We will survey a variety of ordinal indices and their applications to Banach space theory. Let $X$ be a separable infinite dimensional Banach space. In typical use a property $(P)$ is considered along with an index $I_p(X)$ such that $I_p(X) < w_1$ iff $X$ fails $(P)$. Also $I_p(X)$ is an isomorphic invariant. $I_p(X)$ can be used to show indirectly that $X$ has $(P)$ by showing $I_p(X) > \alpha$ for all $\alpha < w_1$. A second use is to exhibit uncountably many nonisomorphic members of a given class of spaces. Thirdly to show that a given class does not contain a universal member for another given class. (Received September 09, 2005)