

Supplemental Online Content

Table S1. Identification of High Versus Low Occupations Using 2010 Census Bureau Industry Classification Source Codes Reported in the NHANES.

Table S2. Characteristics of Study Participants According to High versus Not High Cognitive Resilience.

Table S3. Association between Participant Characteristics and Global Cognitive Function.

This supplementary material has been provided by the authors to give readers additional information about their work.

Table S1. Identification of High Versus Low Occupations Using 2010 Census Bureau Industry Classification Source Codes Reported in the NHANES.

Industry Group Title	2010 Census Bureau Industry Classification Source Codes
High cognitive demand occupations	
Utilities	0570-0690
Information	6470-6780
Finance, Insurance	6870-6990
Real Estate, Rental, Leasing	7070-7190
Professional, Technical Services	7270-7490
Management, Business, Cleaning/Waste Serv	7570-7790
Education Services	7860-7890
Health Care, Social Assistance	7970-8470
Arts, Entertainment, Recreation	8560-8590
Public Administration	9370-9590
Low cognitive demand occupations	
Agriculture, Forestry, Fishing	0170-0290
Mining	0370-0490
Construction	0770
Manufacturing: Durable Goods	2470-3990
Manufacturing: Non-Durable Goods	1070-2390
Wholesale Trade	4070-4590
Retail Trade	4670-5790
Transportation, Warehousing	6070-6390
Accomodation, Food Services	8660-8690
Private Households	9290
Armed Forces	9670-9870

Classification of cognitive demand based on: Azeez, Gambatese, and Liu's work in "Comparison of Job Cognitive and Physical Demands in Different Industries for Implications on Safety Outcomes". Their work utilizes the Occupational Information Network (O*NET) and data from the Bureau of Labor Statistics to assess cognitive demand across multiple categories including deductive reasoning and perceptual speed for certain occupations. Their assessments provided analagous points of reference to categorize occupations listed in NHANES into high and low cognitive demand general groups.

Table S2. Characteristics of Study Participants According to High versus Not High Cognitive Resilience.

Characteristic	Overall	Cognitive Resilience*		p-value
		High	Not High	
Study population, No. in millions	42.8	11.7	31.1	
Sociodemographic characteristics				
Mean age in years (SE)	68.9 (0.2)	68.2 (0.3)	69.2 (0.3)	0.01
Age category, No. in millions (%)				<0.01
60-69	24.8 (57.8)	7.3 (62.3)	17.5 (56.1)	
70-79	12.4 (29.0)	3.4 (28.9)	9.0 (29.0)	
≥ 80	5.7 (13.2)	1.0 (8.8)	4.6 (14.9)	
Sex, No. in millions (%)				0.20
Male	21.2 (49.4)	5.3 (45.8)	15.8 (50.8)	
Female	21.6 (50.6)	6.3 (54.2)	15.3 (49.2)	
Race/Ethnicity, No. in millions (%)				<0.0001
Non-Hispanic White	34.8 (81.2)	11.0 (94.3)	23.8 (76.3)	
Non-Hispanic Black	3.5 (8.1)	0.2 (1.8)	3.2 (10.4)	
Hispanic	2.7 (6.4)	0.2 (1.8)	2.5 (8.1)	
Other/multiple	1.9 (4.3)	0.2 (2.1)	1.6 (5.2)	
Marital status, No. in millions (%)				0.23
Married or living with partner	28.3 (66.0)	8.1 (69.2)	20.2 (64.9)	
Not living with a partner	14.5 (34.0)	3.6 (30.8)	10.9 (35.1)	
Education, No. in millions (%)				<0.0001
High school or less	14.9 (34.8)	1.3 (11.2)	13.6 (43.7)	
At least some college	27.9 (65.2)	10.4 (88.8)	17.5 (56.3)	
Occupation†, No. in millions (%)				<0.0001
Low Cognitive Demand	14.6 (34.2)	3.2 (27.5)	11.4 (36.7)	
High Cognitive Demand	17.9 (41.8)	4.3 (37.0)	13.6 (43.6)	
Unknown	10.3 (24.0)	4.1 (35.5)	6.1 (19.7)	
Income Level Category, No. in millions (%)				<0.0001
Very Low (<100% FPL)	3.6 (8.4)	0.3 (2.5)	3.3 (10.7)	
Low (100% to 199% FPL)	9.5 (22.3)	1.7 (14.8)	7.8 (25.1)	
Middle (200% to 399% FPL)	12.6 (29.4)	3.1 (26.7)	9.5 (30.4)	
High (≥400% FPL)	17.1 (39.9)	6.5 (56.0)	10.5 (33.8)	
Health Status & Behaviors				
Self-reported health, No. in millions (%)				<0.0001
Good, Very Good, or Excellent	34.5 (80.5)	10.9 (93.7)	23.5 (75.6)	
Poor or Fair	8.3 (19.5)	0.7 (6.3)	7.6 (24.4)	
Self-reported quality of diet, No. in millions (%)				<0.001
Good, Very Good, or Excellent	35.9 (83.8)	10.5 (90.2)	25.3 (81.4)	
Poor or Fair	6.9 (16.2)	1.1 (9.8)	5.8 (18.6)	
Obese, No. in millions (%)	16.3 (38.2)	4.0 (34.6)	12.3 (39.5)	0.19
Hypertension, No. in millions (%)	21.9 (51.1)	5.4 (46.1)	16.5 (53.0)	0.01
Diabetes, No. in millions (%)	8.3 (19.3)	1.3 (11.4)	6.9 (22.2)	<0.001
Smoked ≥ 100 cigarettes, No. in millions (%)	24.2 (56.5)	5.4 (46.5)	18.8 (60.3)	<0.01
Ever been a binge drinker, No. in millions (%)	7.0 (16.3)	1.1 (9.8)	5.8 (18.8)	<0.001

Abbreviations: SE, standard error; FPL, federal poverty level

All analyses weighted to represent the U.S. population

* High defined as ≥1 standard deviation above the mean for global cognitive score versus Not High (<1 standard deviation)

† Based on industry and occupation group codes (deductive reasoning, inductive reasoning, information ordering, perceptual speed, etc).

Table S3. Association between Participant Characteristics and Global Cognitive Function.

Characteristic	Coefficient (95% CI)	
	Unadjusted	Adjusted§
Income Level Category*		
Very Low	0.00 (reference)	0.00 (reference)
Low	0.36 (0.25, 0.47)	0.16 (0.06, 0.25)
Middle	0.61 (0.51, 0.72)	0.27 (0.17, 0.37)
High	0.84 (0.71, 0.97)	0.33 (0.22, 0.44)
Sociodemographic Characteristics		
Race/ethnicity		
Non-Hispanic White	0.00 (reference)	0.00 (reference)
Non-Hispanic Black	-0.67 (-0.8, -0.53)	-0.4 (-0.48, -0.32)
Hispanic	-0.65 (-0.79, -0.51)	-0.33 (-0.45, -0.22)
Other/multiple	-0.27 (-0.38, -0.15)	-0.2 (-0.29, -0.12)
Marital status		
Married or living with partner	0.00 (reference)	0.00 (reference)
Not living with a partner	-0.19 (-0.28, -0.09)	-0.02 (-0.1, 0.07)
Educational attainment		
High school or less	0.00 (reference)	0.00 (reference)
At least some college	0.63 (0.54, 0.71)	0.4 (0.33, 0.48)
Occupation†		
Low Cognitive Demand	0.00 (reference)	0.00 (reference)
High Cognitive Demand	0.03 (-0.06, 0.12)	0.07 (-0.01, 0.15)
Unknown	0.3 (0.21, 0.4)	0.17 (0.1, 0.24)
Health Status & Behaviors		
Self-reported health		
Good, Very Good, or Excellent	0.00 (reference)	0.00 (reference)
Poor or Fair	-0.56 (-0.63, -0.48)	-0.28 (-0.35, -0.2)
Self-reported quality of diet		
Good, Very Good, or Excellent	0.00 (reference)	0.00 (reference)
Poor or Fair	-0.25 (-0.37, -0.14)	-0.02 (-0.12, 0.08)
Obese	-0.05 (-0.13, 0.04)	0.05 (-0.04, 0.13)
Hypertension	-0.13 (-0.21, -0.05)	-0.08 (-0.14, -0.02)
Diabetes	-0.3 (-0.4, -0.19)	-0.1 (-0.17, -0.03)
Smoked ≥ 100 cigarettes	-0.14 (-0.25, -0.03)	-0.03 (-0.13, 0.07)
Ever been a binge drinker	-0.2 (-0.29, -0.12)	-0.03 (-0.11, 0.06)

Abbreviations: CI, confidence interval; FPL, federal poverty level

All analyses weighted to represent the U.S. population

*Very Low (<100% FPL), Low (100% to 199% FPL), Middle (200% to 399% FPL), High (≥400% FPL)

† Based on industry and occupation group codes (deductive reasoning, inductive

§ Adjusted for all other factors in table