

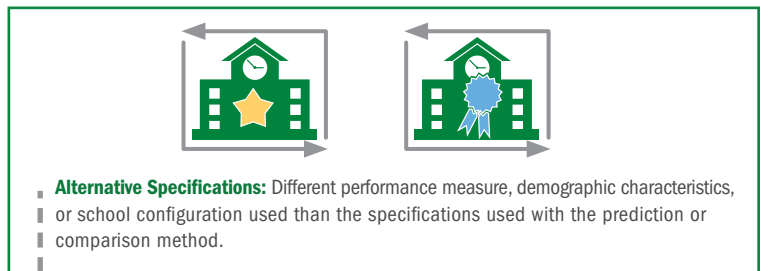
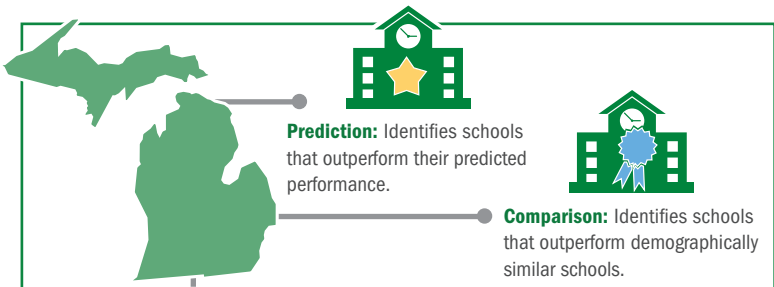
## Identification of “Beating the Odds” schools depends on the statistical method and technical specifications used

## Overview




**Overview** | There is no right approach to identifying “beating the odds” (BTO) schools—schools that perform better than expected—but the choice of statistical method and technical specifications used can lead to different school identifications. These identifications matter to the Michigan Department of Education (MDE) because BTO schools might offer lessons to inform policy and practice to improve low-performing schools. Data for this infographic were provided by the 2015 REL Midwest report *How Methodology Decisions Affect the Variability of Schools Identified as Beating the Odds*.

MDE's approach to identifying BTO schools involves two statistical methods— the prediction and comparison methods. The demographic characteristics included in the analysis differ between the methods, but schools can be designated as BTO by either or both methods.

MDE could change the demographic characteristics and other specifications (performance measure and school configuration) used with each method for an equally valid identification approach.



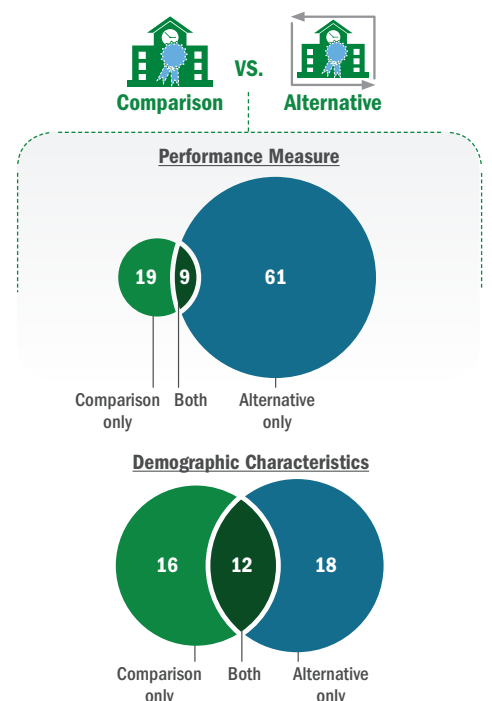
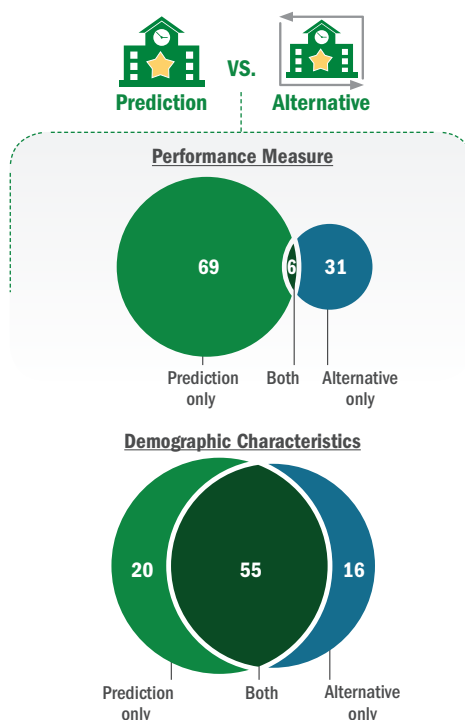
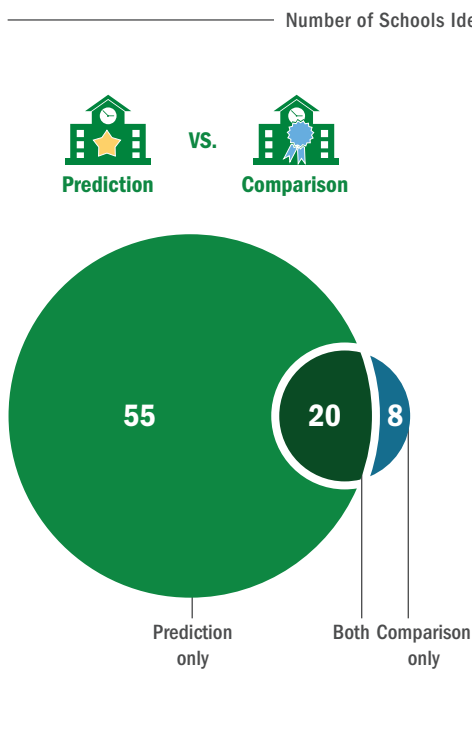
**The choices of statistical methods and technical specifications used to identify BTO schools reflect policy decisions about how to define “beating the odds.”**

				 	
	Specifications	Prediction	Comparison	Alternative	
Performance Measure	Michigan Top-to-Bottom ranking percentile	•	•		
	Composite academic achievement index <sup>1</sup>			•	
Demographic Characteristics	Percent English language learners	•	•	•	
	Percent eligible for free/reduced-price lunch	•	•	•	
	Percent minority	•	•	•	
	Percent with disabilities	•	•	•	
	School configuration		•	•	
	Locale total enrollment		•		
	Special education center status		•		
	State foundation allowance		•		
	Locale			•	
	Total enrollment			•	
	Magnet school indicator			•	
	Percent female			•	
	School Configuration	Schools serving all grade levels	•	•	
		Separated by grade level			•

**Different methodological decisions change the list of schools identified as BTO.**

The prediction and comparison methods identified different sets of BTO schools.

The list of BTO schools also changed when alternative demographic characteristics or performance measures were used.<sup>2</sup>



## Conclusion

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Although school identification results are a product of a statistical process, they ultimately reflect policy decisions. The involvement of policy-minded stakeholders in addition to technical staff is critical to developing the process that leads to meaningful identification of BTO schools.

## Data Source

Abe, Y., Weinstock, P., Chan, V., Meyers, C., Gerdeman, R. D., & Brandt, W. C. (2015). How methodology decisions affect the variability of schools identified as beating the odds (REL 2015–071). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>

## Endnotes

- <sup>1</sup> The study constructed a composite performance index from student-level standardized assessment scores based on Michigan state mathematics and reading tests.
- <sup>2</sup> Changing school configurations was not consequential for BTO school identification.

## Additional Information

For more information about this infographic, contact REL Midwest by e-mail ([relmidwest@air.org](mailto:relmidwest@air.org)) or by phone (866-730-6735).

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