



IQ scores by ethnic group in a nationally-representative sample of 10-year old American children

Description

Note: We computed these results based on multiple versions of the ABCD data (v2.01 & v3.01) and with different inclusion/exclusion criteria. I originally posted a version based on the ABCD 2.01 data filtered for missing admixture, and other scores. However, after looking, I found a version that uses the maximum 3.01 sample with age-corrected NIHTBX scores ($N = 11474$). While the scores for the two versions correlate at $r = .98$, in some cases (e.g., Vietnamese), there is a notable difference. I have now replaced the original table with the one based on $N = 11474$ and moved the original table to the end of the post. For replicability and modifiability, I attached the latest R code which I had in my file.

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In our manuscript, titled “Reply to Warne,” we present average eduPGS and NIH Toolbox composite scores from the ABCD study, categorized by ethnic and religious groups. In our analyses, we used unweighted means instead of sample weighted scores, since we were only interested in the correlation between mean eduPGS and cognitive ability. However, we also computed weighted NIH Toolbox scores, which may be of interest to some readers.

These scores were computed using the **survey** package for R as recommended by Heeringa and Berglund (2020). These weighted scores, reported below, represent the “neuropsychological performance” scores, measured between 2016 and 2018, of representative samples of 10-year-old American children. The first three columns, after the group labels, display the sample size, means, and standard deviations, respectively. The fourth column presents the scores normalized with the non-Hispanic White mean set to 100.00 and standard deviations set to 15.00. To norm scores, we pooled the standard deviations across all groups (pooled $SD = 16.45$) and transformed the values using the pooled SD . On a reader request, I added average years of parental education, which I previously outputted, in the fifth column.

The ethnic groups are mutually exclusive, and the specific variables used to code them are provided in the supplementary materials of the manuscript. Classifications are based on the race/ethnicity of the child as reported by the responding parent in conjunction with the nationality and immigrant status of the parents; see the Parent Demographics Survey for specific variables and the second table for

definitions. To be clear, some of the definitions do not perfectly overlap with ones commonly used in the social sciences. For example, the classification “USA Blacks” refers to children who were identified as being Black, not being White, not being Hispanic, but also not having an immigrant parent or grandparent. This was done because, when computing the scores, we were interested in mutually exclusive ethnocultural groups.

Bear in mind that the sample sizes are often small and so the corresponding estimates are imprecise and also that the NIH Toolbox battery is fluid-intelligence loaded. For comparison, Sailer, in 2009, reported cognitive abilities of legal American immigrants based on the digit span backwards test. Additionally, in 2015, I summarized scores by immigrant generation and ethnic groups mostly based on scholastic tests.

Ethnic/National Group	N	M	SD	IQ-Metric Score	Parental Education (Years)
Chinese	81	116.53	21.02	111.32	16.95
Korean & Japanese	33	115.13	19.15	110.05	16.36
White & Asian Indian	44	114.66	14.19	109.62	16.75
White & Korean/Japanese	78	111.41	18.02	106.65	15.89
White & Chinese	77	109.77	18.16	105.16	16.42
White & Filipino	60	109.67	18.09	105.07	16.16
Filipino	51	107.99	17.53	103.53	15.5
Other Asian	52	106.8	20.17	102.46	15.91
Asian Indian	53	106.77	17.03	102.42	16.8
White	5858	104.11	16.51	100	15.45
White & Pacific Islander	25	103.74	16.9	99.66	15.47
Vietnamese	24	102.68	14.51	98.69	15.95
N. Africa & Mid. East	47	100.33	20.01	96.56	14.92
Pacific Islander	17	99.79	12.18	96.06	14.07
White & Native American	144	99.32	15.36	95.63	14.51
Central & South American	352	98.36	16.98	94.76	14.15
Not Identified	217	96.69	17.78	93.24	13.4
Dominican	38	95.1	16.65	91.79	13.99
White Mexican	775	95.1	16.37	91.78	12.8
White Cuban	151	94.98	16	91.67	13.92
NH Black & White	418	94.93	16.91	91.63	14.14
Other Hispanic	518	94.56	17.75	91.29	13.95
White Puerto Rican	133	94.22	17.23	90.98	13.74
Black African	59	93.84	13.41	90.63	14.97
Other Cuban	30	92.81	18.3	89.69	14.33
Native American	39	92.29	16.1	89.22	13.14
Other Mexican	460	91.82	16.02	88.79	11.9
Black Caribbean	51	91.74	16.79	88.72	14.26

Black & Other Puerto Rican	90	90.61	15.49	87.69	13.22
USA Black	1499	85.44	14.8	82.98	13.32

Survey design code

```
svyr <- svydesign(data=merged_df_group, id=~site_id_l, strata=NULL,
weights=merged_df_group$acs_raked_propensity_score)
summary(svyr)
```

```
svyby(~NIHTBX, ~SIRE_, svyr, svymean)
```

```
svyby(~NIHTBX, ~SIRE_, svyr, svyvar)
```

```
svyby(~NIHTBX, ~SIRE_, svyr, unwt.d.count)
```

```
svyby(~edu_average, ~SIRE_, svyr, svymean, na.rm=T)
```

Ethnic definitions

Ethnic/National group	Defintion
Asian Indian	not Hispanic & Asian Indian
Black & Other Puerto Rican	not White & Hispanic & Puerto Rican
Black African	not Hispanic & not White & Black & parent born in Sub-Saharan African country
Black Caribbean	not Hispanic & not White & Black & parent born in Caribbean country
Central & South American	Hispanic & Central and South American (excluding Mexico)
Chinese	not Hispanic & not White & Chinese
Dominican	Hispanic & Dominican
Filipino	not Hispanic & not White & Filipino
Korean & Japanese	not Hispanic & not White & Japanese OR Korean
N. Africa & Mid. East	not Hispanic & parent born in North African or Middle Eastern country
Native American	not Hispanic & not White & Native American
NH Black & White	not Hispanic & Black & White
Not Identified	Not any of the other classes
Other Asian	not Hispanic & Other Asian
Other Cuban	Hispanic & not White &
Other Hispanic	Hispanic & Not any of the other Hispanic group
Other Mexican	Hispanic & not White & Mexican
Pacific Islander	not Hispanic & not White & Pacific Islander
USA Black	not Hispanic & not White & Black & non-immigrant family
Vietnamese	not Hispanic & not White & Vietnamese

White	not Hispanic & White & no other race marked
White & Asian Indian	not Hispanic & White & Asian Indian
White & Chinese	not Hispanic & White & Asian Chinese
White & Filipino	not Hispanic & White & Filipino
White & Korean/Japanese	not Hispanic & White & (Korean OR Japanese)
White & Native American	not Hispanic & White & Native American
White & Pacific Islander	not Hispanic & White & Pacific Islander
White Cuban	Hispanic & White & not Black & Cuban
White Mexican	Hispanic & White & Mexican
White Puerto Rican	Hispanic & White & not Black % Puerto Rican

Additional information

In response to a reader's request, I [append](#) the scores by the grandparents' country of origin — as reported by the responding parent — instead of race. For these, cases were subset to individuals whose maternal or paternal grandparents came from the same country. Originally, we planned to correlate scores with National IQ scores but we eventually decided that reports were too sparse and also unreliable.

Version 1 based on the reduced dataset

The original table, now replaced with the version based on $N = 11474$, is shown below.

Ethnic/National group	N	M	SD	IQ-metric scores	Parent Education (Years)
Korean & Japanese	16	117.4	21.87	112.23	16.27
Chinese	43	115.79	14.67	110.76	16.96
White & Asian Indian	41	114.57	14.53	109.64	16.72
White & Korean/Japanese	71	110.88	18.22	106.26	16
White & Chinese	70	109.37	18.34	104.88	16.32
White & Filipino	55	109.07	17.57	104.6	16.19
Asian Indian	50	107.59	17.33	103.25	16.77
Filipino	36	107.09	17.26	102.79	15.34
White	5614	104.04	16.5	100	15.51
Other Asian	43	103.1	17.73	99.14	15.55
N. Africa & Mid. East	41	100.12	20.98	96.41	15.05
White & Native American	136	99.29	15.55	95.65	14.56
Central & South American	314	98.25	16.92	94.7	14.43
Vietnamese	12	96.04	14.45	92.68	15.94
Not Identified	202	95.76	15.5	92.42	13.83
Dominican	36	95.6	16.56	92.27	14.25
White Mexican	669	95.39	16.84	92.08	13.2
NH Black & White	397	95.16	16.69	91.87	14.21
White Cuban	146	95.06	16.16	91.78	13.97

Other Hispanic	484	94.89	17.87	91.62	14.06
Black African	57	93.8	13.44	90.63	14.79
White Puerto Rican	124	93.74	16.65	90.57	14.05
Native American	36	93.23	15.58	90.1	13.14
Other Mexican	366	92.68	16.33	89.6	12.25
Black Caribbean	46	91.66	17.19	88.67	14.3
Other Cuban	28	91.53	17.48	88.55	14.55
Black & Other Puerto Rican	75	90.91	15.94	87.98	13.68
USA Black	1426	85.51	14.77	83.04	13.43

Category

1. Main
2. Society-Family-Education

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