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Parity Violation in Deep Inelastic Scattering in Hall C at JLab[1] MARK MACRAE DALTON, CYNTHIA KEPPEL, Jefferson Lab, KENT PASCHKE, University of Virginia — The measurement of parity-violation in inclusive electron deep inelastic scattering (DIS) from a proton or deuteron target can be used to study the flavor structure of the nucleon. While valence quark parton distribution functions (PDF) can be probed in high-x measurements such as with the proposed SoLID spectrometer, complementary measurements are possible at moderate $x \sim 0.1$ where the sea quarks may still play a significant role. In particular, such measurements would provide a cleanly interpretable measurement of the strange quark PDF. These measurements are possible with the upgraded CEBAF accelerator at JLab and do not require significant new experimental hardware. The prospects and potential impacts of such a measurement will be presented.

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