

Broker & Adviser Education: What Does the Public Know?

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Abstract

The United States recently increased the standard of care for brokers but still requires no formal education for investment professionals. This study investigates the public expectation of the educational requirements of investment professionals. While no formal education is required to become a broker or investment adviser, a majority of the survey respondents in this study believed investment professionals must have a college or graduate degree. This finding is noteworthy as research has indicated that consumers are likely to curtail a search if they believe all available alternatives are relatively homogeneous. Furthermore, a majority of respondents indicated brokers and investment advisers should have a college or graduate degree. Female participants, younger participants, and those with low perceived knowledge most frequently overestimated the required education of brokers and/or investment advisers. Respondents demonstrated an increased preference for investment advisers relative to brokers after being educated on the difference between the groups.

Keywords: Government Policy & Regulation; Market Transparency; Retirement Savings; Financial Literacy

1. Introduction

Two types of investment professionals serve the general public in the United States: brokers and investment advisers. The Investment Advisers Act of 1940 requires individuals who provide investment advice for compensation to register with the Securities and Exchange Commission (SEC) as investment advisers. An investment adviser must give advice regarding securities, be in the business of giving advice, and receive compensation for doing so (15 USC § 80b - 2 (a) (11)). The Act of 1940 excluded from this rule lawyers and accountants whose advice is solely incidental to their profession. Since brokers are in the business of completing securities transactions, the Act of 1940 also excludes "any broker or dealer whose performance of such services is solely incidental to the conduct of his business as a broker or dealer and who receives no compensation therefore" (15 USC § 80b). Brokers need not register as investment advisers since their advice is often considered "solely incidental" to the process of selling securities, but many brokers use titles that suggest otherwise. Common terms such as "financial planner" imply the user provides comprehensive financial planning services rather than executes securities transactions. While Tharp (2020) and Lach, Flynn, & Kelly (2019) found that consumers are able to associate titles such as "investment sales representative" and "investment salesperson" with the responsibilities of brokers, such titles are rarely used in practice.

Standards of care required of brokers and investment advisers differ significantly. Investment advisers, as fiduciaries, put client interests before their own. While the Act of 1940 does not contain the word "fiduciary," the Supreme Court concluded in 1960, "The Investment Advisers Act of 1940 thus reflects a congressional recognition 'of the delicate fiduciary nature of an investment advisory relationship,' as well as a congressional intent to eliminate, or at least to expose, all conflicts of interest which might incline an investment adviser— consciously or unconsciously—to render advice which was not disinterested." In contrast, brokers were held to a suitability standard until 2020, meaning their recommendations had to be reasonable based on the client's investment objectives.

Following the 2008 recession, efforts to raise brokers' standard of care culminated in the passage of Regulation Best Interest (BI). Regulation BI took effect on June 30, 2020, requiring broker recommendations to be in clients' best interests. Although Regulation BI raised the standard of care required by brokers, investment adviser standards are still higher. For example, Regulation BI requires brokers to act in the best interest of the client only in regards to specific transactions, while investment advisers must continually act in the client's best interest and monitor to ensure the client's best interest is served.

In addition to unclear professional titles, the minimum education required of investment professionals is another issue overlooked in the debate over a fiduciary standard. Most U.S. states require no formal education to become a broker or investment adviser beyond passing one or more exams, typically the Series 7 and 65 exams. The Series 7 exam can be passed with as little as three weeks of study, according to Keir Educational Resources, a leading provider of study materials for professional certification exams (Keir Educational Resources, n.d.). According to the Financial Industry Regulatory Authority (FINRA) (n.d.), "The Series 7 Examination is designed to assess the competency of entry-level General Securities Representatives." Similarly, the North American Securities Administrators Association (NASAA) (n.d.) states, "The Series 65 is a test of a candidate's competency as an entry-level investment adviser representative."

To our knowledge, the public's understanding of these education requirements has not been investigated. Nor has much debate addressed whether or not managing investments or an individual's life savings should require additional education beyond three weeks of study for an exam designed for an "entry-level" employee. While algorithms may perform the analysis in the background, the entry-level employee is the bridge between the algorithm and the client and needs to explain the recommendations to the clients. Regulation BI includes a "Care Obligation" which, among other things, requires a broker to "exercise reasonable diligence, care, and skill to understand the potential risks, rewards, and costs associated with the recommendation." An investment professional lacking sufficient education may not have the skills necessary to do this, even considering the technological support.

Educational sufficiency was part of the American Institute of Certified Public Accountants' (AICPA) justification to increase to 150 credit hours the education necessary to become a Certified Public Accountant (CPA). To that point, the AICPA (n.d.) argued, "Significant increases in official accounting and auditing pronouncements and the proliferation of new tax laws have expanded the knowledge base that professional practice in accounting requires." Investment professionals also must navigate changing tax laws. For example, the SECURE Act changed the age at which individuals must take distributions from retirement accounts and mandated that non-spouse beneficiaries must withdraw funds from an inherited account within ten years. The latter change creates significant financial and estate planning challenges for investment professionals.

Another less obvious aspect of the education sufficiency argument is the possibility that high entry barriers deter uncommitted or unscrupulous individuals from bouncing between fields, seeking quick profits before moving on. Egan, Matvos, & Seru (2019) report the transitory nature of the investments industry, where 9 percent of brokers/investment advisers leave the industry annually. From the same article, 7.3 percent of brokers/investment advisers have misconduct-related disclosures, and 27 percent of these are repeat offenders. Among dually registered investment professionals, 22 percent have at least one disclosure. The authors argue that the market fails to penalize misconduct, and some firms appear to specifically hire such individuals, especially among firms that serve retail clients. These findings show "caveat emptor" is not sufficient for an industry where the market does not punish wrongdoing, especially an industry as complex as investment management.

The high incidences of misconduct found by Egan et al. (2019) suggest the costs of agency can be reduced by requiring investment professionals to have more "skin in the game" via higher entry barriers. Egan et al. (2019) find advisors with at least one credential are less likely to have a misconduct-related disclosure than those without. Raising barriers to entry is meant to align service provider incentives closer with customers. The House of Commons Treasury Committee (2011) in the United Kingdom argued similarly when it raised the education requirements of advisers as part of its Retail Distribution Review. The committee justified the decision to require a Certificate in Higher Education (which takes about 16 months of college-level study) for advisers by stating "A higher level of qualification for advisers can help build a stronger professional ethos among advisers and reflect the considerable of responsibility advisers have for the financial welfare of their clients."

Consumer search would be simplified if regulators disclosed the variations in adviser education in a brief, easy-to-understand manner. Beales, Mazis, Salop, & Staelin (1981) find that consumers tend to curtail a search if they believe all options are relatively homogenous. The authors say, "The consumer whose internal information indicates that the options are pretty much alike is not likely to be motivated to engage in additional active information acquisition."

Curtailling search can be harmful: Qureshi & Sokobin (2015) find that the information provided by BrokerCheck can predict investor harm. Zweig & Fuller (2019) show that over 6,300 out of more than 72,000 Certified Financial Planners failed to list unscrupulous items such as previous criminal convictions on LetsMakeAPlan.org, a website designed to help consumers find Certified Financial Planners. The omitted information was available through BrokerCheck. Egan (2019) argues that investors may miss this information due to high search costs. Egan, Matvos, & Seru (2019) point out that investors may not know how to find such information or may be unaware of its existence. The findings of the latter study, combined with the findings of Beales et al. (1981), suggest investors may not seek this information because they may not know it exists and/or are unaware of the variation in the education and training of investment professionals.

2. Background and Hypotheses

After the Standard & Poor's (S&P) 500 declined more than 43 percent between March 1, 2008 and February 28, 2009, regulators began to scrutinize how Americans receive investment advice. This scrutiny began in the drafting stages of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. This Act did not mandate a uniform fiduciary standard but called for the SEC to determine, among other things, whether investors are confused between the standards of care required of brokers and investment advisers. The resulting report cited three studies from the Chartered Financial Analyst Institute, RAND Institute for Civil Justice, and a joint study from Siegel & Gale, LLC and Gelb Consulting Group (Henceforth, SGG), documenting investor confusion surrounding job titles.

According to the Council of Economic Advisers (2015), conflicted investment advice costs investors \$17 billion per year. This conflict stems from the fact that brokers are compensated through commissions, possibly incentivizing them to recommend higher-cost products not in the best interest of the client. On the other hand, investment advisers are held to a fiduciary standard, requiring them to align recommendations with clients' best interests. Recent regulatory efforts seem to address whether or not a fiduciary standard should apply to all investment professionals. We believe a better inquiry would address why a consumer would hire an investment professional who is not held to a fiduciary standard. If consumers hire non-fiduciary investment professionals because they are unaware of the difference in standards, we believe consumers would demonstrate stronger preferences between investment advisers and brokers if they knew their differences. This leads to our first hypothesis:

H1: Educating consumers on the differences between investment advisers and brokers results in a stronger preference for investment advisers relative to brokers.

In most U.S. states, the minimum education attainment required of a broker or investment adviser is lower than that of a hairdresser (Kentucky Board of Hairdressers and Cosmetologists, n.d.) or an electrician (U.S. Bureau of Labor Statistics, n.d.). Electricians must complete several years of apprenticeship under the supervision of a licensed electrician; brokers and investment advisers are not required to complete an apprenticeship under a senior investment professional. Such requirements are designed to raise the quality of service and to reduce associated risks. Most states do not require a high school diploma or a Graduate Equivalency Degree (GED) for brokers or investment advisers. Series 7 and Series 65 exams, designed to assess the skills of an entry-level professional, impose no minimum education requirement. Keir Educational Resources reports that

the Series 7 exam can be passed in as little as 250 hours of study, while Kentucky requires a 12th-grade education and 600 hours of study for nail technicians. Thus, we expect participants in our study will overstate the requirements when asked. This leads to our second hypothesis:

H2: Participants overestimate the education requirements needed to become a broker or an investment adviser.

This hypothesis also motivates five sub-hypotheses, arrived at by separating the sample into dichotomous groups to examine whether a subset of the sample drives its overall results:

H2A: Older participants are less likely to overstate the education requirements needed to become a broker or an investment adviser relative to younger participants.

Correlations between age and wealth are well-documented (U.S. Census Bureau, 2016). Older participants are more likely to need investment advice due to their accumulated wealth and therefore more likely to research investment professionals and the standards to which they are held. This echoes Hackethal et al. (2012) and Brenner & Meyll (2020), who find that older people are more likely to use a traditional financial professional.

H2B: Participants with higher levels of formal education are less likely to overstate the education requirements needed by brokers or investment advisers relative to those with less formal education.

Another well-documented correlation is between education and income. Similar to H2A, participants with more education likely have higher incomes and, therefore greater need for investment advice. Letkiewicz, Robinson, & Domian (2016) find that those with higher levels of net worth are more likely to use a traditional financial planner. As a result, we expect them to be more aware of the education requirements for brokers and investment advisers.

H2C: Those with a high level of perceived knowledge are less likely to overstate the education requirements needed to become a broker or an investment adviser relative to those with a low level of perceived knowledge.

This hypothesis is closely related to H2B. While a participant's education is one way to gauge their knowledge of education requirements of investment professionals, the perceived level of knowledge represents participants' own financial knowledge. Perceived knowledge correlates moderately to strongly with actual knowledge across studies (Flynn & Goldsmith, 1999; Goldsmith, Goldsmith, & Heaney, 1997).

The relationship between financial literacy and advice usage is mixed. While Hackethal, et al. (2012) argue less informed investors are more likely to seek advice, several studies (Lusardi & Mitchell (2011), Bachmann & Hens (2015); Calcagno & Monticone (2015); Seay, Kim, & Heckman (2016)) find financial knowledge and financial literacy are positively correlated with the use of a financial planner. We expect those with a high level of perceived knowledge to be less confused about the education requirements of the investment industry relative to those with a low level of perceived knowledge.

H2D: Confusion regarding the required education of brokers and investment advisers is more pronounced among males relative to females

Lusardi & Mitchell (2008) and Almenberg & Dreber (2015) observe a tendency for women to be less financially literate than men. Given the inverse link between financial literacy and demand for financial advice documented by Hackethal et al. (2012), it is reasonable to assume females are more likely than males to seek advice. In fact, Hackethal et al. (2012) and Brenner and Meyll (2020) find women more likely to consult a traditional financial professional. Therefore, since women are more likely to consult a financial professional, we expect them to be more knowledgeable about the requirements of financial professionals.

H2E: Those with experience working in the investment industry are less likely to overstate the education requirements needed to become a broker or an investment adviser relative to those without experience.

Those with investment industry experience should be more familiar with the education requirements of investment professionals relative to those with no industry experience due to their proximity to the industry.

We expect participants in our study to respond that an investment adviser needs a higher level of education than a broker, consistent with investors thinking a higher education level is needed due to the higher standard of care. For example, subjects will believe more education is required to plan the financial future of a family rather than to execute a stock trade. This leads to a third hypothesis:

H3: Participants will characterize an investment adviser as being held to a higher education level than a broker after being educated on the requirements of each.

We ask participants what the minimum education level should be for a broker or an investment adviser. We expect participants will tend to answer that brokers and investment advisers should have at least a college degree as is common in other professions, such as teacher or accountant. This leads to our next hypothesis:

H4: Participants will report that they believe brokers and investment advisers should be required to have a college degree or higher.

Finally, participants provide their estimates regarding the minimum level of education needed to become brokers or investment advisers, relative to Certified Public Accountants. We use the CPA credential as a benchmark because it is widely recognized and because CPAs, like investment advisers, often assist people in making financial decisions. CPA education requirements vary between states but typically include a college degree and 150 credit hours, including 12 - 27 credit hours of accounting (AICPA, n.d.). We expect respondents to view CPAs, brokers, and investment advisers similarly and will indicate that all three groups of professionals have similar education standards. This expectation leads to our final hypothesis:

H5: Participants will believe brokers and investment advisers are held to a level of education comparable to Certified Public Accountants.**3. Methodology**

This study uses data from the same survey panel as Lach et al. (2019). The survey items were designed to measure participants' understanding of job titles and education required by investment professionals and was delivered via Qualtrics in Spring 2016. The questionnaire was piloted with three separate student panels before going live. Participants were recruited from the Qualtrics panel and were asked for informed consent using the authors' university's standard wording, which is:

"You must be at least 18 years old to participate, but your participation is purely voluntary. You may choose not to participate or to withdraw from the study at any time without any penalty or prejudice. Your participation in this survey should take approximately 10 minutes. There are no risks or rewards associated with participation in this survey. Your responses will not be disclosed as only aggregated results of the research will be published with individual participants unidentified. Your answers will be kept strictly confidential, will not be identified by name, and used only for research purposes. If you have any questions about this survey, please contact Leisa Flynn at 601-266-5582. This project has been reviewed by the USM Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820. Clicking on the "Consent" button below will indicate your consent to participate in this research."

Participants received a small monetary award for completion. For each question, response choices were randomized. Parameters were set to ensure an equal number of male and female participants. Additionally, the survey contained an attention check item: "This is an attention check. If you read this question, please leave it blank." Participants who failed the attention check were excluded from the final results. Of 994 people who began the survey, 534 were excluded because they completed the survey too quickly, failed to complete the survey, or failed the attention check, leaving a final sample of 460 survey participants. The only modification of the data set was the removal of responses as detailed above. All analysis was performed with SPSS.

The survey was comprised of three parts. The first part measured subjective knowledge and included a measure of perceived knowledge developed from Flynn & Goldsmith (1999) and Goldsmith et al. (1997). After establishing a baseline of participants' knowledge, the survey presented descriptions of actual job functions of both brokers and investment advisers, reproduced below. These descriptions were given before the passage of Regulation BI, but the regulation had only a slight impact on the accuracy of the educational paragraph. Regulation BI requires brokers to act in the best interests of the client but only in regard to a specific transaction, not at all times.

A **broker** is a person who is paid a fee for making financial securities transactions on behalf of their clients. For example, a broker may receive a commission to purchase a mutual fund for a client's account.

A **broker** is not held to a fiduciary standard, which means that they are free to act in their own interest and not the best interest of their clients. For instance, a broker can recommend an investment that pays a high commission even if there are investments that are nearly identical that pay a lower commission or no commission at all.

An **investment adviser** is a person who is paid a fee by a client for providing advice about or conducting analysis on financial securities. For example, an investment adviser may review someone's investments for an hourly fee.

An **investment adviser** is a fiduciary and is required by law to act in the best interest of his or her clients at all times.

Responses to questions following this section were used to see whether the subjects' answers to a subset of the first group of questions had changed. In other words, we tested to see if the subjects' understanding of the main job functions of brokers and investment advisers had improved. Before and after the education section, respondents were asked, "Which would you rather choose to manage your investments?" The repetition of the same question served to assess the efficacy of the educational paragraph.

The third section of the survey asked how much formal education subjects believed was required for a person to be hired as or claim to be a broker or investment adviser. We also asked how much education these workers ideally should have to give investment advice.

4. Results

4.1 Differences between Investment Advisers and Brokers

To establish a baseline between brokers and investment advisers, the survey provided respondents with the educational paragraph (shown in Section 3), detailing the differences between brokers and investment advisers.

The educational paragraph was followed by a series of follow-up questions. The first, shown in Table 1, was "Given what you have just learned, which you would rather choose to manage your investments?" with three response categories: "investment adviser," "broker," and "it makes no difference to me." A similar question ("Which would you rather choose to manage your investments?") appeared at the beginning of the survey. The repetition was to gauge the impact of the educational paragraph. Before reading the educational paragraph, 54 percent chose investment advisers, 13 percent preferred brokers, and the remaining 33 percent had no preference. After reading the educational paragraph, 78 percent of participants chose "investment adviser," 10 percent chose "broker," and the remaining 11 percent were indifferent. The p-value for the Pearson chi-square test is lower than 0.001, evidence that the educational paragraph increased participants' preferences for investment advisers relative to brokers. Consumer preference towards an investment adviser relative to a broker appears to increase with consumer education on the distinction between responsibilities of those professionals, consistent with H1.

Table 1: This table presents results to survey questions asked before and after an educational section that gave a brief description of brokers and investment advisers. The “Pre-Education” columns present results for the survey question: “Which would you rather choose to manage your investments?” This question was given before the brief educational section. The “Post-Education” columns present results to the survey question: “Given what you have just learned, which would you rather choose to manage your investments?” This question was given after the brief educational section. The differences in responses to this question are provided in the final column of this table. The survey was delivered through Qualtrics’ panel to 460 American adults between the ages of 18 and 84 in the early spring of 2016. For each response, N represents the number of participants who selected that response and % refers to the percentage of the 460 participants who selected that response.					
<u>Response</u>	<u>Pre-Education</u>		<u>Post-Education</u>		<u>Difference</u>
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
Broker	58	13%	48	10%	-10
Investment Adviser	250	54%	361	78%	111
It makes no difference to me	152	33%	51	11%	-101
Pearson Chi-Square test p-value: <0.001					

4.2 Education of Investment Professionals

Participants were questioned about the levels of education required of brokers and investment advisers. Panel A of Table 2 reports the results of asking what level of education is required to become a broker. Fifty-three percent of respondents believed a broker must have a college degree or postgraduate education. Responses to the same question regarding investment advisers jumped to 68 percent. From Panel A of Table 2, only 5 percent (2 percent) correctly identified the actual formal education required to become a broker (investment adviser), that is, “less than high school graduate.” This is problematic because consumers who assume investment professionals to have attained a high degree of education may spend less time evaluating and screening prospective investment professionals than if they knew the actual amount of education required of those professionals. For example, Beales et al. (1981) suggest consumers will not spend as much time researching a product or service if they believe all options are relatively homogenous.

For Table 2, a mean for each question was computed from assigned values of one for responses of “less than high school graduate,” two for responses “high school graduate,” etc. Although the scale in Table 2 is ordinal, assigning a value to each response and computing a mean allows for better interpretation of the data. As shown in Panel A, the mean score for brokers is 3.28, showing participants believe brokers need more than “some college” education. This differs at the one percent level of significance ($t(459) = 45.29, p < .001$) from the correct response (less than high school). For investment advisers, the mean score is higher: 3.63. Again, this value is greater than one at the one percent level of significance ($t(459) = 59.62, p < .001$), showing participants believe investment advisers must have at least some college education. These results are consistent with the second hypothesis (H2) since participants significantly overstated the requirements needed to become a broker or an investment adviser.

Table 2:

Panel A of this table presents results to the survey questions: “Please select the minimum level of education you believe is actually required for someone to be licensed as a broker” and “Please select the minimum level of education you believe is actually required for someone to be licensed as an investment adviser.” Panel B presents results to the survey questions: “In your opinion, what is the minimum level of education that someone should have in order to be a broker?” and “In your opinion, what is the minimum level of education that someone should have in order to be an investment adviser?” These questions followed an educational section giving a brief description of brokers and investment advisers. The survey was delivered through Qualtrics’ panel to 460 American adults between the ages of 18 and 84 in the early spring of 2016. For each response, N represents the number of participants who selected that response and % refers to the percentage of the 460 participants who selected that response.

Panel A: How much education is <i>actually</i> required?				
	Broker		Investment Adviser	
<i>Response</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
1 Less than high school graduate	21	5%	10	2%
2 High school graduate	114	25%	62	13%
3 Some college	85	18%	77	17%
4 College graduate	196	43%	252	55%
5 Graduate education	44	10%	59	13%
Mean	3.28		3.63	
Panel B: How much education <i>should be</i> required?				
	Broker		Investment Adviser	
<i>Response</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
1 Less than high school graduate	2	0%	1	0%
2 High school graduate	41	9%	22	5%
3 Some college	77	17%	59	13%
4 College graduate	273	59%	290	63%
5 Graduate education	67	15%	88	19%
Mean	3.79		3.96	

Possibly, the coding of the variables in Table 2 biases the results in favor of H2 since four of the five possible choices overstate actual education. One solution to prevent answers from having a disproportionate effect (i.e. the response “graduate education” is coded as a five, which would significantly raise the mean when testing against a hypothesized value of one), would be to recode the responses so the correct response (less than high school graduate) is coded as a one and all other responses are coded as a zero. If participants overestimate the education required of brokers and investment advisers, then we would expect less than half of respondents to select the correct response. Since four of the five choices are incorrect, a 50 percent cutoff may still bias the tests in favor of our hypothesis. Therefore, to be more stringent in the tests, we impose a 20 percent

cutoff. With five choices, roughly 20 percent of respondents would choose each option if the choices were random. If participants significantly overestimate the education required of brokers and investment advisers, less than 20 percent of respondents would select the correct response. The mean for brokers of 0.046 is significantly lower than 0.20 ($t(459) = -15.84, p < .001$) as is the 0.022 mean for investment advisers ($t(459) = -26.19, p < .001$), providing further evidence for H2.

The average score for brokers of 3.28 is significantly lower than that of 3.63 for investment advisers ($t(459) = 7.06, p < .001$), suggesting participants believe more education is required of investment advisers operating under a fiduciary standard versus brokers operating under a suitability standard, supporting H3.

Panel B of Table 2 shows the response results to the question “In your opinion, what is the minimum level of education that someone should have in order to be a broker?” Seventy-four percent of respondents believed a broker should have a college or graduate degree, and 82 percent thought the same of investment advisers. The average score for brokers of 3.79 is significantly lower than that of 3.96 for investment advisers $t(459) = 5.74, p < .001$, aligning with H3. To test H4, we recoded the responses, assigning a value of one for the responses “college graduate” and “college education” and a value of zero for all other responses. The mean response for brokers is 0.739, significantly greater than 0.50 ($t(459) = 11.67, p < .001$), as is the 0.822 mean response for investment advisers ($t(459) = 18.01, p < .001$), providing support for H4.

To test H5, participants were asked to compare the education requirements of brokers and investment advisers to those of a Certified Public Accountant. Those results appear in Table 3. The CPA license was chosen for comparison because accountants also deal with financial issues and because CPA licensure is widely recognized in the United States. According to the Certified Financial Planner Board of Standards, Inc. (2015), the CPA license was recognized by 94 percent of study participants.

Table 3:

This table presents results to the survey questions: “Relative to a Certified Public Accountant, the level of education needed to become a broker is:” and “Relative to a Certified Public Accountant, the level of education needed to become an investment adviser is:” These questions followed an educational section giving a brief description of brokers and investment advisers. The survey was delivered through Qualtrics’ panel to 460 American adults between the ages of 18 and 84 in the early spring of 2016. For each response, N represents the number of participants who selected that response and % refers to the percentage of the 460 participants who selected that response.

	<i>Broker</i>		<i>Investment Adviser</i>	
<i>Response</i>	<i>N</i>	<i>%</i>	<i>N</i>	<i>%</i>
1 Much lower	74	16%	33	7%
2 Somewhat Lower	103	22%	80	17%
3 About the Same	135	29%	180	39%
4 Somewhat Higher	105	23%	123	27%
5 Much Higher	43	9%	44	10%
Mean		2.87		3.14

CPA licensure requirements vary from state to state, but most states now require work beyond a baccalaureate degree, typically 150 college credit hours, and 12 to 27 credit hours in accounting. For example, according to the American Institute of Certified Public Accountants (n.d.), in Kentucky, a candidate needs 120 credit hours and a bachelor's degree to sit for the exam and 150 credit hours, including 27 semester hours in accounting, to obtain the CPA license.

Participants in our study thought the education requirements of brokers and investment advisers are similar to those of CPAs. Table 3 shows that 61 (76) percent of participants believe the education needed to become a broker (investment adviser) is the same or higher than to become a CPA. Only 16 (7) percent responded that the education needed to become a broker (investment adviser) is much lower than that for a CPA. The average score for brokers of 2.87 is significantly lower than the average score of 3.14 for investment advisers $t(459) = 5.48, p < .001$, providing additional support for H3. Interestingly, the mean across both groups is 3.01, not statistically significantly different from 3 ($t(459) = 0.12, p = 0.907$), and consistent with our fifth hypothesis (H5).

4.3 Education of Investment Professionals – Comparison Tests

This section revisits the analysis of Panel A of Table 2 by dividing the sample into multiple groups to see how different groups of participants compare in the amount of education they believe investment professionals actually have. This also ensures that the results of Panel A of Table 2 are not driven by one subset of the respondents. The groups are based on age, education, perceived knowledge, gender, and industry experience. Panel A of Table 4 presents the results of Panel A, Table 2, in which participants are asked to “Please select the minimum level of education you believe is actually required for someone to be licensed as a broker.” As in Table 2, a mean for each question was computed by assigning the same ordinal values for each possible response. Again, these ordinal scales allow for interpretation of data means. In Panel A, Table 2, the mean response to this question was 3.28.

Participants were divided at the median age of 45 years. The average score to the question “Please select the minimum level of education you believe is actually required for someone to be licensed as a broker” was 3.54 for those younger than 45 and 3.03 for those ages 45 and older. This difference is significant at the one percent level and supports H2A. There is no support for H2B in Panel A of Table 4, that is, those with an associate's degree or higher are no better at predicting the education required of brokers than those without at least an associate's degree. Respondents with a high level of perceived knowledge significantly overestimated the amount of education required of brokers by a larger margin than those with a low level of perceived knowledge. This is opposite the expected outcome for H2C and could be attributed to overconfidence serving as a proxy for a high level of perceived knowledge.

The gender-based comparison in Panel A is significant, but opposite the H2D predicted direction with females scoring significantly higher than males, indicating female respondents expected more required education than males expected. This finding is interesting in that other studies have found that women generally have less financial knowledge than males (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2010). This finding is also interesting because Hackethal et al. (2012) and Brenner and Meyll (2020) find that women are more likely to consult a human adviser over an online or “robo” advisor. Regarding the result here, it is possible that females jointly overestimate the expertise of financial professionals and the education required.

Table 4:

This table summarizes the results of the questions presented in Table 2, Panel A in five columns, and tests for differences between means of both groups in each column, shown by the t-statistic at the bottom of each cell. The first column tests the difference in responses between those younger than 45 versus those 45 and older. The second column separates participants based on education where “Low” participants do not have at least an associate’s degree and “High” participants hold at least an associate’s degree. The third column separates participants based on perceived knowledge where “Low” (“High”) perceived knowledge represents participants who scored in the bottom (top) half of a series of questions designed to assess their perceived knowledge. The fourth column tests the difference in responses between genders. The fifth column tests the difference in responses between those with and without industry experience.

*, **, and *** indicate statistical significance at the 10%, 5%, 1% levels, respectively. N is the number of respondents per question in each of the dichotomous groups.

Panel A: Please select the minimum level of education you believe is actually required for someone to be licensed as a broker.

Age		Education		Perceived Knowledge		Gender		Industry Experience	
	Mean:		Mean:		Mean:		Mean:		Mean:
Younger than 45:	3.54	Low:	3.21	Low:	3.16	Male:	3.15	Some:	3.48
(N=223)		(N = 260)		(N = 230)		(N = 230)		(N = 66)	
45 and Older:	3.03	High:	3.37	High:	3.40	Female:	3.40	None:	3.24
(N=237)		(N = 200)		(N = 230)		(N = 230)		(N = 394)	
<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>	
t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:
5.148***	<0.001	1.602	0.110	2.433**	0.015	2.521**	0.012	1.684*	0.093

Panel B: Please select the minimum level of education you believe is actually required for someone to be licensed as an investment adviser.

	Mean:		Mean:		Mean:		Mean:		Mean:
Younger than 45:	3.75	Low:	3.63	Low:	3.62	Male:	3.54	Some:	3.77
(N=223)		(N = 260)		(N = 230)		(N = 230)		(N = 66)	
45 and Older:	3.51	High:	3.63	High:	3.63	Female:	3.71	None:	3.60
(N=237)		(N = 200)		(N = 230)		(N = 230)		(N = 394)	
<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>		<u>Difference in Means:</u>	
t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:	t-statistic:	P-value:
2.723***	0.007	0.001	0.983	0.197	0.844	1.880*	0.061	1.364	0.173

Another possibility is that females show more risk aversion in selecting agents for services where they lack knowledge. These results, running counter to expectations, may be worth pursuing in further research. Surprisingly, respondents without industry experience overestimated the education required of brokers by a smaller amount compared to those with experience, the opposite result predicted by H2E. While differences appear between some of the groups examined in Panel A, Table 4, the results from this partitioning show that the results in Panel A, Table 2, are not driven by any one subgroup.

Panel B parses the responses to “Please select the minimum level of education you believe is actually required for someone to be licensed as an investment adviser.” While the responses of all participants are summarized in Panel A of Table 2, Panel B of Table 4 divides the average response by group. Relative to Panel A of Table 4, fewer differences occur in expectations regarding the education required of investment advisers. Those younger than 45 years of age report higher education requirements of investment advisers relative to their older counterparts, supporting H2A and consistent with the results in Panel A. Female participants believe investment advisers face higher education requirements than do males, consistent with Panel A and opposite the H2D prediction. Again, these results show that the results of Table 2, Panel A are not driven by any particular subgroup.

4.4 Education of Investment Professionals – Multivariate Analysis

Table 5 reports the outcomes of two ordered probit regressions to determine whether the results of the comparison tests in Table 4 hold after controlling for other factors. The dependent variables are the responses to the request: “Please select the minimum level of education you believe is actually required for someone to be licensed as a broker (investment adviser).” The independent variables are the same as the variables used in the comparison tests in Table 4 with two exceptions. In Table 4, binary variables were created for age and perceived knowledge to allow for comparison tests. Since these are continuous variables, in Table 5, *age* represents the age of the participant, and *perceived knowledge* represents participants’ scores to a series of questions designed to measure perceived knowledge.

The first regression in Table 5 examines factors that influence a participant’s estimate of the education required to be a broker. Consistent with Table 4, age is negatively related to broker education, supporting H2A. Thus, younger participants are more likely to overestimate the education required of brokers. Also consistent with Table 4 is that female participants are more likely to overestimate the education required of brokers. This finding is consistent with Table 4 and opposite the H2D prediction. Although perceived knowledge and industry experience are significantly related to participants overestimating the education of brokers, in Table 5, these two variables are not significant when controlling for other factors. These findings fail to support H2C and H2E, respectively. Education is not related to a participant’s ability to estimate the education of brokers, which fails to support H2B.

The second regression in Table 5 shows factors related to a participant’s estimate of the education required of investment advisers. Again, age is negatively and significantly related to a participant’s estimate of the education required of investment advisers, consistent with H2A. While perceived knowledge was not significantly related to a participant’s ability to estimate education required of investment advisers in Table 4, this factor is significant when controlling for other factors, consistent with H2C. Thus, older participants and those with higher levels of perceived knowledge are less likely to overstate the education required of investment advisers.

Table 5:

This table reports the coefficients of an ordered probit regression where the dependent variables are the responses to the questions: "Please select the minimum level of education you believe is actually required for someone to be licensed as a broker (investment adviser)." Wald statistics are presented in parentheses. "Age" represents the respondent's age. "Education" is a binary variable equal to one for respondents who hold at least an associate's degree and zero otherwise. "Total Perceived Knowledge" represents the respondent's score to a series of questions designed to measure perceived knowledge. "Female" is an indicator variable equal to one if the respondent is female and zero otherwise. "Industry Experience" is an indicator variable equal to one if the respondent has experience in the investment industry and zero otherwise.

*, **, and *** indicate statistical significance at the 10%, 5%, 1% levels, respectively.

	Broker	Investment Adviser
Age (in years)	−0.011*** (10.15)	−0.010*** (7.80)
Education	0.148 (2.15)	0.003 (0.00)
Total Perceived Knowledge	0.004 (0.00)	−0.108* (3.06)
Female	0.230** (4.89)	0.138 (1.70)
Industry Experience	0.199 (1.79)	0.175 (1.32)
Observations	460	460
Cox and Snell Pseudo R ²	0.050	0.037

5. Conclusion

To our knowledge, this is the first study to examine the impact of education on consumer preferences between brokers and investment advisers. Prior to instruction on the difference between the two groups, 33 percent indicated they would be indifferent regarding their choice of money managers. After being educated on the difference between the two groups, only 11 percent were indifferent, and nearly all of those who were initially indifferent expressed a preference for investment advisers. This finding is important as it shows education can help influence the behavior of consumers selecting an investment professional.

While regulatory debates have centered around standards of care, education standards required of investment professionals have been largely ignored. To our knowledge, this is the first study to investigate how much the public knows about the education standards required of investment professionals. Although managing investments and navigating changing tax laws can

be a complex task, no formal education is required to become a broker or investment adviser. Our survey participants significantly overestimated the education required to be an investment professional, with more than half believing brokers are required to have at least a college degree and 68 percent believing the same for investment advisers. Female participants, those with lower levels of perceived knowledge, and younger participants were significantly more likely to overstate the education requirements necessary for investment professionals than their counterparts.

Instead of debating whether or not all investment professionals should act as fiduciaries, it may be better to address whether or not someone with no formal education can determine whether an investment serves the best interests of the client. Participants in our survey panel appear to endorse this sentiment, with nearly three-quarters of respondents indicating that a broker should have a college degree or graduate education and eighty-two percent indicating that investment advisers should have at least a college degree.

The overestimation of the education requirements of financial professionals, combined with the findings of Beales et al. (1981) that consumers are less likely to perform a thorough search if they believe all products or services are similar, suggests a majority of consumers may be less likely to thoroughly vet investment professionals. Potential truncated consumer searches can be problematic, as Qureshi & Sokobin (2015) and Egan et al. (2019) find publicly available information can help predict the likelihood of fraud. At a minimum, regulators should consider providing a plain language description of the wide variation of education and training of investment professionals so that consumers do not curtail their search for an investment professional.

Arguably, a college education may be unnecessary for an investment professional, especially since many retail brokerage firms have “robo-style” algorithms making investment decisions in the background. As noted by Mejia (2017), Warren Buffett once famously said, “You don’t need to be a rocket scientist. Investing is not a game where the guy with the 160 IQ beats the buy with a 130 IQ.” However, we argue for higher education standards, not because it will necessarily make people better investment professionals in a technical sense, but as a cost deterrent to entry by unscrupulous or uncommitted professionals.

Recalling Egan et al. (2019), the authors find that an additional qualification reduces the likelihood of a misconduct-related disclosure in any given year and suggest that advisers with more qualifications have more to lose. Higher entry barriers may, by the same “more to lose” condition, reduce the frequency of misconduct and the frequency of dishonest professionals appearing in front of retail consumers. Egan et al. (2019) address the transitory nature of the investment industry by documenting that 9 percent of investment professionals exit the industry each year. Requiring investment professionals to complete more rigorous training could help to attract investment professionals more dedicated to the well-being of consumers. If so, that requirement would screen for entrants who are ill-suited to the nature of the profession or are seeking a position as a short-term experiment.

Someone selecting an investment professional has a lot to lose if they make a poor choice. Thus, more work is needed in this area, and there are several potentially fruitful avenues of future research. While Egan et al. (2019) find that qualifications can reduce the likelihood of misconduct-related disclosures, it would be interesting to investigate the relation between formal education and misconduct-related disclosures. If our “skin in the game” argument is accurate, we would expect those with more formal education to have lower instances of misconduct than those with less education. Another area of future research would be the extent to which a financial

certification / credential, such as the Certified Financial Planner or Chartered Financial Analyst, could substitute for formal education or a college degree.

This study also has limitations that future research can address. The data was collected in 2016, nearly seven years into a bull market that began in March 2009. It is possible that the strong bull market influenced the responses of individuals. It would be interesting to repeat this study during a recession to see if or how negative market conditions would impact responses. Another limitation of this study is that all questions given were multiple-choice with no follow-up. It would be beneficial to conduct this analysis in a focus-group setting where follow-up questions could be asked. For instance, this paper relies on previous studies to argue that consumers will curtail search if they think all investment professionals have the same level of education. It would be valuable to ask consumers this as an open-ended question in a focus-group setting.

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