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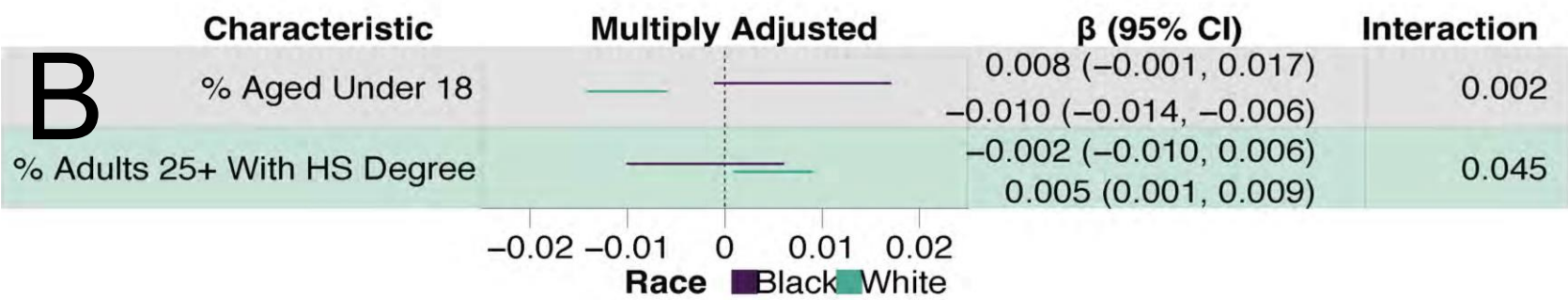
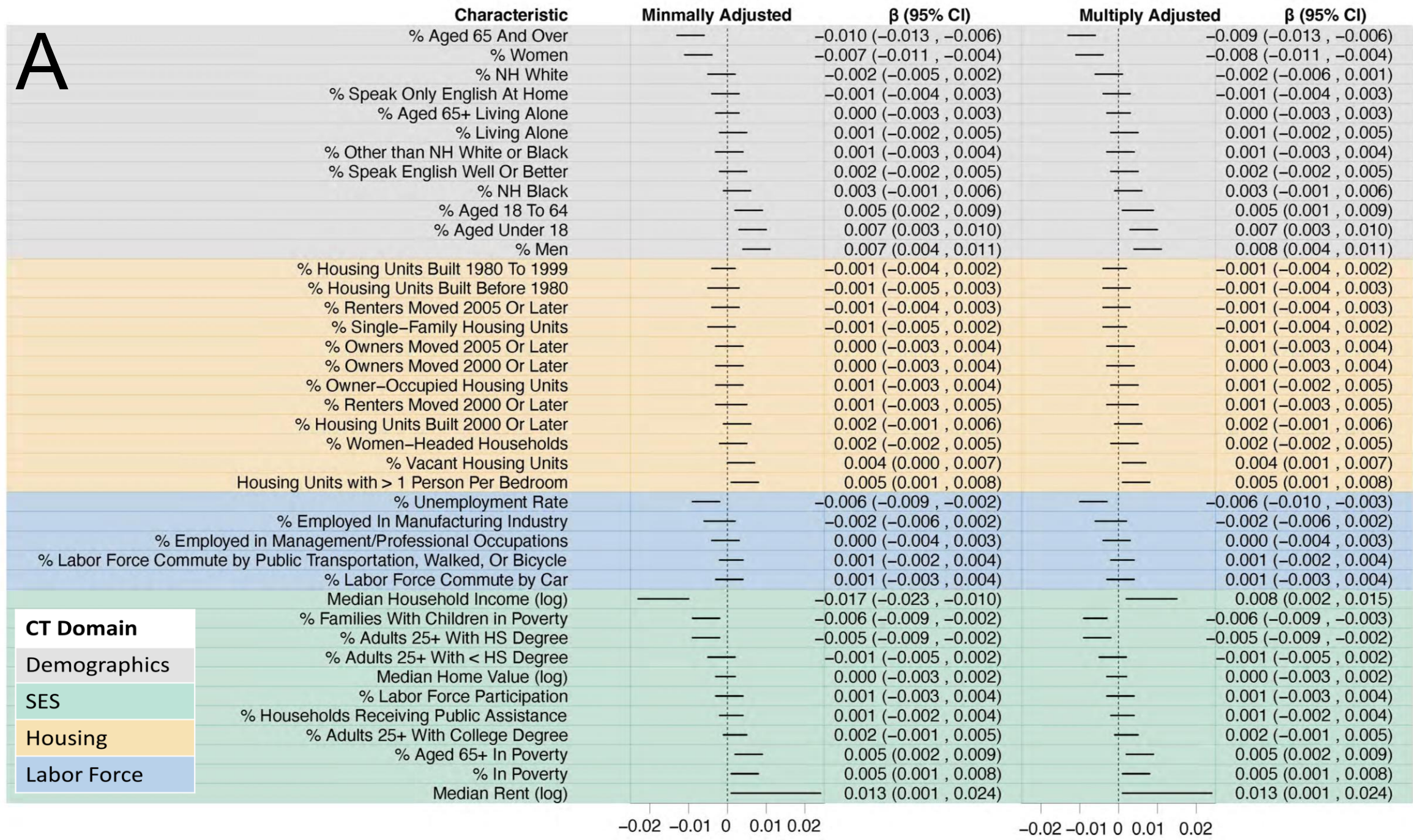
Estimated effects of 15 neighborhood factors (5 demographic, 2 housing, 2 labor force, and 6 socioeconomic) with per-visit changes in recall scores met conventional thresholds for significance (p<0.05). Racial differences in estimated effects of 2 neighborhood factors on cognitive change were driven by the NH White adults that comprised 85% the sample. Findings for NH Black adults were comparatively imprecise; future work should extend systematic analytic approaches to cohorts adequately powered to detect racial disparities in decline.

INTRODUCTION: The neighborhood environment remains an understudied contributor to cognitive health among older adults. Systematic analytic approaches with consistent adjustment for individual-level factors can identify co-occurring neighborhood factors that drive racial disparities in decline.

METHODS: We analyzed Health and Retirement Study participants (n = 14,049, mean [SD] age, 69 [10] years; 41% male; 85% NH White) with biennially collected data on the outcome of interest: averaged 10-word immediate and delayed word recall scores. Our exposures included 40 z-standardized 2005-2009 American Community Survey (ACS) census tract (CT) variables representing demographic, economic, labor force, and housing conditions. We estimated linear mixed-effects models to assess associations between each ACS variable and per-visit change (2006-2022) in word recall scores, standardized to the 2006 mean and SD. We evaluated heterogeneity by race and ethnicity (NH White versus NH Black) with interaction terms and stratified models.

Select characteristics, HRS (N = 14,069)	NH White (N = 11,915)	Nh Black (N = 2,154)
<i>Individual-level characteristic (2006 survey wave)</i>		
Median age, years (IQR)	69 (61, 76)	67 (62, 75)
Male, %	75	79
< High school, %	15	36
Married or partnered, %	67	45
Insured, %	97	92
Median recall score, (IQR)	5.0 (4.0, 6.0)	4.2 (3.5, 5.5)

A) Estimated effects of CT factors on per-visit change in word recall, HRS, 2006 **B)** CT variables with Black-White differences (p for interaction ≤ 0.05) in associations with per-visit change in word recall, HRS, 2006-2022. Minimally adjusted models controlled for age in years, sex, and state of residence. Multiply adjusted models further controlled for marital status, educational attainment, poverty status, and insurance status. All CT variables are standardized around the mean.



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