Intelligence 54 (2016) 1–32

Contents lists available at ScienceDirect

Intelligence

Investigating the right tail of wealth: Education, cognitive ability, giving, network power, gender, ethnicity, leadership, and other characteristics

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ARTICLE INFO

Article history:
Received 27 July 2015
Received in revised form 29 October 2015
Accepted 4 November 2015
Available online xxxx

Keywords:
Education
Cognitive ability
Wealth
Expertise
Achievement

ABSTRACT

The extent to which people in the right tail of wealth are highly educated and cognitively able was examined in a sample of 18,245 ultra high net worth (UHNW) individuals with net worth's of USD $30 million plus. How education and ability related to religion, ethnicity, political affiliation, relationship status, country, industry, leadership, gender, net worth, giving, and network power was assessed. And whether gender, religion, ethnicity, or network power differences existed in the right tail of wealth was examined. Overall, these people were highly educated and cognitively able, and smarter (more educated) people were wealthier, gave more, and had more powerful social networks (but when controlling for multiple confounds the association between education/ability and wealth was found to be quite small). Females were underrepresented, and female CEOs needed to be more select to reach the top of a company. Males and billionaires gave the most, but females and UHNW individuals gave more of what they had. U.S. Blacks and self-made females had the highest network power. U.S. Blacks and Caucasians were similarly educated and cognitively able. Democrats had a higher education and cognitive ability level than Republicans. Married people dominated and were the most educated and cognitively able, but least likely to have inherited their money and give. The finance, banking, investment, and internet sectors dominated. Jewish individuals were overrepresented by a factor of about 234. Today, the typical UHNW individual profile includes U.S. married (Christian and Jewish) men who are largely Chairman and CEO, Republican, and earned their money in finance, banking and investments. This study provides evidence for the clustering of brains, wealth and power, and suggests that elite education may matter in the trajectory of developing expertise in wealth and power generation.

1. Introduction

There are many interlocking individual and societal factors that contribute to the development of expertise or high achievement in any domain (Detterman, 2014; Epstein, 2013; Kaufman, 2013; Macnamara, Hambrick, & Oswald, 2014). Major individual factors include extraordinary practice (Ericsson, Krampe, & Tesch-Romer, 1993), but also extraordinary talent (Kell, Lubinski, & Benbow, 2013; Subotnik, Olszewski-Kubilius, & Worrell, 2011; Wai, 2014a). A large body of research has demonstrated a strong link between cognitive ability and educational and occupational success (Kuncel, Hezlett, & Ones, 2004; Nyborg & Jensen, 2001; Schmidt & Hunter, 2004; Wai, 2014a), including the accumulation of wealth (Kaplan & Rauh, 2013; Wai, 2013, 2014b).

One way to empirically investigate whether education and cognitive ability level of the individual might impact the eventual accrual of extreme wealth is to examine right tail wealth groups and retrospectively assess to what degree these individuals were educated and cognitively able at an earlier point in time (Cox, 1926; Simonton, 2009). In prior studies examining people who have accumulated fortunes that placed them in the extreme right tail of wealth (billionaires: 0.0000001%) according to net worth calculations by *Forbes* magazine, Wai (2013, 2014b) uncovered that 33.9% of the world and 45.0% U.S. billionaires were likely in the top 1% of cognitive ability, and even within these extreme right tail samples, higher education selectivity and ability was associated with higher net worth.

This study draws upon the Wealth-X database which tracks not only billionaires but also the wider right tail of wealth (USD $30 million or higher). Wealth-X has a different method than *Forbes* of calculating net worth,[1] so this study can both attempt to replicate the findings from the *Forbes* database and also examine to what extent elite education and brainpower is connected to wealth in the broader right tail,

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[1] Wealth-X reviews hundreds of wealth identifiers from over 1100 intelligence sources which include both paid and open source, as well as online and in print. An assessment of all asset holdings including privately and publicly held businesses and investible assets which include real estate, aircraft, yachts, artwork, and collectibles are combined to assess an individual's net worth (for more information see Wealth-X and UBS, 2013, 2014).

http://dx.doi.org/10.1016/j.intell.2015.11.002
0160-2896/

as well as the degree to which these populations are intellectually gifted.

2. Sample

2.1. Ultra high net worth (UHNW) individuals: USD $30 million plus

The data for this study was drawn from the Wealth-X database (Wealth-X and UBS, 2013, 2014; Morrison, Lincoln, Kinnard, & Ng, 2013), which included individuals who had a net worth of USD $30 million or higher and systematic education (undergraduate and/or graduate school) and baseline demographic data. This resulted in a total sample of 18,245 people (Male = 16,430, Female = 1,772, Unknown = 43; Average age = 60.76). Other information included in the database constructed for this study apart from net worth, education, and gender were source of wealth, religion, political affiliation, relationship status, ethnicity, country, industry, title, giving sum, number of known associates also in the Wealth-X database, the net worth of those known associates, and age. Throughout the paper, the term *billionaires* refers to people with a net worth of USD $1 billion or higher and the term *ultra high net worth* (*UHNW*) *individuals* refers to people with a net worth of USD $30 million or higher.

3. Method

3.1. Assessing education and ability level

The method for the current study is an extension of that used by Wai (2013) for the U.S. alone and is detailed in Wai (2014b). Gaining admission to a top U.S. college, university, or graduate school requires for the large majority to score at or above a certain highly select level on standardized tests such as the Scholastic Assessment Test (SAT), American College Test (ACT), Graduate Record Examination (GRE), Law School Admissions Test (LSAT) or Graduate Management Admission Test (GMAT), among others. Student assessment tests are regarded as being good measures of cognitive ability highly correlated with the results of psychometric IQ tests and showing similar cognitive demands (e.g. Rindermann & Baumeister, 2015; Rindermann & Thompson, 2013). The SAT and ACT have been shown to measure general intelligence (*g*) or IQ to a large degree (Frey & Detterman, 2004; Koenig, Frey, & Detterman, 2008), and it is reasonable to think other tests (e.g. international standardized exams) also measure intelligence due to Spearman's (1927) *indifference of the indicator*—the idea that "*g* enters into any and every mental task" (Jensen, 1998, p. 33). Murray (2012, p. 366) concluded: "the average graduate of an elite [U.S.] college is at the 99th [per]centile of IQ of the entire population of seventeen-year-olds," and defined an elite college to be roughly one of the top dozen schools in the *U.S. News* & *World Report* rankings (America's Best Colleges, 2013).

The list of colleges, universities, and graduate schools indicating top 1% in cognitive ability status within the U.S. can be found in Table 1 of Wai (2013). The criteria for selection of these schools was based on the average scores of an institution indicating roughly the top 1% in ability compared to the general U.S. population.[2] However, many individuals attended colleges and universities within their home countries, therefore the QS World University Rankings (2012) were used to determine elite school status within each country. As a reasonably select cut point, up to the top 10 schools within each country were considered elite and included. In many cases there were fewer than 10 schools within each country that made it onto the *QS* world rankings, and only the schools on the *QS* rankings were used. Although the method in Wai (2013) reasonably isolated the schools that required standardized test scores indicating top 1% in cognitive ability status, the same method cannot be directly applied for countries worldwide due to varying criteria for university admissions and lack of publicly reported standardized test scores. However, it is reasonable to think the top colleges and universities within each country would attract a large fraction of the brightest individuals. Therefore, admission to one of these schools is a direct measure of elite school status, and also a reasonable but indirect proxy of high cognitive ability relative to the selection pool within each country—likely within the top 1%.

Some students attend an elite school with lower than typical test scores (e.g., due to athletics, legacy status, political connections, affirmative action; Espenshade & Radford, 2009; Golden, 2006; Sander, 2004), whereas others who have higher than typical test scores may not have attended an elite school for various reasons (e.g. financial limitations, scholarship, staying close to home). Gender roles are additionally important. This lowers the reliability of the educational measure as an ability indicator, especially at the individual level. However, factors in both directions likely counterbalance one another, which makes the method reasonable for group estimates.

3.2. Definition of terms and group inclusion

3.2.1. Source of wealth

Wealth-X designates three independent categories for source of wealth. *Inheritance* included people who entirely inherited their wealth. *Inheritance/self-made* included people who both inherited and created their wealth. *Self-made* included people who entirely created their wealth (see Wai, 2014b, for extended discussion on what it means to be self-made).

3.2.2. Giving

Giving was assessed in two different ways. First was the raw sum of giving. Second was the sum of giving as a percentage of an individual's net worth. Giving is accumulative, or lifetime.

3.2.3. Network power

Two variables were combined to assess overall network power. First was the number of known associates or connections an individual had within the Wealth-X database. Second was the net worth of those known associates. The following formula was used: Network power = (# known associates) × (net worth of known associates). The idea behind this formula is that the network power an individual holds is a function of both the number *and* net worth of their known associates.

3.2.4. Groups included in the present study

As a general rule, a group (e.g. a specific country, political affiliation, or religion) was included in one of the figures, tables, or appendixes when the sample size was 25 or higher.

3.3. Research questions

The present study addressed the following questions for the right tail of wealth:

1. How educated and cognitively able are these people?
2. How does education and cognitive ability relate to various factors: religion, ethnicity, political affiliation, relationship status, country, industry, leadership, gender, net worth, giving, and network power?

[2] Attendance at a national university or liberal arts college that had median combined SAT Critical Reading and Math scores of 1400 or greater according to *U.S. News & World Report* (America's Best Colleges's, 2013) was used as a reasonable indicator that the individual was in the top 1% in cognitive ability compared to the general U.S. population. This resulted in 29 schools which can be found in Table 1 of Wai (2013). Additionally, similar cut scores on the LSAT (12 schools) and GMAT (12 schools) were used as a reasonable indicator that the individual was in the top 1% in cognitive ability. Finally, for students who had graduate degrees outside of law and business, attendance at one of the 29 schools in Table 1 was used as a reasonable indicator that their GRE scores placed them in the top 1% in cognitive ability compared to the general U.S. population. For specific details on the population level statistical calculations that led to these selection criteria, see Wai (2013) and Murray (2012).