pulsenomics[®] 2024 CRYSTAL BALL AWARD WINNERS

In Recognition of Outstanding Performance in The Home Price Expectations Survey

		FIRST PLACE		RUNNER-UP	
Horizon	Year Expectations Were Formulated	Panelist	Affiliation	Panelist	Affiliation
5 Year (2020-2024)	2020	John Silvia	Dynamic Economic Strategy	Amy Crews Cutts	AC Cutts & Associates
4 Year (2021-2024)	2020	John Silvia	Dynamic Economic Strategy	Amy Crews Cutts	AC Cutts & Associates
	2021	Charles Dougherty / Mark Vitner*	Wells Fargo	Michael Fratantoni / Joel Kan / Edward Seiler	MBA / Research Institute for Housing America
3 Year (2022-2024)	2020	Mark Zandi & Cristian deRitis	Moody's Analytics	Joel Naroff	Naroff Economic Advisors Inc.
	2021	Michael Englund	Action Economics LLC	Michael Fratantoni / Joel Kan / Edward Seiler	MBA / Research Institute for Housing America
	2022	Eli Beracha	Florida International University	David Downs	Virginia Commonwealth University
2 Year (2023-2024)	2020	James Smith	EconForecaster LLC	Mark Zandi & Cristian deRitis	Moody's Analytics
	2021	Michael Fratantoni / Joel Kan / Edward Seiler	MBA / Research Institute for Housing America	Brendan Lowney	Forest Economic Advisors
	2022	Matthew Fienup / Dan Hamilton	Cal Lutheran U Ctr for Econ Research & Forecasting	Andrea Heuson	University of Miami
	2023	Barry Habib	MBS Highway	Stacy Sirmans	FSU Center for Real Estate Education and Research
1 Year (2024)	2024	Alexei Tchistyi	Cornell SC Johnson College of Business	Andra Ghent	University of Utah

*Mark Vitner's present affiliation is Piedmont Crescent Capital

Ranking Eligibility

Panelists eligible for a 2024 ranking were those members who participated in at least one of the four 2024 quarterly surveys AND in all four of the quarterly surveys that comprise a given year's set of expectations data (e.g., to be eligible for a 2024 award pertaining to expectations made in 2021, a panelist would have had to submit forecast data for each of the four quarterly surveys that Pulsenomics conducted in 2021).

Ranking Methodology

The expectations data submitted by eligible panelists for each of the four survey editions in each calendar year were compared to the actual (Q4/Q4) home price percentage changes for the five time horizons that ended in 2024:

Time Horizon	Expectations Vintage(s)		
2024 (1 year horizon)	2024		
2023-2024 (2 year horizon)	2020, 2021, 2022, 2023		
2022-2024 (3 year horizon)	2020, 2021, 2022		
2021-2024 (4 year horizon)	2020, 2021		
2020-2024 (5 year horizon)	2020		

For each time horizon and expectations vintage, the sum of the absolute difference is computed between (a) each of the four sets of quarterly expectations data submitted by eligible panelists in a calendar year and (b) the actual (Q4/Q4) percentage change in the applicable index benchmark. These sums are then sorted in ascending order to generate performance rankings (i.e., the lowest sum represents the least average absolute error, and thus, the highest rank).