



# Expertise in Journalism: Factors Shaping a Cognitive and Culturally Elite Profession

Jonathan Wai<sup>1</sup> and Kaja Perina<sup>2</sup>

<sup>1</sup>Department of Psychology, University of Arkansas; <sup>2</sup>*Psychology Today*

Correspondence: Jonathan Wai, waijon@hotmail.com

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## Abstract

What qualities are important in the development of journalism expertise? And how can the study of elite journalists shed light on our understanding of expertise more broadly? This study examined a sample of 1,979 employees of *The New York Times* (NYT) and *The Wall Street Journal* (WSJ), arguably two of the most influential papers in the U.S. and the world. Almost half of the people who reach the pinnacle of the journalism profession attended an elite school and were likely in the top 1% of cognitive ability. This means top 1% people are overrepresented among the NYT and WSJ mastheads by a factor of about 50. Placed in the context of other elite occupations, this provides evidence for the influence of the cognitive elite across a wide variety of expertise, including domains that provide prestige and influence rather than monetary rewards. Roughly 20% attended an Ivy League school. Writers were drawn from higher-ranking schools, reflecting higher cognitive ability than demonstrated by editors' schools. Almost all elite journalists graduated from college, and the majority did not major in journalism (roughly 80% of typical journalists graduate from college). Only a handful of select schools feed the mastheads of the NYT and the WSJ, suggesting the importance of networks. Data on typical journalists were analyzed to provide characteristics of editors and reporters/correspondents. This approach shows that cognitive ability should be accounted for in more comprehensive theoretical models of expertise and that deliberate practice cannot be the full explanation of success. It also provides a unique test of the generality of expertise models into more nontraditional expertise domains such as journalism and other occupations and ultimately may shed light on the extent to which general cognitive ability, the role of selective institutions, opportunity, and other factors may play in expertise development broadly.

## Keywords

journalism expertise, education, cognitive abilities, elite profession, professional networks

*I still believe that if your aim is to change the world, journalism is a more immediate short-term weapon.* ~Tom Stoppard

## Introduction

Much expertise research has focused on sports, music, and games such as chess (e.g., Ericsson, 2014; Ericsson, Ericsson, Krampe, & Tesch-Romer, 1993). However, the push towards more comprehensive theoretical models of expertise (e.g., Hambrick, Macnamara, Campitelli, Ullen, & Mosing, 2016), and studying expertise from a multidisciplinary perspective (Gobet, 2016), suggests that the strength of theoretical models,

and the extent of their generality, should ultimately be evaluated across a wide and diverse array of vocational and avocational disciplines.

The study of elite occupations is one class of expertise disciplines that have received less attention in the expertise literature, though more recent investigations have explored the role of education and cognitive ability in the development of expertise in a variety of occupational domains, including business, wealth accumulation, law, and politics (e.g., Volden, Wiseman, & Wai, 2016; Wai, 2013, 2014; Wai & Rindermann, 2017). Journalism is

one domain that, to our knowledge, remains unexplored. Specifically, there has been little to no research on elite journalists and the various factors that might play into the development of journalism expertise. Studying this domain may ultimately shed light on the generality or other aspects of expertise theories.

Broadly, models of expertise suggest that general cognitive ability plays an important role in expertise, though it is certainly not the only important predictor (e.g., for a review, see Subotnik, Olszewski-Kubilius, and Worrell, 2011). The extent to which general cognitive ability may vary across expertise domains is a less studied aspect. Additionally, a long-standing discussion in the expertise literature is whether general or specific abilities may be more important in predicting expertise outcomes (e.g. Gobet, 2016; Hambrick et al., 2016).

The deliberate practice model (Ericsson, 2014; Ericsson et al., 1993) suggests that practice can largely account for domain performance. Hambrick et al. (2016) reviewed the evidence on this topic, using meta-analysis with a specific emphasis on estimating the role of deliberate practice across domains. For example, Macnamara, Hambrick, and Oswald (2014) demonstrated that deliberate practice accounted for less than 1% of the performance variance in occupations, suggesting that factors other than deliberate practice may be more important for occupational expertise. Another way of approaching this issue is to examine the role of general cognitive ability within an area of occupational expertise and determine the extent to which this factor is important. Accounting for the largest source of variance in any system is a useful starting point in determining the relative importance of other factors in any model (e.g., Lubinski, 2004).

### Studying Journalism Expertise

The news industry supports about 33,000 full-time newsroom employees (Mitchell & Holcomb, 2016). Of those employees, two newspapers that have elite stature and corresponding influence in the U.S. and around the world are *The New York Times* (NYT) and *The Wall Street Journal* (WSJ). What are the

characteristics of the editorial staff who end up being employed by these two newspapers at the pinnacle of the journalism world? And how can the study of elite journalists shed light on our understanding of expertise more broadly?

Previous research investigated *The New Republic* (TNR) masthead (Wai & Rindermann, 2015), and found that about 64.2% attended an elite school. Therefore, relative to the other elite occupations studied (elite school attendance ranging from 20.6% up to 85.2%), TNR appears to be highly selective. However, scholars (e.g., Murray, 2012) hypothesize that journalists for publications such as the NYT and WSJ are likely extremely intelligent and highly educated. The question remains as to whether journalism, at the highest level, is a profession only of the *culturally elite*, but is it also a profession of the *cognitively elite*. Additionally, a report from the Poynter Institute for Media Studies (Finberg & Klinger, 2014) argued that the qualities of successful journalists may not be the same from one generation to the next, that the advent of digital media means the core skills and competencies needed today are much more complex than in the past, and that having such skills is important for “preserving journalism’s role within society” (p. 2).

The challenges to today’s journalists include the fact that the number of Americans who trust national news organizations is at a historic low, and that this trust is split along partisan lines: In a May 2017 Pew Research Center survey of Americans’ attitudes to the news media, only 11 percent of Republicans, 15 percent of Independents, and 34 percent of Democrats placed “a lot” of trust in national news organizations, which would include the NYT and WSJ (Barthel & Mitchell, 2017). The changing economics of publishing and the dominance of social media as a news source may affect both the reality and the perception of the industry, ultimately attracting fewer students from elite schools with high cognitive ability who may choose more lucrative jobs (e.g., Gudrais, 2008; Philippon & Reshef, 2012; Yang, 2014).

Assessment of the broader educational training and cognitive capacity of journalists is

an important step in preserving journalism's role within society. Therefore, to better understand the development of journalism expertise at a time when the media landscape is rapidly shifting, a broader analysis of top journalists—within the context of other influential occupations—is required to better understand the educational backgrounds and cognitive selectivity of the people who end up at two of the most influential newspapers in the world.

In this study, we investigated the role of general cognitive ability as assessed through elite education in two populations of elite journalists, examining distinctions between journalism expertise that manifests itself as function of job category (e.g., editors vs. writers), gender, school attended, and major. We examined these findings on elite journalists in the context of a broader array of domains of occupational expertise. To provide context for our elite journalist samples, we also studied the characteristics of typical journalists with a focus on distinctions between editors and writers. It is possible that elite journalists simply exhibit more extreme characteristics and career trajectories than typical journalists. Alternatively, it is possible that elite journalists are categorically different from typical journalists. This approach provides a unique test of the generality of expertise models into more nontraditional expertise domains such as journalism and other occupations and ultimately may shed light on the extent to which general cognitive ability, the role of selective institutions, opportunity, and other factors may play in expertise development broadly.

## Samples

### Elite Journalists

*The New York Times* (NYT). Data on 984 (female = 473, male = 481) journalists were drawn from the larger pool of 4,453 journalists who indicated they were employed in 2016 by the NYT in some capacity. Therefore, the sample used in this study was about 22.1% of the full pool. Systematic data were available and collected for name, job title, gender, higher education information, and college major.

*The Wall Street Journal* (WSJ). Data on 995 (female = 473, male = 506) journalists were drawn from the larger pool of 2,161 journalists who indicated they were employed in 2016 by the WSJ in some capacity. Therefore, the sample used in this study was about 46% of the full pool. Systematic data were available and collected for name, job title, gender, higher education information, and college major.

Data were collected by the first author through a LinkedIn premium account during a period of about two months in October and November of 2016. Using such a LinkedIn account allowed the identification of up to just under 1,000 individuals (the search limit imposed by LinkedIn) who indicated they were employed by the NYT and the WSJ. These samples were used in this study to draw inferences about the full populations. The samples were reasonably balanced across males and females, the sample sizes were quite large, and the NYT and WSJ are typically seen as representing two different political viewpoints (liberal and conservative, respectively). For all these reasons, findings that replicate across the two samples are likely the most generalizable to elite journalists and are the primary focus of this study.

### Typical Journalists

*O\*NET*. To provide data on characteristics of journalists broadly and, specifically, contrasts between editors and writers, summary data were drawn from O\*NET, i.e., Editors (<https://www.onetonline.org/link/details/27-3041.00>) and Reporters and Correspondents (<https://www.onetonline.org/link/details/27-3022.00>). The categories of Knowledge, Skills, Abilities, Education, Interests, and Wages were collected. To allow comparisons, only subcategories rated “Important” within each domain (e.g., Abilities) were included for this analysis. These data are from 2017 and are a random representative sample of typical editors and reporters and correspondents. More information on how O\*NET data are collected can be found at: <https://www.onetcenter.org/dataCollection.html>.

## Method

### Elite Journalists

*Defining “Elite School.”* The way an “Elite School” is defined in this study is primarily as a function of average standardized test scores and global rankings of higher education institutions around the world, and has been used in prior work (Wai, 2013, 2014). This method is therefore one direct measure of elite school status and an indirect or proxy measure of ability status.

*“Elite School” within the U.S.* Gaining admission to a highly selective American college or university typically requires scoring at or above a certain level on the Scholastic Assessment Test (SAT) or the American College Test (ACT), which are standardized tests that have been shown to measure general intelligence or IQ to a large degree (Frey & Detterman, 2004; Koenig, Frey & Detterman, 2008). Murray (2012, p. 366) concluded that “the average graduate of an elite college is at the 99<sup>th</sup> [per]centile of IQ of the entire population of seventeen-year-olds,” basing this conclusion on SAT test data from the College Board website. He calculated that a median combined Critical Reading and Mathematics score of 1400 or greater puts a student in the top three percent of the select population of SAT test takers and well within the top one percent of seventeen-year-olds in the general population.<sup>1</sup> Murray defined an elite college to be roughly one of the top dozen schools in the *U.S. News & World Report* rankings. Therefore, in addition to a marker of high education level, elite college attendance also indicates a high general ability level.

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 the 2013 *U.S. News* rankings

(America’s Best Colleges, 2013) was used as one reasonable indicator that the individual was in the top one percent in ability in the American population (Murray, 2012). The *U.S. News* rankings reports the 25<sup>th</sup> and 75<sup>th</sup> combined SAT Critical Reading and Math or ACT composite percentiles so an average of these two values was computed to approximate the median score. Before doing this, ACT composites were translated to SAT composites using a concordance table (ACT, 2011). Twenty-one national universities and 8 liberal arts colleges met these criteria for a total of 29 schools. Table 1a gives a list of these schools ranked by SAT scores.

Elite graduate school attendance was also used as a reasonable indicator that the individual was in the top one percent in ability. *U.S. News* ranks law and business schools and reports average Law School Admission Test (LSAT) and Graduate Management Admission Test (GMAT) scores. The top law and business schools were rank ordered according to test scores, and the top 12 from each group were selected to approximate the top 10% of test takers within each pool (GMAT, 2013; LSAC, 2007). Given that an extremely select fraction of the college graduate population go on to take the GMAT and LSAT, individuals who attended one of these schools are likely well within the top 1% in ability. Table 1b and 1c provides a list of the top 12 schools in each group ranked by LSAT and GMAT scores. Finally, because *U.S. News* only ranks other graduate schools according to narrow discipline, the list of the 29 national undergraduate universities was also used as a reasonable indicator that if an individual had attended one of these schools (Table 1a) for graduate school other than law or business then this individual was likely in the top 1% in ability.

**Table 1.** Schools attended that indicate top one percent in ability status (ranked by ability)

<b>1a. National Universities and Liberal Arts Colleges</b>	<b>Combined SAT Math and Critical Reading Scores</b>
1. California Institute of Technology	1525
2. Harvey Mudd College	1500
2. Princeton University	1500
4. Yale University	1495
5. Harvard University	1490
5. Massachusetts Institute of Technology	1490
7. University of Chicago	1485
8. Columbia University	1475
9. Washington University in St. Louis	1465
9. University of Notre Dame	1465
11. Pomona College	1460
12. Stanford University	1455
12. Dartmouth College	1455
14. Northwestern University	1445
14. Vanderbilt University	1445
16. Duke University	1440
16. University of Pennsylvania	1440
16. Swarthmore College	1440
19. Brown University	1430
19. Rice University	1430
19. Tufts University	1430
22. Amherst College	1425
23. Williams College	1420
24. Carleton College	1415
25. Johns Hopkins University	1410
25. Carnegie Mellon University	1410
25. Bowdoin College	1410
28. Cornell University	1400
28. Haverford College	1400
<b>1b. Law Schools</b>	<b>Average LSAT Scores</b>
1. Yale University	173.5
1. Harvard University	173.5
3. Columbia University	172.5
4. New York University	172
5. University of Chicago	170
6. Stanford University	169.5
7. Duke University	169
7. Georgetown University	169
9. University of Pennsylvania	168.5
9. University of Michigan - Ann Arbor	168.5
11. University of Virginia	168
11. Northwestern University	168
<b>1c. Business Schools</b>	<b>Average GMAT Scores</b>
1. Stanford University	730
2. Harvard University	724
3. University of Chicago	719
3. Yale University	719
3. New York University (Stern)	719
6. University of Pennsylvania (Wharton)	718
6. Dartmouth College (Tuck)	718
8. Columbia University	716
9. University of California Berkeley	715
10. Northwestern University	712
11. Massachusetts Institute of Technology	710
12. University of Michigan - Ann Arbor (Ross)	703

*Note.* These data were taken from the 2013 U.S. News rankings (*America's Best Colleges, 2013*). A combined SAT Critical Reading and Mathematics score of 1400 or greater places an individual in the top three percent of all test takers and well within the top one percent in ability of all seventeen-year-olds in the population. An LSAT score of 168 or higher and a GMAT score of 700 or higher

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*places an individual in roughly the top 10 percent of test takers in the respective pools. Given that the fraction of the college graduate population who go on to take the GMAT and LSAT are extremely select, individuals who attended one of these schools are likely well within the top one percent in ability. Adapted from Wai (2013).*

“Elite School” outside the U.S. Some individuals attended colleges and universities within their non-U.S. home countries, therefore the *QS World University Rankings* (2012) was 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 included in the *QS* world rankings, and only schools in the *QS* rankings were used. Although the method for the U.S. 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%.<sup>2</sup>

Just because an individual did not attend one of these schools does not mean they were not in the top one percent of ability, and ultimately this method cannot disentangle the potential effect of school, family background, or other factors from the potential effect of general cognitive ability. 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 (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. Factors in both directions likely counterbalance one another, which makes the method reasonable for group estimates.

To assess significance between groups when appropriate, confidence intervals around the differences between proportions (Agresti, 2007) and  $h$  for the effect size for proportions (Cohen, 1988) were computed.

### Typical Journalists

For the O\*NET data, shared characteristics across editors and reporters/correspondents were taken as a reflection of general characteristics of journalists as whole, whereas non-shared characteristics were taken as a reflection of key differences within journalism between editors and writers.

## Results

### Elite Journalists

The most robust results are those that replicate across the two samples, therefore most of the results that follow are summarized with this in mind. However, when findings within the NYT or WSJ specifically deviate in an important way they are also discussed with the broader replication pattern as context.

*Overall education and brainpower level by newspaper and gender.* Table 2 presents the percentages, by males and females, of the NYT and WSJ who—according to standardized test scores—were likely in the top 1% of general ability. “Elite School” indicates the percentage that attended one of the schools with average test scores that placed them in the top 1%. “Graduate School” indicates the percentage that attended graduate school independent of the Elite School category and represents a group likely in the top percentiles of ability. “College” indicates the percentage that attended college

but not Graduate School or an Elite School. “NR/NC” indicates the percentage that did not report (NR) any education or had no college (NC). These four categories are independent of one another and sum to 100%. In addition to these categories, attendance at “Harvard,” an “Ivy League” school, an elite undergraduate school (“Elite UG”), or an elite graduate school (“Elite G”) are also provided. Finally, those with an undergraduate journalism major (“Journalism Major UG”), with undergraduate journalism, media, or other writing majors (“Journalism, Media, or Writing Majors UG”), “Journalism Master’s,” and corresponding

sample sizes are provided. Roughly 33% to 40% of elite journalists went to an elite school (WSJ vs. NYT: 40.3% vs. 33.4%; 95% CI Proportion Differences: 0.03, 0.11;  $h = 0.15$ ). The “NR/NC” percentages were very low, indicating that nearly everyone attended and graduated from college or higher. For the NYT, the female elite school percentage was slightly lower but not significantly different than males (M: 34.5%, F: 32%; 95% CI PD: -0.03, 0.08;  $h = 0.06$ ); for the WSJ also, elite school percentages for females and males did not significantly differ (M: 39.1%, F: 40.8%; 95% CI PD: -0.08, 0.04;  $h = -0.04$ ).

**Table 2.** Educational backgrounds, cognitive ability, and majors of the NYT and WSJ by gender (proportions)

New York Times	Elite School	Graduate School	College	NR/NC		Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master’s	N
Male	0.345	0.146	0.466	0.044		0.048	0.210	0.245	0.162	0.183	0.417	0.097	481
Female	0.320	0.165	0.483	0.033		0.033	0.210	0.224	0.177	0.173	0.500	0.164	491
Total	0.334	0.154	0.470	0.040		0.040	0.213	0.235	0.172	0.178	0.456	0.139	984
Wall Street Journal	Elite School	Graduate School	College	NR/NC		Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master’s	N
Male	0.391	0.113	0.451	0.045		0.036	0.206	0.273	0.194	0.194	0.385	0.456	506
Female	0.408	0.125	0.438	0.030		0.023	0.222	0.296	0.207	0.274	0.589	0.550	473
Total	0.403	0.118	0.440	0.038		0.029	0.215	0.286	0.200	0.237	0.488	0.510	995

Note. “NR/NC” = Not reported or no college. UG = undergraduate. G = graduate.

Table 3 provides information in the same groups as Table 2 as a function of males and females but adds the additional dimension of job category. Specifically, job title information was coded into the categories of “Editorial/Reporting/Writing,” “Vice President/Top Management,” “Manager/Director/Producer/Executive,” and “Other.” The Editorial/Reporting/Writing category was further categorized into “Staff Overall,” “Staff Editorial,” “Staff Writing,” and “Contributor.” The “Other” category included the remaining job titles that did not fall cleanly

into any other major category. Staff writers were significantly more educationally select and were higher in cognitive ability than staff editors across the NYT (writers elite school = 51.7%, editors = 37.9%; 95% CI PD: 0.04, 0.24;  $h = 0.28$ ) and WSJ (writers = 54.2%, editors = 43.1%; 95% CI PD: 0.03, 0.19;  $h = 0.22$ ) and this pattern replicated as a function of gender. Across job categories, the pattern that replicated across the WSJ and NYT were that staff writers were the most educationally and cognitively select, followed by staff editors, contributors,

other, and managers/directors/producers/executives.  
The one category that deviated across the NYT

and WSJ was vice presidents and top management.

**Table 3.** Educational backgrounds, cognitive ability, and majors of the NYT and WSJ by job category and gender (proportions)

<b>New York Times – All</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	N
Editorial/Reporting/Writing – Staff Overall	0.439	0.129	0.376	0.056	0.044	0.291	0.316	0.209	0.294	0.605	0.212	412
Editorial/Reporting/Writing – Staff Editorial	0.379	0.147	0.411	0.063	0.031	0.219	0.272	0.188	0.355	0.657	0.210	224
Editorial/Reporting/Writing – Staff Writing	0.517	0.109	0.322	0.052	0.063	0.385	0.374	0.236	0.210	0.532	0.197	174
Editorial/Reporting/Writing – Contributor	0.363	0.200	0.413	0.025	0.063	0.250	0.213	0.213	0.269	0.552	0.297	80
Vice President/Top Management	0.561	0.073	0.341	0.024	0.146	0.415	0.415	0.341	0.091	0.364	0.000	41
Manager/Director/Producer/Executive	0.190	0.184	0.602	0.024	0.024	0.099	0.129	0.109	0.060	0.313	0.021	294
Other	0.258	0.168	0.535	0.039	0.019	0.155	0.187	0.129	0.106	0.356	0.080	155
<b>New York Times – Males</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	N
Editorial/Reporting/Writing – Staff Overall	0.438	0.119	0.390	0.052	0.057	0.271	0.319	0.181	0.296	0.586	0.129	210
Editorial/Reporting/Writing – Staff Editorial	0.327	0.140	0.467	0.065	0.047	0.140	0.262	0.121	0.402	0.659	0.129	107
Editorial/Reporting/Writing – Staff Writing	0.563	0.104	0.292	0.042	0.073	0.417	0.385	0.250	0.192	0.493	0.132	96
Editorial/Reporting/Writing – Contributor	0.368	0.132	0.447	0.053	0.079	0.237	0.211	0.211	0.364	0.515	0.333	38
Vice President/Top Management	0.667	0.083	0.208	0.042	0.167	0.500	0.500	0.375	0.050	0.300	0.000	24
Manager/Director/Producer/Executive	0.206	0.198	0.573	0.023	0.023	0.107	0.153	0.099	0.036	0.264	0.023	131
Other	0.218	0.154	0.577	0.051	0.013	0.115	0.141	0.128	0.094	0.234	0.042	78
<b>New York Times – Females</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	N
Editorial/Reporting/Writing – Staff Overall	0.429	0.143	0.372	0.056	0.031	0.296	0.306	0.230	0.294	0.636	0.269	196
Editorial/Reporting/Writing – Staff Editorial	0.412	0.158	0.368	0.061	0.018	0.272	0.272	0.237	0.310	0.667	0.250	114
Editorial/Reporting/Writing – Staff Writing	0.461	0.118	0.368	0.053	0.053	0.342	0.368	0.211	0.235	0.588	0.259	76
Editorial/Reporting/Writing – Contributor	0.341	0.268	0.390	0.000	0.049	0.244	0.220	0.195	0.176	0.588	0.238	41
Vice President/Top Management	0.412	0.059	0.529	0.000	0.118	0.294	0.294	0.294	0.154	0.462	0.000	17
Manager/Director/Producer/Executive	0.180	0.168	0.627	0.025	0.025	0.093	0.112	0.118	0.079	0.357	0.020	161
Other	0.303	0.184	0.500	0.013	0.026	0.197	0.237	0.132	0.118	0.471	0.115	76

Note. "NR/NC" = Not reported or no college. UG = undergraduate. G = graduate. Table continued on next page.



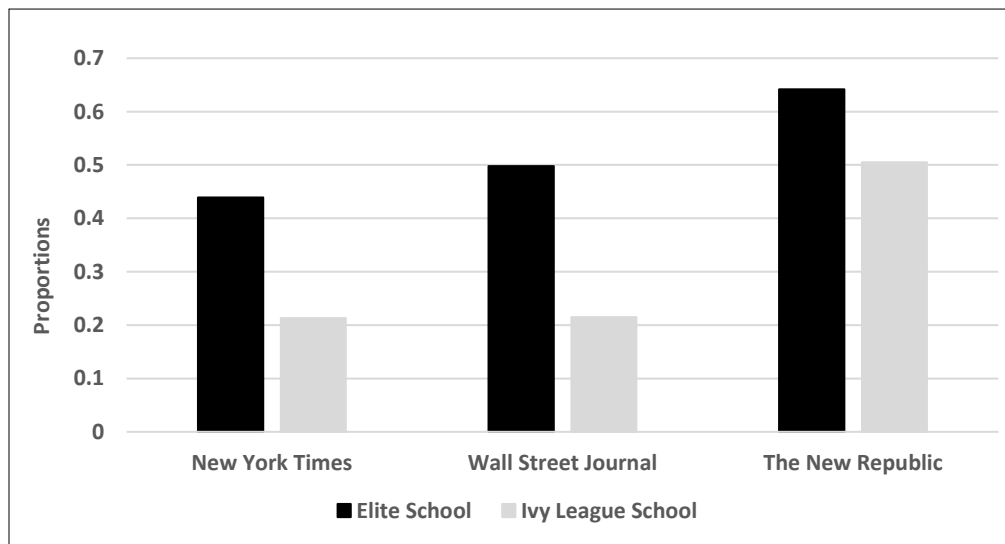
<b>Wall Street Journal – All</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	<i>N</i>
Editorial/Reporting/Writing – Staff Overall	0.498	0.121	0.344	0.037	0.037	0.273	0.356	0.250	0.294	0.537	0.589	652
Editorial/Reporting/Writing – Staff Editorial	0.431	0.138	0.375	0.056	0.017	0.237	0.297	0.228	0.324	0.580	0.536	232
Editorial/Reporting/Writing – Staff Writing	0.542	0.111	0.323	0.025	0.049	0.296	0.397	0.264	0.278	0.518	0.605	406
Editorial/Reporting/Writing – Contributor	0.430	0.151	0.372	0.047	0.058	0.244	0.302	0.209	0.159	0.362	0.286	86
Vice President/Top Management	0.125	0.000	0.792	0.083	0.000	0.083	0.083	0.083	0.111	0.389	0.500	24
Manager/Director/Producer/Executive	0.128	0.109	0.718	0.045	0.000	0.045	0.090	0.064	0.099	0.382	0.179	156
Other	0.211	0.105	0.671	0.013	0.000	0.079	0.145	0.079	0.179	0.463	0.200	76
<b>Wall Street Journal – Males</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	<i>N</i>
Editorial/Reporting/Writing – Staff Overall	0.468	0.113	0.382	0.038	0.043	0.249	0.324	0.228	0.233	0.437	0.527	346
Editorial/Reporting/Writing – Staff Editorial	0.413	0.130	0.399	0.058	0.022	0.246	0.290	0.188	0.255	0.459	0.479	138
Editorial/Reporting/Writing – Staff Writing	0.510	0.105	0.365	0.020	0.060	0.255	0.350	0.260	0.223	0.422	0.543	200
Editorial/Reporting/Writing – Contributor	0.375	0.104	0.458	0.063	0.063	0.208	0.271	0.208	0.132	0.237	0.250	48
Vice President/Top Management	0.188	0.000	0.688	0.125	0.000	0.125	0.125	0.125	0.182	0.364	0.500	16
Manager/Director/Producer/Executive	0.123	0.137	0.671	0.068	0.000	0.041	0.096	0.055	0.069	0.259	0.067	73
Other	0.261	0.130	0.609	0.000	0.000	0.130	0.174	0.130	0.150	0.350	0.400	23
<b>Wall Street Journal – Females</b>	Elite School	Graduate School	College	NR/NC	Harvard	Ivy League	Elite UG	Elite G	Journalism Major UG	Journalism, Media, or Writing Majors UG	Journalism Master's	<i>N</i>
Editorial/Reporting/Writing – Staff Overall	0.522	0.133	0.311	0.034	0.031	0.297	0.386	0.276	0.355	0.649	0.638	293
Editorial/Reporting/Writing – Staff Editorial	0.451	0.154	0.341	0.055	0.011	0.209	0.319	0.275	0.403	0.727	0.574	91
Editorial/Reporting/Writing – Staff Writing	0.561	0.117	0.296	0.026	0.041	0.337	0.429	0.276	0.331	0.620	0.655	196
Editorial/Reporting/Writing – Contributor	0.500	0.211	0.263	0.026	0.053	0.289	0.342	0.211	0.194	0.516	0.316	38
Vice President/Top Management												8
Manager/Director/Producer/Executive	0.133	0.084	0.759	0.024	0.000	0.048	0.084	0.072	0.123	0.479	0.308	83
Other	0.196	0.098	0.686	0.020	0.000	0.059	0.137	0.059	0.178	0.511	0.100	51

Table 4 provides the elite school percentage for various occupations to provide context for where the NYT and WSJ staff editors and writers fall in terms of educational selectivity and brainpower in relation to *The New Republic* (TNR) staff editors and writers and other highly selective occupations. This provides a test of whether findings replicate across the staff of newspapers and a magazine. Overall, TNR staff tended to be the most educationally select and significantly different from the WSJ (TNR elite school = 64.2%, WSJ = 49.8%; 95% CI PD: 0.04, 0.25;  $h = 0.28$ ), with the WSJ and NYT

not significantly different from each other (WSJ = 49.8% vs. NYT = 43.9%, 95% CI PD: 0.00, 0.12;  $h = 0.12$ ). Figure 1 pulls out these statistics from Table 2 and shows the percentage who attended an Ivy League school for undergraduate or graduate. About 21% of the NYT and WSJ staff editors/writers attended an Ivy League school. Figure 1 clearly illustrates that TNR is especially selective on elite schools, specifically Ivy League schools (50.5%). In comparison to other select occupations, the NYT and WSJ editorial/writing staff were about average, and TNR was near the top.

**Table 4.** Elite school of various occupations in the U.S. elite (proportions)

Occupation	Elite School
House members	0.206
30-millionaires	0.338
Federal judges	0.409
Fortune 500 CEOs	0.410
Senators	0.410
New York Times Editors/Writers	0.439
Forbes billionaires	0.448
Wall Street Journal Editors/Writers	0.498
World Economic Forum attendees	0.546
Forbes powerful women	0.559
The New Republic Editors/Writers	0.642
Forbes powerful men	0.852



**Figure 1.** Elite and Ivy League education of the NYT, WSJ, and TNR (proportions)

An analysis was conducted to determine the role of college or graduate school major in journalism and/or other media and writing majors in the development of journalism

expertise. The “Journalism Major UG” category indicated anyone who said they majored in journalism in some capacity. The “Journalism, Media, or Writing Majors UG” indicated

anyone who said they majored in journalism, media studies, communication, English, writing, or literature in some capacity. The “Journalism Master’s” category indicated anyone who reported they had obtained a master’s degree in journalism.

Females were significantly more likely to major in journalism/media/writing than males (NYT:  $F = 50\%$ ,  $M = 41.7\%$ ; 95% CI PD: 0.01, 0.15;  $h = 0.16$ ; WSJ:  $F = 58.9\%$ ,  $M = 38.5\%$ ; 95% CI PD: 0.14, 0.27;  $h = 0.40$ ). The WSJ staff was significantly more likely than the NYT to have a master’s in journalism (WSJ = 51%, NYT = 13.9%; 95% CI PD: 0.31, 0.43;  $h = 0.82$ ), and a journalism major in either undergraduate or graduate school (WSJ = 39.4%, NYT = 21.2%; 95% CI PD: 0.14, 0.22;  $h = 0.40$ ).

The large discrepancy between the WSJ and NYT as to who obtained a journalism master’s degree prompted an analysis to determine whether “undefined master’s degrees” differed across the WSJ and NYT and also which graduate schools of journalism might have the greatest representation on the WSJ and NYT staff. This additional analysis indicated that 76.3% of the WSJ had a master’s in journalism or an undefined master’s, compared to 60.6% of the NYT, which was significantly different (95% CI PD: 0.09, 0.22;  $h = 0.33$ ). Overall, the WSJ had more highly educated staff. Of the 49 people from the NYT with a master’s in journalism, 38.8% went to Columbia University, 16.3% Northwestern University, 10.2% New York University, and 10.2% University of California-Berkeley. Of the 181 people from the WSJ with a master’s in journalism, 47% went to Columbia University, 9.4% New York University, 6.6% Northwestern University, and 5% University of California-Berkeley. Of the 165 people from the NYT with an undefined master’s, 24.8% went to Columbia University and 11.5% went to New York University. Of the 40 people from the WSJ with an undefined master’s, 20% went to Columbia University and 6.7% went to New York University. Overall, this analysis suggests that the most influential graduate school in terms of placing editors and writers at elite places such as the NYT and the

WSJ is Columbia University—journalism major or otherwise. It also indicates the handful of other schools that appear to have the greatest effect as producers of top journalists.

### Typical Journalists

Table 5 provides O\*NET data used for this analysis looking at the characteristics of typical journalists. What follows is a summary of the core findings. Shared characteristics are indicated by blue. Non-shared characteristics are indicated by red. Overall, editors and reporters/correspondents had many shared characteristics. Broadly, editors tended to have additional characteristics or aspects that appeared important to their job performance. Given that shared characteristics across the two groups were rather straightforward, the focus of this summary of results is primarily on the differences between editors and reporters/correspondents in a broad sense. Table 5 shows detailed data for the categories of knowledge, skills, abilities, and work values. Relevant data on education and wages are reported in text below.

*Knowledge.* Editors tend to have more management-related knowledge.

*Skills.* Editors tend to have additional skills in management, quality control, teaching, and systems.

*Abilities.* Written comprehension and expression as well as fluency of ideas is greater for editors than reporters/correspondents. Editors also have additional abilities in category flexibility and flexibility of closure.

*Interests.* Enterprising interests are greater for editors. Editor interests are also more Conventional and reporter/correspondent interests are more Investigative.

*Work values.* Editors tend to value independence more, whereas reporters/correspondents tend to value achievement and recognition more.

*Education.* For editors, 80% had a bachelor’s degree, 17% a master’s degree, and 1% a post-baccalaureate certificate. For

reporters/correspondents, 82% had a bachelor’s degree, 5% a master’s degree, and 5% a post-baccalaureate certificate. Therefore, the core difference is that editors are more likely to have a master’s degree.

*Wages.* Median wages in 2016 for editors was \$57,210, and it was \$37,820 for reporters/correspondents. For employment in 2014, there were 117,000 editors and 49,000 reporters/correspondents.

Projected job openings for 2014-2024 were 42,500 for editors and 15,900 for reporters/correspondents, and projected growth across the same period was a decline for both groups. Industry percentages for editors were information (57%), other industries (29%) and self-employed (14%), whereas for reporters/correspondents it was information (87%), self-employed (15%), and other industries (2%).

**Table 5.** Data on the knowledge, skills, abilities, interests, and work values of typical journalists

<b>KNOWLEDGE</b>	
<b>Editors</b>	
<b>Importance</b>	<b>Knowledge</b>
95	<b>English Language</b> — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
88	<b>Communications and Media</b> — Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.
59	<b>Administration and Management</b> — Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
57	<b>Clerical</b> — Knowledge of administrative and clerical procedures and systems such as word processing, managing files and records, stenography and transcription, designing forms, and other office procedures and terminology.
56	<b>Education and Training</b> — Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.
53	<b>Customer and Personal Service</b> — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
52	<b>Computers and Electronics</b> — Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
<b>Reporters and Correspondents</b>	
<b>Importance</b>	<b>Knowledge</b>
99	<b>English Language</b> — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
91	<b>Communications and Media</b> — Knowledge of media production, communication, and dissemination techniques and methods. This includes alternative ways to inform and entertain via written, oral, and visual media.
74	<b>Law and Government</b> — Knowledge of laws, legal codes, court procedures, precedents, government regulations, executive orders, agency rules, and the democratic political process.
50	<b>Telecommunications</b> — Knowledge of transmission, broadcasting, switching, control, and operation of telecommunications systems.

*Note.* Blue = shared characteristics. Red = non-shared characteristics. Table continued on next four pages.

<b>SKILLS</b>	
<b>Editors</b>	
<b>Importance</b>	<b>Skill</b>
97	<b>Reading Comprehension</b> — Understanding written sentences and paragraphs in work related documents.
81	<b>Writing</b> — Communicating effectively in writing as appropriate for the needs of the audience.
72	<b>Active Listening</b> — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
72	<b>Critical Thinking</b> — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
69	<b>Speaking</b> — Talking to others to convey information effectively.
60	<b>Time Management</b> — Managing one's own time and the time of others.
56	<b>Quality Control Analysis</b> — Conducting tests and inspections of products, services, or processes to evaluate quality or performance.
53	<b>Active Learning</b> — Understanding the implications of new information for both current and future problem-solving and decision-making.
53	<b>Complex Problem Solving</b> — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
53	<b>Judgment and Decision Making</b> — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
53	<b>Social Perceptiveness</b> — Being aware of others' reactions and understanding why they react as they do.
53	<b>Systems Analysis</b> — Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
50	<b>Coordination</b> — Adjusting actions in relation to others' actions.
50	<b>Instructing</b> — Teaching others how to do something.
50	<b>Management of Personnel Resources</b> — Motivating, developing, and directing people as they work, identifying the best people for the job.
50	<b>Monitoring</b> — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.
50	<b>Negotiation</b> — Bringing others together and trying to reconcile differences.
50	<b>Persuasion</b> — Persuading others to change their minds or behavior.
<b>Reporters and Correspondents</b>	
<b>Importance</b>	<b>Skill</b>
81	<b>Active Listening</b> — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.
81	<b>Reading Comprehension</b> — Understanding written sentences and paragraphs in work related documents.
78	<b>Writing</b> — Communicating effectively in writing as appropriate for the needs of the audience.
75	<b>Speaking</b> — Talking to others to convey information effectively.
69	<b>Critical Thinking</b> — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
66	<b>Social Perceptiveness</b> — Being aware of others' reactions and understanding why they react as they do.
63	<b>Active Learning</b> — Understanding the implications of new information for both current and future problem-solving and decision-making.
60	<b>Time Management</b> — Managing one's own time and the time of others.
56	<b>Complex Problem Solving</b> — Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
56	<b>Monitoring</b> — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

53	<b>Judgment and Decision Making</b> — Considering the relative costs and benefits of potential actions to choose the most appropriate one.
53	<b>Persuasion</b> — Persuading others to change their minds or behavior.
50	<b>Coordination</b> — Adjusting actions in relation to others' actions.
50	<b>Negotiation</b> — Bringing others together and trying to reconcile differences.
<b>ABILITIES</b>	
<b>Editors</b>	
<b>Importance</b>	<b>Ability</b>
97	<b>Written Comprehension</b> — The ability to read and understand information and ideas presented in writing.
91	<b>Written Expression</b> — The ability to communicate information and ideas in writing so others will understand.
75	<b>Oral Comprehension</b> — The ability to listen to and understand information and ideas presented through spoken words and sentences.
75	<b>Oral Expression</b> — The ability to communicate information and ideas in speaking so others will understand.
72	<b>Fluency of Ideas</b> — The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
72	<b>Near Vision</b> — The ability to see details at close range (within a few feet of the observer).
72	<b>Speech Clarity</b> — The ability to speak clearly so others can understand you.
72	<b>Speech Recognition</b> — The ability to identify and understand the speech of another person.
66	<b>Category Flexibility</b> — The ability to generate or use different sets of rules for combining or grouping things in different ways.
63	<b>Deductive Reasoning</b> — The ability to apply general rules to specific problems to produce answers that make sense.
63	<b>Originality</b> — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
60	<b>Inductive Reasoning</b> — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
60	<b>Information Ordering</b> — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
60	<b>Problem Sensitivity</b> — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
53	<b>Flexibility of Closure</b> — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
50	<b>Selective Attention</b> — The ability to concentrate on a task over a period of time without being distracted.
<b>Reporters and Correspondents</b>	
<b>Importance</b>	<b>Ability</b>
81	<b>Oral Comprehension</b> — The ability to listen to and understand information and ideas presented through spoken words and sentences.
78	<b>Oral Expression</b> — The ability to communicate information and ideas in speaking so others will understand.
78	<b>Speech Clarity</b> — The ability to speak clearly so others can understand you.
78	<b>Written Comprehension</b> — The ability to read and understand information and ideas presented in writing.
75	<b>Written Expression</b> — The ability to communicate information and ideas in writing so others will understand.
72	<b>Inductive Reasoning</b> — The ability to combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
72	<b>Speech Recognition</b> — The ability to identify and understand the speech of another person.

69	<b>Near Vision</b> — The ability to see details at close range (within a few feet of the observer).
69	<b>Originality</b> — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
69	<b>Problem Sensitivity</b> — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
63	<b>Information Ordering</b> — The ability to arrange things or actions in a certain order or pattern according to a specific rule or set of rules (e.g., patterns of numbers, letters, words, pictures, mathematical operations).
56	<b>Deductive Reasoning</b> — The ability to apply general rules to specific problems to produce answers that make sense.
56	<b>Fluency of Ideas</b> — The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
50	<b>Selective Attention</b> — The ability to concentrate on a task over a period of time without being distracted.
<b>INTERESTS</b>	
<b>Editors</b>	
<b>Importance</b>	<b>Interest</b>
89	<b>Artistic</b> — Artistic occupations frequently involve working with forms, designs and patterns. They often require self-expression and the work can be done without following a clear set of rules.
83	<b>Enterprising</b> — Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.
50	<b>Conventional</b> — Conventional occupations frequently involve following set procedures and routines. These occupations can include working with data and details more than with ideas. Usually there is a clear line of authority to follow.
<b>Reporters and Correspondents</b>	
<b>Importance</b>	<b>Interest</b>
89	<b>Artistic</b> — Artistic occupations frequently involve working with forms, designs and patterns. They often require self-expression and the work can be done without following a clear set of rules.
56	<b>Enterprising</b> — Enterprising occupations frequently involve starting up and carrying out projects. These occupations can involve leading people and making many decisions. Sometimes they require risk taking and often deal with business.
50	<b>Investigative</b> — Investigative occupations frequently involve working with ideas, and require an extensive amount of thinking. These occupations can involve searching for facts and figuring out problems mentally.
<b>WORK VALUES</b>	
<b>Editors</b>	
<b>Importance</b>	<b>Work Value</b>
83	<b>Independence</b> — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.
72	<b>Achievement</b> — Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.
67	<b>Recognition</b> — Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.
56	<b>Relationships</b> — Occupations that satisfy this work value allow employees to provide service to others and work with co-workers in a friendly non-competitive environment. Corresponding needs are Co-workers, Moral Values and Social Service.



56	<b>Working Conditions</b> — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.
50	<b>Support</b> — Occupations that satisfy this work value offer supportive management that stands behind employees. Corresponding needs are Company Policies, Supervision: Human Relations and Supervision: Technical.
<b>Reporters and Correspondents</b>	
<b>Importance</b>	<b>Work Value</b>
78	<b>Achievement</b> — Occupations that satisfy this work value are results oriented and allow employees to use their strongest abilities, giving them a feeling of accomplishment. Corresponding needs are Ability Utilization and Achievement.
72	<b>Recognition</b> — Occupations that satisfy this work value offer advancement, potential for leadership, and are often considered prestigious. Corresponding needs are Advancement, Authority, Recognition and Social Status.
67	<b>Independence</b> — Occupations that satisfy this work value allow employees to work on their own and make decisions. Corresponding needs are Creativity, Responsibility and Autonomy.
58	<b>Working Conditions</b> — Occupations that satisfy this work value offer job security and good working conditions. Corresponding needs are Activity, Compensation, Independence, Security, Variety and Working Conditions.

## Discussion

The discussion that follows first includes limitations of this study. Then, we discuss the findings of this paper and how they have both practical and theoretical implications for journalism and, more broadly, the study of expertise. We attempt to provide a discussion of various potential factors that might be relevant to journalism expertise in addition to those studied in this paper. Though we do not always have data to support our points, we hope the reader will view this discussion as our attempt to consider a tentative synthesis on the study of journalism expertise with implications for future research directions to test these ideas more thoroughly with data. The data from elite journalists are fleshed out to some extent by the data from typical journalists, and when taken together this provides a broader empirical base from which we discuss the development of journalism expertise.

## Limitations

This research synthesis used average standardized test scores of a college or university according to *U.S. News & World Report* (America's Best Colleges, 2013) as an approximation or "proxy" for general intelligence level (Frey & Detterman, 2004;

Koenig et al., 2008), as well as attendance at a top college or university worldwide according to *QS World University Rankings* (2012) as an approximation for ability level (Li et al., 2012). Although this method did not rely on individual test scores which were not publicly available, average test scores from U.S. schools reasonably placed groups of individuals that attended one of these elite schools within the top 1% of ability. It is reasonable to think the very top schools select for the best and brightest within each country. Ultimately, the method cannot disentangle education from cognitive ability. However, using this method may give an underestimate because extremely smart people may not have chosen to attend a top school for multiple reasons (e.g., financial limitations, scholarship, staying close to home). Alternatively, this method may also give an overestimate because there were likely some legacies, athletic or affirmative action admits; students with political connections; or others who gained entry with lower than typical test score and academic metrics (Espenshade & Radford, 2009; Golden, 2006; Sander, 2004). Factors in both directions likely counterbalance one another, however lower the reliability of the method. In addition, the people in this study are not fully representative of the many other



individuals in the top percentiles of ability worldwide, and they are likely defined by attributes not limited to ability (such as high motivation, willingness to work and engage in deliberate practice, take risks, and a desire for power and status). As in any profession, failure to attain elite status as a WSJ or NYT journalist does not imply low cognitive ability. Factors including chance, institutional effects, and gender roles can influence biography, including one's profession.

As is the case in any broad domain of expertise, there are subdomains of expertise within journalism. For example, opinion-editorial (Op-Ed) writers focus on rhetoric, persuasion, and presenting one side of an argument. Science and economic/business reporters tend to focus on synthesizing and conveying complex information and among the journalism elite are highly data-literate. Journalists often develop strong content expertise. The personality traits of conscientiousness and openness to experience and curiosity about a variety of topics may also be critical to success. The ability to maintain objectivity and to anticipate trends, as well as to intuit the knowledge base and psychographics of one's audience constitute important skillsets: To connect with a reader, you have to understand how they think instead of simply expecting them to think as you think (also an important skill in teaching). Additionally, evidence suggests that accomplished writers may have higher verbal ability relative to their mathematical ability (e.g., Park, Lubinski, & Benbow, 2007). Though this paper synthesized findings across three highly select media outlets which represented diverse political viewpoints (Duarte et al., 2015), it may not be representative of elite journalists, and future research could investigate the mastheads of more newspapers and magazines. There is also the possibility that our samples include age variation and that the selectivity of these institutions could vary across time. Each of these factors may bear on the development of journalism expertise but were not directly measured in this study and might be worthwhile avenues to pursue in future research.

Our findings advance an understanding of expertise in real-world professions in that they surface important similarities and differences among subdomains of a seemingly monolithic profession. Differences across the O\*NET and NYT/WSJ data sets (e.g., in comparing writers to editors) indicate that capturing relevant occupational expertise requires research as granular as possible to understand better the similarities and differences across selectivity levels of a profession. Thus, the O\*NET data used to describe the characteristics of typical journalists may or may not generalize to elite journalists and leaves open the need to collect data on more journalists at all levels and areas to advance our understanding of expertise in this domain.

### Developing Journalism Expertise

*Elite education and cognitive ability.* To increase the chances of reaching the top of the journalism profession, one likely needs to be highly educated and have a relatively high level of cognitive ability. Although becoming a journalist does not technically require a college degree, data from the NYT and WSJ show that nearly everyone attended and graduated from college, and data from O\*NET shows that roughly 80% of all journalists have a college degree. Figure 1 clearly illustrates that attending an Ivy League school and elite school correlate with employment at an elite U.S. newspaper or magazine. The reasons for why TNR would have a higher proportion of elite educated staff is unclear, but it may be related to the fact that the TNR sample is much smaller and that the magazine has a history of hiring from elite schools (Schonfeld, 2014).

Set in the context of other elite occupations, ranging from House members to the *Forbes* most powerful men, 43.9% of NYT and 49.8% of WSJ staff editors/writers attended an elite school and are likely in the top 1% of cognitive ability (see Table 4). This means that the top 1% in ability are overrepresented among the NYT and WSJ staff by a factor of about 44 to 50. This clearly indicates that the staff of the NYT and WSJ are not ordinary when it comes to education and cognitive ability. Elite journalists resemble Senators, billionaires, and World

Economic Forum attendees in terms of educational attainment and therefore also cognitive ability, though they earn on average less than people in these professions (see Table 4).

About 17.8% of NYT and 23.7% of WSJ staff majored in journalism at the undergraduate level and 45.6% of NYT and 48.8% of WSJ staff majored in journalism, media studies, communication, English, writing, or literature. A master's degree in journalism appears to be more important for the WSJ (51%) than the NYT (13.9%), though master's degrees or higher appeared important for both the WSJ and NYT, and having a master's degree of some kind (journalism or otherwise) from Columbia University seemed most prevalent. Master's degrees are less important for more typical journalists.

However, similar to an elite undergraduate education, it is unclear whether a master's degree from an institution such as Columbia University confers added skills or simply builds a journalist's network, thereby giving them access to jobs at elite papers such as the WSJ and NYT. Social networks may be disproportionately important in publishing and the arts/humanities generally, given that there are fewer quantitative gauges of output (patents earned/peer-reviewed articles submitted) and talent is more subjectively judged in journalism and publishing. Columbia University is the most selective graduate school of journalism, and it is reasonable to assume that incoming students are cognitively select to begin with, regardless of the degree to which they improve in the 10-month program. Of course, there are limits to what even elite schools can teach, and that cognitive ability may be a greater determinant of where they enroll and of professional outcome than is the pedagogy to which they are exposed while in said school. In our analysis, the Columbia University Graduate School of Journalism conveys a definite advantage on those hoping to work at elite newspapers, likely due to growth of social network as well as skills acquired.

In the cognitive realm, a deeper knowledge base and a more generalist capacity—being able

to quickly comprehend and write well about a wide variety of topics—may be factors that separate staffers of the WSJ and the NYT compared to other newspapers. Both factors may be selected for through elite education and school selectivity in that people who are high in general intelligence (who score highly on standardized tests) also tend to develop large stores of general knowledge (Jensen, 1998). Elite education may also be influential due to the importance of strong networks in the development of expertise in the arts and humanities where talent may be more subjectively judged. More broadly, the main components that go into developing elite journalism expertise may be general cognitive ability, development of both a general and domain specific knowledge base, elite education and corresponding networks, the personality traits of conscientiousness and openness to experience, strong curiosity, and the ability to be able to think like and convey information clearly and well to the general public.

*Elite journalists versus typical journalists.* It is possible that elite journalists simply exhibit more extreme characteristics and career trajectories than typical journalists. Or it is possible that elite journalists are categorically different from typical journalists. The truth is likely somewhere in between. The O\*NET data shown in Table 5 provide hints from typical journalists about some of the factors that may go into journalism expertise at elite levels. In terms of education, elite journalists tend to go to more highly selective institutions and have higher educational attainment. For typical journalists overall, a summary of core characteristics follows: knowledge of English and communications and media; core skills include reading, writing, listening, critical thinking, social perceptiveness, complex problem solving, learning, judgment and decision making, persuasion and negotiation; core abilities include oral and written comprehension and expression, reasoning, originality, problem sensitivity, information ordering, and fluency of ideas; core interests are artistic and enterprising; and core work values are achievement, recognition, independence, and good working conditions.

*Editors versus writers.* Kinsley (2008) noted

that “two very different groups of people are responsible for the words that fill the world’s magazines and newspapers. There are the writers, who produce prose, and the editors, who do their best to wreck it.” Though their incentives may be somewhat different, they ultimately must work together to produce the information that we read. The finding that staff writers tend to be more highly educated and cognitively able than staff editors among two of the most selective and influential newspapers is intriguing but ambiguous. The difference likely reflects in part lifestyle factors and skill acquisition that militate for different roles at different points in life. Nonetheless, it is tempting to invoke Isaiah Berlin’s (1953) fox vs. hedgehog distinction in terms of editorial vs. writerly thought style: Editors are foxes who know many things and writers are hedgehogs who focus on one important thing, their domain, or beat. The best journalists must in a real sense be both, as they are generalists who absorb a range of information in domains in which they often lack formal schooling, and specialists who go deep to execute a story (see Aschwanden, 2013a, 2013b for various perspectives from writers and editors themselves). There may also be a positive transfer feedback loop between the skill sets. Placed within a learning framework (Salomon & Perkins, 1989), editors engage in moderately reflexive “low road transfer,” as they approach content in a schematic way: Newspaper articles in particular can be evaluated/edited using structural checklists, and a focus on what is missing or needs to be included. Writing can be characterized as “high road transfer,” as it involves a broader search for disparate, generative connections. Finally, it can be argued that editing is in fact a subdomain of journalistic writing: All high-caliber writers do editorial diligence on their own work, but not all editors can generate high-caliber writing.

One reason writers may be more cognitively select than editors may have to do with the typical career progression in journalism: Journalists are generally writers before moving up the newspaper food chain to become editors. Such a career progression roughly parallels the levels of fluid and crystallized intelligence

across the lifespan (Tucker-Drob, 2009).

Writers may be of a more “generative” mindset which may require the high cognitive demand of learning a domain quickly and figuring out what to put on paper. Over time, writers may invest their fluid intelligence into more crystallized skillsets or expertise that can be readily deployed. In contrast, editors may be of a more “curatorial” mindset which may also require high cognitive demand but also may rely more on using developed skill sets to reconfigure the working pieces of writing. The way the journalism profession is structured, people typically tend to become editors at some point because of pragmatics and lifestyle. Simply put, within the “newspaper, periodical, book, and directory publishers” industry, editors (Bureau of Labor Statistics, 2016: Annual mean wage of “Editors” = \$64,220) on average earn more than writers (Bureau of Labor Statistics, 2016: Annual mean wage of “Writers and Authors” = \$57,800). Data from O\*NET confirm this pattern (editor annual wage = \$57,210; reporter/correspondent annual wage = \$37,820).

Table 5 suggests core differences between typical editors and writers. Generally, it appears that editors tend to have additional important skills that writers do not, so perhaps one key factor in moving into editor roles may be having or seeking to develop such skills. For example, editors tended to have more management, quality control, teaching, and systems skills, more management related knowledge, and in terms of abilities written comprehension and expression as well as fluency of ideas. The core interest distinction was that editors tend to be more enterprising and conventional whereas writers tend to be more investigative. For work values, editors tended to value independence more, whereas writers tended to value achievement and recognition more.

*Outsize influence of the cognitive 1% among top journalists.* In addition to many other elite occupations, this study provides evidence that journalism practiced at the highest level is not just a *cultural elite* but a *cognitive elite*. Journalism, like academia, is one of the professions that people enter in part due to non-monetary rewards such as prestige, influence,

and autonomy to create and pursue ideas and questions. Journalists at the NYT and WSJ are disproportionately influential because stories that originate there often are not just national news but international news. Many broad discussions are started by so-called “thought leaders” who write opinion or other pieces in these papers. This provides more evidence that smart people are overrepresented in occupations that influence society.

## Conclusion

Almost half of the people who end up at the pinnacle of the journalism profession attended an elite school and were likely in the top 1% of cognitive ability. This means top 1% people are overrepresented among the NYT and WSJ mastheads by a factor of about 50. Roughly 20% attended an Ivy League school. Writers are more cognitively able than editors, as measured by elite school attendance. Almost every elite journalist surveyed graduated from college and the majority did not actually major in journalism. Roughly 80% of typical journalists overall graduated from college. Only a handful of select schools feed the mastheads of the NYT and the WSJ, suggesting the importance of networks gained at these schools. These findings replicated across two newspapers with very different political viewpoints, indicating the robust role of cognitive abilities, education, and networks in the development of journalism expertise.

These findings add to the literature on expertise by investigating journalism expertise, an area of expertise that has received little attention. The role of cognitive ability appears to be an important factor in elite journalism expertise, providing evidence that deliberate practice cannot be the full explanation of performance in the area of journalism, expanding meta-analytic findings (e.g., Macnamara et al., 2014) suggesting across numerous other domains that many factors go into the development of expertise. This suggests that a multidisciplinary perspective is important to test the strength and generality of expertise models, more comprehensive theoretical models

must account for the role of cognitive abilities, and that diversifying expertise research across multiple domains may lend insight into what goes into the development of greatness.

## Footnotes

1. According to Murray (2012, p. 366): “In 2010, a combined score of 1400 put a student at about the 97<sup>th</sup> percentile of all students who took the SAT (based on the distribution produced by the known means and standard deviations for the two tests and a correlation of +0.7 between them). But the number of test-takers in 2010 represented only 36% of the seventeen-year-olds in the country. Any plausible assumptions about the proportion of the 62% of seventeen-year-olds who didn’t take the SAT who could have gotten a combined score of 1400 or more puts a student who actually does score 1400 well into the 99<sup>th</sup> [per]centile of the seventeen-year-old population.”
2. For example, similar to the U.S., in order to gain admission to China’s elite colleges, students are required to take the national college entrance examination (the CEE or *gaokao*). The total score is the main criteria for college admission. Li, Meng, Shi, and Wu (2012, p. 80) note that “CEE scores are essentially good measures of student ability or IQ. In Chinese society, CEE scores are well accepted as direct measures of intelligence.”

## Authors’ Declarations

The authors declare that there are no personal or financial conflicts of interest regarding the research in this article.

The authors declare that they conducted the research reported in this article in accordance with the [Ethical Principles](#) of the Journal of Expertise.

The authors declare that they are not able to make the dataset publicly available but are able to provide it upon request.

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