Elastic scattering of Lambda baryons with protons is important to know, in part because these reactions might take place in the center of a neutron stars. Current ΛN elastic scattering data comes primarily from bubble chamber experiments. The richness of Λ production in modern day accelerators has thus never been realized. ΛN data is very limited compared to other elastic scattering processes, such as NN, KN and πN. Data was mined from existing experiments from the g12 run of the CLAS detector in Hall B of Jefferson Lab. A high luminosity photon beam incident on a 40 cm liquid hydrogen target allows for a Λ beam to be created inside the target. We look at the reaction $\gamma p \to K^+\Lambda$ to generate the Λ beam. The created Λ then proceeded to scatter elastically with a second proton in the target. The $K^+\Lambda$ cross section is well known, which allows us to determine the flux of the Λ beam. From this, preliminary results for the ΛN cross section will be presented along with new data for its angular distribution.