as described above, some states earn ratings for nutrition and infant feeding practices associated with the *CFOC3*-recommended CACFP Meal Patterns. Similarly in 2010, NRC rated the MyPyramid food guidance (an Appendix in the first edition of *PCO*), the successor to the long-lived Food Pyramid icon. MyPyramid included both nutrition and selected physical activity information aimed at the population of children, age two years and older, through adulthood. NRC rated MyPyramid for its content on healthy weight practices. Two states, Florida and South Dakota, require adherence to MyPyramid, referring child caregivers to the icon. However, MyPyramid did not have the longevity of the earlier Food Pyramid and was retired by the USDA in 2011. The two states have not altered their regulations to address the void in the ensuing years. For the 2013 ASHW study, the baseline scores for Florida and South Dakota have been lowered to reflect the absence of content on the variables formerly associated with MyPyramid, affecting states rankings nationally.

Second, to provide a full account of ASHW findings, the NRC previously used a variety of mechanisms for data reporting about the nation as a whole, the states individually, and their comparative standing, as well as the treatment nationally of the healthy weight practices, captured in the study variables. The result was a dense report with a proliferation of tables and detailed descriptions. For example, as so few states have regulations that fully support many of the healthy weight practices, NRC highlighted the few leaders in high ratings (ratings = 4), but also acknowledged states that were progressing by at least partially supporting the practices (sum of *ratings = 4* plus *ratings = 3*). For *ASHW 2013*, the NRC is introducing a summary scoring mechanism, a weighted score used for both states and for variables, which more readily facilitates comparisons. The measure is the Childcare Obesity Prevention Regulation Score, or COPR Score. (Computation of the COPR Score is elaborated below in the Method section.)

METHOD

The study methodology, as developed in 2010 and used in *ASHW 2013*, includes the following essential steps:

1. Identification of new and revised documents. Documents are identified through phone/email contact with all states' licensing agencies and monitoring of states' childcare licensing websites.
2. Screening of documents for content pertinent to obesity prevention. New documents were screened for key search terms related to the study variables. Revised documents were compared with the version examined for *ASHW 2010*, using Adobe® Acrobat® X Pro. Revised documents then were searched for terminology related to healthy weight practices, using advanced Boolean search methods in Adobe® Reader® X.
3. Training of raters for high inter-rater reliability. In 2013, raters achieved extremely high inter-rater reliability ($r_s > .94$, $p < .00001$).
4. Rating of pertinent documents and data entry. Two raters independently rated each document on the 47 ASHW variables and entered ratings into NRC's ASHW database (in Microsoft ACCESS).
5. Resolution of discrepant ratings. State text upon which ratings were based was reviewed by the raters with the NRC Evaluator to resolve differences in assigned values.
6. Establishment of "final ratings." A single score for each variable was assigned in cases where multiple documents regulate a given care type in a state (see *ASHW 2010*).
7. Data analysis and exportation to Excel (for further analysis and generation of charts and graphics).

Calculation of Childcare Obesity Prevention Regulation Scores (COPR Scores)

In this report, Step 7 (above) included calculation of the COPR Score to facilitate various comparisons reported

in the assessment. COPR Scores are weighted summary scores of the strength of regulatory language across all child care types states choose to regulate. COPR Scores were computed: nationally (all states cumulatively), for each state individually, and for each variable nationally. The equation for calculation of COPR Scores is based on the assumptions in the table below.

COPR Scores are the sum of weighted ratings of regulations that either strengthen or weaken rules about healthy weight practices. In the formula, there is no reference to *ratings = 2*. ASHW ratings that equal "2" indicate that no content was found to contribute positively or negatively to the strength of the regulations, so they are weighted "0." No matter how large or small the proportion of *ratings = 2* in the total number of ratings, when multiplied by the weight of "0, they always contribute "0" to the sum.

The possible range of COPR Score values is -1 to +2. Were a state's licensing regulations to contradict all 47 healthy weight practices, 100% of the ASHW *ratings = 1*. When entered into the COPR Score formula, the outcome would be a score of "-1." In contrast, were a state's regulations fully consistent with healthy weight practices, 100% of ASHW *ratings = 4*, yielding a COPR score of "2." Similarly, for variables, if a given healthy weight practice was rated "4" in every state, the outcome would be a COPR Score of "2." Therefore, *a COPR Score = 2 is the goal for maximizing the capacity of ECE as a resource to support children's healthy weight*.

Using the formula below, COPR Scores are calculated to assess the strength of:

- The national body of childcare regulations (i.e., the states cumulatively);
- Each state's body of childcare regulations;
- Each ASHW variable (i.e., each healthy weight practice) across all states' rules that pertain to the variable.

Assumptions in Computation of COPR Scores

- ASHW ratings = 1 (regulations that conflict with the healthy weight practices) are weighted "-1" to express their reduction of the strength of regulations
- ASHW ratings = 2 (no relevant content) are weighted "0" as they do not contribute to the strength of ratings
- ASHW ratings = 3 (partially consistent with the healthy weight practices) are weighted ("+1), as they strengthen regulations somewhat
- ASHW ratings = 4 (fully consistent with the healthy weight practices) are weighted "+2", as they strengthen regulations substantially

The COPR Scores are calculated by applying the following formula:

$$\boldsymbol{COPR\ Score} = \left(\frac{No.ratings = 1}{Total\ no.ratings} \times -1\right) + \left(\frac{No.ratings = 3}{Total\ no.ratings} \times 1\right) + \left(\frac{No.ratings = 4}{Total\ no.ratings} \times 2\right)$$

NOTES:

[1] NRC co-publishes both CFOC3 and PCO2 with American Academy of Pediatrics, American Public Health Association:
American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. 2011. *Caring for our children: National health and safety performance standards; Guidelines for early care and education programs*. 3rd edition. Elk Grove Village, IL: American Academy of Pediatrics; Washington, DC: American Public Health Association. Also available @ http://nrckids.org.

American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education. 2012. *Preventing childhood obesity in early care and education: Selected standards from caring for our children: National health and safety performance standards; Guidelines for early care and education programs,* 3rd Edition. http://nrckids.org/CFOC3/PDFVersion/preventing_obesity.pdf

[2] National Resource Center for Health and Safety in Child Care and Early Education. 2011. *Achieving a state of healthy weight: A national assessment of obesity prevention terminology in child care regulations 2010*. Aurora, CO. http://nrckids.org/default/assets/File/regulations_report_2010.pdf
National Resource Center for Health and Safety in Child Care and Early Education. 2012. *Achieving a state of healthy weight: 2011 update*. Aurora, CO: University of Colorado Denver. http://nrckids.org/default/assets/File/ASHW%202011-Final-8-1.pdf
National Resource Center for Health and Safety in Child Care and Early Education. 2013. *Achieving a state of healthy weight: 2012 update*. Aurora, CO: University of Colorado Denver. http://nrckids.org/default/assets/File/ASHW%202012%20Final%20Report%209-18-13%20reduced%20size.pdf

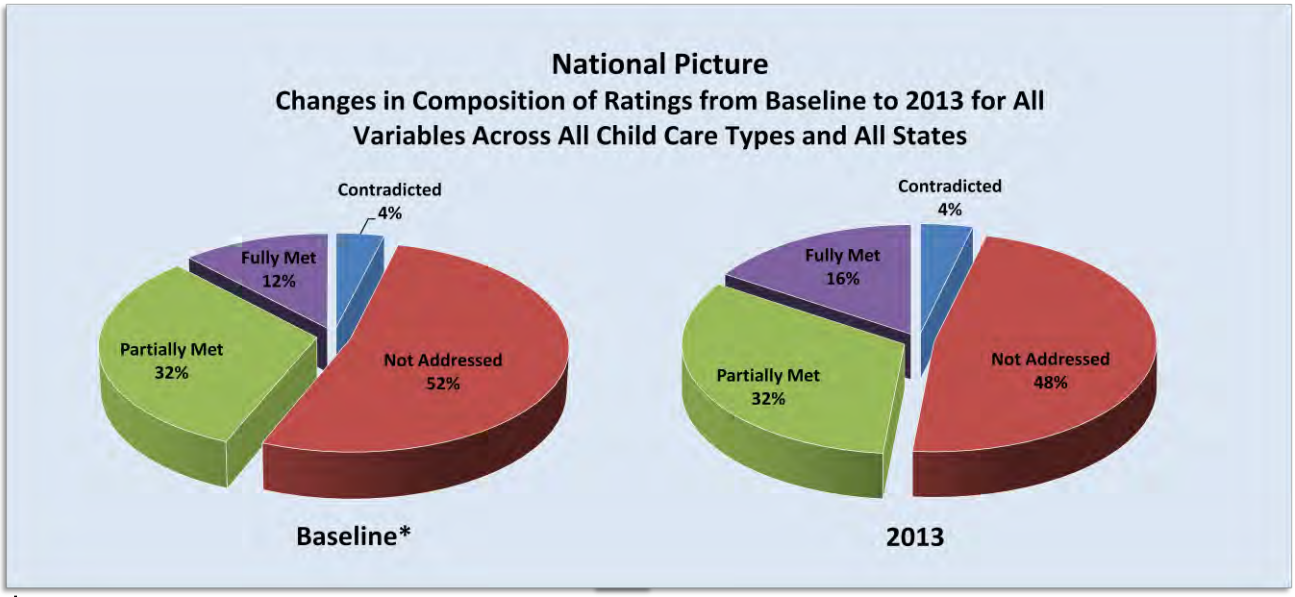
[3] In July 2010, the NRC Healthy Weight Advisory Meeting was convened in Aurora, Colorado, supported by the DHHS, Maternal and Child Health Bureau (MCHB) and the Administration for Children and Families, Child Care Bureau (CCB, now Office of Child Care) to inform plans for use of the healthy weight recommendations in *Preventing Childhood Obesity (PCO).* Advisors were selected in collaboration with MCHB and CCB officers to include experts in a range of health and academic disciplines, government agencies, and professional organizations, as well as child care providers and licensing professionals (see *ASHW 2010* for the list of Advisors). A goal of the meeting was to identify *PCO/CFOC* standards most likely to have a direct impact on obesity in child care. NRC staff extracted 275 healthy weight practices from the 49 *PCO/CFOC* standards so that their independent contributions to obesity prevention could be evaluated. The advisors' ratings of the practices helped inform selection of ASHW variables, as described in *ASHW 2010*.

[4] The complete set of ASHW rating scales and instructions are available at the NRC website: National Resource Center for Health and Safety in Child Care and Early Education. 2013. *Achieving a state of healthy weight rating scales: Supporting obesity prevention language in child care licensing regulations.* Aurora, CO: University of Colorado, Anschutz Medical Campus. http://nrckids.org/default/assets/File/ASHW%20Rating%20Scales%20final.pdf

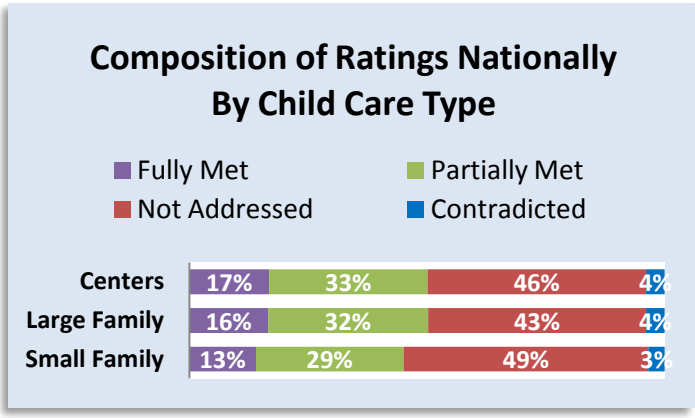
Regulations that fully support healthy weight practices increased by 4% (2010 vs. 2013)

National Results

(total pool of ratings of regulations across all states and all of their regulated child care types)



*Baseline reflects adjusted ratings due to retirement of MyPyramid for FL and SD.

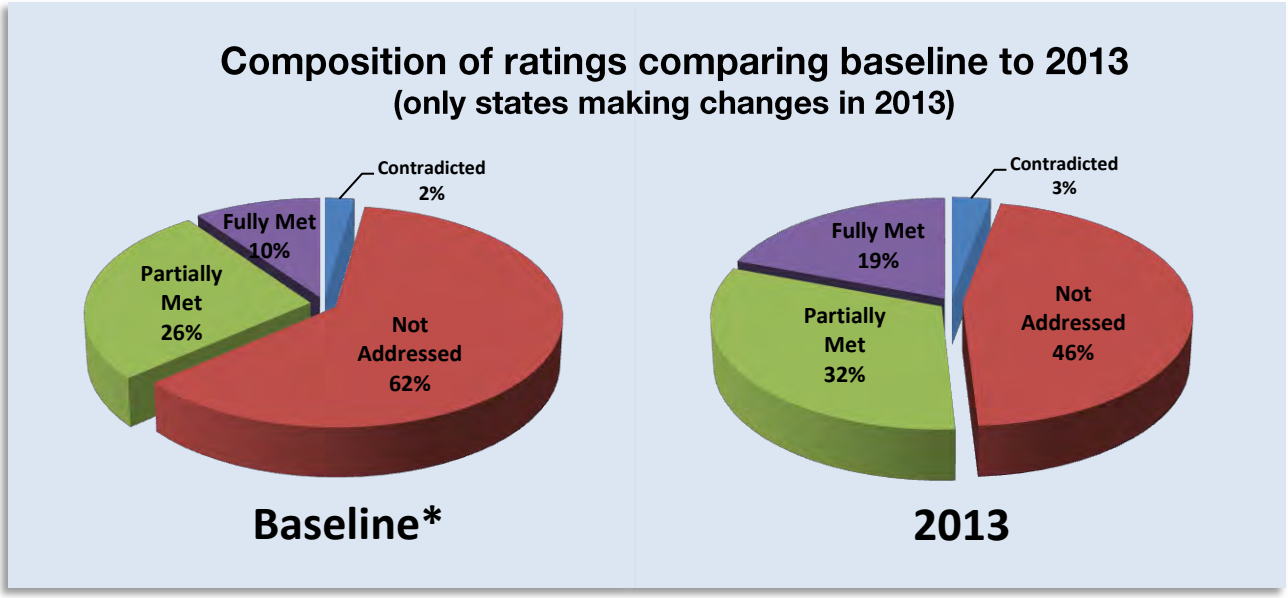


Only small differences in regulation of healthy weight practices are observed among the 3 child care types

2013 Changes

(specific to states that made changes in 2013)

14% overall Improvement was seen across states that made changes in 2013



*Baseline reflects adjusted ratings due to retirement of MyPyramid in FL.

States that made rule changes affecting healthy weight practices in 2013:

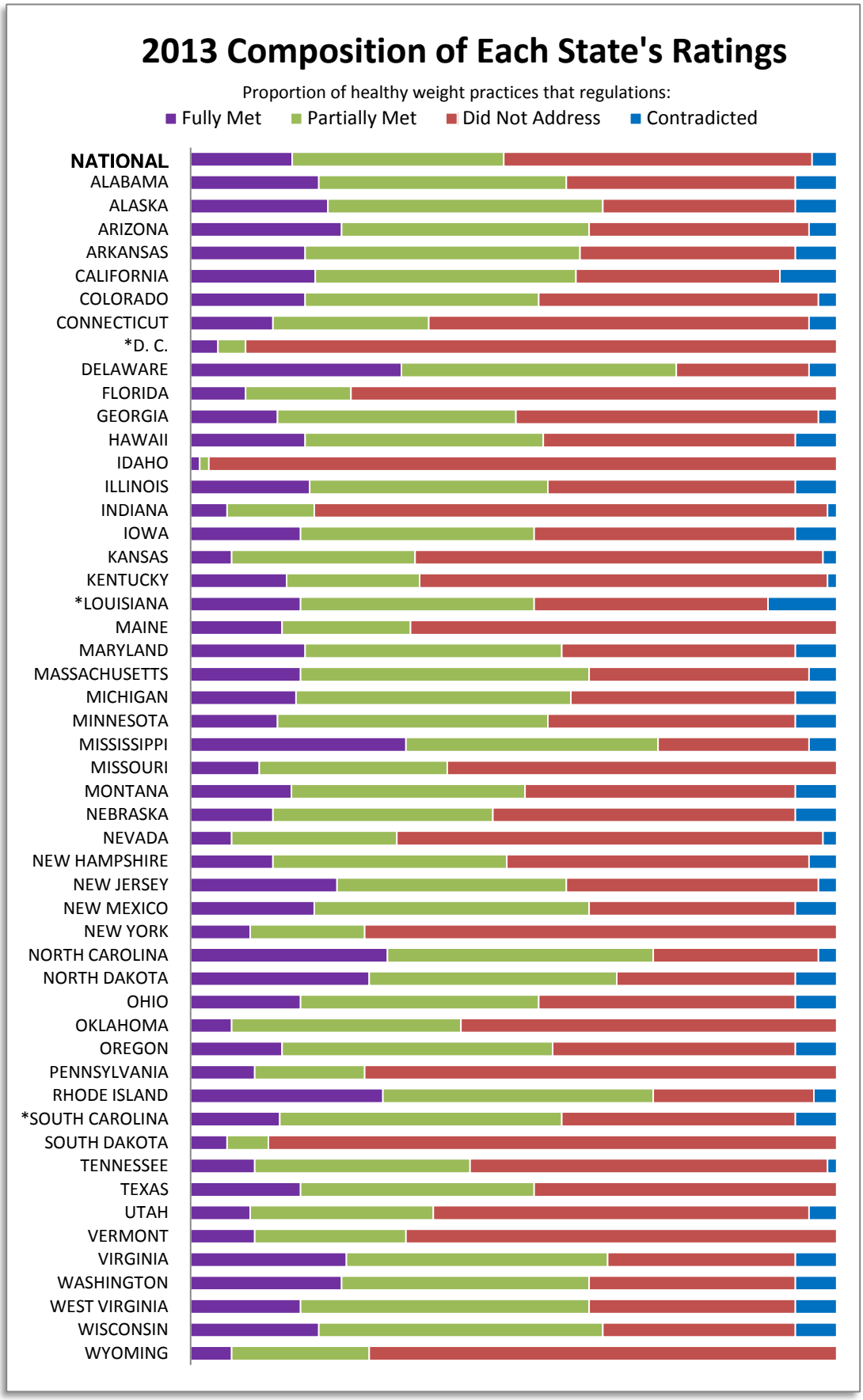
FLORIDA	NEW JERSEY
KANSAS	NORTH CAROLINA
KENTUCKY	NORTH DAKOTA
MISSISSIPPI	RHODE ISLAND
NEBRASKA	WYOMING

2013 At-A-Glance

This table shows where practice rules were improved or lowered in states that made changes in 2013.

LEGEND:
+ Improved Rating
- Lowered Rating
Fully Met (Rating=4)
CACFP required for some types
CACFP required for all types
Top Performer

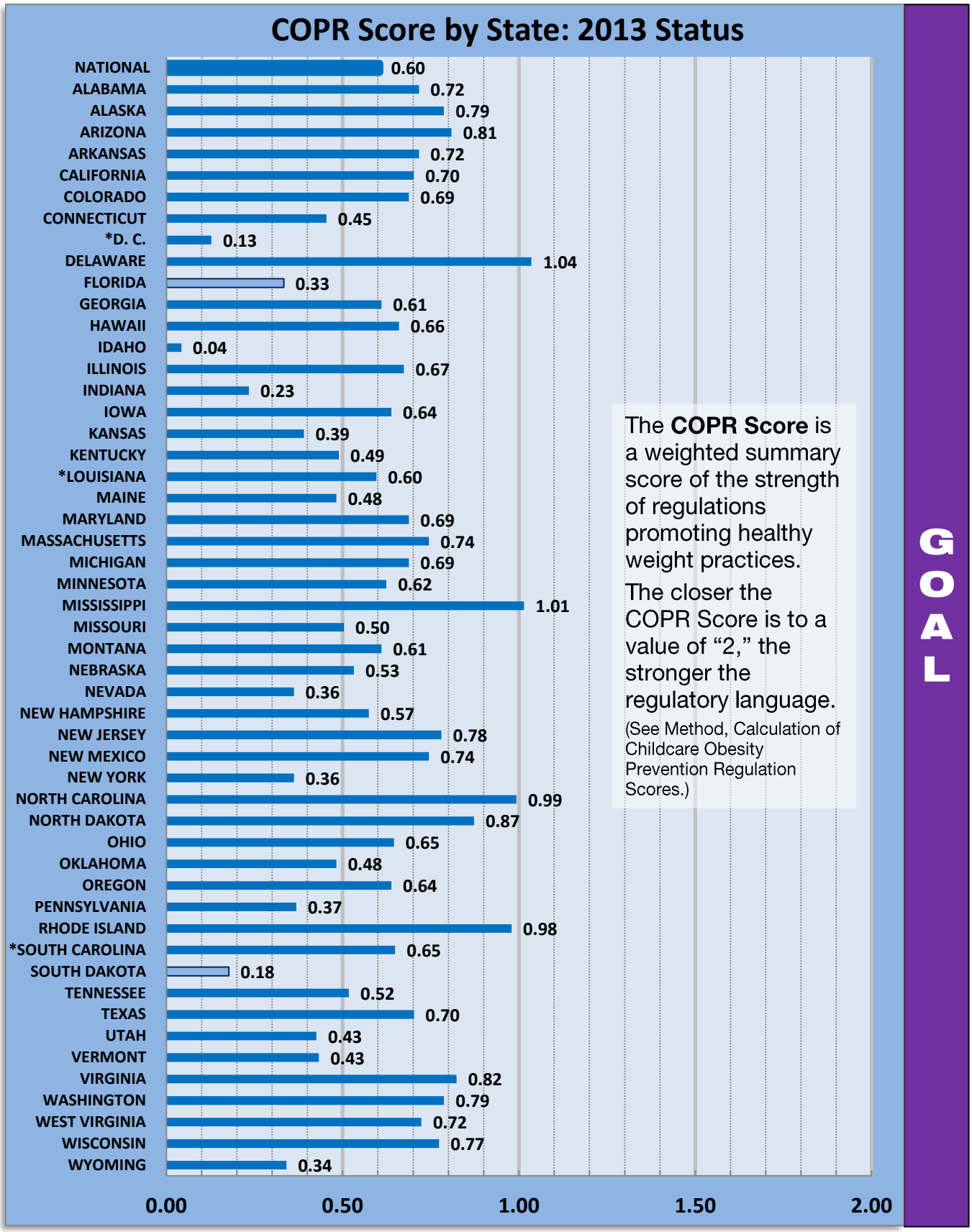
Variable	Description	FLORIDA			KANSAS			KENTUCKY			MISSISSIPPI			NEBRASKA			NEW JERSEY			NORTH CAROLINA			NORTH DAKOTA			RHODE ISLAND			WYOMING			Totals		
		C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	C	L	S	+	-	4s
IA1	Support breastfeeding				+	+									+	+	+	+									+						7	0	5
IA2	No cow's milk < 1yr							+	+						+	+	+	+							-	+	+						8	1	18
IB1	Feed infants on cue														+	+										+	+						4	0	20
IB2	Stop feed @ satiety				+	+									+	+	+	+			+	+	+	+	+	+	+						12	0	12
IB3	Hold infant to feed	+																						+						+	+	+	5	0	6
IC1	Plan solid introduction																+	+							+								3	0	2
IC2	Intro solids @ 4-6 mo	+													+	+	+	+					+	+	+	+							9	0	5
IC3	Iron-Fort @ 4-6 mo														+	+	+	+							+	+							6	0	1
ID1	Don't mix formula																						+	+	+								3	0	3
ID2	Whole fruit 7 m-1 yr														-	-	-	-							-	-							0	6	0
ID3	No juice < 12 mo														-	-	-	-			+	+			-	+							3	5	1
NA1	Limit oils/fats																+	+							+								3	0	3
NA2	Low fat meat/proteins																								+	+							2	0	3
NA3	Low fat milk equivalents														+	+	+	+							+	+							6	0	3
NA4	Whole milk 1-2 y/o							+	+								+	+		+	+	+				+							8	0	2
NA5	Low fat milk > 2 y/o				+	+	+	+	+					+			+	+		+	+	+	+	+	+	+	+	+					17	0	20
NB1	Whole grains							+	+						+	+	+	+							+	+							8	0	5
NB2	Variety of vegetables																+	+							+	+							4	0	5
NB3	Variety of whole fruit																+	+							+	+							4	0	5
NC1	100% juice														+	+	+	+							+	+							6	0	20
NC2	Juice only @ meals																+	+															2	0	2
NC3	Juice 4-6 oz. 1-6 y/o														+	+	+	+		+	+	+			+	+							9	0	6
NC4	Juice 8-12 oz. 7+ y/o														+	+	+	+			+	+			+	+							8	0	5
ND1	Make water available				+	+	+	+	+		+	+	+	+						+	+	+	+	+	+								15	0	22
NE1	Teach portion sizes							+	+																+						+	+	+	6	0	0
NE2	Eat with children											+	+							+	+	+				+								6	0	5
NF1	Appropriate servings														+	+	+	+							+	+				+	+	+	9	0	25
NF2	Healthy seconds														+	+									+	+				+	+	+	7	0	3
NG1	Limit salt																+	+			+	+				+							5	0	6
NG2	Avoid sugary foods														-	-	+	+			+	+			-	+							5	3	1
NH1	Food no force/bribe																				+	+				+				-	-	-	3	3	0
NH2	Food no reward/punish							+	+																	+							3	0	6
PA1	Space for active play																																0	0	29
PA2	Training on activities	+	+	+																						+							4	0	0
PA3	Write activity policies	+	+	+																			+	+	+								6	0	3
PA4	Play with children																				+	+	+	+	+	+							6	0	4
PA5	Don't withhold play	+																					+	+	+	+							5	0	7
PB1	No screen time < 2 yr	+															+	+								+							4	0	5
PB2	Screen time 30 min/wk	+															+	+								+							4	0	0
PB3	Screen time purpose	+															+	+															3	0	6
PB4	No TV w/meals							+	+																	+							3	0	2
PC1	Outdoor play occasions														+	+							+	+	+	+				+	+	+	9	0	3
PC2	Toddler play time																+	+		+	+	+	+	+	+	+							9	0	9
PC3	Preschool play time																						+	+	+								3	0	0
PD1	Structured play																+	+								+							3	0	1
PE1	Tummy time often	+																								+							2	0	4
PE2	Limit time infant equip.	+																					+	+	+	+							5	0	0
	Total Increase (+)	10	2	2	4	4	2	8	8	0	1	2	2	2	14	14	25	25	0	6	13	13	12	13	27	36	1	1	5	5	5	262		
	Total Decrease (-)	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	2	2	0	0	0	0	0	1	3	1	0	0	1	1	1		18	
	Total Rating = 4	6	3	3	8	8	7	9	9	3	15	16	13	6	6	6	15	15	2	13	15	15	13	13	13	20	11	11	3	3	3			293
	# Pos. Changes / Total Change	14	/	14	10	/	10	16	/	16	5	/	5	30	/	36	50	/	54	32	/	32	52	/	56	38	/	39	15	/	18			
	# 4's Per State	12			23			21			44			18			32			43			39			42			9					
	% 4's Per State	9%			16%			15%			31%			13%			23%			30%			28%			30%			6%					



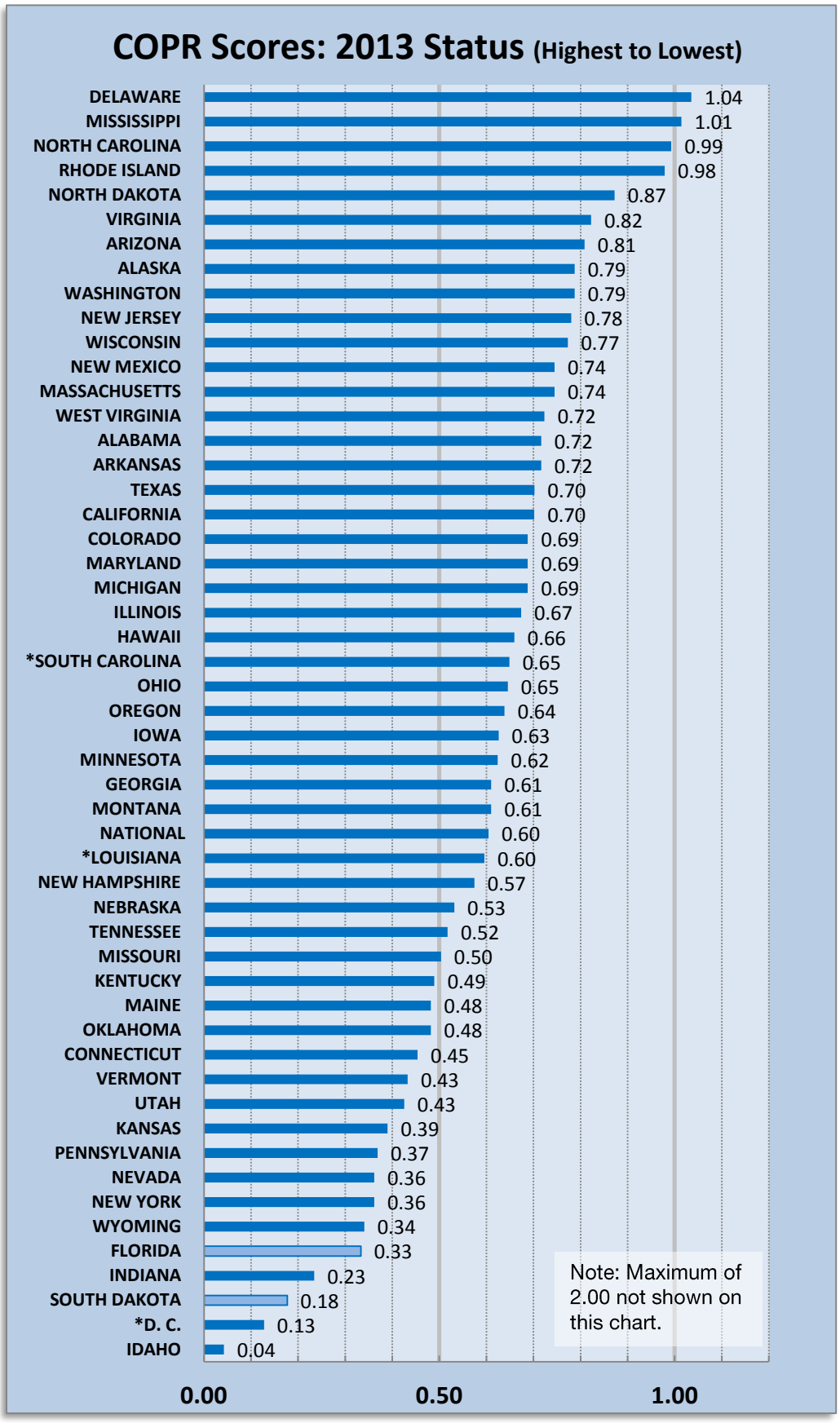
States' Results

This collection of stacked bar charts provides a visual profile of how well each state's body of child care regulations addresses healthy weight practices.

* State does not regulate all types of child care.



* State does not regulate all types of child care.



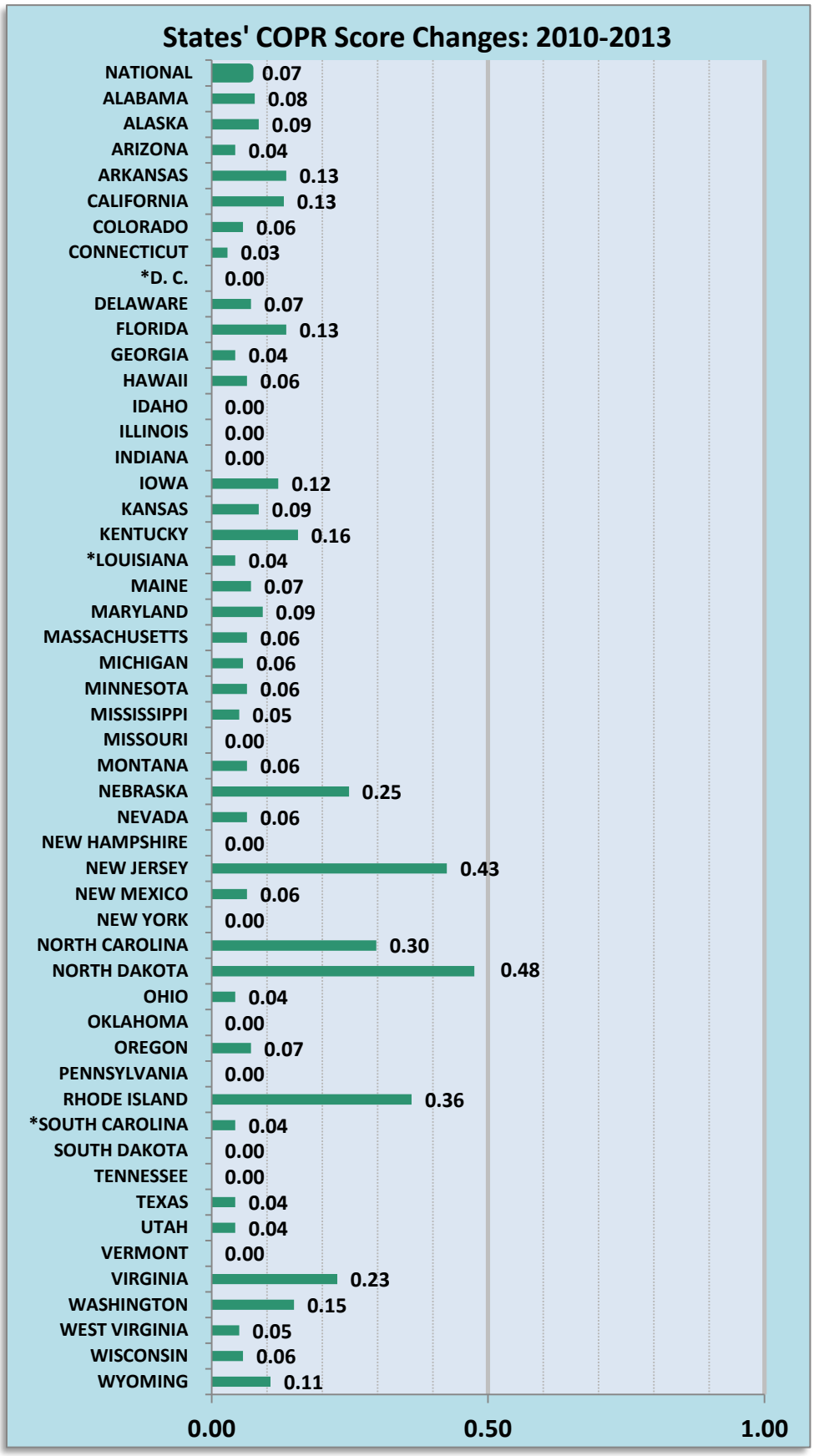
Leading states in 2013 are DE, MS, NC & RI

On this bar chart, the standing among states of FL & SD declined from previous years due to adjusted baseline (2010) ratings associated with the retirement of MyPyramid in 2011.

The closer the COPR Score is to a value of "2," the stronger the regulatory language. (See Method, Calculation of Childcare Obesity Prevention Regulation Scores.)

* State does not regulate all types of child care.

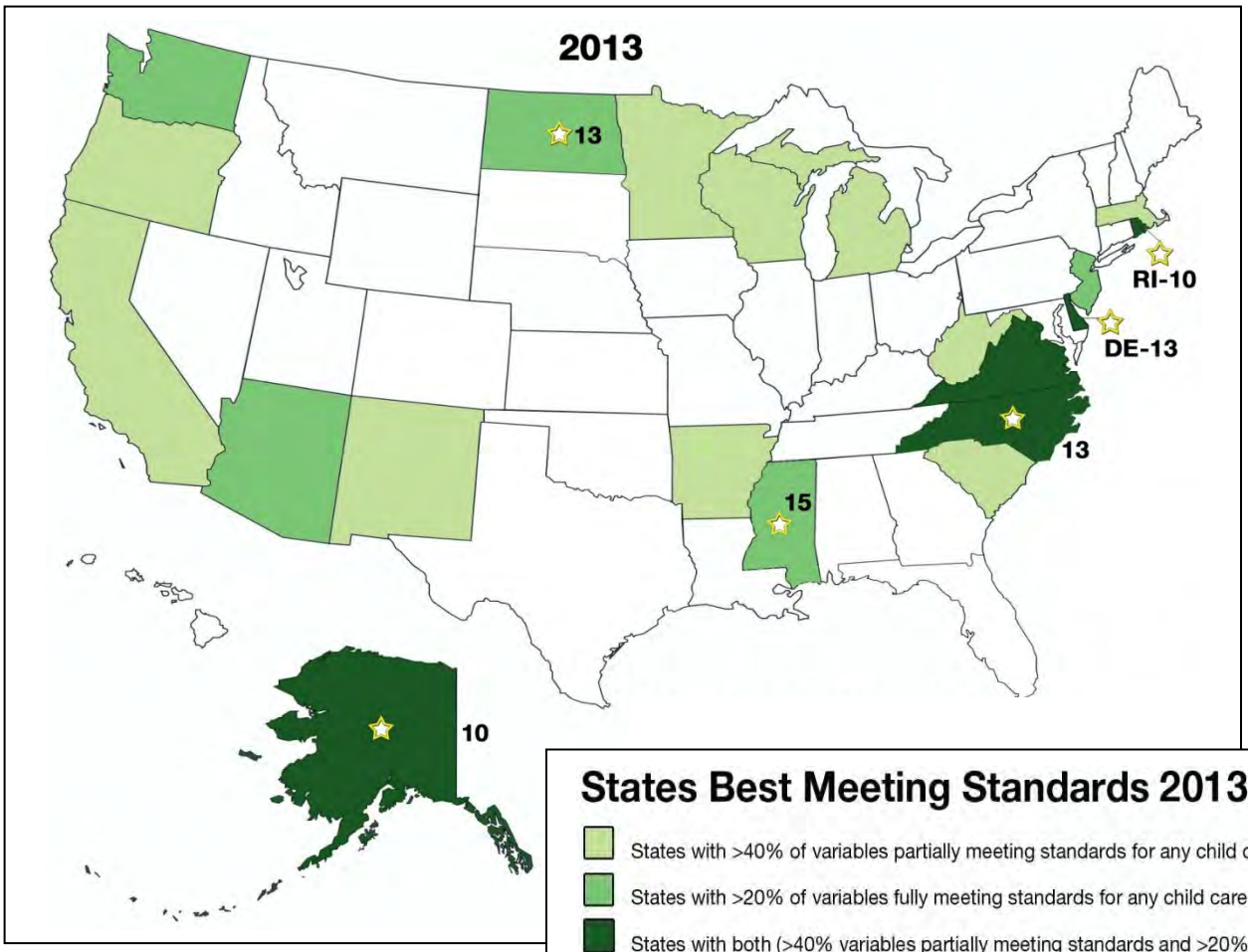
States making the most positive changes since 2010 are ND, NJ, RI & NC



COPR Score changes for FL & SD are calculated based on the adjusted baseline data reflecting the retirement of MyPyramid in 2011.

* State doesn't regulate all types of child care.

5 states (dark green) have the highest % of rules that partially or fully support healthy weight practices

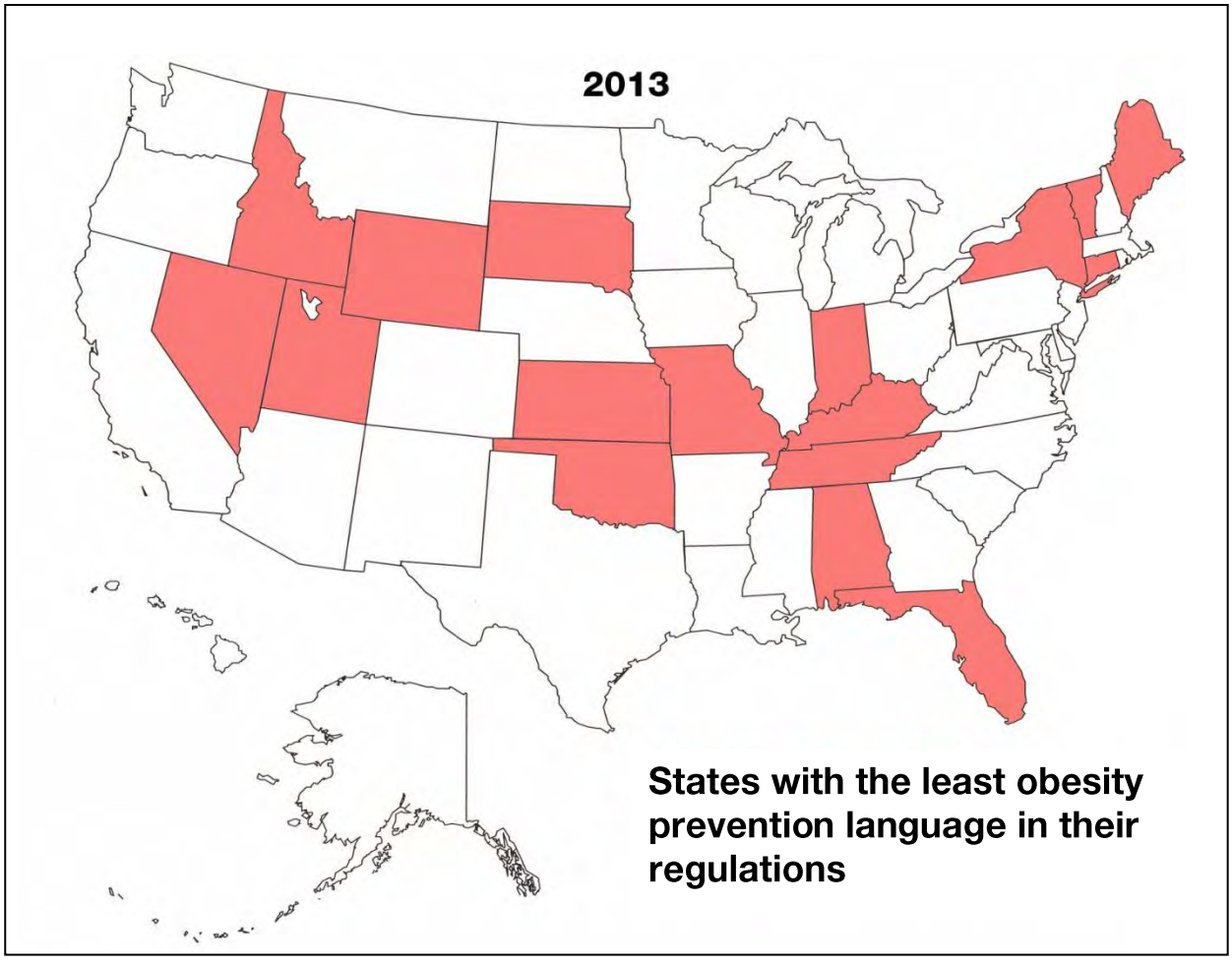


States Best Meeting Standards 2013

- States with >40% of variables partially meeting standards for any child care type
- States with >20% of variables fully meeting standards for any child care type
- States with both (>40% variables partially meeting standards and >20% of variables fully meeting standards for any child care type)
- States with >20% of variables fully meeting standards for all child care types

Note: The numbers next to the stars on the map indicate the number of variables for which the state fully met the standard in all child care types.

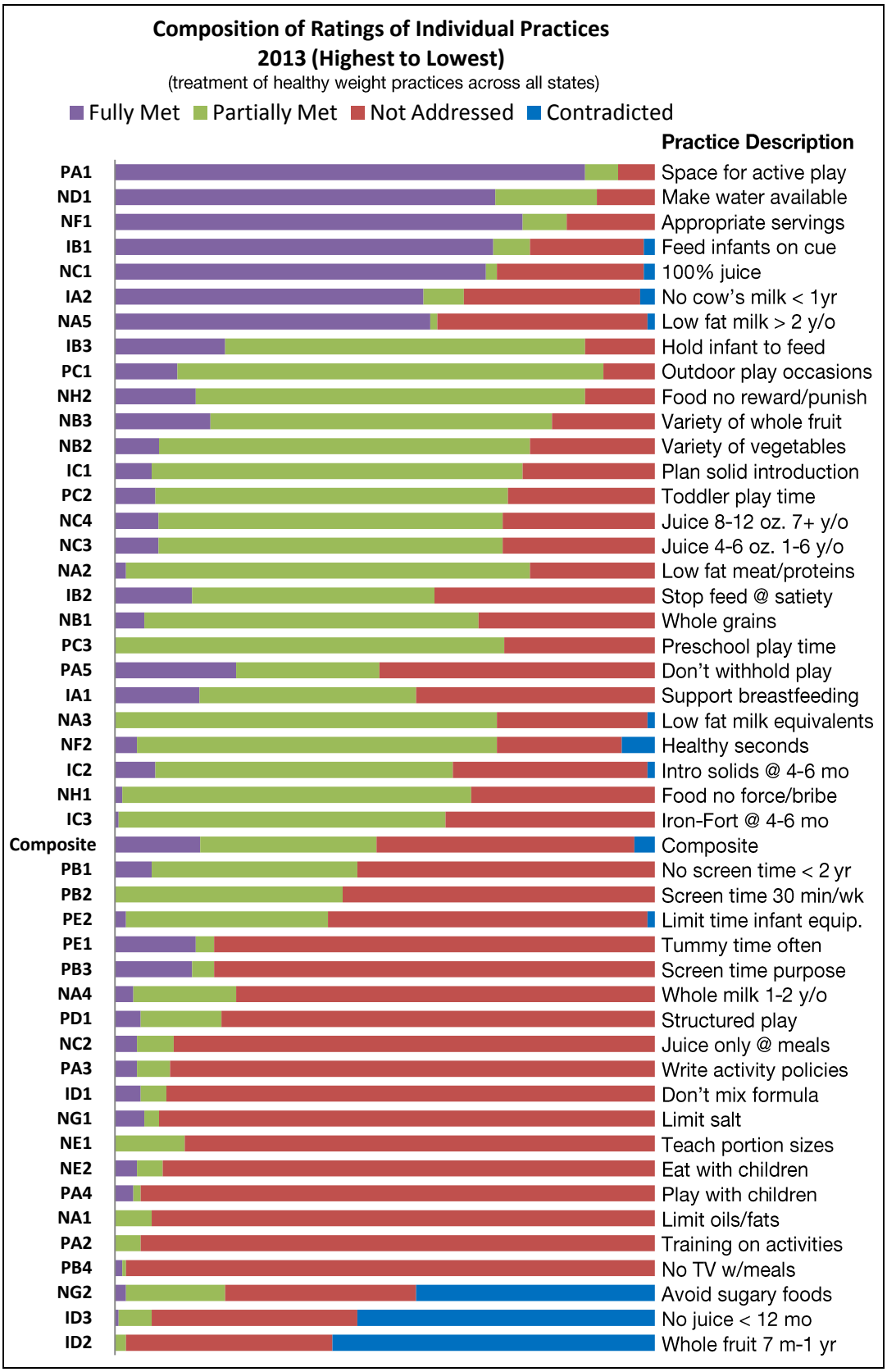
In 17 States, 65% of the healthy weight practices are not addressed at all



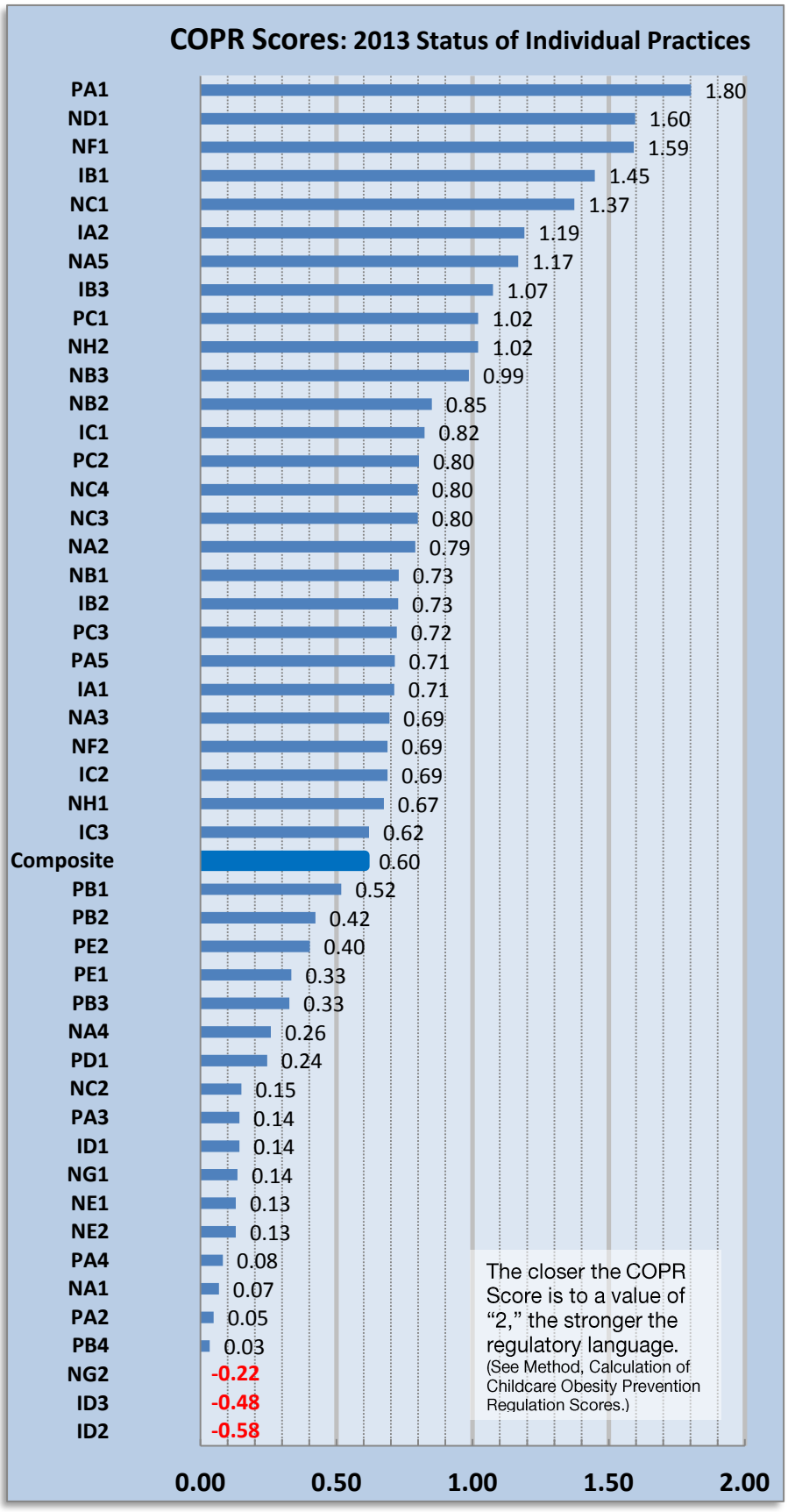
Healthy Weight Practice Results

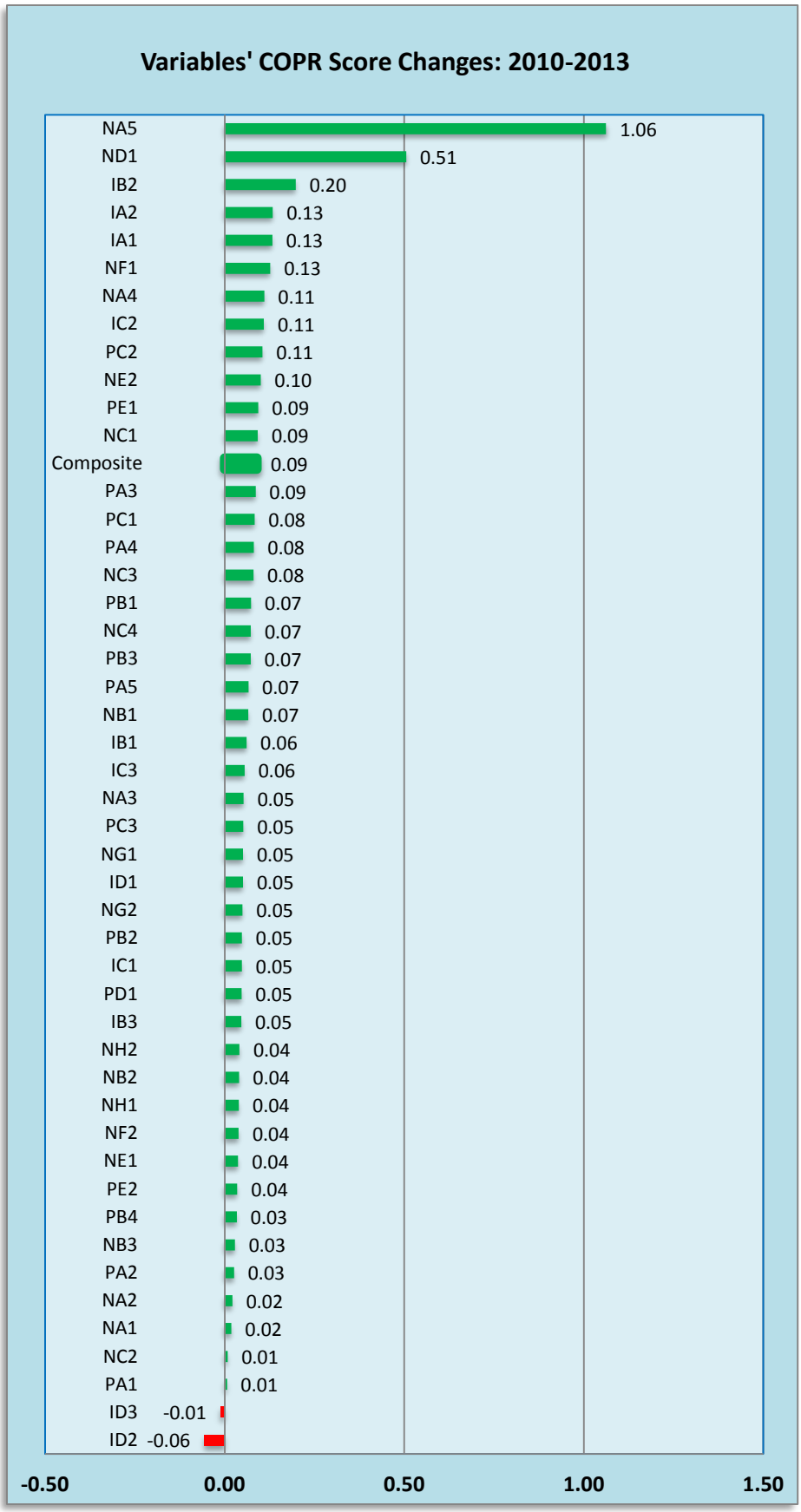
17 healthy weight practices remain either frequently contradicted or rarely addressed **(lower portion of chart)**

This collection of stacked bar charts provides a visual profile of how well each healthy weight practice is addressed across all states and child care types.



Childcare Obesity Prevention Practices Quick Reference Chart	
IA1	Support breastfeeding
IA2	No cow's milk < 1yr
IB1	Feed infants on cue
IB2	Stop feed @ satiety
IB3	Hold infant to feed
IC1	Plan solid introduction
IC2	Intro solids @ 4-6 mo
IC3	Iron-Fort @ 4-6 mo
ID1	Don't mix formula
ID2	Whole fruit 7 m-1 yr
ID3	No juice < 12 mo
NA1	Limit oils/fats
NA2	Low fat meat/proteins
NA3	Low fat milk equivalents
NA4	Whole milk 1-2 y/o
NA5	Low fat milk > 2 y/o
NB1	Whole grains
NB2	Variety of vegetables
NB3	Variety of whole fruit
NC1	100% juice
NC2	Juice only @ meals
NC3	Juice 4-6 oz. 1-6 y/o
NC4	Juice 8-12 oz. 7+ y/o
ND1	Make water available
NE1	Teach portion sizes
NE2	Eat with children
NF1	Appropriate servings
NF2	Healthy seconds
NG1	Limit salt
NG2	Avoid sugary foods
NH1	Food no force/bribe
NH2	Food no reward/punish
PA1	Space for active play
PA2	Training on activities
PA3	Write activity policies
PA4	Play with children
PA5	Don't withhold play
PB1	No screen time < 2 yr
PB2	Screen time 30 min/wk
PB3	Screen time purpose
PB4	No TV w/meals
PC1	Outdoor play occasions
PC2	Toddler play time
PC3	Preschool play time
PD1	Structured play
PE1	Tummy time often
PE2	Limit time infant equip.





The chart to the left expresses (as COPR scores) changes in the strength of regulations nationally for each ASHW variable (healthy weight practice), 2010-2013.

NA5 & ND1 remain the most improved

•

ID2 & ID3 actually declined

Two changes reported in ASHW 2012, due to CACFP revisions, remain most improved since 2010:

NA5: *Serve skim or 1% pasteurized milk to children two years of age and older.*

ND1: *Make water available both inside and outside.*

As of 2013, two variables lost ground in states' regulations:

ID2: *Serve whole fruits, mashed or pureed, for infants 7 months up to one year of age.*

ID3: *Serve no fruit juice to children younger than 12 months of age.*

Conclusion

In conclusion, *ASHW 2013* findings continue to show the gradual strengthening (first reported in the 2012 assessment) of child care licensing regulations in their support of best practices in early care and education for achieving healthy weight. In contrast to *ASHW 2012*, where progress was based in large part upon the CACFP systemic changes affecting regulations in many states, the current study cites changes made in states' new and revised child care licensing regulations.

Each year we observe that as states add new rules to address healthy weight practices, the majority of new rules strengthen the body of regulations. However, those new rules also increase the potential for contradicting recommended best practices. In fact, *ASHW 2013* reveals precisely this situation for two infant feeding practices. The new COPR Score calculations allow a concise comparison of the treatment of individual variables that was not previously examined. The COPR Score enables efficient state comparisons as well. For example, particularly noteworthy in this report is the substantial progress made by Rhode Island and New Jersey in regulations introduced in 2013.

Finally, revision of CACFP Meal Patterns remains in progress. When finalized and made effective, these changes are expected to have sweeping positive effects for the strength of infant feeding and nutrition healthy weight practices in the large numbers of states that require some or all types of licensed child care programs to adhere to the CACFP requirements. However, those states that physically reproduce the Meal Patterns in their regulations, versus referring caregivers to the external CACFP meal pattern website, will only be credited with changed CACFP ratings if they revise their regulations to replicate the updated Meal Patterns or refer to the CACFP website.

APPENDIX SOURCE OF ASHW VARIABLES IN PCO2/CFOC3 STANDARDS

Appendix Table 1 displays the source standards in *PCO2* and *CFOC3* from which the *ASHW* study variables were derived. The link to the NRC's searchable *CFOC3* data base (http://cfoc.nrckids.org/index.cfm) enables viewing the complete standard(s), rationale, references and related standards for each study variable. The page numbers of source standards in the print copies of *PCO2* and *CFOC3* also are provided.

Multiple source variables. The concepts captured in some *ASHW* variables are present in different contexts in more than one *PCO2/CFOC3* standard. For example, the Infant Feeding variable IB2: do not feed beyond satiety, is a core concept that is addressed slightly differently in two standards: Standard 4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher ("observing satiety cues can limit overfeeding") and Standard 4.3.1.8 - Techniques for Bottle Feeding ("Allow infant to stop the feeding"). The table below identifies those *ASHW* variables that were informed by more than one standard, including the numbers and names of the standards.

INFANT FEEDING			*Print copy pg #*	
Variable #	**ASHW Variable Text**	**Source of Variable in *CFOC3* Standards**	***PCO2***	***CFOC3***
IA1	Encourage and support breastfeeding and feeding of breast milk by making arrangements for mothers to feed their children comfortably on-site.	**4.3.1.1 - General Plan for Feeding Infants**	26	162
IA2	Serve human milk or infant formula to at least age 12 months, not cow's milk, unless written exception is provided by primary care provider and parent/guardian.	**4.3.1.7 - Feeding Cow's Milk** & **4.2.0.4 - Categories of Foods**	39 & 18	169 & 155
IB1	Feed infants on cue.	**4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher** & **4.3.1.8 - Techniques for Bottle Feeding**	27 & 33	164 & 170
IB2	Do not feed infants beyond satiety; Allow infant to stop the feeding.	**4.3.1.2 - Feeding Infants on Cue by a Consistent Caregiver/Teacher** & **4.3.1.8 - Techniques for Bottle Feeding**	27 & 33	164 & 170
IB3	Hold infants while bottle feeding; Position an infant for bottle feeding in the caregiver/teacher's arms or sitting up on the caregiver/teacher's lap.	**4.3.1.8 - Techniques for Bottle Feeding**	33	170
IC1	Develop a plan for introducing age-appropriate solid foods (complementary foods) in consultation with the child's parent/guardian and primary care provider.	**4.3.1.11 - Introduction of Age-Appropriate Solid Foods to Infants**	35	172
IC2	Introduce age-appropriate solid foods (128 a) no sooner than 4 months of age, and preferably around 6 months of age.	**4.3.1.11 - Introduction of Age-Appropriate Solid Foods to Infants**	35	172
IC3	Introduce breastfed infants gradually to iron-fortified foods no sooner than four months of age, but preferably around six months to complement the human milk.	**4.3.1.11 - Introduction of Age-Appropriate Solid Foods to Infants**	35	172
ID1	Do not feed an infant formula mixed with cereal, fruit juice or other foods unless the primary care provider provides written instruction.	**4.3.1.5 - Preparing, Feeding, and Storing Infant Formula**	31	167
ID2	Serve whole fruits, mashed or pureed, for infants 7 months up to one year of age.	**4.2.0.4 - Categories of Foods**	18	155
ID3	Serve no fruit juice to children younger than 12 months of age.	**4.2.0.4 - Categories of Foods** & **4.2.0.7 - 100% Fruit Juice**	18 & 21	155 & 157

NUTRITION			Print copy pg #	
Variable #	ASHW Variable Text	Source of Variable in *CFOC3* Standards	*PCO2*	*CFOC3*
NA1	Limit oils by choosing monounsaturated and polyunsaturated fats (such as olive oil or safflower oil) and avoiding trans fats, saturated fats and fried foods.	4.2.0.4 - Categories of Foods	18	155
NA2	Serve meats and/or beans - chicken, fish, lean meat, and/or legumes (such as dried peas, beans), avoiding fried meats.	4.2.0.4 - Categories of Foods	18	155
NA3	Serve other milk equivalent products such as yogurt and cottage cheese, using low-fat varieties for children 2 years of age and older.	4.2.0.4 - Categories of Foods	18	155
NA4	Serve whole pasteurized milk to twelve to twenty-four month old children who are not on human milk or prescribed formula, or serve reduced fat (2%) pasteurized milk to those who are at risk for hypercholesterolemia or obesity	4.3.2.3 - Encouraging Self-Feeding by Older Infants and Toddlers	39	175
NA5	Serve skim or 1% pasteurized milk to children two years of age and older.	4.3.2.3 - Encouraging Self-Feeding by Older Infants and Toddlers	39	175
NB1	Serve whole grain breads, cereals, and pastas.	4.2.0.4 - Categories of Foods	18	155
NB2	Serve vegetables, specifically, dark green, orange, deep yellow vegetables; and root vegetables, such as potatoes and viandas.	4.2.0.4 - Categories of Foods	18	155
NB3	Serve fruits of several varieties, especially whole fruits.	4.2.0.4 - Categories of Foods	18	155
NC1	Use only 100% juice with no added sweeteners.	4.2.0.7 - 100% Fruit Juice	21	157
NC2	Offer juice only during meal times.	4.2.0.7 - 100% Fruit Juice	21	157
NC3	Serve no more than 4 to 6 oz juice/day for children 1-6 years of age.	4.2.0.4 - Categories of Foods & 4.2.0.7 - 100% Fruit Juice	17 & 21	155 & 157
NC4	Serve no more than 8 to 12 oz juice/day for children 7-12 years of age.	4.2.0.4 - Categories of Foods & 4.2.0.7 - 100% Fruit Juice	18 & 21	155 & 157
ND1	Make water available both inside and outside.	4.2.0.6 - Availability of Drinking Water	20	157
NE1	Teach children appropriate portion size by using plates, bowls and cups that are developmentally appropriate to their nutritional needs.	4.3.2.2 - Serving Size for Toddlers and Preschoolers & 4.7.0.1 - Nutrition Learning Experiences for Children	38 & 46	174 & 183
NE2	Require adults eating meals with children to eat items that meet nutrition standards.	4.5.0.4 - Socialization During Meals	41	179
NF1	Serve small-sized, age-appropriate portions.	4.3.2.2 - Serving Size for Toddlers and Preschoolers	38	174
NF2	Permit children to have one or more additional servings of the nutritious foods that are low in fat, sugar, and sodium as needed to meet the caloric needs of the individual child; Teach children who require limited portions about portion size and monitor their portions.	4.3.2.2 - Serving Size for Toddlers and Preschoolers & 4.5.0.4 - Socialization During Meals	38 & 41	174 & 179
NG1	Limit salt by avoiding salty foods such as chips and pretzels.	4.2.0.4 - Categories of Foods	18	155
NG2	Avoid sugar, including concentrated sweets such as candy, sodas, sweetened drinks, fruit nectars, and flavored milk.	4.2.0.4 - Categories of Foods	18	155
NH1	Do not force or bribe children to eat.	4.5.0.11 - Prohibited Uses of Food	43	182
NH2	Do not use food as a reward or punishment.	4.5.0.11 - Prohibited Uses of Food	43	182

PHYSICAL ACTIVITY/SCREEN TIME			Print copy pg #	
Variable #	ASHW Variable Text	Source of Variable in *CFOC3* Standards	*PCO2*	*CFOC3*
PA1	Provide children with adequate space for both inside and outside play.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PA2	Provide orientation and annual training opportunities for caregivers/teachers to learn about age-appropriate gross motor activities and games that promote children's physical activity.	3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	57	95
PA3	Develop written policies on the promotion of physical activity and the removal of potential barriers to physical activity participation.	9.2.3.1 - Policies and Practices that Promote Physical Activity	58	353
PA4	Require caregivers/teachers to promote children's active play, and participate in children's active games at times when they can safely do so.	3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	57	95
PA5	Do not withhold active play from children who misbehave, although out-of-control behavior may require five minutes or less calming periods to help the child settle down before resuming cooperative play or activities.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PB1	Do not utilize media (television [TV], video, and DVD) viewing and computers with children younger than two years.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PB2	Limit total media time for children two years and older to not more than 30 minutes once a week; Limit screen time (TV, DVD, computer time).	2.2.0.3 - Limiting Screen Time – Media, Computer Time & 3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	59 & 57	66 & 95
PB3	Use screen media with children age two years and older only for educational purposes or physical activity.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PB4	Do not utilize TV, video, or DVD viewing during meal or snack time.	2.2.0.3 - Limiting Screen Time – Media, Computer Time	59	66
PC1	Provide daily for all children, birth to six years, two to three occasions of active play outdoors, weather permitting.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PC2	Allow toddlers sixty to ninety minutes per eight-hour day for vigorous physical activity.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PC3	Allow preschoolers ninety to one-hundred and twenty minutes per eight-hour day for vigorous physical activity.	3.1.3.1 - Active Opportunities for Physical Activity	52	90
PD1	Provide daily for all children, birth to six years, two or more structured or caregiver/ teacher/ adult-led activities or games that promote movement over the course of the day—indoor or outdoor.	3.1.3.1 - Active Opportunities for Physical Activity & 3.1.3.4 - Caregivers'/Teachers' Encouragement of Physical Activity	51 & 57	90 & 95
PE1	Ensure that infants have supervised tummy time every day when they are awake.	3.1.3.1 - Active Opportunities for Physical Activity	51	90
PE2	Use infant equipment such as swings, stationary activity centers (ex. exersaucers), infant seats (ex. bouncers), molded seats, etc. only for short periods of time if at all.	3.1.3.1 - Active Opportunities for Physical Activity	51	90