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## INJURY REDUCTION IN AIRLINE RAMP WORKERS THROUGH POST-OFFER PHYSICAL CAPABILITY SCREENING

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The purpose of this study was to determine the effectiveness of an isokinetic physical capability post job offer evaluation on the incidence and severity of overexertion injuries to the shoulders, knees and back for 6,153 new hire applicants for the Fleet Service Clerk ramp position. New hire (NH) data collected from 12/95 through 3/98 was compared to historical (HI) data prior to 12/95 and matched for length of employment for the same job position. Following a medical examination, each new hire applicant received an isokinetic evaluation consisting of knee, shoulder and trunk flexion and extension. All isokinetic evaluations were done at 60 degrees per second. The raw data to include peak torque; right and left and antagonist and antagonist ratio scores; and force curve normality rating were mathematically analyzed to generate a Department of Labor Dictionary of Occupational Title strength rating (sedentary, light, medium, heavy and very heavy). The rating was matched against the job requirement (heavy) and recommendation for hire was based on a correct match. Of the 6,153 applicants, 4,560 were hired. Data from the company's Medical, Safety, Workers' Compensation and Human Resource databases were merged to determine differences between the NH and HI (n=1,401) groups from time of hire to point of injury. The results show that the injury rate for the NH group was 1.66 vs. 14.0 ( $p<.05$ ) for the HI group. The cost per injury for the NH group was \$1,035 vs. \$17,013 ( $p<.05$ ) for the HI group. Fitting the worker to the job through individualized post-offer screening with close attention to ADA "direct threat" and reasonable accommodation concerns, significantly reduces workplace injuries and associated costs.