Labeling and Relative Valuation

In relative valuation, a company is priced based on how the market is pricing "similar" or "comparable" companies. That is an unexceptional statement, but "comparable" and "similar" are subjective judgments. Consider pricing Amgen, a company that arguably can be included in either the biotech or pharmaceutical sector. Comparing it to the distribution of PEs in each sector, here is what we get:

	Pharmaceutical	*Biotechnology*	Amgen
Number of firms	111	337	
Number of firms with positive earnings	32	38	
% of firms with positive earnings	**28.83%**	**11.28%**	
Average	**48.84**	**249.37**	
Minimum	1.03	1.71	
25th Percentile	15.39	19.56	
Median	**27.74**	**45.51**	23.47
75th Percentile	52.57	143.14	
Maximum	467.56	2234.19	

First, notice that in both subsets, there are far more firms where PE ratio is not meaningful than where PE ratios can be estimated. In fact, only 11.28% of the biotechnology firms have PE ratios that can be computed and I use R&D adjusted net income, which should boost net income at many of these companies. The sampling bias is immense.

At its R&D adjusted PE of 23.47, Amgen is close to the median (about the 45^{th} percentile) of pharmaceutical companies but it is closer to the 25^{th} percentile, if you use biotech companies as your comparable list. In fact, if you took large-cap market cap firms (with market capitalizations that exceed $25 billion) as your comparables, Amgen starts to look over priced.

In fact, you could use the raw data on the companies to create your own "comparable" list for Amgen and make your own judgments on whether it is cheap or expensive. You can even try to control for differences in risk, growth and cash flows.