



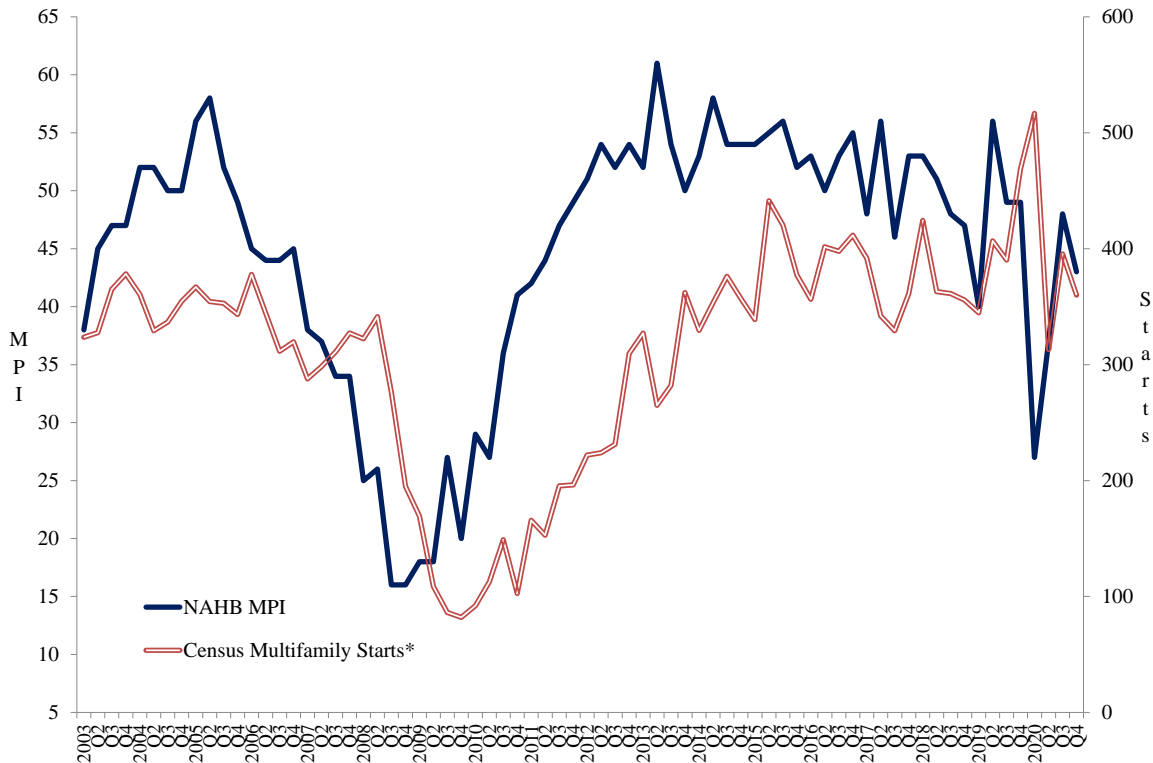
Multifamily Production Indices - Q4 2020 (Seasonally Adjusted)

PRODUCTION OF NEW APARTMENTS IN CURRENT VS. PRIOR QUARTER

	2016				2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Multifamily Production Index	53	50	53	55	48	56	46	53	53	51	48	47	40	56	49	49	27	37	48	43
MPI Components:																				
Low Rent Starts	54	52	54	54	48	53	54	56	54	57	59	48	47	56	51	53	32	42	46	42
Market Rent Starts	58	53	57	58	55	60	43	54	56	50	46	49	42	64	44	50	29	34	53	48
For Sale Starts	48	45	49	52	43	57	40	49	49	46	39	44	31	50	50	46	22	35	46	39

MPI components are based on questions asking if production is stronger, about the same, or weaker in the current vs. prior quarter.
 Expected production indices are based on similar questions about production during the next 6 months vs. the current quarter.
 Numbers in the table are diffusion-type indices - calculated from the percentage responses using the formula (Stronger - Weaker + 100) / 2.
 The overall Multifamily Production Index is a weighted average of the 3 components: .3533×Low Rent + .2806×Market Rent + .3661×For Sale.
 The weights are derived from a statistical analysis of the historical relationship between the components and the Census series on multifamily starts.
 Source: Multifamily Market Survey, NAHB Economics and Housing Policy Group.

NAHB Multifamily Production Index (MPI) and Multifamily Starts (in thousands)



*Multifamily Starts: U.S. Census Bureau, New Residential Construction (<http://www.census.gov/construction/nrc/index.html>).
 The quarterly Multifamily Starts is the average of the three months of seasonally adjusted multifamily housing starts from that quarter.