Dynamical Spectral weight transfer in the cuprates is described by the Hubbard model PHILIP PHILLIPS, university of illinois, MARK JARR-RELL, Louisiana State University — Recently, Peets and colleagues [1] measured the x-ray intensity at the oxygen K-edge in overdoped La$_{2-x}$Sr$_x$CuO$_{4+\delta}$ (LSCO) and Tl$_2$Ba$_2$CuO$_{6+\delta}$. They concluded that, unlike the underdoped samples of LSCO and YBa$_2$Cu$_3$O$_{x}$ in which the integrated intensity increases at least linearly with doping, it saturates abruptly for a hole count exceeding $x_c \approx 0.23$. They interpreted the saturation as a breakdown of the 1-band Hubbard model in the cuprates. We analyse all the available data and show that they are completely described by the 1-band Hubbard model. The purported saturation is shown to occur at the doping level at which the dynamical contribution to the spectral weight turns off.