Objective: We examined differential age effects on the Trail Making Test (TMT), Parts A and B using three age-based groupings.

Method: Archival data from 4074 participants were analyzed. Demographics: age (M = 41.5, SD = 17.97, range 18–89 years), full scale IQ (M = 101.4, SD = 13.5), 48.2% male. Groups: age 18 to 40 (n = 2037), age 41 to 60 (n = 1348), age 61 to 89 (n = 689). Simple regression analyses were conducted for the overall sample using age to predict TMTA and TMTB raw time scores. Simple regression analyses were then conducted for each age group predicting TMTA and TMTB raw scores.

Results: Simple regression analyses indicated that age was a significant predictor of both TMTA, F(1, 4073) = 299, p < .001, R² = .068, β = .26, and TMTB, F(1, 4073) = 685.6, p < .001, R² = .144, β = .38. Regression analyses were conducted for three age groups. TMTA results for age 18–40 were not significant, for 41–60, F(1, 1347) = 9.6, p < .05, R² = .006, β = .084, for 61–89, F(1, 688) = 30.1, p < .001, R² = .041, β = .205. Corresponding TMTB results: F(1, 2036) = 37.5, p < .001, R² = .018, β = .135; F(1, 1347) = 9.6, p < .05, R² = .006, β = .084; F(1, 688) = 20.4, p < .001, R² = .027, β = .170. Conclusion(s): Across tests we found a general pattern of increasing age affecting performance in the young, middle, and older age groups. The effect was more pronounced in TMTB compared to TMTA and the youngest age group showed no effect of age on TMTA. These results are consistent with known trajectory of decline in fluid intelligence with age and TMTB may be more sensitive to these changes.