Write to Work: The Use and Importance of Writing as Perceived by Business Leaders

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Write to Work: The Use and Importance of Writing as Perceived by Business Leaders

A dissertation in partial fulfillment of the requirements for the PhD in Education—Research and Evaluation at Virginia Commonwealth University

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Abstract

WRITE TO WORK: THE USE AND IMPORTANCE OF WRITING AS PERCEIVED BY BUSINESS LEADERS

By: Clay Aschliman, PhD

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University.

Virginia Commonwealth University, 2016.

Major Director: Ross Collin, Associate Professor, Education

The relation of English Language Arts (ELA) to the economy has played a historic role in educational policy, persisting to today’s corporate reform movement. It is, however, an area that remains under-researched. This study builds upon the limited existing literature base with a systematic replication of the College Board’s National Commission on Writing for America’s Families, Schools, and Colleges’ (NCW) 2004 report, “Writing: A Ticket to Work…Or a Ticket Out.” The guiding research questions for this study are 1) How important is writing in the workplace? 2) Is writing an important hiring consideration? 3) What kind of writing is expected on the job today? 4) Do employees have the writing skills employers seek? 5) Is writing a promotion criterion? 6) Do American companies provide writing training; if so, what is the cost?

To answer these questions, human resources executives of Business Roundtable, Fortune 500 (with no redundancy), and Inc. 5000 companies were surveyed regarding the use and importance of writing in their respective organizations. To establish validity evidence, the College Board’s original instrument was pretested and piloted prior to full administration, and a principal
components factor analysis was conducted to explore potential latent variables that may explain variance related to respondents’ perceptions regarding the use and importance of writing. Responses were analyzed descriptively and compared to the College Board’s findings, and results suggest that modern employers utilize writing differently and value it more highly now than in 2004. ELA curricula and workforce development initiatives may consequently benefit from updates in order to allow for more equitable economic opportunity.
Chapter One: Introduction

Statement of Problem and Purpose

There is an implication in education reform, including in the Common Core State Standards Initiative and other state academic standards, that English Language Arts (ELA) has economic dimensions. Students are to be prepared for career success by their K-12 ELA experiences, and failure to do so will have economic repercussions for the individual student and country as a whole (Achieve, 2015; U.S. Department of Education, 2010; Common Core, 2015; Rothman, 2012). Despite this importance and ubiquity, the economic value of ELA is an under-researched topic (Brass & Burns, 2011; Schwartz & Soiefer, 2012).

A handful of studies related to the topic have been carried out over the past few decades, however, suggesting that ELA proficiency—specifically writing ability, for the purpose of this study—may not only affect an individual’s ability to succeed in the workplace, but obtain a job in the first place. These studies investigated the importance of writing proficiency to “gatekeeping” human resources executives of companies for which many students may dream to someday work, and which already employ millions of people around the globe.

Much of the limited research was conducted over a decade ago, though, prior to the Great Recession. The economic flux post-2007 resulted in greater competition for jobs (Center on Budget and Policy Priorities, 2015), and students furthering their postsecondary educations when they could afford it—or avoiding postsecondary enrollment altogether when they couldn’t (Long, 2015). Additionally, the nature of business communication has evolved since 2004, as
technology and informal communication have become more ubiquitous (Groysberg & Slind, 2012; Haas, Takayoshi, Carr, Hudson, & Pollock, 2011; Yancey, 2009).

Since the educational and economic landscapes have changed over the past twelve years, a replication study of a particularly large, seminal, often-cited study (e.g., Newman & Ober, 2015; Guffey & Loewy, 2015; Gray, Emerson, & MacKay, 2005; Allen & Knight, 2009; National Writing Project, 2004; Belasco & Bergman, 2016)—a national survey conducted in 2004 by the College Board’s National Commission on Writing for America’s Families, Schools, and Colleges (NCW)—was conducted. This replication explored whether the College Board’s findings regarding the use and importance of writing, as perceived by human resources executives working for some of the most elite corporations in the country, have evolved or remained static.

As in the College Board’s (2004) study, a national survey was conducted exploring how Business Roundtable organizations’ human resources executives perceive the value and importance of writing proficiency. The construct, i.e., perceptions of the use and importance of writing proficiency, and instrument were as in the original study; however, since no validity evidence was provided in the College Board’s (2004) report, validity evidence related to content-oriented and internal structure was established. Additional information regarding the instrument’s reliability and factor structure were produced, along with cross-sectional data regarding human resources executives’ current beliefs. Results may be used to guide future research, inform educational reform policy, or guide ELA curricula development in schools and corporate- and community-based workforce development programs.
Background and Research Questions

The relation of ELA ability—and, more specifically, writing ability—to the economy has played a historic role in educational reform policies, continuing to today’s modern corporate reform movement. From early reports like *A Nation at Risk* to the more recent adoption of Common Core State Standards focused on college- and career-readiness, educational reform policies have been guided, albeit at times divisively, by research suggesting a lack of educational preparedness across content areas—including ELA—resulting in an unprepared workforce (Brandt, 2005; Day, 2010; Duncan, 2013; Scherff & Piazza, 2005). The economic dimensions and implications of ELA remain under-researched, however, particularly as they pertain to non-English Language Learners (ELLs) (Schwartz & Soiefer, 2012); where there is disagreement regarding whether ELA delivers personal/cultural value as opposed to economic value (Proctor, 1998; Small, 2014); and when ELA-based research falls out of fashion with time or as the importance of other areas like STEM education take precedence (Brandt, 2001, 2005; Brass & Burns, 2011).

The limited economic-based ELA research that does exist has been conducted in a number of ways, ranging from studies asking business executives to rank the severity of grammatical infractions (Cameron, 1968), to surveys of employees’ workplace reading habits (Walberg, 1996), to a more recent study surveying human resources directors regarding incoming and existing employees’ writing ability (College Board, 2004). The present study built upon the work of the latter through replication and the collection of validity evidence.

The research questions for the College Board’s (2004) study and current replication were:

1) How important is writing in the workplace?

2) Is writing an important hiring consideration?
3) What kind of writing is expected on the job today?

4) Do employees have the writing skills employers seek?

5) Is writing a promotion criterion?

6) Do American companies provide writing training? If so, what is the cost?

These questions were answered via an electronic 43-item, cross-sectional survey administered to a non-randomized sample. The survey instrument comprised the College Board’s survey items with only slight modifications where needed for electronic formatting, to reflect the time period in which the replication study took place, and as a result of the pretesting phase. The items otherwise appeared verbatim as they were on the original instrument, which was used successfully with a similar population (College Board, 2004).

After preliminary validity evidence was established, the instrument was administered to, in part, the same population as in the College Board’s (2004) study: human resources executives for Business Roundtable-affiliated organizations, albeit with the understanding that many of the individuals who responded to the original instrument may no longer work for the same company. Due to a low response rate, the sample was expanded to also include Fortune 500 and Inc. 5000 human resources executives. Prior to administration, and because there was little validity evidence provided in the College Board’s (2004) original report, validity evidence for the survey instrument was established (American Educational Research Association [AERA], American Psychological Association, National Council on Measurement in Education, & Joint Committee on Standards for Educational and Psychological Testing, 2014). Specifically, validity evidence for test content and internal structure were established through a series of pretesting and cognitive interviews with a representative sample of experts, followed by piloting and full
administration. In each phase, the survey instrument was administered to the sample through email and via REDCap, an electronic survey platform.

Response data were analyzed descriptively and compared to the College Board’s (2004) findings. Additionally, a principal components factor analysis (PCFA) was conducted to establish internal structure validity evidence and explore potential latent variables or constructs that may guide future research. The predominant purpose of this study was to examine if the College Board’s (2004) original findings are still relevant and to produce additional technical information related the instrument—including content-oriented and internal structure validity evidence—as this work can assist policymakers and K-12, postsecondary, and workforce and community educators to incorporate the results into their expert decisions. The study was entirely exploratory in nature, and no assumptions nor suppositions about the results were made prior to beginning the study, i.e., it was not assumed that writing would be more or less ubiquitous and valued than in 2004. However, as significant educational and economic changes had occurred over the past twelve years, and because little validity evidence was provided regarding the original survey instrument, a replication was conducted.
Chapter Two: Review of Literature

Methodology

Relevant literature was found through searching Academic Search Complete via Virginia Commonwealth University’s (VCU) library system, as well as through the backlogs of Research in the Teaching of English. Both searches used combinations of various key terms: English Language Arts, English, grammar, reading, writing, economy, economic, value, importance, secondary, K-12, postsecondary, career, college, readiness, survey, methodology, validity, reliability, response rate, content, construct, consistency, and factor analysis. The results of the literature review informed the present study’s theoretical framework and methodological decisions, but none as much as the College Board’s (2004) study, since the primary purpose of the present research is replication and validation. For this reason, the following section will generally review the existing literature base before providing more information about the study to be replicated, “Writing: A Ticket to Work…Or a Ticket Out,” conducted by the NCW and published by the College Board in September of 2004.

A Brief History of Research Re: ELA and the Economy

The idea that ELA has some economic value has been featured in research since the early 1900s, yet it has become less prominent with time. Similarly, the present study’s methodological approach used to be more prominent in the past than it is presently. Between 1910 and 1960, much of the general research in the field of English was quantitative, and surveys were far more frequent (Brass & Burns, 2011). Furthermore, during the first half of that period (1910s-30s), there was a greater emphasis in survey research on “social efficiency,” i.e., an alignment of the
English curriculum with “the specific knowledge and skills required in modern, social, academic, and (especially) economic life” (Brass & Burns, 2011, p. 178). Thus, in the first half of the 20th century, surveys were used to provide empirical data related to how English related to “modern industrial-economic life”; this information informed curriculum development and types of aims in a way that was believed to best prepare students for future careers. It was in the subsequent decades, however, that this emphasis on the economic values/implications of ELA became “largely nonexistent,” replaced with qualitative research, case studies, and issues of pedagogic concern (Brass & Burns, 2011, p. 178; Schwartz & Soiefer, 2012). Meanwhile, the economic and educational landscapes continued to change—particularly as a result of the Great Recession and corporate reform movements.

**Changing Landscape**

From December 2007 through June 2009, the United States endured “the worst economic recession since the Great Depression,” i.e., the Great Recession (Center on Budget and Policy Priorities, 2015). Job losses were widespread across the country, and regrowth was exceedingly slow. Only after 2014 did nonfarm employment recover to the pre-recession point (Center on Budget and Policy Priorities, 2015). As there were fewer jobs available, many students enrolled in postsecondary education programs, and tuition rates increased (Long, 2015). Those who couldn’t afford to but otherwise would have enrolled were left to compete for the few open jobs—a trend often seen during times of economic downturn (Long, 2015). These phenomena had two possible results: due to the heightened competitiveness for jobs, employers could become stricter “gatekeepers” while applicants became either more or less educated, i.e., prepared to meet the needs of these gatekeepers, resulting in greater inequity for those not privileged enough to afford postsecondary education. For these reasons, it became important to
understand how modern employers use and value writing so that employees’ have a fair chance of obtaining those skills—and, consequently, attaining economic success. Because there are so few modern studies related to the economic dimensions or value of ELA, the following sections describe a selection of particularly relevant ones, followed by an extensive summary of the College Board’s (2004) study.

**Related Works**

*Cameron (1968).* In 1968, Cameron conducted a study wherein 45 individuals from Canadian business and academic communities were selected to judge writing samples. The businesspeople were “prominent businessmen involved in hiring people for positions requiring some degree of fluency and correctness in the use of language” who make “critical first contact” with potential employees (Cameron, 1968, p. 26). This sample segment is thus similar to the College Board’s (2004)—and my—sample of human resources executives. The academic community participants were either English professors, English teachers, or non-English postsecondary professors and administrators.

Cameron’s (1968) instrument included forty items including examples of frequently-used language that is generally considered erroneous (e.g., “It is the best of the two items” [as opposed to “the better”]). The examples were administered to respondents in a simulated spoken interview, through formal correspondence, and as a list of isolated sentences (Cameron, 1968). If judges deemed the language inappropriate, which is perhaps tantamount to ungrammatical but not necessarily so, they would (respectively) interrupt the interview, underline the example in the correspondence, or rate the isolated sentences on a scale of “accepted in any situation,” “rejected in any situation,” or “restricted to certain situations” (Cameron, 1968, p. 27).
The fewest number of errors were identified in speech, more were identified in the written correspondence, and the most errors were identified when viewed in isolation (difference $p \leq .01$). Businesspeople identified the fewest mistakes, non-English university faculty and staff found more, and English teachers/professors found the most. Businesspeople stated that, more important than usage, were “organization of ideas, brevity of statement, clarity of vocabulary and sentence structure, and tact and alertness in all language activities” (Cameron, 1968, p. 31). In the College Board’s (2004) study, conciseness (brevity), clarity, and grammar (sentence structure) were similarly found to be important to respondents, with at least 90% indicating that they were “important” or “extremely important.”

**Williams and Colomb (1993).** In an article calling for more explicit writing instruction after analyzing and refuting Krashen’s (1981) longstanding argument that it “produces negligible benefits at best and may even do harm” (p. 253), Williams and Colomb (1993) stated that the majority of teachers are dissatisfied with their students’ writing, even when they give that writing a passing grade. This implied that strong writing (as perceived by business leaders) may not have been required for a student and potential employee to graduate, explaining why employers might consequently deem incoming employee unprepared.

Nearly a decade later, a largescale study conducted for Achieve, Inc. (2005) supported the notion that some students may have “coasted” through their K-12 educational experiences without developing adequate writing skills. After surveying nearly 1,500 high school graduates and 400 employers (including human resources professionals), it was found that 35% of students felt that they were not adequately prepared for writing in college; of those who didn’t pursue college, 38% felt unprepared to deliver the caliber of writing expected at their present jobs (Achieve, 2005). Employers agreed, stating that 38% of recent secondary graduates and 25% of
college graduates lacked the writing skills required for entry-level positions, and that 45% were educationally unprepared for advancement beyond entry level (Achieve, 2005). These findings were consistent with the College Board’s (2004) study, one of whose respondents stated, “The skills of new college graduates are deplorable—across the board; spelling, grammar, sentence structure…I can’t believe people come out of college now not knowing what a sentence is” (College Board, 2004, p. 14). How, then, might future employees be better prepared while they are still K-12 or postsecondary students?

Williams and Colomb (1993) found that students “value, maybe even profit from, explicit instruction in fine-grained, explicit principles of writing,” e.g., sentence structure, particularly when that instruction is contextualized (p. 256). They described a University of Illinois business-based writing program that provided students with the experience of writing in a business context, e.g., working with clients to produce documents that may then be used by the clients’ businesses. The clients provided students with specific, contextual instruction, and students stated in interviews that they benefitted from that specificity. This finding is supported by other researchers who found that students are not given enough opportunities to write for a “real,” rhetorical audience similar to whom they will be writing to/for in their future jobs (Redd-Boyd & Slater, 1989). Even at the college level, Liu (2011) found writing instruction to be decontextualized to the point of causing detriment to a student’s preparedness.

These findings suggest that businesses might benefit by directly communicating to students what writing skills they value and expect—a potential use of the data produced by the present study. As it was found that employers value grammar over scientific precision, for instance, students might benefit from receiving a greater focus on the former, and thus teachers and policymakers may benefit by proportionately adjusting ELA curricula.
Walberg (1996). In 1996, Walberg conducted a historical overview similar to Williams and Colomb’s (1993), yet focused on reading. The author suggested that the United States’ reading progress was worse than that of other developed nations, and that its gains had declined over the past two decades despite higher schooling costs. As with Williams and Colomb’s (1993) article and even the findings of the College Board’s (2004) study, it should be clarified that Walberg’s (1996) viewpoints are his own, and not everyone agreed there was—or is—a reading or writing crisis in the USA (Fleming, 2011; McHale, 2008; McCarty, 2010).

Walberg (1996) argued that funds were being misused (going to administrators and not students), and that teachers were using less-than-effective practices, resulting in unprepared students. He cited a 1980 study of employees in over 100 occupations, finding that professional ELA-related work was found to be even more demanding than what was being taught in schools. This suggested inadequate “career-readiness” preparation, still a common theme in modern policy with implications in national (e.g., Common Core State Standards) and individual state standards, which emphasize college- and career-readiness (Mills, 2012; Virginia Department of Education, 2010; Common Core, 2015).

What was predominantly pertinent to the present research was a section of Walberg’s (1996) work entitled, “The Economic Significance of Reading” (p. 329). In it, the author cited a survey of 5,000 respondents, 87% of whom stated that they had to read as part of their jobs. As they read for an average of 141 minutes per day, Walberg calculated that on-the-job reading was valued at $253 billion (in 1971 dollars) (p. 329). This provided an example of how one might calculate the potential economic “value” of writing and supplement the data drawn from the College Board’s (2004) survey, as well as from the replication.
Hillocks (2005). In 2005, Hillocks described ELA education’s historic focus on form. The author cited (1970s) textbooks’ heavy emphasis on grammar as opposed to composition and rhetoric skills. Hillocks (2005) believed there to be a disconnect between writing to express ideas and writing as “an exercise in using devices for effectiveness” (p. 239). That is, rather than spending time on prewriting and composition, ELA students were doing isolated grammar activities. Hillocks (2005) thought that things hadn’t changed much since the 1970s, and that there remained in the ELA curriculum a focus on mechanical form over content analysis and composition. He attributed this in part to the emphasis on standardized testing and the idea of “teaching to the test.”

Hillock’s (2005) belief is contrary to some other researchers, though, who believe that grammar instruction (and research) has been phased out over time as it was shown to be ineffective (Kolln & Hancock, 2005; Braddock, Lloyd-Jones, & Schoer, 1963; Micciche, 2004). This idea remains hotly divisive: as Tchudi and Tchudi (1991) stated, “Over the years, grammar has probably generated more discussion, debate, acrimony, and maybe even fistfights than any other component of the English/language arts curriculum” (p. 164). Still, it is the belief of many researchers that grammar, or “the G-word” (Geldern, 2006), has developed a generally negative connotation over time, and as its direct instructional focus has been given direct less attention in the classroom or instead integrated (at times poorly) into writing instruction, students and teachers have become less prepared to learn and teach it (Kolln & Hancock, 2005; Petruzzela, 1996; Patterson & Duer, 2006; Lindblom & Dunn, 2006; Geldern, 2006; Hudson & Walmsley, 2005). This could potentially explain why Business Roundtable executives and similar populations found students underprepared, particularly in grammar-related areas, around the time such research was published. As it was possible, though, that there had since been a resurgence
of grammar education recently, particularly in a time of heavy standardized test preparation as Hillocks (2005) described, it became pertinent to update the College Board’s (2004) findings. 

**Brandt (2005).** Brandt (2005) raised questions and concerns regarding the economic valuation of English. She cited a number of books on the topic (*Knowledge Assets* [Boisot, 1999], *Intellectual Capital* [Stewart, 1997], and *Knowledge Capitalism* [Burton-Jones, 1999]) and stated that “throughout history, the pursuit of writing and reading has taken place under the auspices of powerful sponsors whose interests control the routes to and rewards for literacy as well as the rationales for learning and using it” (Brandt, 2005, p. 310). Certain educational reform movements and political opinions (including those of Bob Kerrey, who at the time was the head of the College Board’s NCW) value literacy for economic rather than “spiritual, civic, personal, or demographic” growth (Brandt, 2005, p. 306). That is, in the economic sphere, ELA may be seen less in line with a humanistic tradition than an economic one: literacy becomes a commodity, and one that follows the rules of supply and demand.

Brandt (2005) stated, “In order for literacy and its products to be valuable, lots of people must want and use them”; therefore, developing widespread literacy—or writing proficiency in the case of the current study—has the potential to make it, from a business perspective, a “public good” and increase its widespread utility but consequently reduce its value (pp. 306-8). Business leaders may thus find it in their best interest to not have more ELA-proficient workers graduate from high schools and postsecondary institutions, instead keeping the populace less-than-skilled and training them after they are hired. Brandt (2005) continued, “there is a concern with protecting and obscuring skill to maintain competitive edge…figuring out what forms of literacy are worth developing and what literacy development is worth paying for” (p. 307); this approach has the potential to increase a company’s human capital while maintaining its competitiveness,
albeit at a greater personal financial cost. The current study’s results, when disseminated, stand to inform employees and educators as to what writing skills businesses value, so such information cannot be kept secret by employers for competitive reasons.

Brandt (2005) concluded by describing the increase of heavy monitoring by technology or supervisors of employees’ language (including writing) in the workplace. As one of her interviewees who supervises employee writing stated, “There are things you just can’t and should not say to people” (Brandt, 2005, p. 309). This lends credence to her claim that the economic realm may have—and historically so—a narrowed view of the value of literacy, and again supports the need for the present research since it may potentially inform future employees what is expected of them in a way that will help them become hired and/or avoid being fired.

Groysberg and Slind (2012). In Talk, Inc., Groysberg and Slind (2012) described many of the modern trends in business communication practices. Particularly relevant to this study is the notion that businesses leaders value informal communication more than they have in the past, a phenomenon attributed in part to the rise of instant messaging and social media. One employer in Talk, Inc. stated that there is similarly no longer as much of an emphasis on formal drafting, revision, and checking with attorneys or higher-ups when communicating internally (within the company, e.g., employee-to-employee or -employer) or externally (e.g., employee-to-client). The authors argue that modern business communication then, be it spoken or written, has become more conversational. In an interview, an employer stated that one is now expected to communicate how one might with whom he or she has “a real relationship.” He continued, “Content can’t be all ‘corporate.’ It has to be fun, it has to be relevant, it has to be engaging” (Groysberg & Slind, 2012, p. 66). So, as in Cameron’s (1968) study, Talk, Inc. suggested that English has a unique, complex role in the business world—there are times when standard,
academic, formal English is valued by business leaders, and other times when informal, conversational, possibly even ungrammatical English is valued.

Indeed, other researchers have found that that while students are writing with greater frequency now than in the past, they are doing so through social media and texts, communication methods that are characteristically informal, conversational, and non-academic (Haas et al., 2011; Yancey, 2009). Such research has shown students’ writing characterized by slang, dropped letters, numbers for words, and non-conventional grammar, syntax, and punctuation (Haas et al., 2011). Such “expressions of informality” could even be antiauthoritarian, i.e., where Standard American English is discouraged. Haas et al. (2011) cited a particular example wherein a student stated that a peer’s text language was “too informal for (his) taste,” and the respondent stated, “WOW wut r u a fuckin teacher lol” (Haas et al., 2011, p. 391).

Many have begun to worry about the growing trend of informality characteristic of electronic communication. In a joint project of Pew and NCW, it was similarly found that even though teens are now writing with great frequency, they do not consider their actions to be “real” writing (Lenhart, Arafah, Smith, & Macgill, 2008). James Billington of the Library of Congress was cited in the report as fearing that this type of communication potentially damages “the basic unit of human thought—the sentence” (Lenhart et al., 2008, p. i).

Lenhart et al. (2008) additionally argued that the informality of social communication (emoticons, slang, and shortcuts) has become ubiquitous, with at least 25-50% of their study’s 700 students stating that features characteristic of informal, electronic writing are also evident in their academic writing samples (although, it should be noted that such samples used in the study included class notes, which may be understood by students as informal). The authors believed their findings suggest a “bleed-over effect,” i.e., as students write informally more frequently,
features characteristic of that writing style become introduced into their formal writing and even speaking (Lenhart et al., 2008).

What remains promising, though, is that 86% of the students in the survey stated that they think writing is either essential or important to success in life, and 98% agreed that it is at least somewhat important (Lenhart et al., 2008). As one student stated, “As you get older you develop and learn that publicly it isn’t a good idea to use text message slang. [sic] It may influence people to think things about you. It will give the wrong impression of you” (Lenhart et al., 2008, p. 30). Another student said learning to write well is “like eating vegetables,” with another clarifying, “It’s good for you but you don’t want to do it” (Lenhart et al., 2008, p. 64). This suggests that while students may stray from the Standard American English that may be expected of them by future employers, they remain at least somewhat receptive to contextual education and preparation. The results of the present study can guide such preparation, as educators can provide students with education regarding the writing uses and characteristics that are most valued by elite, contemporary employers.

For instance, Groysberg and Slind (2012) described a modern emphasis in the business world on an employee’s ability to incorporate pictures and video into—or even instead of—written communication. As new trends and technologies have arisen since 2004, it became possible that the expectations for innovative and creative skills increased while the value placed on written/grammatical proficiency had lessened. That is, over the past twelve years, business leaders may be more eager to hire someone who is good with technology but who is not a strong writer. Collin (2014) cited Bureau of Labor Statistics (BLS) data to the contrary, indicating that most future jobs will require basic skills over advanced ones. Regardless, the present study explored this and a number of other issues by updating the College Board’s twelve-year-old
results. Implications for educational workforce preparation and development are vast, for if employers expect their incoming employees to be able to write informally for certain audiences; scientifically and in Standard American English for others; or not at all—instead creating flashy, tech-based visuals—students will need preparation in each area.

Schwartz and Soiefer (2012). Schwartz and Soiefer (2012) described a study focused on the wage penalties experienced by the 16.5 million (as of 2012) Spanish-speaking ELLs, “who research indicates are (economically) hit hardest due to poor English skills” (p. 1). This population loses approximately $3k per year, they stated, due to a lack of English proficiency, and as 50% of the country’s population growth from 2000-2010 was comprised of Hispanic residents—and the number of ELL students in public schools increased by 51 percent since 1997—this growth is likely to increase and become of greater import (Schwartz and Soiefer, 2012).

The authors supported the idea that there is lacking research related to English proficiency’s effects on compensation (Schwartz & Soiefer, 2012). Regarding ELLs specifically, they found that limited English proficiency reduces one’s probability of obtaining a job by 0-6.5%, supporting the notion that “gatekeepers” like human resources directors can preclude one from getting a job based solely on initial exposure to the applicant’s English ability (Schwartz & Soiefer, 2012; College Board, 2004; Reinsch & Gardner, 2014). Even if an ELL were to get a job, his or her lack of English proficiency was implicated in a wage penalty between 3.8-38.6%, leading to an estimated $37.7 billion in annual earnings being missed by Spanish-speaking ELLs alone (Schwartz & Soiefer, 2012). The College Board (2004) similarly found that limited writing proficiency may result in missed economic opportunity for current employees by way of fewer promotions.
After describing the economic impact on ELLs, Schwartz and Soiefer (2012) decried federally-funded programs intended to teach English to adult ELLs, stating such programs are not evaluated well. The authors cited a 2009 federal Government Accountability Office report that showed that only 2 of the 25 federal programs providing funding for adult ELL English-related education actually collected data on effectiveness. Employer-, community-, or church-based programs were said to be of potential help, however, in addition to producing and hiring more skilled teachers in the K-12 system. The results of the current study could inform such programs’ curricula as well as those of K-12 classrooms.

Collin (2014). In 2014, Collin described one of the perspectives guiding English education, knowledge economy discourse (KED), which supports innovation-based instruction and rejects standardization in the belief that the future economy will heavily value innovation and creativity. In his article, Collin (2014) explained why KED may not be the best approach, considering that the economy it prophesies may not actually come to pass. As mentioned before, Collin (2014) cited BLS data for support, indicating that less than the majority of jobs will require postsecondary education by 2022, and the largest job groups will require more basic skills than advanced knowledge work characteristic of KED-based instruction.

What is particularly relevant is Collin’s (2014) brief history of capitalist development in English education, i.e., the “articulation of education and economy” (p. 385). Collin (2014) described English education’s tradition of general literacy and workforce development in a way supportive of Kolln & Hancock’s (2005) treatise on the general history of the field of ELA. He then proceeded to cite a study indicating that some policymakers and employers are concerned about adolescent’s literacy skills, or lack thereof, particularly when compared to students in other
countries, echoing the sentiments of Walberg (1996) and Williams and Colomb (1993) but reiterating the caveat that such concerns may be exaggerated.

The cited study, “Are They Really Ready to Work? Employers’ Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century U.S. Workforce” (Casner-Lotto & Barrington, 2006) was conducted by a number of organizations, and surveyed employers comprising human resources directors and senior executives in 431 organizations (as cited in Collin, 2014). The goal of the study was to explore respondents’ perspectives on the importance of certain skills, including writing ability for incoming employees, as well as whether those employees possess such skills. These results were said to be able to guide educational policy, remediation, and workforce training, as the results of the current study are intended.

Casner-Lotto & Barrington (2006) found that employers indeed seek a number of skills they deem important, with oral and written communication among them and the latter categorized as both a “basic” and “applied” skill (p. 9). Respondents indicated that, for high school graduates, half of the sample deemed writing “very important”; over 60% deemed it very important for two-year college graduates, and 90% for four-year graduates (Casner-Lotto & Barrington, 2006, p. 18). They further argued that that high school and two- and four-year college graduates are “deficient” in writing and written communication proficiency, stating that around three-quarters of the former are deficient, as are a quarter or half of the latter (Casner-Lotto & Barrington, 2006, p. 14). These findings have implications for the present research, as they indicated—and at a time point later than the College Board’s (2004) study—that employees may be underprepared to succeed in the business world.
Writing: A Ticket to Work…Or a Ticket Out, College Board (2004)

Background and Summary. In 2003, the National Commission on Writing for America’s Families, Schools, and Colleges (NCW) published “The Neglected ‘R’: The Need for a Writing Revolution.” The report was not so much a study as a call-to-action suggesting that writing did not get enough time in the K-12 and postsecondary educational curricula, and that students would be unprepared for careers and even democratic citizenship as a result (College Board, 2003). The authors called for increased policy and research related to writing, with the belief that students should be spending twice as much time writing in school—across subjects and grade levels. They wished for all educators to successfully complete writing courses prior to (K-12) licensure and continue to learn in professional development programs, again regardless of their subject areas. Finally, they asked for additional state and federal expenditure related to increasing the focus on and presence of writing in the curriculum, including investment in writing-related technology such as programs that identify grammatical errors.

To provide additional evidence to support their 2003 report, one year later the NCW conducted and published “Writing: A Ticket to Work…Or a Ticket Out” (College Board, 2004). The study surveyed human resources directors of 120 Business Roundtable organizations—employing eight million people at the time—in order to assess their beliefs regarding the use and importance of writing. Business Roundtable comprises a group of chief executive officers, presidents, and other senior business leaders of some of the highest-grossing corporations across industries. The coalition is “committed to advocating public policies that foster vigorous economic growth and a dynamic global economy,” and while this suggests that they may already be receptive to participating in a study that may advance such policy, the then-Director of
Education and Workforce Policy for the Business Roundtable further assisted the NCW’s survey by personally encouraging respondents’ participation (College Board, 2004, p. 4).

The NCW’s survey was developed over several weeks, with three guiding criteria: 1) It was to be answered easily and quickly, in 15 minutes or less; 2) It was intended to be extensive and specific in scope, i.e., to “go beyond what respondents said they thought was important about writing to explore what respondents actually do when hiring and promoting employees”; and 3) NCW made the choice of distinguishing between “hourly” and “salaried” employees, increasing the number of items but also the granularity and potential utility of the data (College Board, 2004, p. 25). No information was provided about pretesting, piloting, or validity evidence the survey, other than the fact that the then-Director of Education and Workforce Policy reviewed the questionnaire before it was administered.

Surveys were initially mailed out to the sample. The College Board (2004) anticipated a response rate of at least 40% within a month, but they received only 16.67% (20 responses) within nearly twice that time. A final response rate of 53.3% (N = 64) was obtained only after employing telephone follow-ups. The authors stated that previous (albeit uncited) work demonstrated that a response rate of 40% or greater for “an elite corporate group” is acceptable, so they were pleased with their results and attribute them predominantly to the telephone follow-ups (College Board, 2004, p. 6). Telephone survey administration has been shown to result in higher response rates than mail administration alone, so while that may indeed contributed to the response rate, it is also likely that having a facilitator greatly benefited the study (Groves, Fowler, Couper, Lepkowski, Singer, & Tourangeau, 2009).

The results of the study are described in detail below, but writing was generally found to be a “threshold skill” for employment and promotion. Applicants with poor writing and
communication skills were not as hirable, and current employees who also were deficient in those areas were not as promotable (College Board, 2004). Results were disaggregated by salaried and hourly employees, and while writing was said to have been important for both, it was more important for the former (College Board, 2004). Writing was important across positions and industries, including those like construction in which one may assume there to be little inherent writing. In summary, the authors found that “individual opportunity in the United States depends critically on the ability to present one’s thoughts coherently, cogently, and persuasively on paper” (College Board, 2004, p. 5).

The College Board (2004) did not suggest that their findings could be attributed outside of the sample, as their sample was not necessarily representative, with certain sectors receiving more (e.g., manufacturing) or less (e.g., construction; agriculture, forestry, and fishing) representation than they do in the complete American workforce. Part of the reason for the overrepresentation of certain industries like manufacturing is that companies like Ford qualify, but so do IBM and McGraw-Hill despite the fact that they produce quite different products. The report also acknowledged the sample’s limitation in that none of the organizations were governmental or representative of small businesses, self-employed people, unpaid family workers, unincorporated firms, or members of the Armed Forces (College Board, 2004). It is equally important to note that interpretation is limited to the study’s specific sample as it was non-randomly selected (Babbie, 1990; Dillman et al., 2009).

**How important is writing in the workplace?** Almost 70% of respondents stated that, at the time of the study, at least two-thirds of their professional employees had writing-related responsibilities listed as part of their job descriptions (College Board, 2004). Only the mining field had zero percent agreement for that proportion (two-thirds) of their salaried and hourly
employees; however, there was not enough granularity in the College Board’s (2004) data reporting to indicate what percent of a fewer proportion of the mining industry’s employees, e.g. at least one-third, were expected to write. Transportation and utilities similarly had zero percent for hourly employees, but over 30% of that industry’s respondents agreed that at least two-thirds of their salaried employees were expected to write (College Board, 2004). The remaining sectors had roughly 23% agreement for hourly employees, and 75% for salaried. The fast-growing finance, insurance, and real estate (FIRE) and services sectors, in particular, had percentages of agreement at or above 80 for salaried employees, and roughly 25% for hourly (College Board, 2004).

In general, then, the human resources directors of the College Board’s (2004) study reported a belief that writing was a large and important part of job descriptions across their respective industries. Qualitative data, i.e., quotes taken during phone administration, were provided in this and other sections for further illustration. One respondent stated about the importance of writing (ability) in the workplace, “My view is that good writing is a sign of good thinking. Writing that is persuasive, logical, and orderly is impressive. Writing that’s not careful can be a signal of unclear thinking” (College Board, 2004, p. 8).

Is writing an important hiring consideration? Over half of NCW’s respondents reported that writing was “frequently” or “almost always” taken into consideration when hiring salaried employees; this number was over 80% for service and FIRE sectors, areas with the greatest potential job growth (College Board, 2004, p. 9). Writing was still a significant consideration for hiring hourly employees in the FIRE sector, with over 50% of respondents responding positively. Mining, construction, and transportation and utilities were the only sectors in which respondents did not answer either “frequently” or “almost always” when asked whether
writing was an important hiring consideration for hourly employees. These sectors did consider it for professional employees, however, with agreement at roughly 50% (College Board, 2004).

Not many (11%) of the respondents stated that they always required writing samples from applicants when considering them for salaried positions. For those who considered writing to be part of the position, however, 54% required a writing sample, and 71% assess applicants’ writing abilities through written materials submitted with an application, e.g., a cover letter (College Board, 2004). Regardless of the materials used for review, the vast majority of respondents (86%) reported that poorly written materials would be held against an applicant “frequently” or “almost always” (College Board, 2004, p. 10).

If an applicant submitted poorly written application materials, multiple respondents stated that the applicant would not be considered for any type of position within the company, as writing ability reflects one’s ability to think as well as show care and attention to detail (College Board, 2004). Another suggested that the competitiveness of the job market is a factor, i.e., when there are so many applicants in the pool, one does not need to entertain any flawed applications. Such poorly written applications materials were described as a “kiss of death” for employment, lending credence to the “gatekeeper” theory that even one point-of-contact can preclude a potential employee from getting his or her foot in the door (College Board, 2004, p. 10; Schwartz & Soiefer, 2012; Reinsch & Gardner, 2014). This further indicates the importance of the present study, as the competitive reality of the job market has only became compounded after the Great Recession (Long, 2015), and so updated findings may inform students and would-be employees how best to prepare their applications.

**What kind of writing is expected on the job today?** More than 50% of respondents reported that their employees regularly produce emails, technical reports, formal reports, visual
presentations, and general memos/correspondence (College Board, 2004). Emails and PowerPoint presentations were ubiquitous, with almost 100% of respondents stating that the former were “frequently” or “almost always” used in their respective companies (College Board, 2004, p. 11). Technical reports, formal reports, and memos/correspondence were also found to be used at least frequently by more than half of all responding companies.

When asked which characteristics of writing were most valued within their respective companies, respondents stated that accuracy, clarity, and grammatical correctness were highly valued (at least 95% of respondents stating they were deemed “important” or “extremely important”) (College Board, 2004). Specifically, accuracy had the greatest percentage agreement (95.2%) that it was an “extremely important” characteristic of writing, followed by clarity (74.6% deeming it “extremely important”) and then spelling, punctuation, and grammar (58.7%) (College Board, 2004, p. 28). Conciseness was highly valued, albeit not quite as highly as the aforementioned; 41.3% deemed it “extremely important,” and 50.8% “important.” Results were not broken down by industry, but the College Board (2004) did state that the construction industry valued conciseness comparatively highly, as finance and service sectors valued accuracy and clarity.

Visual appeal and scientific precision were deemed important (close to 70% of respondents deemed them at least “important”), but only 11.1% considered the former “extremely important” (College Board, 2004, p. 28). As visual appeal is likely tied to new technology skills, which Groysberg and Slind (2012) suggested are more contemporarily in demand, it became possible that this statistic would have been different for the present study—lending it additional necessity. Two respondents supported this notion by speaking on how even in 2004 technology had changed what was valued, stating “There is a great deal of corporate
interest in how changing forms of communication (e.g., e-mail and PowerPoint) modify writing demands,” and “E-mail has had a big effect on how people communicate…in this electronic age, writing skills are critical” (College Board, 2004, p. 12).

Do employees have the writing skills employers seek? Almost two-thirds (roughly 64%) of NCW’s respondents reported that at least two-thirds of their current and new employees met company writing requirements (College Board, 2004). That left around 36%, however, who believed only one-third or fewer of their current/new employees possessed the writing skills valued by their respective organizations. Certain sectors—like construction, FIRE, and services—indicated that fewer of their new hires possessed the writing skills valued by the company, compared to their current/established workforce (College Board, 2004). Representatives of the manufacturing, transportation/utilities, and mining industries indicated the contrary, stating that as many or more new hires have the valued skills when compared to their current workforce. There are workforce development implications for that study and the present replication, then, since such data is potentially indicative of an imbalance of preparation, i.e., it is possible that students going into the one industry, e.g., services, either require additional training or better, more contextual training than if they plan to enter another field.

The College Board’s (2004) sample noted that Business Roundtable organizations “get their pick of the best graduates from the finest colleges and universities in the United States and the world,” so it remained possible that the employee base of the present study may already have been better prepared than those of other, less prestigious organizations (p. 13). This serves as a limitation, but also indicates greater need for research in this field. As one respondent said, “writing deficiencies may be even more pronounced elsewhere in the broader private sector, particularly among employees of small- and medium-sized businesses,” which supports the need
to understand how all employees might be better trained or remediated (College Board, 2004, p. 14).

**Is writing a promotion criterion?** On average, over half of respondents across industries were found to consider writing ability when making a promotion decision for professional employees (College Board, 2004). Specifically, at least 50% of mining, manufacturing, and transportation and utilities respondents were said to “frequently” or “almost always” take writing into consideration when promoting a salaried employee. A smaller percentage, roughly 35-40%, of construction, FIRE, and services respondents echoed that sentiment (College Board, 2004). Ninety-five percent of respondents stated that writing was either “never” or “only occasionally” taken into account when considering promotion of hourly employees (College Board, 2004).

As with the previous section, these results may be limited in their interpretability and may falsely suggest that writing ability is less important than it is. The College Board (2004) clarified that industries that vet employees for writing skills during the hiring process are less likely to take them into account for promotional consideration, as it can be assumed that the employee has already demonstrated such skills or he or she would not have been hired/considered for promotion in the first placed. The authors added that inadequate writing ability is more likely to factor into one’s termination than promotion. A respondent agreed, stating, “Writing is integral in nearly every job. It’s really not a promotion issue since you’d never get to the point of promotion without good communication skills. You can’t move up without writing skills” (College Board, 2004, p. 16). Still, if human resources directors do indeed have a say in promotions and indicate that writing is an important criterion in their decision, the present study may not only help students and would-be employees start a career, it may help
current employees elevate their careers by honing the writing skills most valued by their employers.

**Do American companies provide writing training? If so, what does it cost?** Almost half of the sample offered or required writing training for deficient salaried employees, with an average cost of around $950 per employee (College Board, 2004). The authors took the number of hourly and salaried employees in the various sectors for which there was survey data, the percent of salaried and hourly workers in those sectors who had writing included in their job descriptions, the proportion of those who did not have the desired writing skills, the proportion of employers providing writing training, and the average cost of providing that training. They were thus able to figure that American firms may pay as much as $3.1 billion dollars a year on writing training (College Board, 2004). That said, some respondents indicated that there is a wide range of cost, and that online programs and other services can drastically reduce the cost compared to large workshops which cost significantly more (thousands of dollars). It was likely that, since 2004, there had been an increase in online workshops and the average cost consequently continued to decline over time, so the current study similarly extrapolated costs. The College Board (2004) added that its numbers excluded government and wholesale trade sectors, though, so the original average cost may have even be higher. The present study provided up-to-date insight, including data for the wholesale and retail trade industry.

The construction industry was most likely to provide writing training, with 100% of respondents saying that they “at least occasionally” provide it, and roughly 65% stating they do so “frequently” (College Board, 2004, p. 17). Less than 50% of services, FIRE, and mining respondents stated that they provide writing training with even occasional frequency—this may be due to the vetting process, however, i.e., the fact that employees who have been hired may
have already demonstrated adequate writing ability, particularly in a competitive applicant pool. Regarding hourly employees, the majority (81%) of employers reported that they provide writing training either “never” or “only occasionally” (College Board, 2004, p. 17). Two respondents clarified that their respective organization’s writing training was in business or technical writing as opposed to basic writing. Such industry- and categorically-specific information is vital to the development of educational policy and/or workforce training curricula, for if employees of a certain type and in a certain industry are underprepared, they can receive focused instruction.

Implications

The College Board (2004) identified three educational policy implications based on their study’s findings. The first implication was that “writing appears to be a ‘marker’ attribute of high-skill, high-wage, professional work,” especially in fast-growing sectors (College Board, 2004, p. 19). The second educational policy implication stemmed from the “gatekeeper” phenomenon, speaking to the finding that inadequate writing ability can preclude one from being hired (College Board, 2004). The third implication was one that the College Board (2004) stated confirms one of its longstanding, central arguments—that writing “consists of the ability to say things correctly, to say them well, and to say them in a way that makes sense (i.e., grammar, rhetoric, and logic)” (p. 19). That is, writing is extremely multifaceted. This expansive definition, they believed, should correlate with expanded education: writing training should not be limited in time (e.g., “a few school hours here and there”) nor scope (e.g., only grammar-based education) (College Board, 2004, p. 20). Echoing the call-to-action of “The Neglected R,” the College Board (2004) again asked for additional writing education for students across subjects, from kindergarten through postsecondary education. The results of the present study were intended to indicate whether they were successful, or if there still existed such a need.
Chapter Three: Methodology

Design

The design of the study was a systematic replication. In general, replications are “important for advancing science” and extending prior research, and a systematic replication is one that otherwise directly mirrors the original study but with minor changes employed, in theory, to improve upon the original (Mitchell & Jolley, 2013, p. 138). A systematic replication additionally can be employed to help one hone or demonstrate research skills while also making new discoveries, making its choice appropriate for a dissertation (Mitchell & Jolley, 2013). Finally, replications may also improve upon the original instrument through additional piloting and validation, and using more participants can reduce the amount of error, making results more reliable (Mitchell & Jolley, 2013).

The study could not be a full, direct replication, i.e., a “copy” of the College Board’s (2004) study, as there were unavoidable changes in climate and participants since the original study took place. For example, since the original study was conducted, the Business Roundtable has increased in its number of member organizations. Even for those companies that were members in 2004, it was likely that their human resources departments have undergone personnel shifts over the past twelve years. Fortune 500 (where there was no redundancy with the Business Roundtable) and Inc. 5000 organizations were also included to compensate for a low response rate, and there were slight modifications to the instrument as a result of pretesting and the temporal difference. For instance, an item was added to reflect the increased use of
technology in the business world, and other items that listed specific dates in the original study needed to be updated.

**Instrumentation**

Prior to administration to the full sample, the survey instrument was pretested and piloted to establish validity evidence. The pretest survey instrument comprised the original College Board’s (2004) survey items with slight modifications for electronic conversion and to reflect the new time period in which the pretest took place. In all three phases, the survey instrument began with an explanation of the study, its background and potential utility, and an informed consent form (see Appendix A) including assurance of approval by Virginia Commonwealth University’s Institutional Review Board (HM20006915). Following the pretest, minor additional modifications were made. Specifically, two items were added, and some language was substituted. No additional changes were made following the pilot, so it and the full administration phase used identical survey instruments.

**Pretest.** Prior to the full study, the instrument was pretested with six individuals. All six participants who received the survey participated, providing a 100% response rate. Three were human resources directors working in either a university, community college, or business context. The remaining three were professors with English education backgrounds and/or survey methods expertise. The six were selected based on their backgrounds and were email recruited through convenience sampling, and all agreed to complete the survey and did so in full and to the best of their ability. The non-human resources director participants were instructed to take the survey as though they were. Cognitive interviews were additionally conducted with one human resources director and one English education professor.
The data collection instrument used for the pretest consisted of a 42-item, cross-sectional survey (see Appendix B) electronically administered through REDCap. The entire instrument was similar to the College Board’s (2004) original survey, except for minor changes for electronic formatting and to reflect the year in which the current study took place. The leading three survey items, as in the College Board’s (2004) original instrument, were demographic in nature.

Item 1 was a nominal item that asked for the business nature of the respondent’s organization. It was updated from the original in format only. In the College Board’s (2004) original survey, the item was open-ended and asked respondents to write in a response after selecting from the list of options provided as a footnote at the bottom of the survey. For increased readability and parallelism with the rest of the survey (Babbie, 1990), and because closed-ended items have been shown to achieve higher response rates than open-ended (Dillman et al., 2009), this item was changed to be closed-ended. The response options were, as with the College Board’s (2004) study, “agriculture, forestry, and fishing”; “mining”; “construction”; “manufacturing”; “transportation & utilities”; “wholesale & retail trade”; “finance, insurance, & real estate”; and “services” (p. 38).

Items 2 and 3 differed from the College Board’s (2004) survey due to the change in time. Item 2 asked for the organization’s total number of employees as of January 1, 2016 (as opposed to 2004) in the United States, and Item 3 outside the United States. Items 4 and 5 asked how many new employees have been hired annually over the past five years (from January 1st, 2011 [as opposed to 1999] to December 31, 2015 [as opposed to 2003]), again both domestically and internationally. Items 2-5 were open-ended as they appeared in the College Board (2004) survey due to the wide range of responses which were likely to occur between companies. The items’
response spaces were sized appropriately for the task, i.e., relatively small since the response would be a number (Dillman et al., 2009). Following these demographic items, and at the end of each subsequent page of the survey, was an open-ended item (in this case Item 6), allowing respondents to provide additional comments or explanations regarding the items or their responses. Such items provided qualitative feedback that helped guide revisions during the pretest phase, and useful elaborative qualitative data during the full administration (Dillman et al., 2009; Babbie, 1990).

The aforementioned demographic items have the ability to act as independent variables, used to indicate how responses vary across fields, sizes of organizations, and growth rates. For instance, all respondents might deem writing ability an important hiring criterion, yet certain industries may deem writing more or less important than the others. As in the original study, analyses by field were conducted descriptively. The College Board (2004) used the size variables to test whether there were differences in missing (non-responder) data, but as the data were anonymous and it wasn’t evident how large non-respondents’ organizations are, these items will only be used in future research.

The remainder of the pretest survey comprised 35 items, the majority of which were ordinal, closed-ended, and either slightly adapted or recreated exactly from the College Board’s (2004) survey. Furthermore, where closed-ended items had a repeating scale across more than one consecutive item, a matrix format was utilized for the sake of clarity and brevity (Babbie, 1990). The first two such items, Items 7 and 8, asked if respondents take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new employees. Item 7 asked respondents to answer regarding their professional (salaried, full-time) employees, and Item 8 their hourly employees. The four-point Likert scale ranged, as
on the College Board’s (2004) survey, from “Almost never” to “Almost always,” with “Occasionally” and “Frequently” in-between. These questions served to inform Research Question 1, “How important is writing in the workplace?”

Items 9-10 resembled Items 7-8, where Item 9 regarded professional employees and 10 hourly, but it instead asked how many employees have some responsibility for writing (either explicit or implicit) in their position descriptions. The scale ranged from “A few” to “Almost all,” with “About 1/3rd” and “About 2/3rd” in-between. These and Items 7 and 8 served to further inform Research Question 1, as the prevalence of writing responsibility is indicative of its inherent importance.

Item 11 asked “When a job either explicitly or implicitly requires writing skills, how do you usually assess a job applicant’s writing ability?” This item allowed respondents to select more than one response, about which they were informed with a parenthetical “Please check all that apply” to limit potential confusion (Dillman et al., 2009; Babbie, 1990). The response options were, as they were on the College Board’s (2004) survey, “Writing sample provided by job applicant,” “Writing test taking during the job interview,” “Review of coursework on resume,” “Impressions based on letter/written application,” and “Other.” Item 11, in part, answered Research Question 2, “Is writing an important hiring consideration?” Item 12 allowed for open-ended specification regarding the “Other” response, and Item 13 allowed for open-ended feedback or elaboration regarding pretest participants’ responses about any of the items.

Items 14, 15, and 16 further and more specifically addressed Research Question 2. Items 14 and 15 were similar to Items 7-10. They asked, “When you are hiring new employees, how often are samples of written materials or presentations required of the applicant?” Item 14 regarded professional employees, and 15 pertained to hourly. Item 16 asked, “If a job applicant’s
letter or other written materials were poorly composed (i.e., grammatically incorrect or hard to understand), would that count against the applicant in hiring?” The scale for all three items was the same as in Items 7 and 8, ranging from “Almost never” to “Almost always,” with “Occasionally” and “Frequently” mediating. Item 17 provided for open-ended feedback.

Items 18-23 served to answer Research Question 3, “What kind of writing is expected on the job today?” As in the College Board’s (2004) survey, they led with the prompt, “Listed below are several forms of communication that are common in American companies. Please indicate how frequently each form is used in your company by circling the appropriate number.” Item 18 was “E-mail correspondence”; Item 19, “Other memoranda and correspondence”; Item 20, “Oral presentations with slides/visuals (e.g., PowerPoint)”; Item 21, “Oral presentations without visuals”; Item 22, “Formal reports”; and Item 23, “Technical reports.” The four-point scale again was again bookended with “Almost never” and “Almost always.” Item 24 was open-ended and allowed for feedback.

Items 25-35 led with the common stem, “Effective written communication can have a number of different characteristics. In your company, how important are each of these characteristics?” Each of the seven subsequent rows was an item that listed the writing characteristics “Accuracy;” “Clarity;” “Conciseness;” “Scientific precision;” “Visual appeal;” “Spelling punctuation, and grammar;” and “Other.” The items featured a four-point Likert response scale: “Not at all important,” “Not very important,” “Important,” and “Extremely important.” Item 31, “Other,” followed with an open-ended response box, Item 32, which asked for specification. These items somewhat addressed Research Question 1, regarding the general importance of writing in the workplace, but they more so provided specific examples of potentially important writing skills that employees may or may not have. Therefore, they also
served as a lead-in to Items 33-34, pertaining to Research Question 4, “Do employees have the writing skills employers seek?” Item 33 asked, “In your company’s current workforce, approximately how many employees have those skills?” (where “those” referred to the aforementioned list of characteristics in Items 25-31). Item 34 similarly asked, “Approximately how many new employees have the writing skills that your company most values?” Both items employed the “A few”-“Almost all” four-point Likert scale, and both addressed the fourth research question. Item 35 allowed for open-ended feedback regarding the survey items or participants’ responses.

Items 36-37 asked whether one’s company takes “effective writing skills into account when making promotion decisions?” Item 36 addressed professional employees and Item 37 hourly, again implementing the “Almost never” to “Almost always” scale. These items served to answer Research Question 5, “Is writing a promotion criterion?”

Items 38-39 asked respondents if their company provides writing training if one of their employees possesses outstanding technical but poor writing skills, and used the same two follow-up items and scales as Items 36-37. Item 40 was open-ended and acted as a follow-up to Items 38-39. It asked, “If your company provides writing training, what is your estimate of the annual cost per trained employee?” This item addressed Research Question 6, “Do American companies provide writing training; if so, what is the cost?”

The survey initially concluded with two open-ended items. The first, Item 41, asked respondents to “Please feel free to provide additional comments below.” This item also concluded the College Board (2004) survey, and was intended to collect general feedback for any response spanning the instrument. Item 42 was the repeated open-ended item asking for
pretest specific feedback about items or responses, intended to apply only to the page on which it appeared.

As described in greater detail in the “Establishing Validity Evidence” section below, the pretest resulted in a few minor changes to the pretest instrument. Specifically, the demographics were moved to the end of the survey; information on the informed consent document was reorganized; one item related to the use of writing in a blog, website, or social media, blogging context was added; and another item was added asking what types of writing training are offered. There were also minor language edits to items which were otherwise left intact: the “professional” employee label was changed to “salaried,” and similarly “new” employees were rephrased as “newly hired.” Finally, the second open-ended feedback item on the final page of the survey was removed after being deemed redundant.

**Pilot.** Of the 174 Fortune 500 and Inc. 5000 human resources executives contacted for the pilot, there was an 8.6% response rate (N = 15) representing every industry but mining and agriculture, forestry, and fishing. Seventy percent of the 174 were Fortune 500 members, and 30% Inc. 5000 members. These were ratios similar to the final phase of the study, where the remaining Fortune 500 organizations were combined with the entire Business Roundtable list, while Inc. 5000 made up the smallest portion of the potential sample. How many of each group comprised the actual respondents could not be determined due to the anonymity granted to the study’s participants.

The data collection instrument used for the pilot and the final administration consisted of a 43-item, cross-sectional survey (see Appendix C) electronically administered through REDCap. No additional changes resulted from the pilot, so what is described in detail below is the final instrument administered to the pilot and field test participants after all pretest revisions
were applied. The leading three survey items, as in the College Board’s (2004) original instrument, were demographic in nature.

The first two survey items asked if respondents take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new employees. Item 1 asked respondents to answer regarding their salaried employees, and Item 2 their hourly employees. The four-point Likert scale ranged, as on the pretest and College Board’s (2004) survey, from “Almost never” to “Almost always,” with “Occasionally” and “Frequently” in-between. These questions served to inform Research Question 1, “How important is writing in the workplace?”

Items 3-4 resembled Items 1-2, where Item 3 regarded salaried employees and 4 hourly, but instead asked how many employees have some responsibility for writing (either explicit or implicit) in their position descriptions? The scale ranged from “A few” to “Almost all,” with “About 1/3rd” and “About 2/3rd” in-between. These and Items 7 and 8 served to further inform Research Question 1, as the prevalence of writing responsibility is indicative of its inherent importance.

Item 5 asked “When a job either explicitly or implicitly requires writing skills, how do you usually assess a job applicant’s writing ability?” This item allowed respondents to select more than one response. The response options were, as they were on the pretest and College Board’s (2004) survey, “Writing sample provided by job applicant,” “Writing test taking during the job interview,” “Review of coursework on resume,” “Impressions based on letter/written application,” and “Other.” Item 5, in part, will answer Research Question 2, “Is writing an important hiring consideration?” Item 6 allowed for open-ended specification regarding the
“Other” response, and Item 7 allowed for open-ended feedback or elaboration regarding pretest participants’ responses about any of the items.

Items 8, 9, and 10 further and more specifically addressed Research Question 2. Items 8 and 9 asked, “When you are hiring new employees, how often are samples of written materials or presentations required of the applicant?” Item 8 regarded salaried employees, and 9 pertained to hourly. Item 10 asked, “If a job applicant’s letter or other written materials were poorly composed (i.e., grammatically incorrect or hard to understand), would that count against the applicant in hiring?” The scale for all three items was the same as in Items 1 and 2, ranging from “Almost never” to “Almost always,” with “Occasionally” and “Frequently” mediating. Item 11 provided for open-ended feedback.

Items 12-18 served to answer Research Question 3, “What kind of writing is expected on the job today?” As in the College Board’s (2004) survey and the pretest, they led with the prompt, “Listed below are several forms of communication that are common in American companies. Please indicate how frequently each form is used in your company by circling the appropriate number.” Item 12 was “E-mail correspondence”; Item 13, “Other memoranda and correspondence”; Item 14, “Oral presentations with slides/visuals (e.g., PowerPoint)”; Item 15, “Oral presentations without visuals”; Item 16, “Formal reports”; and Item 17, “Technical reports.” Item 18, “Blog, website, or social media content,” was added as a result of pretest feedback. The four-point scale again was bookended with “Almost never” and “Almost always.” Item 19 was open-ended and allowed for feedback.

Items 20-26 led with the common stem, “Effective written communication can have a number of different characteristics. In your company, how important are each of these characteristics?” Each of the seven subsequent rows contained an item that listed the writing
characteristics “Accuracy;” “Clarity;” “Conciseness;” “Scientific precision;” “Visual appeal;” “Spelling punctuation, and grammar;” and “Other.” The items featured a four-point Likert response scale: “Not at all important,” “Not very important,” “Important,” and “Extremely important.” Item 26, “Other,” followed with an open-ended response box, Item 27, which asked for specification. These items somewhat addressed Research Question 1, regarding the general importance of writing in the workplace, but also provided specific examples of potentially important writing skills that employees may or may not have. Therefore, they also served as a lead-in to Items 28-29, pertaining to Research Question 4, “Do employees have the writing skills employers seek?” Item 28 asked, “In your company’s current workforce, approximately how many employees have those skills?” (where “those” referred to the aforementioned list of characteristics in Items 20-26). Item 29 similarly asked, “Approximately how many newly hired employees have the writing skills that your company most values?” Both items employed the “A few” to “Almost all” four-point Likert scale, and both addressed the fourth research question. Item 30 allowed for open-ended feedback regarding the survey items or participants’ responses.

Items 31-34 asked whether one’s company takes “effective writing skills into account when making promotion decisions?” Item 31 addressed salaried employees and Item 32 hourly, again implementing the “Almost never” to “Almost always” scale. These items served to answer Research Question 5, “Is writing a promotion criterion?”

Items 33-34 asked respondents if their company provides writing training if one of their employees possesses outstanding technical but poor writing skills, and used the same two follow-up items and scales as Items 31-32. Items 35-36 were open-ended and acted as a follow-up to Items 33-34. Item 35 was added as a result of pretest feedback and asked, “If your company provides writing training, what type of training is provided?” Item 36 asked, “If your company
provides writing training, what is your estimate of the annual cost per trained employee?” This item addressed Research Question 6, “Do American companies provide writing training; if so, what is the cost?” Item 37 was an open-ended feedback item.

As the demographic items were moved to the end of the survey as a result of the pretest feedback, Item 38 was a nominal item that asked for the business nature of the respondent’s organization. Items 39 and 40 asked for the number of employees in and outside the US, respectively, for the responding participant’s organization. Items 41 and 42 asked how many new employees have been hired annually over the past five years, again both domestically and internationally. Following these demographic items was Item 43, which allowed respondents to provide additional comments or explanations regarding the items or their responses.

**Sampling**

Since the College Board’s (2004) original study, the Business Roundtable has grown by approximately 30 organizations. The current study’s pilot and pretest samples therefore included human resources executives working for the now-183 Business Roundtable organizations (Business Roundtable, 2015). This list includes chief executive officers (CEOs), chairpersons, and presidents of businesses located around the world. Prior to pilot and field test recruitment, and because the then-Director of Education and Workforce Policy for Business Roundtable is no longer with the group, the current Vice President and overseer of the group’s Education and Workforce Committee was emailed a letter explaining the purpose of the study and asking for assistance facilitating the study (see Appendix D).

As the Director of Education and Workforce Policy helped the College Board (2004) to establish contact with individual human resources directors, and as the current Vice President has worked previously for the College Board, and the committee continues to focus on education
reform and workforce preparation, he was contacted in hope that similar assistance could be provided with the replication. Unfortunately, the Business Roundtable had a number of their own ongoing research projects at the time which limited their availability to participate. Because this could negatively impact the study’s response rate, the sample was expanded to include Fortune 500 and Inc. 5000 organizations. These high-grossing, high-growth companies were selected for their similarity to the original Business Roundtable organizations—some Fortune 500 organizations even are Business Roundtable members, but they were only sampled once—as well as their overall recognizability and reputability. As the sample was purposefully and non-randomly selected based on their titles, and because the entire Business Roundtable and Fortune 500 was included, purposive total population sampling was utilized for those segments; non-total purposive population sampling was employed for the Inc. 5000 sample (Babbie, 1990).

Without a liaison, the contact information for all potential participants had to be individually located. To do so, the list of members of each Business Roundtable, Fortune 500, and Inc. 5000 organization were used to find the company’s name and URL. Then, each organization’s website was combed for the contact information of its Human Resources Director, Chief Human Resources Officer, Chief People Officer, (Executive) Vice President of Human Resources, or similar title connoting an executive-level human resources position. These were rarely made readily available, so advanced Google and LinkedIn searches with Boolean strings were utilized to find the names and email addresses of potential contacts. It was simple to locate the former, but not the latter. Email ping software was consequently employed to try various combinations of names and initials. Once an email address returned as valid, it and the person’s name, title, company, and LinkedIn address were added to a Microsoft Excel master list, including 174 entries for the pilot, and 790 entries for the field test.
Administration

The original intent was to employ mixed mode survey administration, utilizing email and telephone modes as in the College Board’s (2004) study. In general, mixed mode strategies have been shown to increase response rates and potentially reduce error (Dillman et al., 2009; Babbie, 1990; Groves et al., 2009). Since it was not possible to locate telephone numbers for the vast majority of participants, however, and because there was no similar way to test possible phone number combinations as was done with the emails, single mode electronic survey administration was used in each of the three phases of survey administration. Email administration was chosen as opposed to physical mail (as was done in the College Board’s [2004] study) due in part to the former’s lower cost, but also because it has been shown to be advantageous to do so for business surveys (Dillman, Smith, & Christian, 2009).

A slightly modified version of Dillman et al.’s (2009) “three-contact” system for email survey administration was utilized. The three-contact system begins with an informative introduction email that explains the study, why participants were selected, how they can participate in the survey, and how their confidentiality will be maintained. The second contact, or first follow-up, email thanks those who have taken the survey and again asks for those who haven’t responded to do so (Dillman et al., 2009). The third and final contact emphasizes how little time remained and why respondents’ participation is important.

This study followed a similar format, initially emailing participants a letter explaining the purpose of the study and asking whether they were interested in participating (see Appendix E). The message was individually sent to each participant through Gmail and did not contain the survey link. This was done to appear less presumptuous and allow potential participants to respond and say if they were interested, were not interested, or were interested but could not
participate due to corporate privacy policies. If a potential participant was not interested or was interested but could not participate, he or she was removed from the list. If he or she responded affirmatively, the survey was sent that same day, as Dillman et al. (2009) recommended mailing the survey quickly after the initial letter so that respondents would not forget about it. Occasionally, a potential participant would recommend that someone else in the company take the survey, and at that point the recruiting process started over with the new individual.

Dillman et al. (2009) did not provide timeline guidelines in their description of the three-point contact system, but Babbie (1990) suggested a week or two between reminders. As “the tempo of web surveys tends to be a little quicker than the tempo of mail surveys,” the first reminder was sent a week after the initial email, and the final reminder a week after that (Dillman et al., 2009, p. 279). All emails were sent in the early morning and on a weekday, when response rates are supposedly higher (Dillman et al., 2009).

The first follow-up contained the survey link, which stated that by opening the survey, the respondent agreed to participate in the study and understood its purpose and his or her role in the study (see Appendix F). Both the first and second follow-up (see Appendix G) were sent through the survey platform REDCap. Each was personalized with the respondent’s name in the salutation, a practice shown to increase response rates (Dillman et al., 2009; Babbie, 1990). REDCap utilizes blind copying, which makes respondents less likely to perceive the letter as a mass mailing, and also enjoy an additional sense of confidentiality (Dillman et al, 2009).

Total recruitment took nearly nine months. Due to the large number of respondents, no individual financial incentives were offered, nor was a lottery-based incentive employed, as research suggests the latter to have little or no significant effect in email surveys (Dillman et al., 2009).
Participants

For the full administration phase of the survey, 71 participants responded from a total sample of 790, resulting in a 9.0% response rate. Where contact information could be found, the entirety of the Business Roundtable and non-overlapping Fortune 500 members were sampled (527 of the 790 individuals [66.7%]), with the remaining contacts comprising Inc. 5000 representatives (263 of the 790 [33.3%]). Participants were diverse, with each sector represented except again for mining and agriculture, forestry, and fishing. In the College Board’s (2004) survey, the authors similarly experienced a zero percent response rate from two industries: wholesale and retail trade; and agriculture, forestry, and fishing.

Nearly half (46.9%) of the participants worked in the services industry at the time of the present survey, while the fewest (4.7%) worked in construction. The average organization had 19,393 current employees in the US, and 7,200 outside the US. Over the past five years, they hired 5,700 employees in the US, and 5,730 outside the US. In sum, respondents represented 1,735,800 employees currently located across the world. See Table 1 for more information and comparison with the College Board’s (2004) original sample.
Table 1

Number of Employees by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>2004</th>
<th></th>
<th>2016</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Employed</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Mining</td>
<td>--</td>
<td>11,700</td>
<td>0.3%</td>
<td>0</td>
</tr>
<tr>
<td>Construction</td>
<td>--</td>
<td>95,511</td>
<td>2.6%</td>
<td>3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>--</td>
<td>2,578,118</td>
<td>69.2%</td>
<td>8</td>
</tr>
<tr>
<td>Transportation and Utilities</td>
<td>--</td>
<td>552,900</td>
<td>14.8%</td>
<td>5</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>--</td>
<td>0</td>
<td>0.0%</td>
<td>10</td>
</tr>
<tr>
<td>Finance, Insurance, and Real Estate</td>
<td>--</td>
<td>267,051</td>
<td>7.2%</td>
<td>8</td>
</tr>
<tr>
<td>Services</td>
<td>--</td>
<td>238,886</td>
<td>6.4%</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>--</td>
<td>3,744,166</td>
<td>64</td>
<td>1,733,183</td>
</tr>
</tbody>
</table>

Note. Individual item n’s were not provided by the College Board (2004), but full \( N = 64 \) in 2004. Seven respondents did not respond to the nature of business item in 2016, bringing the \( N \) to an ostensibly equal 64. Total \( N = 71 \), and 1,735,800 employees.

Data Analysis

Data were analyzed descriptively as the survey was cross-sectional and exploratory in nature (Babbie, 1990). Using SPSS 24, data were first cleaned and analyzed for patterns of missing data and outliers. For the former, the College Board (2004) originally used the second demographic item (number of employees) as an independent variable and missingness as a dependent, finding no significant difference between groups—which may have otherwise indicated a degree of nonresponse bias (Babbie, 1990). There was no way to similarly know the number of employees of non-participating and non-responding company’s, so instead Little’s
Missing Completely at Random test was used. For that test, if the null hypothesis is not rejected, there is adequate evidence against missing-not-at-random (MNAR) data (Little, 1988; Dattalo, 2013). Little’s Missing Completely at Random test \((p = .50)\) suggested that missing data problems were not problematic. Furthermore, of the 71 respondents, only one did not complete at least half of the survey. The demographic items accounted for a large share of the missing data, with roughly eight participants not answering the items related to industry and/or size of company. The greatest percentage of missing data, however, were for the open-ended items related to the number of employees and cost and training type. Some respondents clarified that they did not answer those items because they weren’t certain, or because legal/privacy policies precluded them from answering. For the six open-ended feedback items located at the end of each page of the survey, an average of six participants provided responses, ranging from 2-14 responses per item.

Outliers were assessed by running frequencies confirming that there were no data points outside of the possible range of each item’s scale. The absence of high multicollinearity was examined by running bivariate correlations and ensuring that no items were very highly correlated \((\text{e.g., } r > .90)\) as to suggest redundancy or superfluity (Dattalo, 2013). Variables were checked for at least moderate correlations, however, before proceeding with factor analysis (Dattalo, 2013).

Means and percentages of items were used to answer their respective research questions, and standard deviations to explain the average distances from the means, i.e., a measure of spread of the data. Where research questions and items overlapped with the College Board’s (2004) study, means, percentages, and responses were descriptively compared. Item 36’s
response was adjusted for inflation using an online inflation calculator (Bureau of Labor Statistics, 2016).

To extrapolate the cost of writing training, a formula similar to the College Board’s (2004) was used. Specifically, the number of employees in 2015 in each industry that was included in the study (BLS, 2015) was multiplied by the percentage of salaried and hourly employees for whom at least two-thirds have writing responsibility, also by industry; the reduced number was then multiplied by the percentage for which one-third or fewer have the writing skills valued, again by industry; and then multiplied by the percentage of companies that least occasionally provide writing training for those employees, by industry. One difference is that the College Board then multiplied that number by the cost of writing per employee by industry, but to prevent weighing too heavily the response of an industry for which there was only one response, the current formula used the average cost of writing per employee across all industries.

**Establishing Validity Evidence**

Throughout the survey development process, various forms of validity evidence were established to ensure that the instrument was statistically sound and that inferences made about its results would be appropriate. Validity, or “the degree to which evidence and theory support the interpretations of test scores (or survey data) for proposed uses,” may be established in a number of ways, and the more uses or interpretations are proposed by research, the more validity evidence is needed (AERA et al., 2014, p. 11). AERA et al.’s (2014) standards guided the study’s process of validity evidence establishment: intended interpretations were first proposed, samples and data collection methods were then planned and described, and content-oriented validity evidence and internal structure evidence were finally established.
The validation process began with “an explicit statement of the proposed interpretation of [survey results], along with a rationale for the relevance of the interpretation to the proposed use” (AERA et al., 2014, p. 11). The current study’s proposed interpretations were—and are—exploratory and guided only by the research questions, which are those of the College Board (except for the question about the validity evidence itself). The potential intended uses of the data, to indirectly inform policy and curriculum-development decisions and guide future research, were also as in the original study. The proposal to compare the results of the current study to the previous one were unique to this study; however, no suppositions were made regarding this comparative aspect, i.e., it was not presupposed that the use or importance of writing had increased or decreased over time. To demonstrate that these exploratory interpretations of the data were reasonable, validity evidence first needed to be collected (AERA et al., 2014).

The validation process proceeded with the collection of empirical evidence, the examination of relevant literature, and the conducting of logical analyses and professional judgment (AERA et al., 2014). Empirical evidence may stem from “local evidence, produced within the contexts where the test will be used” and “evidence from similar testing applications in other settings” (AERA et al., 2014, p. 13). As the survey was used similarly in other settings, i.e., by the College Board (2004), there was some inherent validity evidence for the current study in that the instrument was used previously with a similar population and for the similar purpose of exploration of the use and importance of writing as perceived by business leaders, the results of which were ultimately intended to inform policy and curriculum development. But because the College Board (2004) did not report on their instrument’s validation process, reliabilities, piloting methods, etc., there was just cause to establish additional validity content-oriented and
internal structure validity evidence due to the potential changes in the construct, changes in the participants, and simply the changes in time period (AERA et al., 2014; Long, 2015; Center on Budget and Policy Priorities, 2016). Pretesting and piloting with experts were therefore employed to establish validity evidence.

Pretest and pilot samples were both representative and appropriate for the study, utilizing “different judges” for “different purposes” (AERA et al., 2014, p. 26). The participants for both phases are described in detail in the above Instrumentation section. In general, though, the instrument was pretested with a group of human resources executives and fellow researchers (those familiar with survey methodology and the economic dimensions of ELA, as the pretest sample need not be representative [Babbie, 1990]) in order to establish content-oriented validity evidence. After pretesting, a small pilot test was conducted with a representative sample of Fortune 500 and Inc. 5000 human resources executives. Identification or participants, recruitment, and survey administration during the pilot was as it would be in the final phase, for the pilot stage exists more to test intended data analysis methods than revise the questionnaire (Babbie, 1990).

Neither Dillman et al. (2009) nor Babbie (1990) suggested a specific participant number for pretesting or piloting, but six participated for the former and 15 for the latter. The survey was administered in the pretest and pilot as it would be in the final (electronic self-administration through REDCap), with the exception of two cases of cognitive interviewing during the pretest. During these individual interviews, respondents were asked to read through the items, which provided an in-depth understanding of their thought processes as they completed the instrument (Babbie, 1990; Dillman et al., 2009). These interviews, and the pretest in general, were conducted to collect content-oriented evidence, ensuring that the language and format of the
survey were clear and easy to read, and that the instrument reflected an adequate and appropriate range of content, as propositions related to the interpretation of beliefs regarding the use and importance of writing inherently require that the survey measure appropriate, comprehensive aspects of that domain (AERA et al., 2014, Babbie, 1990).

Evidence based on content. According to AERA et al. (2014), evidence for content-oriented validity can stem from “logical or empirical analyses” related to how well the instrument represents the content, from systematic observation, or through “expert judgments of the relationship between parts of the test and the construct” (p. 13). Although the pretest phase resulted in minor revisions, analysis of expert judgments stemming from the pretest established that the instrument was generally well-formatted and covered an appropriate, balanced range of dimensions of the measured concept, i.e., there was evidence of content-oriented validity (AERA et al., 2014; Babbie, 1990; Dillman et al., 2009; Mitchell & Jolley, 2013; Thorndike & Thorndike-Christ, 2009). In particular, evidence was established against construct underrepresentation, “the degree to which a test fails to capture important aspects of the construct” and construct irrelevance, “the degree to which test scores are affected by processes that are extraneous to the test’s intended purpose” (AERA et al., 2014, p. 12).

As mentioned previously, evidence based on content and response processes were established through pretesting, including cognitive interviews with experts: an English education professor and a human resources director (AERA et al., 2014). The English education professor liked the format and inclusion of underlining for emphasis, and was “happy” with the content coverage. She only recommended that there be an item added about web presence and social media, as she felt the construct related to the use of writing had changed since 2004 and needed to be updated—an example of construct underrepresentation. And while “nearly all tests leave
out elements that some potential users believe should be measured and include some elements that some potential users consider inappropriate,” the item was added to make interpretations regarding results more relevant and appropriate (AERA et al., 2014, p. 13).

The human resources director thought that the confidentiality section of the informed consent document should be moved higher so participants could see that their responses were anonymous before seeing the “Risks and Discomfort” section and balking—as she did. She additionally admitted that she guessed for the item asking for the number of employees employed at her organization, and that she picked “services” for industry even when it wasn’t the best fit. While she didn’t believe the demographic items needed to be reworded, she recommended that they be moved to the end of the instrument, for she feared that if others similarly stumbled on them, they might quit the survey before responding to the rest of the items. She also thought that the “professional” employee label should be updated to “salaried” and that “new employees” should be rephrased as “newly hired” for better specificity.

Both cognitive interview participants acknowledged the need for and importance of the study, and the human resources director began the interview by speaking to the “gatekeeper” theory inherent in the research, agreeing that she would not forward an applicant to the search committee if his or her cover letter had errors. Both interviewees found the length of the survey to be reasonable, and the human resources director further stated that it did a good job of “showing that you’re trying to capture information” and that it “seemed meaningful and useful, but not too long or inconvenient.” Therefore, evidence against construct irrelevance was collected in that participants did not take issue with language or format of the test, either of which may have provided an unfair advantage or disadvantage to potential participants (AERA et al., 2014).
The non-cognitive interviewees also provided predominantly positive feedback and content-oriented validity evidence. The instrument was described as “clear” and “straightforward” by two participants. One expressed some potential confusion with the language of the survey, however, asking, “What do you mean by professional? I think it means different things...like at [redacted university], Professional employee could mean Professional Faculty which could mean a dean or director...a professional in another job environment could mean a classified fulltime employee.” Since this sentiment was echoed by the human resources director during the cognitive interview, the change from “professional” to “salaried” (which was also her recommendation) was made to prevent issues of construct irrelevance. Similarly, two non-cognitive interviewees echoed the recommendation to add an open-ended item asking what specifically is included in writing training, so it was it was added. There were no major shared concerns nor negative comments about the items, content coverage or format during the pilot or full administration phases.

**Evidence based on internal structure.** Internal structure validity evidence is based on the relationships among an instrument’s items, as its conceptual framework “may imply a single dimension of behavior, or it may posit several components that are each expected to be homogeneous, but that are also distinct from each other” (AERA et al., 2014, p. 16). It was not posited that the survey was entirely unidimensional, for as the domain of interest is the use and importance of writing, there were distinct survey items exploring each aspect of the construct, along with demographic items and the division of items based on whether an employee was salaried or hourly. To establish internal structure validity evidence, reliability and factor analysis were used.
Reliability, an “important part of the validity evidence” (AERA et al., 2014, p. 27) is a measure of the amount of consistency in a measure, i.e., its presence or absence of error (Babbie, 1990; Mitchell & Jolley, 2013). There are a number of ways to measure reliability, such as Cronbach’s alpha, test-retest, split-half, and parallel forms (Mitchell & Jolley, 2013; Thorndike & Thorndike-Christ, 2009). There are also a number of ways to increase a survey’s reliability; for instance, one could increase the number of items on the instrument, enhance the measure’s sensitivity, or ensure group variability of the sample (Mitchell & Jolley, 2013; Thorndike & Thorndike-Christ, 2009). Regardless of how reliability is measured or increased, it is prerequisite for validity; one cannot make valid interpretations about an instrument without it being reliable (Babbie, 1990; Mitchell & Jolley, 2013). To establish reliability-based internal structure evidence for this instrument, Cronbach’s alphas were calculated during the pilot phase ($\alpha = .86$) and again following full administration ($\alpha = .95$).

After piloting the survey, SPSS 24 was additionally used to assess the pilot test data for missing data patterns and outliers as with the final data. Bivariate correlations were calculated to ensure that no items were so highly correlated (e.g., $r \geq .90$) as to suggest redundancy or superfluity (Babbie, 1990). Next, descriptives were generated to assess whether there existed adequate variability, i.e., a range of responses; however, there remains a degree of subjectivity as to what is truly “adequate” (Babbie, 1990). If there existed low variability, very high correlations, or low reliability (below the .70 level [Thorndike & Thorndike-Christ, 2009])—and with the understanding that the data may be misleading due to the small sample size—revisions would be required and a re-pilot of the instrument if major changes had been made. Fortunately, there were no outliers or problematic missing data patterns (all 15 pilot participants completed the entire survey, except for one who did not answer demographic items). Data were adequately
variable, and no items were problematically highly correlated (e.g., $r \geq .90$). Therefore, and because no qualitative feedback suggested additional revisions, the administration proceeded with the full sample in order to establish additional internal structure validity evidence via factor analysis (AERA et al., 2014).

Factor analysis is a way to further understand the underlying structure or patterns of one’s data (Tabachnick & Fidell, 2014; Babbie, 1990; Dattalo, 2013; Mitchell & Jolley, 2014), and it was used to explore whether variability “attributable to one major dimension was much greater than the score variability attributable to any other identified dimension, or showing that a single factor adequately accounts for the covariation among test items” (AERA et al., 2014, p. 27). For instance, it was possible that the items related to the use of writing would have shared covariance, while those related to its importance did as well. Or, the items pertaining to hourly employees may have comprised a factor, while the salaried items comprised another factor. As a large number (e.g., at least 100) of cases are traditionally required for factor analysis, such evidence was established only after full administration (Pearson & Mundform, 2010).

There are two predominant types of factor analysis: exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). Exploratory factor analysis is aptly named—it is an exploratory process most useful at the outset of research. It groups together correlated variables where they “may or may not have been chosen with potential underlying processes in mind” (Tabachnick & Fidell, 2014, p. 662). That is, EFA serves to consolidate variables in a way that develops theory and generates hypotheses about underlying constructs (Field, 2013). A principal components factor analysis (PCFA) is the default dimension reduction procedure in SPSS. It reduces overall variance (principal components analysis) as well as common variance (exploratory factor analysis) to explain the underlying structure of the data (Dattalo, 2013). As
the survey and statistical procedure are exploratory in nature, the choice of PCFA (which includes EFA) was far more appropriate than CFA (Dattalo, 2013; Brown, 2015).

The PCFA with varimax rotation was conducted, extracting eigenvalues greater than “1” and using a factor loading cutoff (≥ .50) in order to explore how various items accounted for different amounts of variance in the model, as well as how they shared that variance among one another, i.e., which factors were potentially suggested by the data (Dattalo, 2013). Where factors were found, respective Cronbach’s alpha reliabilities were produced for each as they could be considered, in future studies, as potential subscales. PCFA may also be used to reduce the number of items or generate factor scores, or weighted averages, to demonstrate how respondents relate on that factor (Field, 2013). Both outcomes create additional, potentially useful variables for future research.

There are two primary types of rotation for exploratory factor analysis, orthogonal and oblique (Tabachnick & Fidell, 2014; Field, 2013). The former keeps factors uncorrelated, maximizing variance of factor loadings and consequently increasing interpretability. The latter allows factors to correlate and should be used if one believes factors may be interrelated (Tabachnick & Fidell, 2014; Field, 2013). As the study is exploratory, SPSS’ default orthogonal varimax rotation was used.

Sample size recommendations for factor analysis vary from 100 to 500 (Pearson & Mundtform, 2010), yet a general guideline stated by Field (2013) is, “If a factor has four or more loadings greater than .6 then it is reliable regardless of sample size…factors with 10 or more loadings greater than .40 are reliable if the sample size is greater than 150…factors with a few low loadings should not be interpreted unless the sample size is 300 or more” (p. 684). The current study did not achieve a response rate similar to the College Board’s (2004) 53.3%—even
with the increased number of Business Roundtable organizations and the addition of those of the Fortune 500 and Inc. 5000, the final response rate of 9% \((N = 71)\) did not meet the lower end of Pearson and Mundform’s criterion. However, as it was possible that the data might still satisfy Field’s (2013) criterion, PCFA was run.

It is important to note that if a researcher is simply looking for patterns among the variables or factors without any guidance from theory, as is characteristic of EFA/PCFA, the factor solution may not be useful or meaningful (Babbie, 1990, AERA et al., 2014). As Thorndike and Thorndike-Christ stated (2009), “‘Factorial validity’ still needs evidence of a relationship to life events outside the tests themselves if the factors are to have much substance, vitality, and scientific or educational utility” (p. 179). Therefore, and because the literature base on this topic is limited, this study’s factor analysis is to be taken with a grain of salt. Additionally, and like for most other data analysis methods, factor analysis results cannot be generalized to populations beyond one’s sample if that sample is nonrandom (to be discussed further in Limitations) (Field, 2013).

An assessment of missing data and linearity for suggested no major concern for the full sample’s data. The value of KMO, a measure of the sampling adequacy of the correlation matrix, i.e., the homogeneity of the variables, for factor analysis, was 0.60 (Kaiser & Rice, 1974; Dattalo, 2013). This exceeds Kaiser and Rice’s (1974) definition of an “unacceptable” KMO less than 0.5 (Dattalo, 2013; Field, 2013). Bartlett’s Test of Sphericity was \(p < .0001\), further indicating that there existed some relationships among variables and that consequently factor analysis was appropriate (Dattalo, 2013; Field, 2013).

Criteria for retaining factors included an eigenvalue greater than one, a scree test (see Figure 1), and total variance explained. According to all three criteria, three factors were
Communalities, representing the proportion of the variance in a scale item explained by the factor, were all above .50, suggesting that the three-factor model explained 32.17% of variance of the included 27 scale items (Dattalo, 2013). Using a factor loading threshold of 0.50 and a requirement of three or more variables per factor, factor one was named “importance of writing ability,” factor two was deemed “email proficiency,” and factor three was dubbed “industry-readiness.”

As seen in the Table 2, “importance of writing ability” ($\alpha = .85$) explained 14.35% of variance. It was named “importance of writing ability” as it included items related to writing’s overall role in hiring and promotion decisions for salaried and hourly employees, as well as whether salaried and hourly employees’ job descriptions include writing. “Email proficiency” ($\alpha = .70$) explained 10.55% of variance and received its name because it included items related to the use of email correspondence along with the valuation of accuracy; clarity; visual appeal; and spelling, punctuation, and grammar—i.e., characteristics that may be used to determine whether or not one is proficient at writing emails. “Industry-readiness” ($\alpha = .56$) explained 7.27% of variance and was named such as it comprised items related to how many current and new employees have the skills valued by their employer, along with an item related to the nature of business, i.e., industry. As this third factor had a reliability below .70 (Thorndike & Thorndike-Christ, 2009) and only three factor loadings above .60 (Field, 2013), it should be interpreted with caution.

Overall, however, the factor analysis and reliabilities establish validity evidence related to the internal structure of the instrument. The former indicates that there exist relationships, or shared variance, among the items, and the latter suggest little measurement error. Together, and
coupled with the established content-oriented validity evidence, appropriateness is lent to the interpretation of results that follow.

Table 2

*Rotated Factor Matrix*

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you take writing into consideration when hiring new salaried employees?</td>
<td>0.724</td>
<td>0.211</td>
<td>0.033</td>
<td>0.716</td>
</tr>
<tr>
<td>Do you take writing into consideration when hiring new hourly employees?</td>
<td>0.819</td>
<td>-0.008</td>
<td>0.173</td>
<td>0.752</td>
</tr>
<tr>
<td>How many salaried employees have some writing responsibility in their position descriptions?</td>
<td>0.559</td>
<td>0.332</td>
<td>-0.024</td>
<td>0.685</td>
</tr>
<tr>
<td>How many hourly employees have some writing responsibility in their position descriptions?</td>
<td>0.812</td>
<td>0.158</td>
<td>0.041</td>
<td>0.829</td>
</tr>
<tr>
<td>Does your company take effective writing into account when making promotion decisions regarding salaried employees?</td>
<td>0.503</td>
<td>0.109</td>
<td>-0.036</td>
<td>0.749</td>
</tr>
<tr>
<td>Does your company take effective writing into account when making promotion decisions regarding hourly employees?</td>
<td>0.757</td>
<td>-0.107</td>
<td>0.196</td>
<td>0.819</td>
</tr>
<tr>
<td>E-mail correspondence</td>
<td>-0.010</td>
<td>0.636</td>
<td>0.016</td>
<td>0.527</td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.231</td>
<td>0.702</td>
<td>0.068</td>
<td>0.633</td>
</tr>
<tr>
<td>Clarity</td>
<td>0.020</td>
<td>0.745</td>
<td>-0.008</td>
<td>0.620</td>
</tr>
<tr>
<td>Visual appeal</td>
<td>0.093</td>
<td>0.615</td>
<td>-0.041</td>
<td>0.721</td>
</tr>
<tr>
<td>Spelling, punctuation, and grammar</td>
<td>-0.016</td>
<td>0.534</td>
<td>0.227</td>
<td>0.772</td>
</tr>
<tr>
<td>In your company’s current workforce, approximately how many employees have those skills?</td>
<td>0.457</td>
<td>0.159</td>
<td>0.703</td>
<td>0.820</td>
</tr>
<tr>
<td>Approximately how many newly hired employees have the writing skills that your company most values?</td>
<td>0.376</td>
<td>0.197</td>
<td>0.638</td>
<td>0.780</td>
</tr>
<tr>
<td>Nature of business</td>
<td>0.003</td>
<td>-0.073</td>
<td>0.724</td>
<td>0.636</td>
</tr>
<tr>
<td>Rotated explained variance</td>
<td>14.35%</td>
<td>10.55%</td>
<td>7.27%</td>
<td>--</td>
</tr>
<tr>
<td>Cronbach’s alpha</td>
<td>0.85</td>
<td>0.70</td>
<td>0.56</td>
<td>--</td>
</tr>
</tbody>
</table>
Figure 1. Scree plot of factor analysis.
Chapter Four: Results

How Important Is Writing in the Workplace?

The majority of respondents ($M = 3.34, SD = 0.97$) reported that their salaried employees have some writing responsibility included either explicitly or implicitly in their job descriptions. Sixty-two percent ($n = 44$) stated that “almost all” of their salaried employees have some writing responsibility; 16.9% stated that “about two-thirds” of their employees do so; 14.1% said so for “about one-third” of their employees; and 7% report that only “a few” of their salaried employees have some writing responsibility.

A lesser percentage ($M = 2.24, SD = 1.10$) of respondents’ hourly employees are said to have some writing responsibility in their position descriptions. The majority of respondents (32.8%, $n = 22$) stated that “about one-third” of their hourly employees have some writing responsibility; 31.3% reported that “only a few” of their employees do; 19.4% said “almost all” of their employees do; and 16.4% said “about 2/3rds” of their employees have some writing responsibility.

**Comparison to the College Board’s (2004) findings.** In 2004, the College Board reported that roughly 68% of their respondents indicated that at least two-thirds of their salaried employees have some writing responsibility in their job descriptions, and 15% said so regarding their hourly employees. In contrast, the present study found respective percentages of 78.9% and 35.8%. Currently, then, and when perceived by human resources executives working for high-grossing organizations, writing appears to have maintained as less important/ubiquitous for hourly employees than for salaried. However, both were deemed more important now than they
were twelve years ago—for hourly employees, the percentage of agreement has more than doubled. As one respondent of the present study elaborated, “Being able to communicate clearly and concisely is important in any position in our company.” It’s possible that true frequencies may be even higher than the data indicate, too, for as another respondent stated, “While I answered that only 2/3 of salaried positions come with writing responsibility, nearly all, if not all, salaried roles require at least email communication, which is important. Exceptional email writing does not generally generate any consequences, but consistently poor email communication does at a minimum erode credibility.”

When comparing across industries, in 2004 the College Board found that roughly 30% of respondents in the transportation and utilities industry stated that two-thirds or more of their salaried employees were expected to write, and 0% of their hourly employees. Now, however, these numbers are a respective 100% and 60%. The only industries that experienced a decrease from 2004 to 2016 are construction for salaried employees (from roughly 68% to 66%) and FIRE for both salaried (85% to 79%) and hourly employees (from 29% to 25%). Every other industry for which there were data experienced an increase for both salaried and hourly employees. See Figure 2 for more information.
Figure 2. Percent of agreement that two-thirds or more employees have some writing responsibility. Only aggregates for “about 2/3” and “almost all” were provided in the College Board’s (2004) study. Individual item n’s were not provided by the College Board (2004), but total \( N = 64 \) in 2004; \( N = 71 \) in 2016. *No response data were available for wholesale and retail trade in 2004, nor for mining in 2016. Adapted from “Writing: A Ticket to Work…Or a Ticket Out,” by the College Board, 2004. Estimates drawn from the College Board’s (2004) bar graphs where exact percentages were not provided. Copyright 2004 by the College Board.

Is Writing an Important Hiring Consideration?

The majority of respondents \((M = 2.76, SD = 0.92)\) report that they take writing into consideration when hiring new salaried employees. Twenty-five respondents \((35.2\%)\) stated that they “occasionally” take writing into consideration; 32.4% stated that they “frequently” do so; 25.4% reported that they “almost always” do; and only 7% reported that “almost never” take writing into consideration when hiring salaried employees.

Fewer respondents stated that they take writing into consideration when hiring hourly employees \((M = 2.13, SD = 1.01)\). Twenty-three respondents \((33.8\%)\) stated that they “almost never” take it into consideration; 29.4% stated that they “occasionally” do so; 26.5% reported that they “frequently” do; and only 10.3% reported that “almost always” take writing into consideration when hiring hourly employees.
Nearly all \((M = 3.54, SD = 0.67)\) of the respondents said that they hold poorly composed or grammatically incorrect materials against applicants in hiring. Roughly 63\% \((n = 44)\) “almost always” count poorly composed or ungrammatical written materials against an applicant in hiring; 30\% do so “frequently”; 5.7\% “occasionally”; and only 1.4\% “almost never” do.

When hiring for a job where writing skills are inherent, employers assess an applicant’s writing ability with impressions based on the letter or written application (81.7\%), writing samples provided by the applicant (47.9\%), a review of coursework listed on the applicant’s resume (33.8\%), and writing tests taken during the job interview (15.5\%). Multiple respondents elaborated that they assess writing ability through email correspondence. Others use college GPA; degree, university, and prior employers; or submitting written responses to hypothetical and contextual “phone screen questions.”

**Comparison to the College Board’s (2004) findings.** In the College Board’s (2004) original study, just over half (51\%) of the respondents frequently or almost always took writing into account when hiring salaried employees, and 16\% did so for hourly. In the current study, a respective 57.8\% do so for salaried employees, and 36.8\% for hourly employees. Looking across industries, transportation and utilities experienced the largest increase for salaried employees from 2004 to 2016 (from 17\% to 60\%), and services saw the largest increase for hourly employees (from roughly 21\% to 57\%). Construction’s salaried frequency remained essentially static, yet its hourly percentage increased from 0\% to 33\%. Only FIRE’s hourly frequency dropped from 2004 to 2016, from a respective ~57\% to 25\%. See Figure 3 for more information.
Figure 3. Percent of respondents who frequently or almost always consider writing in hiring decisions. Only aggregates for “frequently” and “almost always” were provided in the College Board’s (2004) study. Individual item n’s were not provided by the College Board (2004), but total \( N = 64 \) in 2004; \( N = 71 \) in 2016. "No response data were available for wholesale and retail trade in 2004, nor for mining in 2016. Adapted from “Writing: A Ticket to Work…Or a Ticket Out,” by the College Board, 2004. Estimates drawn from the College Board’s (2004) bar graphs where exact percentages were not provided. Copyright 2004 by the College Board.

The College Board (2004) originally found that 86% of respondents “frequently” or “almost always” held poorly composed or grammatically incorrect materials against applicants in hiring. This percentage has since increased to 92.9%, which lends credence to the human resources “gatekeeper” theory. Comparing across industries, 86% of FIRE respondents in 2004 reported that they either would “frequently” or “almost always” do so, but now 87.5% state that they would “almost always” do. Only one of the current study’s respondents, representing the services sector, said that he or she “almost never” holds such materials against an applicant, which was not the case in the 2004 study when all respondents in that sector responded “frequently” or “almost always.”
On balance, more employers now than in 2004 assess job applicants’ writing abilities via impressions based on letters and written applications: the percentage who do so has increased from 71% in 2004 to 81.7% in 2016. Furthermore, current responding employers require writing samples more so now than in 2004, as the percentage indicating they do so has increased from 11% to 47.9%. Such samples may differ based on employee category, however. As one respondent stated, “We have based hiring decisions on writing samples provided by professional candidates and email communications such as thank you notes provided by hourly candidates.”

The College Board (2004) did not provide a percentage for how many of their sample utilize testing to assess applicants’ writing ability, and only 15.5% of the current study’s respondents reportedly do so. Some respondents’ qualitative data explain why this number may be so low. One stated, “Writing is not often tested for most jobs. For select jobs like being a communicator, there may be a review of materials previously written but I would find that more the exception than the rule.” Others clarified that while they may not use writing tests, they may like to. For instance, “There are times when we get writing samples or test during the interview, but the legal folks don’t like it as it is not a validated test and can lead to challenges.” Another stated, “These questions have made me realize that we probably under-assess writing capability in our decisions for new hires.”

What Kind of Writing Is Expected on the Job Today?

Types of writing used. Emailing is ubiquitous, with 100% (M = 3.96, SD = 0.20), of respondents stating that it is “frequently” (4.3%) or “almost always” (95.7%) used. The percentage of respondents who at least frequently communicate using other memoranda and correspondence in their respective company was 62.1% (M = 2.76, SD = 0.79); oral presentations with slides/visuals 79.7% (M = 3.07, SD = 0.73); oral presentations without visuals 48.6% (M =
2.47, $SD = 0.79$); formal reports 53.6% ($M = 2.58, SD = 0.78$); technical reports 58.2% ($M = 2.76, SD = 0.92$).

For the newly added item, 58.8% ($M = 2.60, SD = 0.93$) of respondents’ organizations communicate through blog, website, or social media content either “frequently” (42.6%) or “almost always” (16.2%). One respondent who stated that such communication only takes place “occasionally” elaborated, “Blog and social media content apply mostly to senior executives. For this population, the choice would be frequently.” See Table 3 for more information about each of these communication methods’ frequencies.

Table 3

<table>
<thead>
<tr>
<th>Types of Written Communication Used in the Workplace Percent Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>E-mail correspondence</td>
</tr>
<tr>
<td>Technical Reports</td>
</tr>
<tr>
<td>Oral presentations without visuals</td>
</tr>
<tr>
<td>Oral presentations with visuals</td>
</tr>
<tr>
<td>Formal reports</td>
</tr>
<tr>
<td>Other memoranda and correspondence</td>
</tr>
<tr>
<td>Blog, website, or social media content</td>
</tr>
</tbody>
</table>

Characteristics of writing valued. Respondents varied regarding how their companies value individual characteristics of writing. Scientific precision is seen as the least important characteristic of writing ($M = 2.70, SD = 0.91$), with only 57.1% of respondents deeming it important or extremely important. One hundred percent said that accuracy ($M = 3.80, SD = 0.40$)}
was important or extremely important; 98.6% reported so for conciseness \((M = 3.44, SD = 0.53)\); 80% for visual appeal \((M = 2.93, SD = 0.57)\); 98.6% for clarity \((M = 3.71, SD = 0.49)\); and 97.1% for spelling, punctuation, and grammar \((M = 3.64, SD = 0.54)\).

Four respondents selected that there was an “Other” characteristic \((M = 2.75, SD = 1.26)\) of writing not contained within the specific six. One respondent stated that “persuasion and interplay with quantitative analysis” is important; another responded “not at all important,” and clarified, “We are a global company so for many English is not their first language—we do not hold them to the same standards in English as their home language, as a point of diversity.”

“Persuasive ability” was deemed extremely important by one participant, and “voice—consistency as well as overall tone” was stated by a participant as being at least somewhat important. See Table 4 for more information.

Table 4

*Value of Characteristics of Writing Percent Agreement*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Not at all important</th>
<th>Not Very Important</th>
<th>Important</th>
<th>Extremely important</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>0%</td>
<td>0%</td>
<td>20%</td>
<td>80%</td>
<td>70</td>
</tr>
<tr>
<td>Clarity</td>
<td>0%</td>
<td>1.4%</td>
<td>25.7%</td>
<td>72.9%</td>
<td>70</td>
</tr>
<tr>
<td>Conciseness</td>
<td>0%</td>
<td>1.4%</td>
<td>52.9%</td>
<td>45.7%</td>
<td>70</td>
</tr>
<tr>
<td>Scientific precision</td>
<td>8.6%</td>
<td>34.3%</td>
<td>35.7%</td>
<td>21.4%</td>
<td>70</td>
</tr>
<tr>
<td>Visual appeal</td>
<td>0%</td>
<td>20.0%</td>
<td>67.1%</td>
<td>12.9%</td>
<td>70</td>
</tr>
<tr>
<td>Spelling, punctuation, and grammar</td>
<td>0%</td>
<td>2.9%</td>
<td>30.0%</td>
<td>67.1%</td>
<td>70</td>
</tr>
<tr>
<td>Other</td>
<td>25%</td>
<td>0%</td>
<td>50%</td>
<td>25%</td>
<td>4</td>
</tr>
</tbody>
</table>
Comparison to the College Board’s (2004) findings. Regarding the types of writing used in the workplace, emailing remained ubiquitous from 2004 to 2016, increasing from roughly 98% to 100% of respondents stating that it is “frequently” or “almost always” used. Other memoranda and correspondence experienced a decrease in the percentage who state that they use it at least frequently, from 70% to 62.1%. The usage of oral presentations with slides/visuals remained roughly static, and the use of oral presentations without visuals increased. The only type of writing reported as being used more in 2004 than in 2016 are formal reports (62% to 53.6%), other memoranda (70% to 62.8%) and technical reports (59% to 58.3%). There is no comparative 2004 data available regarding the use of blog, website, or social media writing in the workplace as its respective item was added to the current study. See Figure 4 below for more information.

As with the previous and subsequent sections, writing duties may vary by position—beyond whether an employee is hourly or salaried. One respondent who stated that his or her company only “occasionally” uses blog, website, or social media writing elaborated, “Blog and social media content apply mostly to senior executives. For this population, the choice would be frequently.” Another clarified, “The frequency of communication type is directly dependent on the person's position. i.e., IT Programmers may write software documentation, HR personnel will write policies and respond to emails, marketing personnel will write proposals and do presentations.” Follow-up interviews may provide additional insight into such distinctions.
Regarding the characteristics of writing that are valued, scientific precision is seen as a less important characteristic of writing now than in 2004, with a respective 57.1% vs. 69.8% of respondents indicating that it is either “important” or “extremely important.” Just as the percentage of those who use oral presentations with visual components remained static, so too did the perceived importance of visual appeal: in 2004 and 2016, the percentage of respondents indicating that it is either “important” or “extremely important” increased by only .6%. The value of the remaining writing characteristics increased over the past twelve years, with the largest overall increase given to conciseness (92.1% to 98.6% deeming it at least important). And while accuracy experienced a combined “important” and “extremely important” increase in valuation, the percentage of those who deemed it “extremely important” dropped from 95.2% to 80%. Conversely, the percentage of respondents who deemed spelling, punctuation, and grammar as
“extremely important” increased from 58.7% in 2004 to 67.1% in 2016. See Table 5 for more information.

Additional qualitative data provided insight into the present study’s responses and supported the notion that the way writing is used and valued varies based not only on whether one is hourly or salaried, but what his or her position is. As one respondent stated about his or her hourly employees, “We look more for comprehension and basic grammar rather than writing,” while for salaried he or she values “more grammar and ability to be pithy & thorough in conveying written messages.” Another stated, “Most of our salaried employees are located at remote sites, and communication by email is imperative. It is important that communications be clear in how they are written, but also in the thought process behind them.” The distinction is compounded as organizations increase in size. As one respondent mentioned, “The problem is that we are huge. Of the 30,000 (thirty thousand) hires we made last year, most have zero need to write as implied above. A small percentage, a couple hundred write all the time and another few hundred occasionally but more likely in a bullet point format.”
Table 5

*Comparison of the Value of Writing Characteristics*

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>2004</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremely</td>
<td>Important</td>
</tr>
<tr>
<td></td>
<td>Important</td>
<td>Total</td>
</tr>
<tr>
<td>Accuracy</td>
<td>95.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>Clarity</td>
<td>74.6%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Conciseness</td>
<td>41.3%</td>
<td>50.8%</td>
</tr>
<tr>
<td>Scientific precision</td>
<td>36.5%</td>
<td>33.3%</td>
</tr>
<tr>
<td>Visual Appeal</td>
<td>11.1%</td>
<td>68.3%</td>
</tr>
<tr>
<td>Spelling, punctuation, and</td>
<td>58.7%</td>
<td>36.5%</td>
</tr>
<tr>
<td>grammar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Individual item n’s were not provided by the College Board (2004), but total \( N = 64 \) in 2004; \( N = 71 \) in 2016.

**Do Employees Have the Writing Skills Employers Seek?**

The majority (48.6%, \( n = 34 \)) of respondents stated that, of their companies’ current workforce, about two-thirds have the writing skills their company values (\( M = 2.87, SD = 0.74 \)). Thirty percent believe that roughly one-third do; 20% think almost all do; and only 1.4% (\( n = 1 \)) believe that only a few of their current workforce have the valued writing skills.

Almost half (44.3%, \( n = 31 \)) of the study’s respondents believe that roughly two-thirds of their company’s newly hired employees possess the writing skills their organization values (\( M = 2.80, SD = 0.81 \)). About one-third (31.4%) believe that about one-third of their newly hired employees have the writing skills their company values; 20% believe that almost all of their employees do; and only 4.3% (\( n = 3 \)) think that only a few do.
Comparison to the College Board’s (2004) findings. Nearly a third (31.4%) of the current study’s respondents believe that one-third or fewer of their company’s current workforce possess the writing skills that their organization values. Over a third (35.7%) feel similarly about their company’s new hires. Both percentages are similar to findings from 2004, when percentages were a respective 34.4% and 35.5%. But while these numbers indicate that current employees may now be slightly more prepared than they were in 2004, new hires may be slightly less prepared. It should be reiterated, as it was in the original study, that because these are elite corporations for which there is a competitive applicant pool, needs may be even greater in other organizations.

Respondents’ qualitative statements further supported the notion that there may exist a need for additional writing preparation. As one stated, “Naturally, some roles require more written communication and presentation than others. Those that require it are typically proficient/good enough. Still, I’ve encountered relatively few excellent writers in college, graduate school or corporate settings.” Another explained, “Our company is largely comprised of field employees working at our plants. Only supervisors and area managers are required to make presentations, and they frequently communicate through email.” The latter statement suggests that it is possible that, if presentations had not been not factored into the list of uses, preparation percentages might be different.

The same could be said if these items distinguished only between salaried and hourly workers as many of the other items did. As one respondent stated, “Note: these responses are pertinent to salaried employees and not hourly employees.” Another stated, “We employ two main groups- highly skilled college grads and dock level workers. The college grads fit into the group that needs a high level of both written and verbal communication skills and a high level of
accuracy. The dock workers basically need to read and write English. They send and receive emails but their conciseness, clarity, etc. is often poor but sufficient for the purpose.” In future studies, it may be beneficial to include this distinction. See Table 6 for comparisons by industry and with the College Board’s (2004) results.

Table 6

Percent of Employees Who Have Writing Skills Valued by Employers

<table>
<thead>
<tr>
<th>Type of company</th>
<th>2004 Current Workforce</th>
<th>2004 New Hires</th>
<th>2016 Current Workforce</th>
<th>2016 New Hires</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>About 2/3 or more</td>
<td>About 2/3 or more</td>
<td>About 2/3 or more</td>
<td>About 2/3 or more</td>
</tr>
<tr>
<td>Mining</td>
<td>50.0%</td>
<td>50.0%</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Construction</td>
<td>100.0%</td>
<td>66.7%</td>
<td>66.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>68.4%</td>
<td>71.8%</td>
<td>62.5%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Transportation and utilities</td>
<td>0.0%</td>
<td>16.7%</td>
<td>40.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Wholesale and retail trade</td>
<td>--</td>
<td>--</td>
<td>60.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>FIRE</td>
<td>85.7%</td>
<td>71.4%</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Services</td>
<td>80.0%</td>
<td>60.0%</td>
<td>83.3%</td>
<td>76.7%</td>
</tr>
<tr>
<td>Total</td>
<td>65.6%</td>
<td>64.5%</td>
<td>68.6%</td>
<td>64.3%</td>
</tr>
</tbody>
</table>

Note. Only aggregates for “about 2/3 or more” and “1/3 or fewer” were provided in the College Board’s (2004) study. Individual item n’s were not provided by the College Board (2004), but total N = 64 in 2004; N = 71 in 2016. No response data were available for wholesale and retail trade in 2004, nor for mining in 2016.

Is Writing a Promotion Criterion?

Nearly 40% (n = 27) of respondents “occasionally” take writing into account when considering promotions for salaried employees ($M = 2.52, SD = 0.93$). Thirty percent do so frequently; 17.4% almost always do; and 13% (n = 9) almost never take writing into account when making promotion decisions regarding salaried employees.
The pattern was somewhat reversed when respondents were asked about their hourly employees ($M = 2.00$, $SD = 0.90$): 38.2% ($n = 26$) again take writing into account occasionally for this population, and 22.1% frequently; however, 33.8% almost never do, and only 5.9% ($n = 4$) almost always take writing into account when considering promotions for their hourly employees.

One of the current study’s respondents elaborated, “In many cases we don't take writing ‘formally’ into account when making promotion decisions—in practice, clarity and effectiveness in writing influences and shapes a person's overall reputation for effectiveness. In other words, good writing forms a general part of the ‘impression of effectiveness.’” Another echoed the sentiment that it may depend based on position, stating, “Our company would only take effective writing skills into account when making promotion decisions if the role required effective writing skills.”

**Comparison to the College Board’s (2004) findings.** Following the section regarding the percentage of respondents’ employees who possess the writing skills valued by the company, one of the current study’s respondents stated, “This is one thing that increases an employee’s ability for career progression.” Indeed, nearly half (47.4%) of respondents in 2016 either “frequently” or “always take” writing skills into account when considering promotions for salaried employees, while 28% do so for their hourly workers. In 2004, just over half (~52%) of the College Board’s (2004) respondents similarly considered writing for promotion of salaried employees, yet only 5% did so for hourly employees.

Comparing across industries, standout increases again include construction, a field in which some may not consider writing to be important. In this industry, 100% of current respondents state that writing is “frequently” or “almost always” considered in promotion
decisions for salaried employees. In 2004, this number was 33.3%, which is now the percentage of construction respondents who consider writing in promotion decisions for hourly employees. Similarly, in the fast-growing services sector, respondents who consider writing in promotion decisions increased for both salaried and hourly employees, but particularly for the latter group. Manufacturing, which had the greatest frequency in 2004 (57.5%) decreased to 25% in 2016. Zero percent of manufacturing respondents reported that they “frequently” or “almost always” considered writing in promotion decisions for hourly employees in 2004 or 2016. A similar pattern was seen for transportation and utilities, but otherwise every industry for which there were data experienced a large increase in percent agreement regarding hourly employees. See Figure 5 for more information.

![Figure 5](image-url)

*Figure 5. Percentage of respondents who either frequently or almost always consider writing in promotion decisions. Only aggregates for “frequently” and “almost always” were provided in the College Board’s (2004) study. Individual item n’s were not provided by the College Board (2004), but total N = 64 in 2004; N = 71 in 2016. Only the 5% total was provided for hourly employees in the original. *No response data were available for wholesale and retail trade in 2004, nor for mining in 2016. Adapted from “Writing: A Ticket to Work…Or a Ticket Out,” by the College Board, 2004. Estimates drawn from the College Board’s (2004) bar graphs where exact percentages were not provided. Copyright 2004 by the College Board.*
Do American Companies Provide Writing Training? If So, What Is the Cost and Delivery Method?

Over half (51.4%, n = 36) of the current study’s respondents “almost never” provide writing training for their salaried workers. Roughly a third (32.9%) do so “occasionally,” 11.4% “frequently,” and 4.3% (n = 3) “almost always” provide writing training to salaried employees who may possess outstanding technical but poor writing skills. Regarding their hourly employees, again over half (55.2%, n = 37) of respondents “almost never” provide writing training. More than a third (34.3%) do so “occasionally,” 7.5% “frequently,” and 3.0% (n = 2) “almost always” provide writing training to hourly employees who possess poor writing skills, even if they possess outstanding technical skills.

Only 16 respondents provided a specific estimated annual cost per employee. Where a range was provided, e.g., “$200-$400 per employee,” the midpoint was used in calculation. The average cost of writing training was $1,092 per employee—the lowest being $0 and the highest $3,000. Using Bureau of Labor Statistics (2015) data of 2014 employment numbers, the extrapolated nationwide annual cost may exceed $5,071,928,498.

When asked what type of training is provided, 37 participants (52.1%) provided a response. Based on frequency, responses were grouped into four originally named categories: “internal,” “external,” “online,” and “informal.” Those who suggested that their writing training was “internal” stated, for example, “internal course and mentoring,” “in house training with a partner,” “internal training,” and “training provided via our learning system.” Those who provide “external” training stated, “external courses are reimbursed,” “outside courses,” “other vendors that are geographically close to some of our facilities,” “usually a third party coach/class,” and “consultant interaction.”
Some of the “online” offerings were also likely externally offered, though, as respondents stated, “outside resources, elearning” and “send for classes, online programs.” Other online offerings could have been internal or externally developed, where respondents vaguely responded, “online,” “online course work,” “onsite classroom and online engagements,” and “on-line and instructor led.” A few respondents suggested that they offer a combination of internal and external writing training, reporting, “external courses, internal course on presentations” and “outsourced, but onsite communications training.”

Responses categorized as “informal” (seemingly also internal) writing training were “usually a manager would make a comment to point out areas for improvement,” “writing courses or coaching from supervisor,” “informal coaching,” and “on on one with manager” [sic]. Other responses were somewhat vague and unclassifiable, e.g., “a class or seminar” (which could be internal or external, but likely formal enough to not be categorized as informal), “ad hoc courses or presentation type training,” “business writing course,” “business writing skills, contract drafting training,” “effective communication skills,” “self-paced effective writing programs along with cohort training,” and “specific training to areas of topic.” One respondent additionally stated that, to his or her knowledge, “no writing courses are offered.”

**Comparison to the College Board’s (2004) findings.** Almost half (48.6%) of the current study’s respondents “at least occasionally” provide writing training for their salaried workers. This is a lesser frequency than in 2004, when more than 60% at least occasionally offered training or retraining for salaried employees (College Board, 2004, p. 17). The College Board (2004) provided limited data regarding their hourly employees, but stated that 19% of their respondents “frequently” or “almost always” offered them writing training: that number has since decreased to 10.5% in 2016.
The construction industry’s respondents indicated the largest decrease, from 100% of 2004 respondents who at least occasionally provided writing training to their salaried employees, to 33% in 2016. In all but the services and FIRE industries, the percent of respondents who provided writing training for salaried employees in 2016 was less frequent than in 2014. See Figure 6 for comparisons by industry and with the College Board’s (2004) results.

![Figure 6](image_url)

Figure 6. Percentage of respondents who at least occasionally provide writing training. Individual item n’s were not provided by the College Board (2004), but total N = 64 in 2004; N = 71 in 2016. *No response data were available for wholesale and retail trade in 2004, nor for mining in 2016. **Hourly data were not provided in the College Board (2004) report. Adapted from “Writing: A Ticket to Work…Or a Ticket Out,” by the College Board, 2004. Estimates drawn from the College Board’s (2004) bar graphs where exact percentages were not provided. Copyright 2004 by the College Board.

The average cost of training in 2016 was $1,092 per employee, while the average cost in 2004 was $950, or $1,215.68 in 2016 dollars (BLS, 2016). This lower cost might be due to increased availability of web-based training options, which tend to be cheaper, or it’s possible that employees simply do not elect to use training if it is offered. As one respondent stated, “We have an educational reimbursement program for the uneducated group, but they rarely take advantage of the opportunity.” It is also possible that other types of training take precedence over
writing training, for as one respondent stated, “If all other competencies are well developed we would providing training to improve their skills in writing.” Or, costs may vary as employers vary on training type—it is likely that internal and/or informal training costs less than formal, external training. Without knowing the individual costs or ways in which training was offered in 2004, however, it is difficult to compare results.

Still, despite the lower per employee average cost, extrapolated results suggest more money is being spent on writing training now than in 2004. The College Board originally estimated that $3,090,943,194 was spent annually, or $3,956,407,288 in 2016 dollars (Bureau of Labor Statistics, 2016). This amount has since increased by more than a billion dollars, to $5,071,928,498.

Summary

In general, survey results from 71 human resources executives working for Business Roundtable, Fortune 500, and Inc. 5000 organizations—representing nearly two million employees and six distinct industries—suggest an increase in the use and valuation of writing over the past twelve years. Writing is used more frequently and is deemed more important now than in 2004, for both salaried and hourly employees and for both hiring and promotion decisions; this is particularly true for hourly employees. Finally, newly hired employees remain less prepared than their current counterparts, and writing training is offered less and at a lower per employee cost than in 2004, but costs are greater when extrapolated.
Chapter Five: Discussion and Conclusion

Although ELA has had historic ties to the economy, since the early 1900s there have been few quantitative studies related to their alignment (Brass & Burns, 2011, Schwartz & Soiefer, 2012). But even as ELA’s economic implications were under-researched, they remained a reality. This is evident in the modern corporate reform movement in education, which is characterized by a focus on college and career readiness and which consequently seeks to tighten schools’ connections to higher education and the workplace (Mills, 2012; Virginia Department of Education, 2010; Common Core, 2015). The current study contributes to the limited literature base by updating one of the few, albeit seminal studies in the field, the College Board’s (2004) “Writing: A Ticket to Work…Or a Ticket Out.”

First, a caveat is in order—there are various stakeholders included in the ongoing debate about what the goal of ELA education, and education in general, should be. Employers, parents, teachers, community members, and students might rightfully have differing views as to what ELA education should deliver to prepare one for a successful career and a fulfilling life. This and the College Board’s (2004) studies present the results of a handful of employers who may stand to benefit from conceiving literacy as an economic commodity (Brandt, 2005). The intent of the present study is to bring up-to-date research related to one side of the debate, not to suggest that the primary focus of ELA be workforce preparation/development.

Before replicating the study, validity evidence for the instrument was established to ensure that interpretations of the results were appropriate. Validity evidence related to test content and internal structure were specifically established for the College Board’s (2004)
original instrument through pretesting and piloting. Pretesting established content-oriented validity, indicating that the survey covered the construct, i.e., the use and importance of writing as perceived by business leaders. After minor revisions were implemented, the survey was piloted with no additional comments suggesting content underrepresentation or construct irrelevance. Internal structure validity evidence was collected through Cronbach’s alpha reliabilities and principal components factor analysis, the former of which suggested the instrument was capable of producing results with less-than-problematic measurement error, and the latter that there were relationships among the instruments’ items. Specifically, three underlying factors related to the use and importance of writing were found, and each may be potentially useful for future research, e.g., confirmatory factor analysis could be run to explore model fit.

The first factor resulting from the principal components factor analysis, “importance of writing ability,” contained items at the heart of the study—the use and importance of writing in the workplace. The factor included factor loadings greater than .50 for items related to the economic importance of writing ability for both hourly and salaried employees, and coupled with the respective items related to whether employees’ job descriptions include writing, this became the quintessential factor for the study, accounting for shared variance among items related to the overall importance and ubiquity of writing. As factor analysis is a data reduction/simplification strategy, and because this factor had a Cronbach’s alpha reliability of .85, this factor potentially could be used to reduce the number of items needed for the survey or form a scale which could be used as its own instrument (Dattalo, 2013; Field, 2013).

The second factor, “email proficiency,” contained items related to the frequency that email written communication is used in the workplace, along with select characteristics of
writing: accuracy; clarity; visual appeal; and spelling, punctuation, and grammar. The shared variance among these items may speak to the general importance of email writing. As one respondent stated, “Exceptional email writing does not generally generate any consequences, but consistently poor email communication does at a minimum erode credibility.” Or it may simply suggest that, for email writing, these characteristics are potentially of more import than those not included: scientific precision and conciseness. Further study could confirm this theory through interviews with employers and/or document analysis wherein emails are compared to other documents (e.g., formal or technical reports) to explore whether the characteristics included in the factor are indeed more prominent in the former than in the latter. These alternative research techniques, including interviews extended into full ethnographies, could be of equal benefit to explore other areas of this study like workforce preparedness.

The third factor resulting from the factor analysis, “industry-readiness” is related to workforce preparedness, and included items related to the nature of business, how many current employees have the writing skills valued by the organization, and how many newly hired employees have those skills. Again, this shared variance may be indicative of a relationship between industry and workforce preparation. And while it would likely be inappropriate to reduce this factor to its own item or scale since it contains a demographic item, the suggested relationship points to an area of future research, i.e., as career-readiness remains a prominent feature of educational reform, educators and policymakers could take into account the various careers for which one could be prepared and tailor curricula accordingly, rather than using a blanket “career-readiness” term and one-size-fits all approach to workforce preparation and development. More research is needed, particularly as this factor had fewer than four loadings greater than .6 and a relatively low reliability (Field, 2013).
The established validity evidence will not only facilitate future research, but it lends appropriateness to the interpretation of the study’s main findings (AERA et al., 2014). The College Board (2004) did not similarly provide validity evidence, but they concluded their study with three educational policy implications, which are presented below vis-à-vis the current study’s results.

**Implication One: Writing Is a Marker Attribute**

The first implication is that “writing appears to be a ‘marker’ attribute of high-skill, high-wage, professional work” (College Board, 2004, p. 19). As stated in the original study, “Good writing is a sign of good thinking…writing that’s not careful can be a signal of unclear thinking” (College Board, 2004, p. 8). Respondents of the current study echoed that sentiment, stating that good writing lends on an “impression of effectiveness,” while poor writing can “erode credibility.” This definition can now be expanded to include hourly work, particularly in the fast-growing services industry.

Writing has become more ubiquitous in job descriptions for both salaried and hourly workers, particularly for the latter group, and particularly in the fast-growing services industry (Bureau of Labor Statistics, 2015). At the time of the College Board’s (2004) study, most job growth was projected in the service industries, with the authors citing for support Berman’s (2001) 2000-2010 projections. BLS data continues to support those predictions, as services-producing industries added nearly 10 million jobs from 2004-2014, and are projected to add nearly as many from 2014-2024 (Bureau of Labor Statistics, 2015). Furthermore, the College Board (2004) cited research stating that “functions emphasizing communications” (e.g., customer contact and research and development) are least likely to be outsourced. Therefore, as many jobs and industries are shipped overseas in a time of increasing globalization, writing
ability will remain a domestic concern (“CEO Briefing,” 2004). If that is indeed the case, educational institutions across levels would be wise to concentrate on developing students’ writing skills, with emphasis given to writing education at the college or university level due to respondents’ complaints about that specific population. As one respondent stated, “I've encountered relatively few excellent writers in college, graduate school or corporate settings.”

Implication Two: Writing Is a Gatekeeper Ability

The second educational policy implication is that writing remains a “gatekeeper” ability (College Board, 2004; Reinsch & Gardner, 2014; Schwartz & Soiefer, 2012). In fact, the current study suggests that employers are stricter “gatekeepers” now than in 2004, as more of the current respondents “frequently” or “almost always” hold poorly composed or grammatically incorrect materials against applicants in hiring than in 2004. This may be in part due to the increased competition for education and employment following the Great Recession (Center on Budget and Policy Priorities, 2015; Long, 2015); however, in both the quantitative and qualitative data, numerous respondents stated that if an applicant submitted poorly composed written application materials, he or she would not be considered for employment.

Writing ability is also more frequently taken into account for promotional consideration of salaried employees as compared to the College Board’s (2004) original findings, and while it is taken into account for promotional consideration of hourly employees slightly less, the discrepancy may be explained by the increased importance of writing for hiring decisions. That is, employees’ writing ability is vetted sooner, so it becomes less of an issue for promotion. As stated in the College Board’s (2004) report, “Employers who are most interested in writing are likely to screen for writing skills in hiring and assume these skills are present. In that sense, promotions would not depend on writing skills, since everyone is assumed to possess them” (p.
So, poor writing ability may consequently be more likely to get one fired than good writing ability is to get one promoted. However, as the current study’s data indicate that writing is now deemed more than doubly important in hiring and quintuply for promotional considerations for hourly employees, the takeaway message is that there still exists a great need—and potentially a greater need than in 2004—to prepare students who may enter this subpopulation.

Equity implications consequently persist, for as the number of ELLs has increased in America since 2004, so too has the number of those who may lack the valued writing skills and are consequently at a marked economic disadvantage (Schwartz & Soiefer, 2012). Even if this segment of the population has remained—as was feared by the College Board—consigned to low-wage, hourly employment, ELLs are now expected to write proficiently and with greater frequency in order to obtain and advance within it. There is hope, for as one respondent stated, “We do not hold [ELLs] to the same standards in English as their home language,” but more research needs to be conducted to determine if this is the case elsewhere. Schwartz and Soiefer (2013) suggest otherwise, and as business-based contextualized writing instruction has been shown to benefit students (Williams & Colomb, 1993; Redd-Boyd & Slater, 1989; Liu, 2011), modern educators and policymakers may benefit from using this study’s results to update ELA curricula and workforce development programs in order to provide more equitable economic opportunity.

Current employers also report that the percentage of employees who have the skills their company values have remained relatively close to their 2004 numbers, increasing across industries only three percentage points for current employees, and decreasing .2% for new hires. These numbers fluctuated when compared across individual industries, though, possibly indicating that additional writing preparation may be needed for those who plan to go into areas
in which the percentage of those with the valued has dropped in a comparatively significant way, e.g., FIRE (where ~79% of current and new employees were deemed prepared in 2004, down to 50% in 2016). Since other areas of the current study’s data like hiring and ubiquity in job description suggest that writing ability is more important for both salaried and hourly employees than in 2004, it remains possible that additional training needs to be offered to both groups if they are to get past the “gatekeepers.” This is particularly true for hourly employees if they also comprise more of the “newly hired” employees who are shown to be slightly less prepared than their “current” counterparts. Future studies could explore preparation based on hourly and salaried classification, as this could better indicate whether more writing training is needed, and for which specific groups.

In general, less writing training is being offered to employees in 2016 than in 2004, and at a lesser cost per worker. Costs are greater when extrapolated, however, and roughly half of employers rarely offer writing training to their employees-in-need, further supporting the notion that students need to obtain the valued skills prior to being—and in order to be—hired. As writing ability is multifaceted, this training should start at the K-12 level and extend into postsecondary education.

**Implication Three: Writing Is Multifaceted**

The third implication is what the College Board (2004) said confirmed its longstanding, central argument—that writing “consists of the ability to say things correctly, to say them well, and to say them in a way that makes sense (i.e., grammar, rhetoric, and logic)” (p. 19). That is, writing is an extremely multifaceted skill, requiring extensive attention in schools. Twelve years ago, the College Board (2004) stated that writing is not something that can be developed “in a few hours here and there” in the classroom, but that “developing the kinds of thoughtful writers
needed in business, and elsewhere in the nation’s life, will require educators to understand writing as an activity calling for extended preparation across subject matters—from kindergarten through college” (p. 20). As results of the present study suggest that writing has generally grown in ubiquity importance in the workplace, it is again recommended that increased curricular attention be extended within K-12 education and into postsecondary, particularly if the goal of educators and policymakers is to prepare students to meet the needs of their future employers in a way that will facilitate their economic success (College Board, 2004, p. 20). The updated data provided by this study serves to guide such curricular development.

The human resources executives who responded to the current study value specific characteristics of writing similarly to respondents twelve years ago. Every characteristic experienced no change or a slight increase in valuation, with the exception of scientific precision, which was deemed generally less important than in 2004. Business leaders still value brevity, clarity, and sentence structure as in the College Board’s (2004) original article as well as in Cameron’s (1968) earlier work. While grammar education may be divisive (Tchudi & Tchudi, 1991) and have developed a negative connotation over time (Geldern, 2006), spelling, punctuation, and grammar are still highly valued, now even more than in 2004. These changes may suggest how time and focus could be allocated in the ELA classroom—for instance, including more emphasis for writing clarity (which approximately 98% of respondents deemed at least important now and in 2004) than scientific precision (which no more than 70% deemed as at least important in either study). Similarly, if a test were developed to assess career readiness, one could allocate test items or writing activities based on perceived valuation. Further study would be needed to determine how ubiquitous is the valuation of the responses to the “other”
valued characteristics, particularly persuasive ability since it showed up in two qualitative statements.

The frequency with which types of written communication are used in the workplace has remained relatively static since 2004, even with the inclusion of blog, website, and social media writing. And while there is no comparative data available, the fact that more than half of the current study’s respondents “frequently” if not “almost always” use written communication for blogging, creating website content, or interacting on social media in the workplace may indicate a migration of usage over time. This supports the modern, technological writing domain as described by Groysberg and Slind (2012), who suggested that business writing has become more conversational, informal, and modernized. So even though other researchers have found that students’ writing has become characterized by slang and text speech due to the “bleed-over effect” (Haas et al., 2011; Yancey, 2009; Lenhart et al., 2008), such an effect might actually benefit students in ways not captured by the College Board’s (2004) original study. Still, there remain expectations for grammatical writing and formal writing, and ungrammatical application materials almost always are held against applicants—be they salaried or hourly.

Areas of Future Research

As modern educational reform policy continues to suggest that one of the goals of ELA be career-readiness, the curriculum should reflect that as efficiently as possible. For instance, since more than half of the current study’s respondents indicated that blogging is used at least frequently in the workplace, emphasizing that use of writing in the ELA curriculum as opposed to writing technical reports or developing scientific precision (which have decreased in perceived importance) may be a better use of time. More research is needed for this and all other suggestions, however, for as the College Board (2004) stated, “Opinions, even those of high-
level corporate executives, should never be the sole basis of policy” (p. 19). This study solely stands to inform employees and educators as to how writing is used and valued by 71 elite employers. There remain other important values and dimensions to ELA, including spiritual, personal, civic, or demographic growth, which should not be ignored (Brandt, 2005).

More research is particularly needed related to the use and value of writing based on position, not just hourly or salaried classification. The human resources director interviewed during the pretest acknowledged that the included writing characteristics varied in importance based not only on whether one is salaried or hourly, but also on job role. For instance, two salaried workers may have different writing needs if one is a teaching faculty member, and the other a recreational sports worker. This sentiment was echoed by a handful of participants in the full study.

Finally, as testing was utilized to assess applicant’s writing ability least frequently, and multiple respondents indicated that they may like to use it more often, the results of this study could be used to guide the need for—and development of—such a diagnostic assessment. As interpretations and uses for its data would differ from those of the present study, however, additional validity evidence would need to be established. This might start with exploration of the need as well as the reason why assessment currently doesn’t take place, e.g., legal barriers, or as one respondent stated as to why employees aren’t assessed, “Capability is assumed—which is not always the case.” If a test were developed, it may need to take into account proficiency in various languages, for as another participant explained, “While we don’t have international employees, we do have over 20 different languages represented in our company. Many of our roles require fluency in another language. It adds an interesting dynamic when assessing language and writing skills.”
Limitations

The current study’s data are intended only to be used as one piece of many used to inform policy/curriculum decisions or future research, and any additional interpretation of the data will require validity evidence beyond what has been herein established for test content and internal structure (AERA et al., 2014). As AERA et al. (2014) stated, “The validation process never ends,” and a few comments in the final phase of the study did suggest minor lingering issues, in addition to the study’s known limitations.

Issues of construct underrepresentation and construct irrelevance were identified and remedied through pretest and cognitive interviewing, and there was little evidence to suggest that additional revisions need to be made following the pilot and full administration. Still, issues related to legal/privacy policy barriers and lack of knowledge regarding demographics precluded some respondents from providing data and may indicate lingering issues of construct irrelevance. In future studies, it is recommended to incorporate additional industry categories and ranges for the number of employees. Additionally, a few respondents indicated difficulty in distinguishing between writing and communication.

One complainant in the final phase, for instance, stated, "[It is] difficult to answer these questions. Writing skill are not a key variable in success. Communication skills are what is most critical. Parsing out writing from the more holistic perspective of how effectively does a person communicate does not seem very useful.” Two other respondents found it difficult to separate writing skills from general communication skills, stating that the latter (including oral and presentation skills) are more important than just writing skills. This suggests possible construct underrepresentation, i.e., the respondent did not have a shared concept of the construct, instead
viewing writing as distinct from communication. This can introduce error into the data, and in future studies it may be beneficial to define writing in the introduction of future surveys.

Demographic items also proved problematic for roughly six respondents. These individuals did not provide a response as to which industry category their organization best fit. The College Board (2004) noted that this item was potentially too reductive, in that manufacturing could account for makers of cars but also computer processors. One of the cognitive interviewees stated that she didn’t see an education-based industry option, so she simply chose “services.” In this way, it is possible that services became a catchall for those who couldn’t pick an industry. In the future and if not constrained by the needs of replication, researchers may want to provide additional, more granular options for this item.

Similarly, some respondents had difficulty with the items asking for training costs or number of employees. The latter proved difficult for one respondent in the retail industry, as he or she stated that the company “has 14,000 retail locations,” and for one in the services industry, who stated that his or her company hired seasonal workers and numbers consequently changed drastically throughout the year. One respondent stated that the employee numbers he or she provided “represent corporate employees only,” and another stated, “[We] do not share breakdowns of our employee populations.” These issues suggest possible lingering issues of construct irrelevance.

By using a non-random sample, one major limitation of the study relates to its external validity, or the ability one has to infer about its results to a population beyond the sample (Babbie, 1990; Dillman et al., 2009). As the entire population of Business Roundtable and Fortune 500 were sampled (where contact information could be found) and many of the Inc. 5000, and because there was very little missing data, the study provides a fair idea of how human
resources executives of those groups perceive the value and importance of writing proficiency. Interpretations are limited to that group, however. It would be inappropriate to infer about the beliefs of their or other organizations’ C-suite executives, for instance, even if they have a hand in the hiring process. It additionally bears mentioning that because of the human resources executive’s role as a “gatekeeper,” i.e., one who makes initial contact with a potential employee, the writing that the sample assesses may differ significantly from what is required on the actual job (College Board, 2004). Consequently, additional studies with different populations should be conducted if one would like to extend inferential ability.

Despite having very little missing data, the current study’s response rate was low. The College Board (2004) achieved a response rate of 53.3% (64 out of 120 human resources directors). They found themselves fortunate, as the authors cited statisticians who “typically anticipate that a response rate of 40 percent for an elite corporate group of this sort would be acceptable” (College Board, 2004, p. 6). Casner-Lotto & Barrington (2006) conducted a survey with a similar population and achieved a response rate of only 4.8%, though, which is lower than the present study’s response rate of 9%.

Due to the low response rate, Fortune 500 and Inc. 5000 participants were included to obtain a number of final participants comparable to that of the original study. While Fortune 500, and Inc. 5000 comprise elite, high-grossing organizations—and there are even companies that are in both the Business Roundtable and Fortune 500—the fact that the sample does not only comprise the Business Roundtable makes it less suitable for direct comparison. Furthermore, the industries included in both studies differed slightly. The current study had data for the wholesale and retail trade sector, but not for mining, while the College Board (2004) had the latter but not the former. Additionally, both studies included industries represented by fewer than five
respondents, so although results were broken down by nature of business, differences may be exaggerated. For these reasons, it is recommended that future studies include larger samples.

There may be other reasons to broaden the sample beyond the Business Roundtable and similarly prestigious groups. As Reinsch and Gardner (2013) described and the College Board (2004) supported, there is a presumption that employees working for a large, reputable organization will be more likely to possess adequate writing skills by default due to their organization’s competitive hiring nature. This may suggest that employees are better prepared than those in other non-included fields, including government, self-employed people, unpaid family workers, unincorporated firms, or members of the Armed Forces (College Board, 2004). Similarly, the limitation of self-report, i.e., how factors such as culture, prior knowledge, lack of remembrance, motivation, etc. may have affected responses (Mitchell & Jolley, 2013).

Some respondents indicated that they could not provide answers for some items related to demographics, for instance, either because they didn’t remember or because numbers fluctuate as seasonal employees are hired. This was particularly true for the retail industry. Finally, numerous respondents indicated that their responses do not necessarily apply to all of their employees, whether they are salaried or not. As one respondent stated, “We hire many foreign Software Developers who have limited English language skills both in speaking and writing. The job only requires proficiencies in software languages and technical skills.” Despite this claim, he or she still deemed the majority of writing’s characteristics to be “extremely important,” and responded that having poorly written application materials would “frequently” be held against an applicant. Conducting extensive follow-up interviews or ethnographies would be a way to explore and clarify this concept in future studies.
References


Day, R.E. (2010). First in reform: The adoption of Common Core State Standards in Kentucky. Curriculum and Instruction Faculty and Staff Scholarship, 44.


Appendix A: Informed Consent

**Purpose:** The purpose of this research study is to explore the perceived economic importance of writing proficiency through replication of a survey study conducted in 2004 by the College Board’s National Commission on Writing (NCW). You are being asked to participate in this research study because you are a human resource director in a Business Roundtable organization, as were the participants in the NCW’s study.

**Description of your involvement:** If you agree to be part of this study, you will be asked to participate in a 5-10 minute survey about the role and importance of writing in the workplace, what kind of writing is expected on the job today, whether employees are prepared to meet writing expectations, and if not, whether writing training is provided by your company.

**Confidentiality:** All identifying information (e.g., names of individuals or organizations) will be replaced with a numeric code specific to this study. Only the lead researcher will have access to identification information once codes are assigned. Electronic data files will be secured using password protection and encryption. If methodology or results of the study are published in scientific journals or presented at professional meeting, data will not identify any individual.

**Risks and discomforts:** There are no known risks related to your participation in this study. Participants may be made slightly uncomfortable reflecting on the fact that their beliefs regarding the use and importance of writing differ from the beliefs of others.

**Benefits to you and others:** Your participation can help to provide schools, educational policymakers, and potential employees with recommendations to better serve your companies through education and workforce development initiatives.

**Costs and compensation:** There are no costs for participating in this study beyond the time you will spend taking the survey. A summary of results will be shared with you so you can potentially compare your beliefs and practices to those surveyed in 2004, as well as to your current peers’.

**Alternatives:** The alternative to participating in this study is to not participate.

**Voluntary participation and withdrawal:** Your participation in this study is voluntary. You are free to choose not to participate at any time and without penalty. You may also choose not to answer specific items in the survey. Should you wish to withdraw your data after submitting the survey, please email Clay Aschliman at aschlimancc@vcu.edu to make your request known.

**Questions:** If you have any questions, complaints, comments, or concerns about this study, contact Clay Aschliman at 713-854-0112 or aschlimancc@vcu.edu. If you have questions about your rights as a participant in this study, you may contact the VCU Office of Research at 804-821-7157. You may also contact VCU’s Office of Research for general questions, concerns, or complaints about this study. Please call this number if you cannot reach the researcher directly or if you wish to talk to someone else. Additional information about participation in research studies may be found at http://www.research.vcu.edu/irb/volunteers.htm
Consent: By taking the survey, you are agreeing to participate in this study. You are also indicating that you have read and understood this consent form.
Appendix B: Pretest Survey Instrument

Please complete the following survey regarding the use and importance of writing in your organization.

1. Nature of business:
   - Agriculture, forestry, & fishing
   - Mining
   - Construction
   - Manufacturing
   - Transportation & utilities
   - Wholesale & retail trade
   - Finance, insurance, & real estate
   - Services

2. Number of employees on January 1, 2016: _____ in the US

3. Number of employees on January 1, 2016: ____ outside the US

4. On average, how many new employees were hired yearly in the past five years (1/1/11 to 12/31/15): ____ in the US?

5. On average, how many new employees were hired yearly in the past five years (1/1/11 to 12/31/15): ____ outside the US?
6. Pretest participant: If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

Page 2

For each statement below, we'd like you to describe your company's practice. We are interested in your experience, not what you hear about processes elsewhere.

For each statement, please mark the response that most closely describes what happens in your company.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Do you take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new professional employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>8. Do you take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new hourly employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. How many professional employees have some writing responsibility (either explicit or implicit) in their position descriptions?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. How many hourly employees have some writing responsibility (either explicit or implicit) in their position descriptions?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
11. When a job either explicitly or implicitly requires writing skills, how do you usually assess a job applicant’s writing ability? *(Please check all that apply.)*

☐ Writing sample provided by job applicant  
☐ Writing test taking during the job interview  
☐ Review of coursework on resume  
☐ Impressions based on letter/written application  
☐ Other  

12. If you selected “Other,” please specify.  

__________________________________  

13. Pretest participant: If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.  

__________________________________  

Page 3

*For each statement below, we'd like you to describe your company's practice. We are interested in your experience, not what you hear about processes elsewhere.*

*For each statement, please mark the response that most closely describes what happens in your company.*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>14. When you are hiring new professional employees, how often are samples of written materials or presentations required of the applicant?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>15. When you are hiring new hourly employees, how often are samples of written materials or presentations required of the applicant?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16. If a job applicant's letter or other written materials were poorly composed (i.e.,</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
grammatically incorrect or hard to understand) would that count against the applicant in hiring?

17. Pretest participant: If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

Page 4

Listed below are several forms of communication that are common in American companies.

*Please indicate how frequently each form is used in your company by circling the appropriate number.*

<table>
<thead>
<tr>
<th>Form of Communication</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>18. E-mail correspondence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Other memoranda and correspondence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Oral presentations with slides/visuals (e.g., PowerPoint)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Oral presentations without visuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Formal reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Technical reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
24. Pretest participant: If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing. ____________________________________________

Page 5

*Effective written communication can have a number of different characteristics.*

*In your company, how important are each of these characteristics?*

<table>
<thead>
<tr>
<th></th>
<th>Not at all important</th>
<th>Not very important</th>
<th>Important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. Accuracy</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>26. Clarity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>27. Conciseness</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>28. Scientific precision</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>29. Visual appeal</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>30. Spelling, punctuation, and grammar</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>31. Other</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

32. If you selected “Other,” please specify. ____________________________________________

<table>
<thead>
<tr>
<th></th>
<th>A few</th>
<th>About 1/3rd</th>
<th>About 2/3rds</th>
<th>Almost all</th>
</tr>
</thead>
</table>

108
33. In your company's current workforce, approximately how many employees have those skills? 


34. Approximately how many new employees have the writing skills that your company most values? 


35. Pretest participant: If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

__________________________________

Page 6

For each statement below, we'd like you to describe your company's practice. We are interested in your experience, not what you hear about processes elsewhere.

For each statement, please mark the response that most closely describes what happens in your company.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. Does your company take effective writing skills into account when making promotion decisions regarding professional employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>37. Does your company take effective writing skills into account when making promotion decisions regarding hourly employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>38. If a professional employee possesses outstanding technical but poor writing skills, does your company provide writing training?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>39. If an hourly employee possesses outstanding technical but poor writing skills, does your company provide writing training?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
writing skills, does your company provide writing training?

40. If your company provides writing training, what is your estimate of the annual cost per trained employee?

__________________________________

41. Please feel free to leave additional comments below.

__________________________________

42. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

__________________________________
Appendix C: Final Survey Instrument

Please complete the following survey regarding the use and importance of writing in your organization.

For each statement below, we'd like you to describe your company's practice. We are interested in your experience, not what you hear about processes elsewhere.

For each statement, please mark the response that most closely describes what happens in your company.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new <strong>salaried</strong> employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>2. Do you take writing (e.g., of technical reports, memos, annual reports, external communications) into consideration when hiring new <strong>hourly</strong> employees?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>3. How many <strong>salaried</strong> employees have some writing responsibility (either explicit or implicit) in their position descriptions?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. How many <strong>hourly</strong> employees have some writing responsibility (either explicit or implicit) in their position descriptions?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
5. When a job either explicitly or implicitly requires writing skills, how do you usually assess a job applicant’s writing ability? *(Please check all that apply.)*

- Writing sample provided by job applicant
- Writing test taking during the job interview
- Review of coursework on resume
- Impressions based on letter/written application
- Other

6. If you selected “Other,” please specify. ______________________________________

7. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing. ______________________________________

Page 2

*For each statement below, we'd like you to describe your company's practice. We are interested in your experience, not what you hear about processes elsewhere.*

*For each statement, please mark the response that most closely describes what happens in your company.*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. When you are hiring new salaried employees, how often are samples of written materials or presentations required of the applicant?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>9. When you are hiring new hourly employees, how often are samples of written materials or presentations required of the applicant?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>10. If a job applicant’s letter or other written materials were poorly composed (i.e., grammatically incorrect or hard to</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

112
understand) would that count against the applicant in hiring?

11. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

Page 3

Listed below are several forms of communication that are common in American companies.

Please indicate how frequently each form is used in your company by selecting the appropriate response option.

<table>
<thead>
<tr>
<th></th>
<th>Almost never</th>
<th>Occasionally</th>
<th>Frequently</th>
<th>Almost Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>12. E-mail correspondence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Other memoranda and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>correspondence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Oral presentations with</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>slides/visuals (e.g., PowerPoint)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>15. Oral presentations without</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>visuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Formal reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Technical reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Blog, website, or social</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>media content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
19. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

Page 4
*Effective written communication can have a number of different characteristics.*

*In your company, how important are each of these characteristics?*

<table>
<thead>
<tr>
<th></th>
<th>Not at all important</th>
<th>Not very important</th>
<th>Important</th>
<th>Extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. Accuracy</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>21. Clarity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>22. Conciseness</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>23. Scientific precision</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>24. Visual appeal</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>25. Spelling, punctuation, and grammar</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>26. Other</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

27. If you selected “Other,” please specify.

---

A few | About 1/3rd | About 2/3rds | Almost all

---
28. In your company's current workforce, approximately how many employees have those skills?

☐ ☐ ☐ ☐ ☐

29. Approximately how many newly hired employees have the writing skills that your company most values?

☐ ☐ ☐ ☐ ☐

30. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

__________________________________

31. Does your company take effective writing skills into account when making promotion decisions regarding **salaried** employees?

☐ ☐ ☐ ☐ ☐

32. Does your company take effective writing skills into account when making promotion decisions regarding **hourly** employees?

☐ ☐ ☐ ☐ ☐

33. If a **salaried** employee possesses outstanding technical but poor writing skills, does your company provide writing training?

☐ ☐ ☐ ☐ ☐

34. If an **hourly** employee possesses outstanding technical but poor

☐ ☐ ☐ ☐ ☐
writing skills, does your company provide writing training?

35. If your company provides writing training, what type of training is provided?

_____________________________________________________________________

36. If your company provides writing training, what is your estimate of the annual cost per trained employee?

_____________________________________________________________________

37. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.

_____________________________________________________________________

Page 6
To the best of your ability, please complete the following items about your organization.

38. Nature of business:
   - Agriculture, forestry, & fishing
   - Mining
   - Construction
   - Manufacturing
   - Transportation & utilities
   - Wholesale & retail trade
   - Finance, insurance, & real estate
   - Services

39. Number of employees on January 1, 2016: _____ in the US
    ________________________________________________________________

40. Number of employees on January 1, 2016: _____ outside the US
    ________________________________________________________________

41. On average, how many new employees were hired yearly in the past five years (1/1/11 to 12/31/15): _____ in the US?
    ________________________________________________________________
42. On average, how many new employees were hired yearly in the past five years (1/1/11 to 12/31/15): ____ outside the US?

43. If you have any additional comments or explanations regarding the items or your responses, please write them in this space. Be sure to indicate which item(s) you are addressing.
Appendix D: Letter to the Business Roundtables’ Current Vice President and Overseer of the Group’s Education and Workforce Committee

Hello [redacted],

My name is Clay Aschliman, and I am a third-year educational research doctoral student at Virginia Commonwealth University. I have a background in English, business, and English education, and I recently became intrigued by the College Board’s National Commission on Writing for America’s Families, Schools, and Colleges 2004 study, "Writing: A Ticket to Work...Or a Ticket Out." In that study, human resource directors of Business Roundtable organizations were surveyed regarding their beliefs related to the use and importance of writing in their respective companies. Now that a decade has passed, and as issues of college- and career-readiness remain at the forefront of educational reform, it is my plan to replicate the original study as my dissertation.

The College Board’s report cites an initially low response rate, bolstered by telephone follow-ups and the help of [redacted], who was then Director of Education and Workforce Policy for Business Roundtable. [redacted] is no longer with your group, as you may be aware. In your role as Vice President and overseer of the Education and Workforce Committee, and considering your previous work for the College Board, it is my sincere hope that I may be under your or your group’s auspices for my proposed study. If you would assist me in making initial contacts, or to simply be able to add to my survey a brief note stating that you and/or Business Roundtable at large is aware of the replication, would be tremendously helpful in establishing a degree of trust with my sample of human resource directors. I would gladly credit you in the study report and share with you the results, which will hopefully guide educational policy and better develop the current and future generations of workers.

Thank you for your time,

Clay Aschliman
Ph.D. Candidate
Education—Research and Evaluation
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Richmond, Virginia 23284
aschlimancc@vcu.edu
(713) 854-0112
Appendix E: Intro Letter to Participants

Subject: The Role and Importance of Writing at X

Dear Mr./Ms./Dr. X:

My name is Clay Aschliman, and I am a Ph.D. candidate at Virginia Commonwealth University. In 2004, the College Board’s National Commission on Writing for America’s Families, Schools, and Colleges surveyed human resources executives in order to learn about the role and importance of writing in the workplace. It is important to explore how such beliefs have evolved after a decade of great economic change, and as issues of college- and career-readiness remain at the forefront of educational reform policy. Therefore, I am writing to ask for your assistance in replicating the College Board’s study. Results are intended to help schools, policymakers, and employers better serve current and future workers through targeted educational opportunities.

If you are willing to participate, you will receive a link to a brief (5-10 minutes) electronic survey. Your participation is entirely voluntary; the study has been approved by VCU’s Institutional Review Board; and all data will remain anonymous, confidential, and secure.

Please let me know if you are willing to participate. If you have any questions or concerns about the nature of this study, or if you would like the survey emailed to an alternate email address, you may contact me using the information below. You may also contact my supervisor, Dr. Ross Collin, at rcollin@vcu.edu or (804) 828-8715.

Thank you for your time and cooperation,

Clay Aschliman
Ph.D. Candidate
Education—Research and Evaluation
Virginia Commonwealth University
1015 W. Main Street
Richmond, Virginia 23284
aschlimanca@vcu.edu
(713) 854-0112
Appendix F: First Reminder Email

Subject: Write to Work Study

Dear Mr./Ms./Dr. X:

You recently received an email asking if you would be willing to participate in a brief (5-10 minute) survey regarding your beliefs about the role and importance of writing at X.

This survey is part of a replication of a study conducted in 2004 by the College Board's National Commission on Writing for America's Families, Schools, and Colleges. In that study, human resources executives of organizations like yours provided valuable input that helped guide educational reform and workforce development initiatives. I hope you will assist in bringing up-to-date the College Board's findings, as they may no longer reflect contemporary employers' beliefs--or needs.

Please find the survey link below.

Your responses will remain anonymous, and your participation is voluntary. This study has been approved by VCU's Institutional Review Board, and all data will remain confidential and secure. If you have any questions or concerns about the nature of this study, or if you would like the survey emailed to an alternate email address, you may contact me using the information below. You may also contact my supervisor, Dr. Ross Collin, at (804) 828-8715.

Thank you for your time and cooperation,

Clay Aschliman
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(713) 854-0112
Appendix G: Second Reminder Email

Subject: Write to Work Study: Final Reminder

Dear Mr./Ms./Dr. X:

You recently received a link to a brief (5-10 minute) survey asking for your beliefs regarding the role and importance of writing in the workplace.

This survey is part of a replication of a study conducted in 2004 by the College Board's National Commission on Writing for America's Families, Schools, and Colleges. In the seminal study, human resources executives across the nation shared their beliefs about how writing is valued and utilized in their respective organizations. It is important to explore how such beliefs have evolved after a decade of great economic change, and as issues of college- and career-readiness remain at the forefront of educational policy. The results of the current study, as in the original, are intended to guide educational reform and workforce preparation/development initiatives.

Please find the survey link below.

Your responses will remain anonymous, and your participation is voluntary. This study has been approved by VCU's Institutional Review Board, and all data will remain confidential and secure. If you have any questions or concerns about the nature of this study, or if you would like the survey emailed to an alternate email address, you may contact me using the information below. You may also contact my supervisor, Dr. Ross Collin, at (804) 828-8715.

Thank you for your time and cooperation,

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