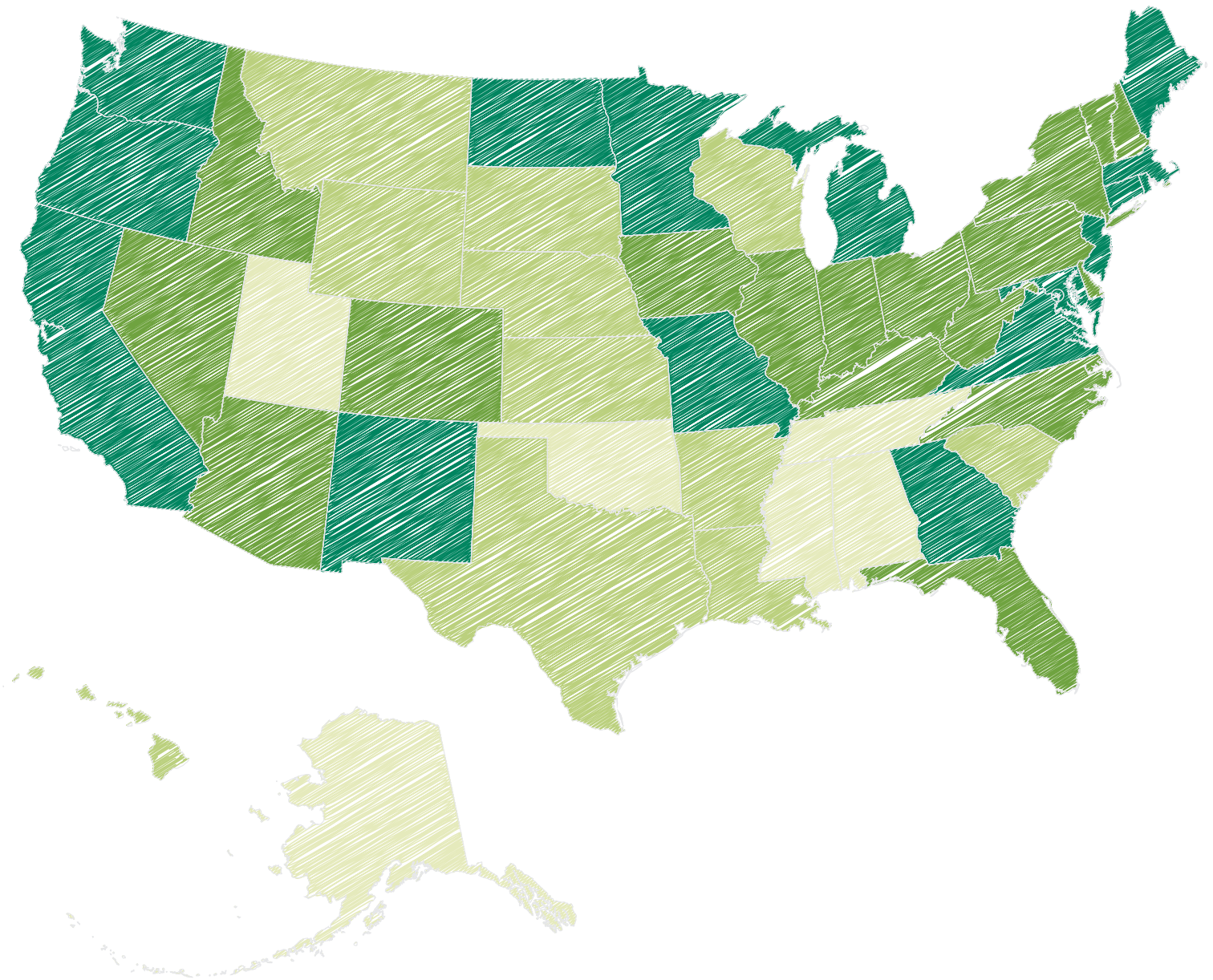


2013 QAP ANALYSIS

Green Building Criteria in Low-Income
Housing Tax Credit Programs



Prepared by the Green Urbanism Program of Global Green USA.

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Global Green USA is the American affiliate of Green Cross International, founded by President Gorbachev, to foster a global value shift toward a sustainable and secure future. For nearly 20 years, Global Green USA has been a national leader in advocating for smart solutions to global warming, including green building for affordable housing, schools, cities and communities that save money, improve health, and create green jobs.

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NeighborWorks America is one of the country's preeminent leaders in affordable housing and community development. Headquartered in Washington, D.C. Neighborworks strives to create opportunities for lower-income people to live in affordable homes in safe, sustainable neighborhoods that are healthy places for families to grow.



INTRODUCTION

The federal Low-Income Housing Tax Credit (LIHTC) program was established in 1986 to serve as an incentive for private investment in affordable rental housing. Although it is a federal program, state housing finance agencies guide the annual distribution of LIHTCs through published documents called Qualified Allocation Plans (QAPs). Global Green USA has long recognized that the LIHTC program and QAPs are critical drivers in the national adoption of green building criteria in affordable housing design and construction.

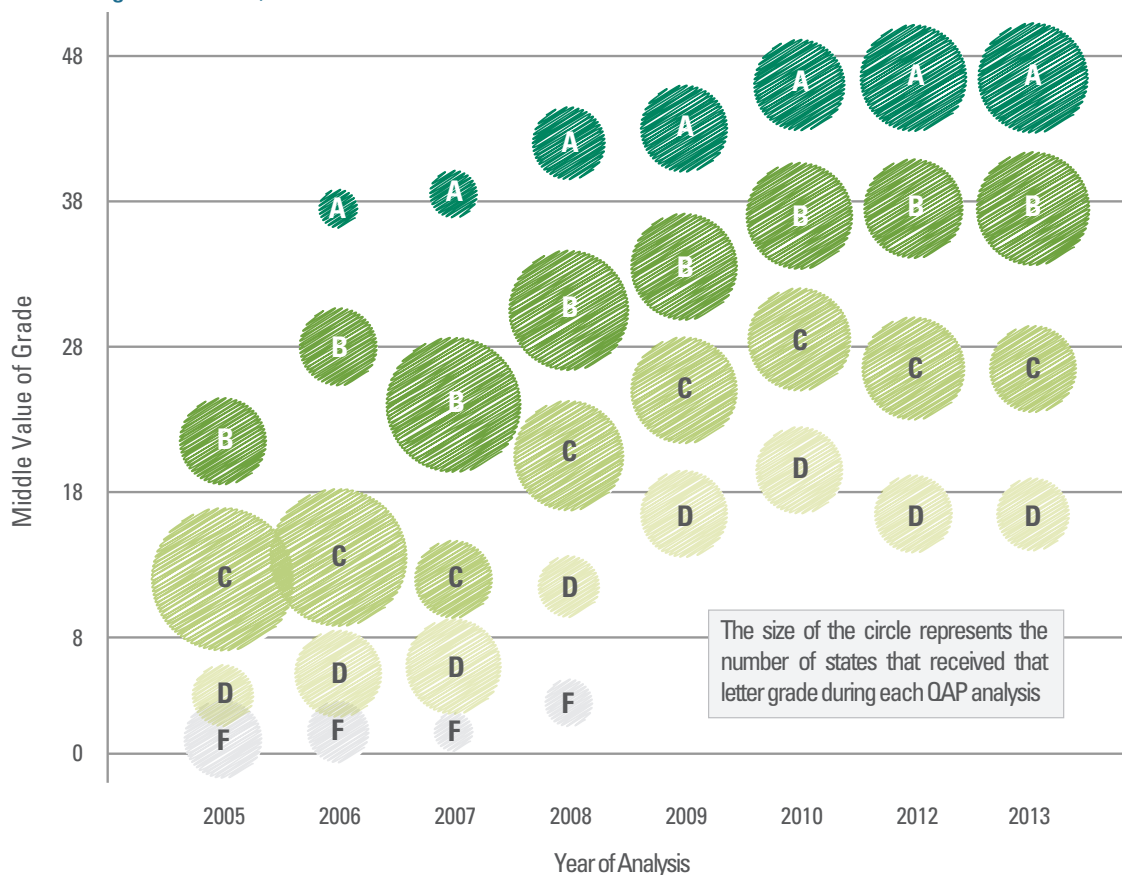
Since 2006, Global Green USA has completed a regular review of QAPs and established a national performance ranking for the green building practices promoted by the QAPs. This ranking enables

us to highlight successful approaches and best practices taken by high performing states and to understand the obstacles and opportunities in low scoring states.

2013 TRENDS & FINDINGS

As in previous years, there is a steadily positive trend in the raw scores of states [Figure 1]. The 2013 average score is up two points from 2012, from 34 to 36. For the first time, though, the overall number of points scored in a major category, Resource Conservation, remained unchanged from the previous year [Figure 2]. The percentage of possible points scored by states in the Energy Efficiency and

Figure 1. Change in Grades, 2005-2013



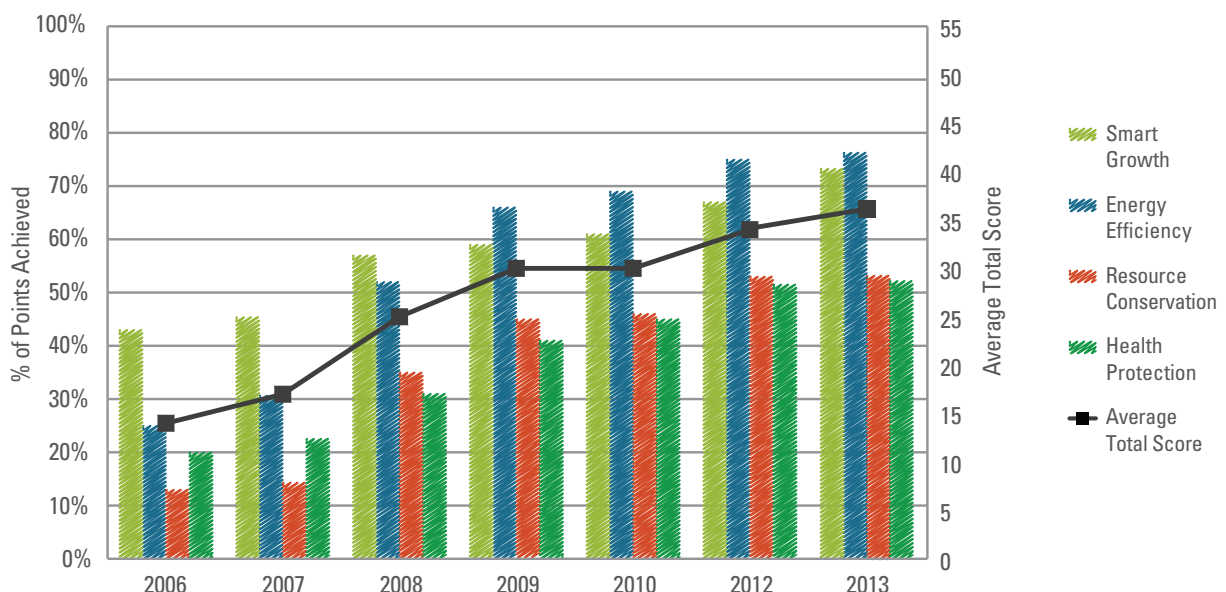
Health Protection categories increased slightly, to 76% and 52%, respectively. References to Smart Growth topics, such as urban infill, proximity to transit and services, and adaptive reuse, increased by 6% from last year. Nearly three-quarters of all state agencies incorporate smart growth principles and energy efficiency standards into their QAPs, and more than half include health protection and resource conservation strategies.

While changes in the prescriptive green building measures mentioned in the 2013 QAPs appear to be minor, this trend masks the increasingly important role of third party green building certification programs in states' affordable housing programs. This year, 16 states were scored using the performance pathway, two more than last year. In those states, a majority (>65%) of developers allocated LIHTC funds agreed to pursue green building certification for their projects. Many states moving in this direction are removing prescriptive green building criteria from their QAPs: six of the 16

performance states included significantly fewer prescriptive green building elements in their QAPs this year. Ohio's prescriptive score dropped by 25 points, while New Jersey and Colorado's prescriptive scores dropped by 13 and 12 points, respectively. By strongly incentivizing or requiring green building certification rather than relying on state agency-enforced prescriptive measures, those state agencies have essentially "out-sourced" green building standard setting and construction monitoring to third parties.

Connecticut and Maryland achieved perfect scores for a second time in 2013. Minnesota also earned a perfect score this year, up four points from last year. Impressive improvements were made by North Dakota and Idaho, up by 17 and 15 points each. Both states were scored according to the performance pathway this year, and North Dakota made the single greatest leap in grades, from a C to an A-. Idaho improved from a C to a B. States using a performance standard achieved an average

Figure 2. Seven Year QAP Trends (2006-2013)



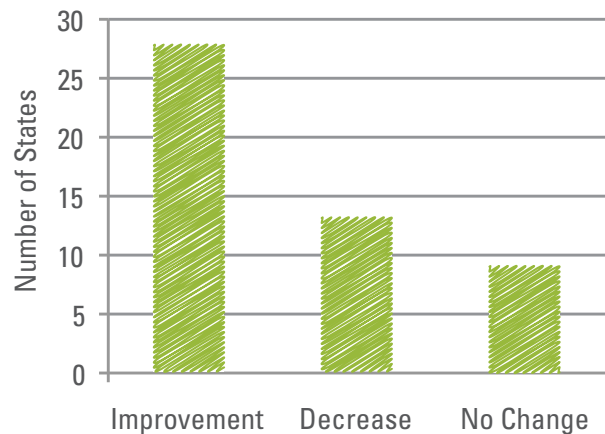
score of 44 points, compared to the average score of 36 points for all states, and 33 points for prescriptive states only.

Arizona and West Virginia's scores also increased significantly from last year. Both were scored using the prescriptive pathway as neither state relies solely on third party green building programs. Arizona's housing agency updated the mandatory design guidelines for their LIHTC projects and scored an additional 12 points across all four categories of our analysis. In the 2013 QAP, West Virginia added a list of green and sustainable building features that developers can include in their LIHTC application to give their project a competitive edge. West Virginia's score increased by 22 points, moving the state from a D to a B+ this year. Nebraska's score also jumped by 10 points this year, from 19 to 29, largely due to new energy efficiency requirements.

Although a majority of the states (28) saw scores improve from 2012 to 2013, 13 states' scores decreased over the same time period [Figure 3]. Alabama, Ohio and Texas all lost four points from their scores, while Iowa and Florida lost three points each. Eight other states' scores decreased by one or two points. Alabama removed scoring options for photovoltaics and references to energy codes from its QAP, while Texas took out several references to LEED requirements (although the agency still awards points for getting a green certification). Ohio and Florida require all new construction to receive third party green certification, and no longer mention specific green building standards.

The relative representation of various green building measures in QAPs has changed substantially

Figure 3. Change in Scores, 2012-2013



from 2012 to 2013 [Figure 4]. The largest increases in the Smart Growth category relate to wetlands, habitat and floodplain protection, while three fewer states included references to urban infill in their QAPs this year. Six more states encourage or require applicants to use the EPA's EnergyStar building certification system, and two more mentioned solar or renewable power. Four other energy efficiency measures decreased in representation. Overall, more states referenced Resource Conservation measures in this year's QAPs compared to last year's. Stormwater management, preserving existing plant life, and incorporating renewable materials increased the most. All Health Protection measures except hazard proximity (locating developments away from potentially hazardous sites) decreased in representation in the 2013 QAPs. Many of the Health Protection measures in our analysis, such as using low emission building elements and conducting an Environmental Assessment, are fully incorporated into third party green building programs. States may be eliminating those prescriptive requirements from the QAP as more choose third party standards.

Figure 4. Prescriptive Topics Ranked by Change in Representation, 2012-2013

Category	Subtopic	Number out of 50 HFAs (2013)	Number out of 50 HFAs (2012)	Change
SMART GROWTH	Wetland Protection	38	29	9
ENERGY EFFICIENCY	EnergyStar Building	36	30	6
SMART GROWTH	Floodplain Protection	37	32	5
RESOURCE CONSERVATION	Stormwater Management	24	20	4
SMART GROWTH	Habitat Protection	24	21	3
RESOURCE CONSERVATION	Preserve Existing Flora	21	18	3
RESOURCE CONSERVATION	Renewable Materials	17	14	3
ENERGY EFFICIENCY	Photovoltaics	24	22	2
SMART GROWTH	Brownfield Development	17	15	2
RESOURCE CONSERVATION	Reused Materials	14	12	2
ENERGY EFFICIENCY	Insulation Standards	41	40	1
HEALTH PROTECTION	Hazard Proximity	30	29	1
RESOURCE CONSERVATION	Construction Waste Management Plan	22	21	1
SMART GROWTH	Rehabilitation-Existing Housing	50	50	0
SMART GROWTH	Revitalization Plans	49	49	0
SMART GROWTH	Adaptive Reuse	49	49	0
SMART GROWTH	Proximity to Transit	41	42	-1
RESOURCE CONSERVATION	Maintenance Free	34	35	-1
ENERGY EFFICIENCY	HVAC	46	48	-2
ENERGY EFFICIENCY	EnergyStar Products	45	47	-2
RESOURCE CONSERVATION	Water Conservation	42	44	-2
SMART GROWTH	Proximity to Services	39	41	-2
HEALTH PROTECTION	Low-/No-VOC Paint	31	33	-2
HEALTH PROTECTION	Formaldehyde-Free Elements	24	26	-2
RESOURCE CONSERVATION	Recycled Content	17	19	-2
ENERGY EFFICIENCY	Specified Products	46	49	-3
HEALTH PROTECTION	Environmental Assessment	37	40	-3
SMART GROWTH	Urban Infill	26	29	-3
HEALTH PROTECTION	Low-VOC Carpet	24	28	-4
HEALTH PROTECTION	Ventilation	36	41	-5
HEALTH PROTECTION	Hazard Abatement	34	40	-6
ENERGY EFFICIENCY	Energy Codes	30	38	-8

ANALYSIS APPROACH AND METHODOLOGY

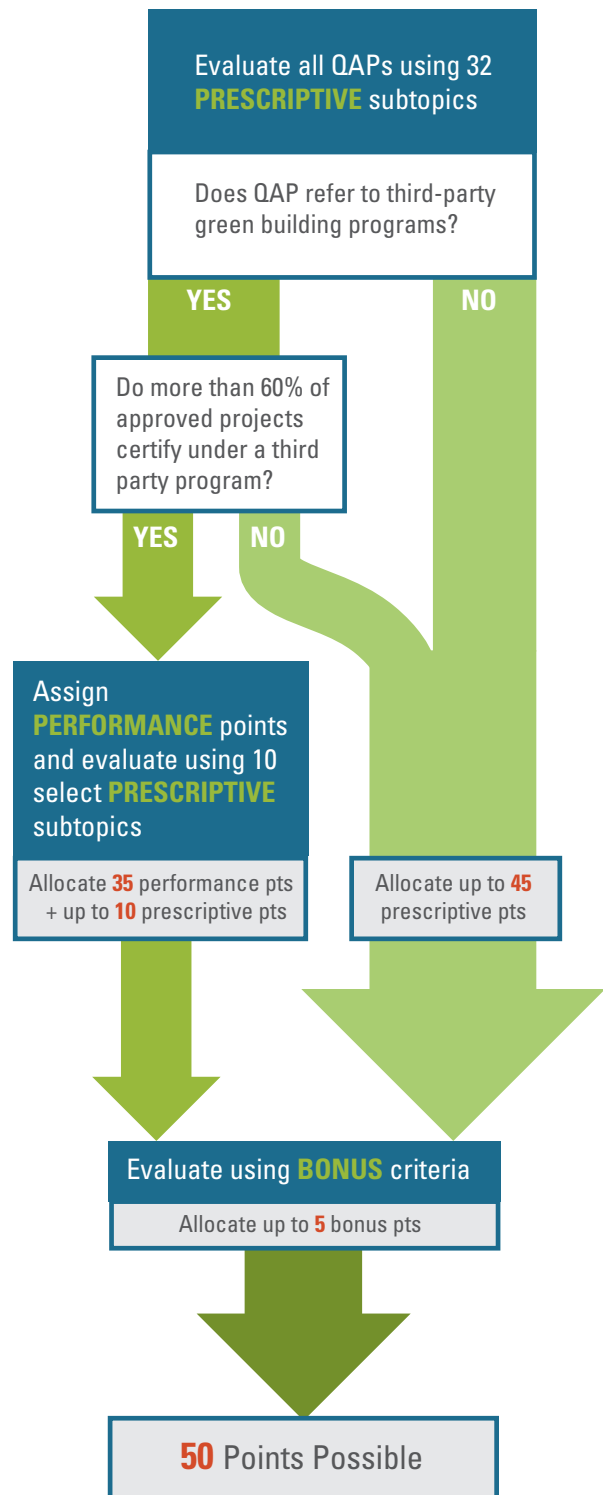
As in past years, QAPs and supporting documents in all 50 states were analyzed and ranked on a 50-point scale. That scale is made up of 32 sub-topics, worth 45 points and distributed across four broad categories: Smart Growth, Energy Efficiency, Resource Conservation, and Health Protection. There are also five bonus points available for states that demonstrate a strong commitment to robust implementation of their technical criteria.

In order to address changing technical standards and emerging trends in QAPs, in 2012 we created an optional 45-point pathway for states where the majority of a state’s approved projects undergo a third-party green building certification program [Figure 5]. These programs include the US Green Building Council’s Leadership in Energy and Environmental Design (LEED) rating system, Enterprise Community Partners’ Green Communities Initiative, or regional green building programs such as Southface Energy Institute’s EarthCraft or Build it Green’s GreenPoint Rated.

The five-point bonus, available to all states regardless of scoring pathway, is comprised of three measures:

- 1) Does the state agency use a third-party inspector to verify the implementation of green measures in the completed project? (2 points)
- 2) Does the state agency employ an in-office green building expert? (2 points)
- 3) Does the state agency allocate additional resources to green building, such as offering training workshops for developers and

Figure 5. Performance vs. Prescriptive Scoring



architects, requiring a pre-construction design review meeting, or conducting studies on state-specific best practices? (1 point)

enabled us to more clearly see shifts in the green building scores of state agencies from last year to this year.

Members of housing finance agencies were contacted through email, and the bonus points were allocated based on their responses.

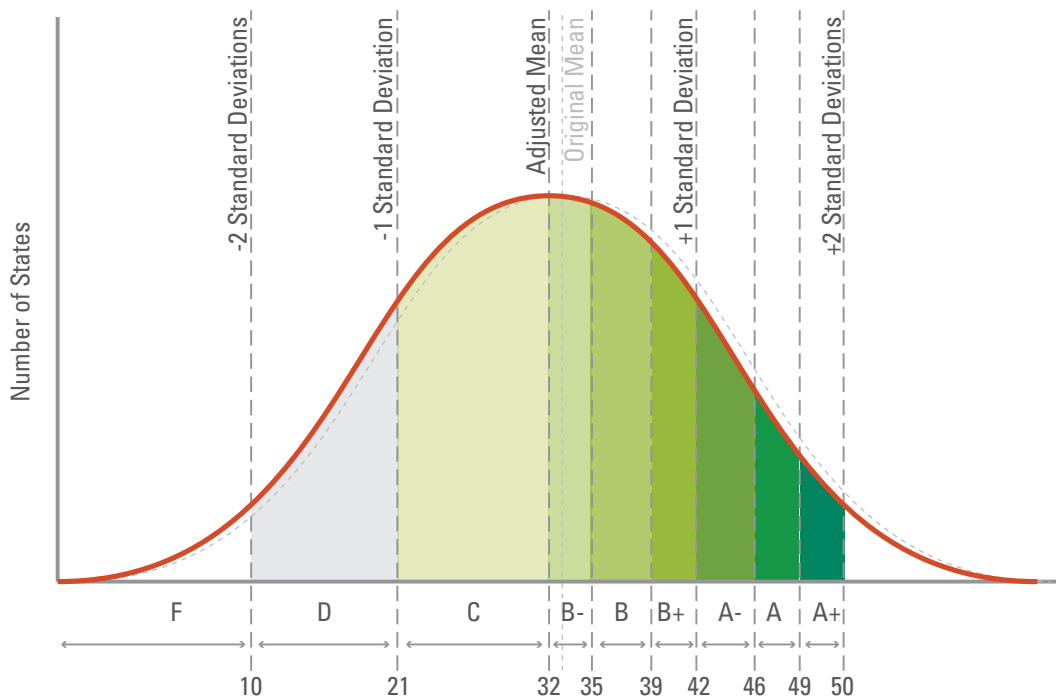
Grading

As in previous QAP analyses, each state was assigned a letter grade, from A through F, based on its combined score. The mean and standard deviation of the scores are used to determine the grading breakdown according to a normal distribution (bell curve) [Figure 6]. Because the 2013 scoring subtopics and bonus points remained unchanged from 2012, we used the same grading tiers established last year to assign this year's grades. This

Review Period

After the preliminary grading, each state was given an opportunity to review and comment on our findings. Individual state scorecards, the bonus questions and information on our scoring criteria were sent to a list of contacts obtained from the National Council of State Housing Agencies (NCSHA) and compiled from previous QAP analyses. A one-month comment period was provided to identify any criteria that were insufficiently addressed and to clarify our methodology. Thirty-one responses were received from state housing agency members.

Figure 6. Grading Distribution

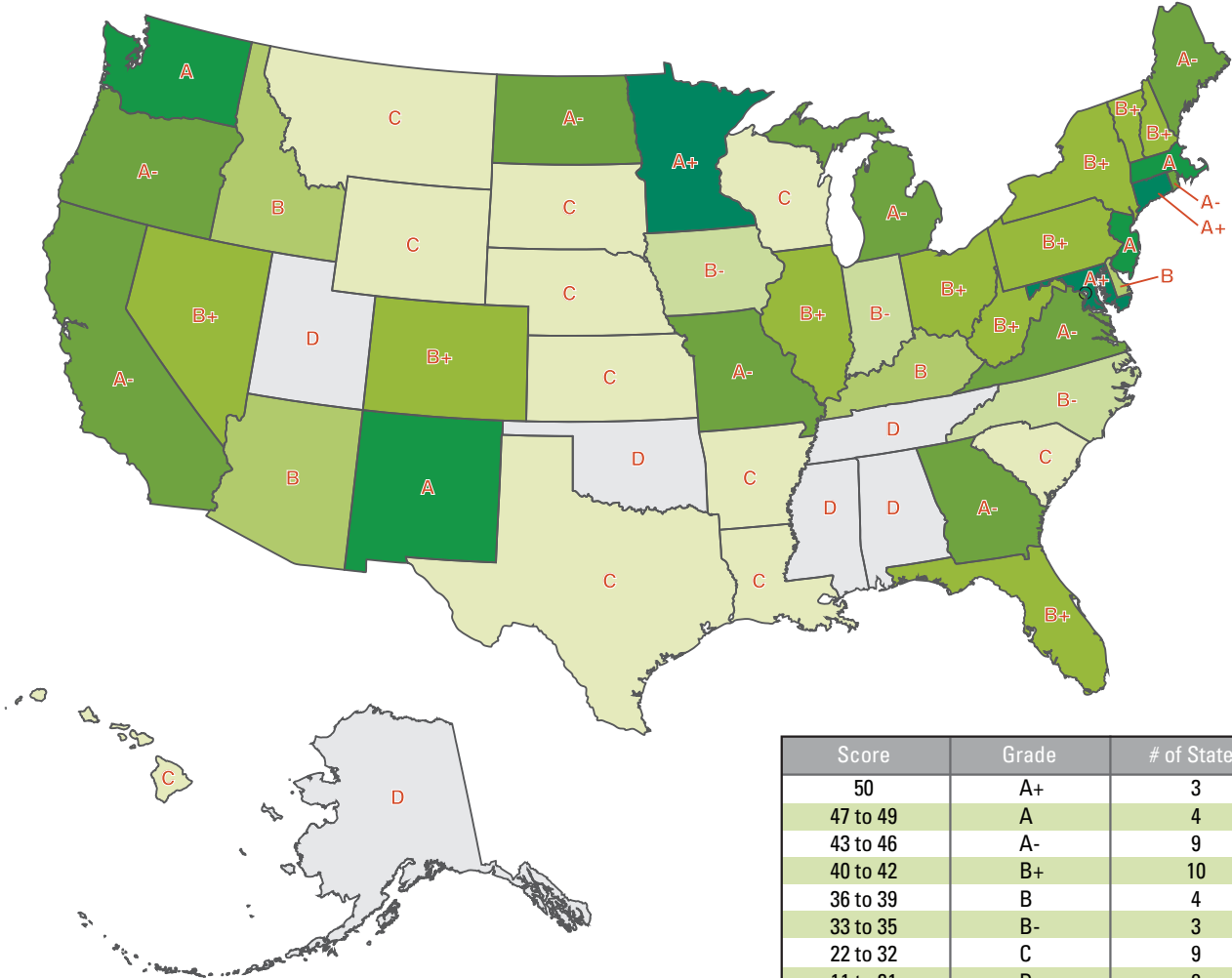


CONCLUSION

Despite ongoing concerns regarding cost containment among state housing finance agencies and community developers, the results of the 2013 demonstrate that green building has become a fundamental component of the QAP. Most states also are committed to making continual improvements to the green standards. There are, however, numerous opportunities to further improve QAPS in order to more effectively deliver green, healthy, and affordable housing. Recommendations identified in the 2012 report include: increased use of smart growth tools such as the housing and

transportation affordability index; standardization of building assessments for rehabilitation projects; energy monitoring and reporting; and, requiring independent third-party verification of green building measures continue to be relevant topics that warrant serious consideration. Through a thorough and consistent approach to assessment, design, construction, education, and operations, the public investments made today in low-income housing can provide lasting benefit to residents, the community, and environment.

2013 Grades by State



APPENDIX 2

Subtopic Scoring for Performance States

Grade	State	Brownfield Redevelopment	Urban Infill	Proximity to Transit	Proximity to Services	Revitalization Plans	Const. Waste Management	Photovoltaics	Stormwater Management	Recycled Content	Renewable Materials	Total	Perform. Points	Bonus	Score
A+	MN	1	1	1	1	1	1	1	1	1	1	10	35	5	50
A	WA	1	1	1	1	1	1	1	1	1	1	10	35	3	48
A	NJ	1	0	1	1	1	1	1	1	0	0	7	35	5	47
A	NM	1	0	1	1	1	1	1	1	0	1	8	35	4	47
A-	MI	0	1	1	1	1	0	0	1	0	0	5	35	5	45
A-	VA	1	0	1	1	1	0	1	0	0	0	5	35	5	45
A-	CA	0	0	1	1	1	1	1	1	0	0	6	35	3	44
A-	ND	1	1	1	1	1	0	1	0	0	1	7	35	2	44
A-	OR	0	0	1	1	1	1	0	1	0	0	5	35	4	44
A-	GA	1	0	1	1	1	0	0	0	0	0	4	35	4	43
A-	MO	1	1	1	1	1	0	1	0	0	0	6	35	2	43
B+	IL	0	1	1	1	1	0	0	1	0	0	5	35	2	42
B+	CO	0	1	1	1	1	1	0	0	0	0	5	35	1	41
B+	FL	0	0	1	1	0	0	0	0	1	1	4	35	2	41
B+	OH	0	0	0	0	1	0	0	0	0	0	1	35	4	40
B	ID	0	1	0	0	1	0	0	0	0	0	2	35	2	39
# States		8	8	14	14	15	7	8	8	3	5		Average		44



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