p+p collisions

Let's imagine the net proton (p-$\overline{p}$) Feynman-x (x_F) distribution as a sum of projectile and target contribution! By symmetry, 50% of the signal at x_F=0 is due to the projectile. Can we measure the shape of the projectile distribution?...(see sketch below)

- YES!!! We have a tool: a pion beam, which does not contain baryon number, therefore we can assess the net proton distribution "coming from" our proton target!