6-12-2019

Educational and Professional Trends of Chief Financial Officers

Lupita S. Solis
Portland State University

Follow this and additional works at: <https://pdxscholar.library.pdx.edu/honorstheses>

Let us know how access to this document benefits you.

Recommended Citation

Solis, Lupita S., "Educational and Professional Trends of Chief Financial Officers" (2019). *University Honors Theses*. Paper 745.
<https://doi.org/10.15760/honors.763>

This Thesis is brought to you for free and open access. It has been accepted for inclusion in University Honors Theses by an authorized administrator of PDXScholar. Please contact us if we can make this document more accessible: pdxscholar@pdx.edu.

Educational and Professional Trends of Chief Financial Officers

by Lupita Solis

**An undergraduate honors thesis submitted in partial fulfillment of the requirements for the
degree of**

Bachelor of Arts in University Honors, Finance

Thesis Advisor: Dave Nickel

Portland State University 2019

Abstract

Finance is a broad and dynamic field present in all aspects of business and industries. In any organization, the highest-ranking finance position is the chief financial officer (CFO), a strategic partner to the chief executive officer (CEO). In this position, CFOs hold the primary responsibility of planning, managing all finance activities of a company, including business planning, budgeting, mergers and acquisitions, forecasting, and negotiations. They must also provide leadership, direction, and management of the finance and accounting divisions. As a member of the executive management team, the CFO must provide financial, operational, and strategic insight that helps frame the decisions that will drive the future of the business. CFOs require a high level of experience not only with numbers but also in all aspects of an organization, “CFO not only takes on the traditional roles of financial control, financial integrity, transparency, timely accounting, and checks and balances, but also has a 360-degree view of the business” (EY Reporting, 2017). CFOs are held under scrutiny by investors, executives, and colleagues, due to this, positions are highly competitive and coveted among professionals. The purpose of this thesis is to uncover any trends that may impact the likelihood of an individual achieving the role of a “successful” CFO¹, through the analysis of the educational background and career paths of 100 CFOs, in public Fortune 500 Companies.

¹ For the purpose of this paper “successful” refers to becoming a CFO ranked in the top 150 companies of the Fortune 500.

Table of Contents

Table of Contents

<i>Abstract</i>	2
<i>Background</i>	4
<i>Spencer Stuart - Profile of the Fortune 500 CFO 2017</i>	6
<i>Spencer Stuart - CFO Route to the top 2015</i>	7
<i>Russell Reynolds - Where Do CFOs Come From?</i>	7
<i>Current Study</i>	8
<i>Methodology</i>	8
<i>Research Question and Approach</i>	8
<i>I. Controlled</i>	9
<i>II. Limitations</i>	10
<i>III. Assumptions</i>	10
<i>Results and Discussion</i>	10
<i>Undergraduate Education</i>	11
<i>Advanced Education</i>	12
<i>Special Certifications</i>	13
<i>Tenure</i>	13
<i>Average years in position</i>	14
<i>Internal vs External Hires</i>	14
<i>Demographics</i>	15
<i>Career Trends</i>	15
<i>Future Research</i>	16
<i>Conclusion</i>	17
<i>Works Cited</i>	18
<i>Appendix</i>	20

Background

In an article by *Modern Healthcare*, the focus is on a nurse who had previously received a degree in accounting and worked an extensive career in accounting but decided on pursuing a nursing career. After working as a registered nurse for a couple years, the CFO at the medical practice resigned, the owner having knowledge of her past experience, offered her the position of CFO and director of nursing. She accepted the role and mentioned that she later went on to work for a larger health organization as a controller and later CFO position again. This led me to wonder if this was a common trend among CFOs or the inverse scenario. Based on the previous works, the majority of the time CFOs tend to pursue an educational career based in accounting, finance, or economics and then follow these roles throughout the organization. With a small number of people having experience in roles involving human resources, marketing, and sales.

Business degrees are popular among college campuses, in a statistic provided by the National Center for Education Statistics (NCES) in the year 2014-2015 the greatest number of degrees was conferred to business, 364,000 out of 1,895,000 bachelor's degrees, due to the economic opportunities that exist within this field. Heightened competition among college graduates and business professionals to secure finance jobs at the most recognized organizations in the United States, has increased the demand in qualifications of individuals, these ranging from leadership capabilities, years of business and finance experience to education requirements. Finance students are taught about different corporate positions and the responsibilities that these entail. However, the path to become a CFO has become increasingly complex and does not come with a step by step manual, "the typical climb to the CFO position of a large company is no longer via the traditional ladder, one stair step at a time" (Deloitte, 2018). The Bureau of Labor Statistics (BLS) notes that the average job duration is 4.2 years and that the average baby boomer held 11.9 jobs from age 18 - 50, this means that there are many paths that will lead to an executive position within the finance field. However, are there specific trends when establishing this path such as; undergraduate education, graduate studies, certifications, prior jobs, tenure, and industry changes.

A CFOs responsibility revolves around the optimization of business operations and profitability of the business. Every decision and activity in a division; human resources, technology, strategy, etc. is measured in financials. CFOs must have a vision for the future and a

passion for always learning new things, “aspiring CFOs should either have or cultivate a passion for continuous learning” (Deloitte, 2018) in order to broaden their skill set of current and future technologies and innovations. In an article with retired Walmart CFO, Charles Holley, now independent senior advisor to Deloitte, he shares some attributes to be an effective CFO for the future generation. These all focus on developing effective tactical and soft skills that will aid in learning to be an effective leader. Some of these skills involve developing a strategic mindset, being approachable, focusing and investing in talented individuals, communicating effectively, a high level of integrity, and very importantly understanding the underlying principles of disciplines but not trying to be an expert.

In a study of the Fortune 100 CFOs by Russell Reynolds Associates, it was found that the majority of CFO appointments are internal hires as opposed to external. Oftentimes, external hires have previous experience as CFOs, knowledge of the industry, and have a vast amount of international experience. Internal hires often demonstrate a long tenure with their current organization and have served in divisional CFO roles and have held general management positions (Russell Reynolds, 2012). According to the same study, a popular qualification is a Master’s in Business Administration (MBA), with 54% of Fortune 100 CFOs holding an MBA. In studies analyzing CFO career paths by Deloitte, EY, Russell Reynolds Associates and others, there is little emphasis on the starting career paths of these individuals and instead focus on the demographics; gender, nationality, and age of these individuals. Furthermore, many use the last previously held position to identify the sorts of experience that is most commonly shared among CFOs.

The evolution in traditional responsibilities for this lucrative role require that students and recent graduates have skills and professional experience that might have not been needed in prior years. Recent graduates and students usually do not have much work experience in their field during their time as undergraduate students or right after graduation. There is intense competition for entry level finance jobs and in particular within the biggest and more recognized organizations. There is little guidance for people who are starting their careers, as the finance field is broad and there are many different technical experiences that are available when applying for jobs, such as; risk management, investments, M&A, auditing, among other practices. Undergraduate institutions provide a base knowledge of these practices but if a pattern among financial executive’s experience for a specific practice exists, it would be useful for institutions

to offer that knowledge to students aspiring for those roles. In an attempt to provide clarity in regard to this subject, for students, professionals looking to switch careers and advisors/mentors, the career paths of 100 CFOs have been analyzed to provide the most frequently identified roles, industries, and potential areas of experience needed to be prepared to assume and succeed in CFO executive positions.

Spencer Stuart - Profile of the Fortune 500 CFO 2017

In previous research, performed by search and leadership consulting firms on the Fortune 500, Fortune 100, FTSE 250 and FTSE 250 companies, the main focus relates directly to the CFO role and identifying specific technical and soft skills that offer insight into CFO hiring trends and any change in response to the demands of the role. Spencer Stuart's annual CFO index analyzed the background, tenure, and turnover of Fortune 500 companies for an 11-year period. In this research, it was found that 69% percent of 2016 CFOs were internal hires and in the 11 year period, 61% of the transitions went to internal candidates, "Companies with a bench of finance talent tend to develop their top performers by rotation through diverse finance assignments and board exposure" (Spencer Stuart, 2017). When organizations look outside for their next CFO, Spencer Stuart found that 65% of externally hired CFOs, compared with 25% of all CFOs, had prior public company CFO experience. Largely, organizations hiring externally are staying within their own industry. In this study, new CFOs tend to come to the role with more years of work experience, the average age of 2006 CFO was 46.2 years and in 2016 it was 50.7. Additionally, the most common primary disciplines where CFOs spent the longest amount of time in their careers was controllership, divisional finance, and treasury. In regard to demographics and diversity, women represent less than 13% of Fortune 500 CFOs, although still low, it has doubled from 6.8% in 2006, this has also proved to be true with the ethnic representation. The average CFO tenure has not changed very much over the years, in 2009 it was 5 years, in 2012 it was 6 years, and in 2016 it was 5.7 years, with the majority serving in the role for 2 to 5 years.

Spencer Stuart - CFO Route to the top 2015

In a Spencer Stuart report from September 2015, the backgrounds and demographics of CFOs in FTSE² 350 companies were analyzed, with the goal of offering insight into CFO hiring trends. In 2015, their findings showed that organizations are still more likely to hire traditional candidates, “this year’s data shows that when hiring a CFO to sit on the main board, the nomination committees of public companies remain conservative and are generally reluctant to hire promising, unconventional candidates” (Spencer Stuart, 2015). In the FTSE 350 only 8% of CFOs are women and only 16% are non-UK nationals. FTSE 100 companies tend to promote more of their CFOs internally. However, it is noted that FTSE 250 companies tend to have smaller finance departments providing fewer opportunities to gain more rounded skills and being promoted internally. Similarly to the Spencer Stuart report on the Fortune 500 companies, it was found that FTSE companies prefer an external hire with experience in the same industry. These two indexes hire externally at higher rates than the Fortune lists. Divisional experience composed one of the biggest primary disciplines along with main board CFI, and non-finance, with very few having investor relations roles. Tenure for both FTSE 100 and FTSE 250 is similar to Fortune analysis, with 4.7 years and 5.8 years respectively. Additionally, FTSE company CFOs tend to have younger executives, with the average for both indexes ranging from 42 to 48. In the FTSE 250 it is more common for organizations not to have a CFO position and instead having asset managers and trusts.

Russell Reynolds - Where Do CFOs Come From?

Russell Reynolds associates found that 69% of CFOs were promoted internally, while 31% were recruited externally based on analysis of Fortune 100 CFOs. Similarly to previous research cited, external hires are more likely to have held a top CFO role or a divisional management role for their previous employer. This study also found that nearly half of the external hires have held international positions as opposed to their internal counterparts. As opposed to Spencer Stuart, Russell Reynolds found that 70% of internally promoted CFOs had at

² Financial Times Stock Exchange; a share index of the 100, 250, 350 companies listed on the London Stock Exchange with highest market capitalization.

least 11 years of tenure with the organization, and more than 41% had over 20 years of tenure, prior to becoming CFO. Previous industry experience is one of the biggest components for external hires citing, “Two-thirds report that at least one of their previous three employers operated in an industry similar (or identical) to the industry of their new employer” (Russell Reynolds, 2012). In the route to becoming a CFO, some of the most common jobs are divisional CFO role, corporate accounting roles, and general management experience. Following are a mix of finance roles that are broadly typical among Fortune 100 CFOs; “Treasury (36% of F100 CFOs), senior corporate finance (32%), divisional/regional controller (32%) and strategy/corporate development (31%) experiences round out the most frequent roles across F100 CFOs. Corporate audit (9%), investor relations (8%) and corporate tax (6%) experience are decidedly less prevalent” (Russell Reynolds 2012).

Current Study

This thesis serves as an analysis composed of primary and secondary research with the purpose of identifying trends in the career paths of current CFOs, through the analysis of their personal educational background and career paths. This analysis focuses on the executive careers of some of the largest United States company CFOs and will allow for a greater understanding of their professional journey. The analysis will help draw a conclusion of whether these paths are changing with newer generations of financial executives or if there are specific knowledge areas students and other professionals should focus on. A database was created to collect educational history and previous work experience data for Fortune 500 CFOs. This study will help uncover the trends of current financial executives and offer clarity for future aspiring executives who are beginning their career by identifying trends and common characteristics in work and educational experiences among financial executives that allowed them to reach that position.

Methodology

Research Question and Approach

This research uses a data and analysis theory approach to answer the following question: **Are there any patterns in the educational background, experience, or career history of chief financial officers?** This design involves secondary research to identify prior research

performed on the subject by business journals and other industry/business professionals. This research was then used to shape the primary research structure which consists of an excel CFO database and to shape the research question.

A database was created to compile information about the 106 CFOs selected through the use of the 64th list of Fortune 500 companies³ with the addition of 6 previous CFOs (see controlled section). The Fortune 500 companies are ranked by total revenue and include private and public companies who file financial statements with a government agency. For the purpose of this study, only CFOs at public companies were mapped as verified by the S&P 500 index⁴. Information was collected through the use of company leadership information website and Bloomberg executive profiles, to encompass their name, age, gender, company, industry, years in CFO role, tenure years, prior roles within the company, other work experience, first work experience (title, when available), international experience, board experience, undergraduate and graduate institution, undergraduate and/or graduate studies focus, and special certifications such as CPA or CFA.

I. Controlled

- ❖ Only public companies that were simultaneously on the Fortune 500 list and the S&P index were used
- ❖ During the research period, February - April 2019, there was a significant amount of turnover in CFO positions occurring. There were a few CFOs retiring and others taking the role very soon, within those months or in the near future, as well as companies currently having interim CFOs. For the simplicity of all of this information, interim CFOs were not included due to the non-permanence of their position and instead the most recent CFO was mapped.
- ❖ With announced CFOs who had recently taken the role, February - April, the previous CFO was mapped as well as the newly appointed CFO. For CFOs who were assuming the position in the month of May, both the previous and future CFO were mapped. There

³ Fortune 500 companies list represent two thirds of the U.S. GDP. Companies are ranked by total revenues for their respective fiscal years. This list includes companies incorporated in the U.S. and operate in the U.S. and file financial statements with a government agency. This includes private companies and cooperatives that file a 10-K or comparable financial statement with a government agency.

⁴ American stock market index based on the market capitalization of 500 large companies having common stock listed on the NYSE, NASDAQ, or the Cboe BZX Exchange.

were a couple public companies that were excluded from the research because they were currently looking for a CFO and their most recent CFO had just assumed the role at a company that had already been mapped.

- ❖ Some of the joined company months were unavailable e.g. joined in 2019, for the purpose of calculating tenure with their company the month of January was used to provide a full date (01/01/XX). The joined information that possessed a month and year was also altered to begin the 1st day of the month e.g. (04/01/XX). Consequently, the tenure dates might not be accurate to the day or month.
- ❖ Oracle does not have a CFO position as of 2014 but the previous CFO is now the CEO and continues to perform the role of CFO without the title designation.

II. Limitations

- ❖ Due to the nature of the research, some of the information was not available to collect, such as some of the executives ages, date when they joined the company, previous work experience, years they held previous roles, first job, undergraduate/graduate institution, or undergraduate/graduate studies.
- ❖ Sample size of this study only accounts of 1/5 of the CFOs available in the S&P 500 index and an even smaller portion of total CFOs in the United States and the World.
- ❖ Access to previous research on the topic and their methodology in order to compare the components they analyzed and drew research from.

III. Assumptions

- ❖ All of the CFOs analyzed are successful and have not had any scandals.
- ❖ All got there through their merits, experience, and educational background.
- ❖ Using male and female genders to illustrate the difference in diversity of men and women.

Results and Discussion

Through the analysis of the professional backgrounds of 106 CFOs who work in public companies of the Fortune 500, detailed knowledge of educational and career paths has been

found, offering a useful perspective for those entering undergraduate studies and recent college graduates.

Undergraduate Education

In literary research, an emphasis was placed on the changing world of business and the qualifications professionals must have in order to effectively compete. A couple sources mentioned the diversification of traditional

business roles such as those in the finance and accounting fields by looking for individuals who have not been in finance or accounting fields their entire professional careers, such as nursing and more creative disciplines like marketing (Ferling, 1995). The education component of the database served to illustrate the most common undergraduate areas of study of those holding CFO positions. Although a call for skill diversification has been cited in other sources, figure 1, shows that 79.8% of CFOs⁵ hold undergraduate degrees in accounting, business administration, economics, and finance. While 18.09% hold degrees in other STEM fields and 2.13% hold degrees in social sciences.

⁵ Out of 106, undergraduate information was gathered for 94 CFOs.

Advanced Education

Figure 2: Advanced Education

It was found that the most common advanced education among CFOs is a Master's in Business Administration (MBA), with more than 50% of 106 CFOs having one. In figure 2, the percentage of MBA degrees has been split to show the amount of specialized MBA degrees (17%), with half being in finance, a small percentage in accounting, marketing, and strategy. The remaining is composed of

different disciplines as can be seen in Figure 3. The large percentage under "none" includes those who did not receive an advanced degree, as well as those whose advanced education was not mentioned. However, based on the information that was gathered, there is a trend in those who received an MBA and a large percentage who also had a specialization.

Figure 3: MBA Specialization

Special Certifications

Certified Public Accountant (CPA) designation was found to be more common than Chartered Financial Analyst (CFA) among the CFOs analyzed. However, the vast majority of the CFOs did not have one or it was not mentioned in the sources from which the data was collected.

Tenure

The average tenure for all industries is 17.7 years. Displayed in figure 5 are the overall primary industry tenures. Utility and energy industries tend to have the highest tenure. However, industrials, materials, financials, and consumer staples are not far behind. Information technology which encompasses computer software, systems software, IT consulting, technology hardware and others, has the lowest tenure with an average of 9.6 years. In the last two years (2017 - 2019), 42 out of 100 CFOs have assumed the role, with the highest number of recent hires being in the financial, health care, consumer staples, and industrials. Based on the information gathered it can be concluded that the majority of CFOs spend long periods of time with their companies in multiple other roles before attaining a CFO position.

Average years in position

Figure 6: Years in Position

The average time in the CFO position is 4.2 years for all industries. With the highest averages being in industrials, consumer staples, and discretionary staples. The lowest averages being in the materials and energy industries. The

materials average is extremely low due to the relatively short time since they reached the position. However, these CFOs have some of the highest company tenure of all CFOs mapped, the same appears to be true for the energy industry.

Internal vs External Hires

In the past 4 years, only 11% of CFO positions were filled by external hires, the remaining 89% were promotions to internal employees who had previously held a divisional CFO role or director of finance role. Out of those externally hired, 72% were hired immediately to the CFO role and the remaining held a different position for a short period of time (less than 2 years) before becoming CFO. Those externally hired with a tenure and years in position of less than 4 years, were hired in information technology, consumer discretionary, industrials, consumer staples, and financial industries. Only 2 of those externally hired were women and assumed CFO positions in communication services and consumer discretionary industries, the 2 industries where women are most represented.

Women Representation by Industry		
Industry	Second Industry	Count
Communication Services (10.5%)	Interactive Media & Services	1
	Movies and entertainment	1
Consumer Discretionary (31.6%)	Automobile Manufacturer	1
	Computer & Electronics retail	1
	Department Stores	1
	General Merchandise Stores	1
	Home Improvement Retail	1
	Hotels, Resorts, and Cruise Lines	1
Consumer Staples (5.3%)	Soft Drinks	1
Energy (5.3%)	Oil & Gas Refining & Marketing	1
Financials (10.5%)	Diversified Banks	2
Health Care (10.5%)	Biotechnology	1
	Health Care Services	1
Industrials (5.3%)	Industrial Conglomerates	1
Information Technology (15.8%)	Application Software	1
	Communications Equipment	1
	Systems Software	1
Materials (5.3%)	Specialty Chemicals	1
Total		19

Figure 7: Women Representation by Industry

Demographics

The average age of executives is 52.8, with the majority ranging from age 46 to age 52. Gender diversity in the 106 CFO positions analyzed was found to be nearly 17.9% women and 82.1% male, with 19 women and 87 males. In comparison, as of February 2019, the overall number of women in Fortune 500 companies, holding CFO positions was 64, an overall 12.8%

compared to 6.2% in 2006 (Spencer Stuart, 2017). The percentage of women CFOs in my study was higher than the overall Fortune 500, suggesting that a third of the overall women holding the executive positions work in the 100 highest revenue companies. In comparison, the women's average age (53.16) extremely close to the overall average of 52.83. The average tenure for women before becoming a CFO is 15.9 while the overall average is 17.8, almost a 2-year difference. An indicator that the women who have become CFOs have been promoted faster. The average years in CFO position is 3.9 for women and 4.2 for men, hinting at the fact that the number of women CFOs has been increasing recently.

Career Trends

Based on prior experience within their current company or most recent company, figure 6 shows the most common title elements of those in CFO positions. Vice president positions were among the most common past experience followed by senior vice president positions and a much smaller number of executive vice president positions. The hierarchy of the vice president positions is vice president (VP), senior (SVP), and then executive vice president (EVP). The executive vice president is most commonly seen as a compliment to the CFO positions as more

than 50% of current CFOs analyzed had a vice president position (EVP, SVP, or VP) along with their CFO role.

Figure 8: Role Elements

In appendix table 1, an overview of the first/oldest role is categorized and quantified based on how many times it was brought up. Those whose work history was not found were not included in the calculation. Those who had a double title were split and counted as two titles. The

information was then compiled into a table to show the most common categories when entering the job market. In this case, some of the most frequent were finance, accounting and auditing. Appendix table 2, shows the specific job titles within these categories and the number of times they were found, with a strong concentration in roles such as accountant, audit manager, auditor and controller.

Future Research

The current research did not investigate the backgrounds of interim CFOs but in the future, they could be compared to permanent CFOs to identify potential differences that mean they are interim and not permanent. Additionally, any further research could find the total number of interim CFOs who are later appointed to assume the permanent role. The limit on the information available for each executive made it difficult to find much early history for individuals, being able to obtain their earliest roles or positions would be extremely helpful for an even more in-depth analysis of their career paths. Additionally, another piece of information that could be further analyzed are the roles of each job title found. These could then be analyzed and evaluated to the educational curriculum taught at Portland State to identify potential gaps in education and skills most sought after for those early roles.

Conclusion

Based on the analysis of 106 Fortune 500 CFOs at public organizations, it can be established that there is a constant trend in their educational and professional background, with only a small percentage of outliers. In their educational background, 79.8% of CFOs hold undergraduate degrees in accounting, business administration, economics, and finance. The remaining percentage of degrees were conferred in STEM disciplines with only 2.13% of overall degrees being in the social sciences. In advanced education, more than 50% of CFOs held a Master's in Business Administration and an overall 17% had a specialization, most commonly in finance. The other common specializations were in accounting, strategy, and marketing. In special certifications, 25.5% hold a Certified Public Accountant (CPA) designation and only 3.8% hold a Chartered Financial Analyst (CFA) designation. The average tenure for all industries is 17.7 years, utility and energy industries tend to have the highest tenure. Information technology which encompasses computer software, systems software, IT consulting, technology hardware and others, has the lowest tenure with an average of 9.6 years.

There is a strong correlation of CFOs who followed either an accounting or finance path throughout their professional career before reaching the CFO position. The highest number of people had roles in accounting, finance, and auditing as their first jobs or oldest roles found, as can be seen in table 2. Similarly to the reports by Spencer Stuart and Russell Reynolds, the majority of CFOs had held a departmental head position, divisional CFO position, or other leadership/managerial positions before becoming a CFO. The number of women has increased steadily over the last 10 years as cited by Spencer Stuart, however there is still a long road until women are proportionately appointed to executive roles such as chief financial officer. Contrary to the initial thought that the educational and professional background of CFOs might be moving toward different disciplines, the analysis performed through the data collection of Fortune 500 CFOs at public companies, indicates that the role is dominated by the traditional disciples of accounting, economics, business administration, and finance with little influence of other disciplines.

Works Cited

- Adams, Renée B., et al. "STEM Parents and Women in Finance." *Financial Analysts Journal*, vol. 74, no. 2, 2018 2nd Quarter 2018, pp. 84–97.
- Adams, Renée B., and Tom Kirchmaier. "Women on Boards in Finance and STEM Industries." *American Economic Review*, vol. 106, no. 5, May 2016, pp. 277–281.
- Bloom, Robert. "Let's Combine the Accounting and Finance Majors." *Financial Executive*, vol. 29, no. 9, Nov. 2013, pp. 16–18.
- Coleman, Mimi, et al. "The New Scarlet Letter: Student Perceptions of the Accounting Profession After Enron." *Journal of Education for Business*, vol. 79, no. 3, Jan. 2004, pp. 134–141.
- Doody, Michael F. "Broader Range of Skills Distinguishes Successful CFOs." *Healthcare Financial Management*, Sept. 2000, p. 52. *Academic OneFile*.
- Dynan, Karen E., and Cecilia Elena Rouse. "The Underrepresentation of Women in Economics: A Study of Undergraduate Economics Students." *Journal of Economic Education*, vol. 28, no. 4, Fall 1997, pp. 350–368.
- Etsy, Daniel C., and Michelle L. Bell. "Business Leadership in Global Climate Change Responses." *American Journal of Public Health*, vol. 108, May 2018, pp. S80–S84.
- Ferling, Rhona L. "If You Want to Be Cfo, Here's Help." *Financial Executive*, vol. 11, no. 6, Nov. 1995, pp. 56–60.
- Graham, Lise, and Thomas M. Krueger. "What Does a Graduate Need? Conflicts in CFO and Student Opinions. (Cover Story)." *Financial Practice & Education*, vol. 6, no. 2, Fall/Winter 96 1996, pp. 60–67.
- Jha, Rajneesh Ranjan, et al., "Factors Influencing Finance as a Career Choice Among Business School Students in India: A Qualitative Study." *IUP Journal of Soft Skills*, vol. 7, no. 4, Dec. 2013, pp. 48–56.
- Krishnan, V.Sivarama, et al., "Teaching the Introductory Finance Course: What Can We Learn from Student Perceptions and Expectations?" *Financial Practice & Education*, vol. 9, no. 1, Spring/Summer99 1999, pp. 70–82.
- McFall, Linda Wilburn, "The Career Paths of Chief Financial Officers in Higher Education" (1999). *Dissertation Archive*. 2290.

- Holley, Charles, and Charles Holley. "CFO Insights: Lessons for the Next Generation." *Deloitte United States*, Deloitte., 27 Sept. 2018,
- Percy, Sally. *Reach the Top in Finance: The Ambitious Accountants Guide to Career Success*. Bloomsbury Business, an Imprint of Bloomsbury Publishing Plc, 2017.
- "Profile of the Fortune 500 CFO - Today and in the Future." *Spencer Stuart*, Spencer Stuart, June 2017.
- Reporting, EY. "Why Ranganath D. Mavinakere Is a 360-Degree CFO." *EY Reporting*, EY, 1 Oct. 2017.
- Scanlan L. "So You Want to Be a CFO?" *Hfm (Healthcare Financial Management)*, vol. 58, no. 5, May 2004, pp. 70–76.
- United States, Congress, National Center for Education Statistics. "Digest of Education Statistics." *Digest of Education Statistics*, US Department of Education, 2018. *NCES 2017 - 094*.
- "Where Do CFOs Come From?" *Russell Reynolds Associates*, Russell Reynolds, 2012.
- Worthington, Andrew C., and Helen Higgs. "Factors Explaining the Choice of a Finance Major: The Role of Students' Characteristics, Personality and Perceptions of the Profession." *Accounting Education*, vol. 12, no. 3, Sept. 2003, pp. 261–281.
- Young, Tammy. "Nurse CFO? Count Me In." *Modern Healthcare*, vol. 35, no. 18, May 2005, p. 28.

Appendix

Table 1: Category Overview

Category	Total
Accounting	11
Actuarial Science	1
Analyst	5
Assistant	1
Associate	1
Audit	12
Banking	3
Chief accounting officer	1
Chief executive officer	1
Chief financial officer	6
Chief operating officer	1
Clerk	1
Consulting	4
Controller	9
Corporate Finance	3
Development	1
Finance	13
Financial Planning	6
Insurance	1
Internship	2
Investments	8
Law	1
Management	3
Mergers and Acquisitions	1
Operations	3
Other	3
Private Equity	1
Sales	1
Treasury	4
Underwriting	1
Vice President	6

Table 2: Category Detail

Category	Title	Total
Accounting	Accountant	4
	Accountant - Public	2
	Accountant - Senior	1
	Assistant - Accounting manager	1
	CPA	3
Actuarial Science	Actuary	1
Analyst	Analyst and associate	1
	Financial Analyst	2
	Financial analyst - Senior	1
	Systems analyst	1
Assistant	Financial Assistant	1
Associate	Associate	1
Audit	Audit manager	5
	Auditor	6
	Auditor - Staff	1
Banking	Director - Banking	1
	Executive - Banking	1
	Senior banker division	1
Chief officer	Chief accounting officer	1
	CEO	1
	CFO	4
	CFO division	2
	Chief operating officer	1
Clerk	Clerk	1
Consulting	Consultant	4
Controller	Controller	6
	Controller - Corporate	2
	Controller - Plant	1
Corporate Finance	Director - Corporate finance	1
	VP of corporate development	1
	VP of corporate finance	1
Finance	Finance	4
	Finance Manager	1
	Financial officer division	1
	Financial Services - Public and private	1
	Personal credit card business	1
	VP of finance	4
	VP of structuring	1

Financial Planning	Director - Finance and planning	1
	Director - Financial management	1
	Financial planning	1
	FP & Analysis	1
	Strategic planning	1
	VP business planning and development	1
Insurance	Group insurance and health care	1
Internship	Internship	2
Investments	Investment banking	4
	Investor relations	2
	VP investor relations	2
Law	Law	1
Management	Management	2
	Managing director	1
Mergers and Acquisitions	M&A	1
Operations	Assistant - Product manager	1
	Finance - Operating roles	1
	Operations engineer	1
Other	Flight test coordinator	1
	Naval flight officer	1
	Staff drilling engineer	1
Private Equity	Associate - Private Equity	1
Sales	VP of regional sales	1
Treasury	Assistant - Treasurer	2
	Treasurer	1
	Treasury	1
Underwriting	Underwriting	1
Vice President	EVP	2
	Senior VP	2
	Vice President	2