In this paper we study non-complemented spaces of operators and the embeddability of $\ell_\infty$ in the spaces of operators $L(X,Y)$, $K(X,Y)$, and $K_{w^*}(X^*, Y)$. Results of Kalton, Feder, Emmanuele, and Bator and Lewis are generalized. A vector measure result is used to study the complementation of the spaces $W(X,Y)$ and $K(X,Y)$ in the space $L(X,Y)$, as well as the complementation of $K(X,Y)$ in $W(X,Y)$.

A fundamental result of Drewnowski is used to establish a result for operator valued measures, from which we obtain as corollaries the Vitali-Hahn-Saks-Nikodym theorem, the Nikodym Boundedness theorem, and a Banach space version of the Phillips Lemma. (Received August 02, 2010)