

Labor Economics Analysis Between Financial Managers and Survey Researchers

University of California, Merced

Econ 140 – Labor Economics

Spring 2025

Introduction

Financial Managers and Survey Researchers are two careers that play an important role in shaping the economy. Financial Managers handle an organization's financial well-being by creating strategies, preparing reports, and ensuring profitability. Survey Researchers, on the other hand, design and conduct surveys to collect data on public opinions, behaviors, and trends. Studying labor market trends for these occupations is vital for anticipating changes in employment, wages, education requirements, and workforce composition. This analysis provides insight for students choosing career paths, employers navigating talent needs, and policymakers shaping workforce development strategies. Key economic factors such as supply and demand, technological innovation, policy changes, and gender wage dynamics significantly impact both fields. Understanding how these forces interact with job growth, educational attainment, and wage trends helps stakeholders make informed decisions in an evolving labor market.

Data and Methodology

The data collection process was relatively the same when using the Integrated Public Use Microdata Series (IPUMS) database, regardless of whether it is IPUMS-USA or IPUMS-CPS. We utilized two primary sources: IPUMS and ONET. To obtain data from IPUMS-USA, we first created an IPUMS account and navigated to the "Select Data" section. We selected the samples corresponding to the years relevant to our research, specifically the American Community Survey (ACS) data from 2005 to 2023. We then selected the variables of interest and ensured the selected data file format was .dta for compatibility with STATA, the data analysis software. Once all selections were finalized, we submitted the data extraction request. The data extraction process from IPUMS-CPS closely mirrored that of IPUMS-USA. After logging into our IPUMS account and accessing the "Select Data" section, we chose the CPS samples for the years 1990, 2000, 2005, 2010, 2015, 2020, and 2023. After identifying the appropriate sample years, we selected the relevant variables and submitted the .dta file extraction request. Unlike the IPUMS datasets, data from ONET was retrieved directly from the official ONET website. Using the Occupational Keyword Search tool, we searched our occupations: Financial Manager and Survey Researcher.

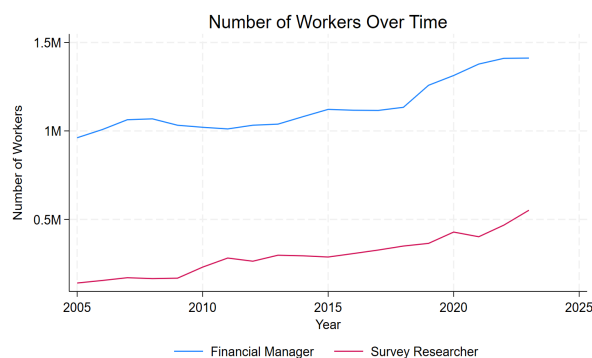
The approach to data processing and cleaning varied depending on the dataset and the specific analytical objectives. Nonetheless, an initial standard cleaning procedure was applied across all datasets following importation into STATA. We removed unrelated variables and observations, retaining only those relevant to the occupations under study and the variables of interest, namely: age, incwage (income from wages), empstat (employment status), statefip (state identifier), occu1990 (occupation code), years of education, and gender. To ensure the dataset accurately reflected the working population, we excluded observations with missing values, those reporting no wage income, and individuals younger than 18 or older than 65. In addition to filtering variables, we generated new variables to better align with our research objectives. For example, we created a binary gender variable to simplify filtering and facilitate clearer analysis. We also utilized STATA's collapse function to aggregate data, calculating mean values where necessary, to analyze occupational trends and visualize the data through graphs.

Graphical Analysis and Discussion

Graphical Introduction

Data visualization through line graphs provides valuable insights into trends over time, allowing us to observe patterns, differences, and fluctuations in key variables. In this analysis, we will examine five line graphs that depict various aspects of the labor market for financial managers and survey researchers from 2005 to 2025. These graphs include: "Wages Over Time," "Average Age Over Time," "Average Years of Education Over Time," "Gender Composition Over Time," "Number of Workers Over Time," "Gender Wage Gap," and "Income Ratios." By analyzing these visual representations, we can understand the trends and implications in these two occupations, which are essential to the economy and research sectors.

Number of Workers



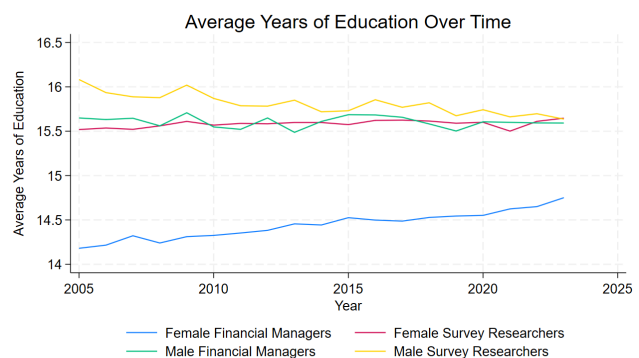
The graph, "Number of Workers Over Time," measures the workforce size for financial managers and survey researchers. The y-axis ranges from 0 to 1.5 million workers. The red line, representing survey researchers, started

with 0.1 million workers in 2005, increasing gradually to 0.4 million by 2020. Meanwhile, financial managers had a much larger workforce, beginning at 0.9 million in 2005 and growing to 1.3 million in 2020. The significant increase in the number of financial managers can be attributed to the expansion of the global economy and the increasing complexity of financial management. As organizations face more globalized markets, regulations, and financial products, the need for skilled financial professionals has risen dramatically. In contrast, survey researchers have seen more moderate growth due to automation in survey design and analysis, which reduces the demand for traditional research roles.

Average Years of Education

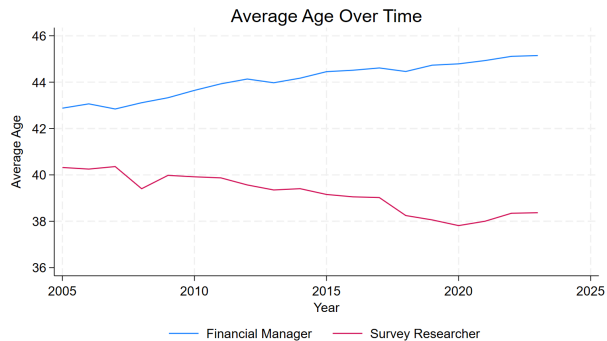
The graph, "Average Years of Education Over Time," presents trends in educational attainment for both occupations. The y-axis measures average years of education, ranging from 14 to 16.5 years. Financial managers generally have strong academic backgrounds in finance, economics, and business administration. They often hold bachelor's

degrees in finance, accounting, or economics, with many pursuing master's degrees, particularly MBAs, to advance in their careers. Survey researchers, on the other hand, typically hold degrees in fields such as sociology, psychology, or statistics, focusing on research methodologies, data collection, and statistical analysis. The finance industry has long been male-dominated, with established professional networks that have favored men for leadership and mentorship opportunities. As a result, women may have had to rely more on work experience rather than formal education to advance into management roles. The educational gap between female and male financial managers has decreased over the last 20 years due to greater access to higher education for women, increased encouragement for women to pursue finance-related degrees, and efforts to promote workplace diversity. However, this is unfortunately just one example of many kinds of gender discrimination.



Average Age

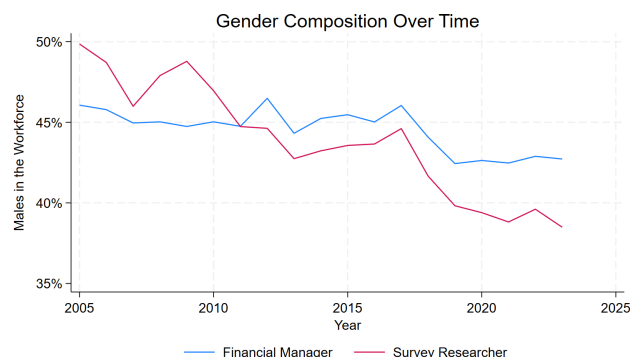
The graph, "Average Age Over Time," illustrates the changes in the average age of workers in these two occupations. The y-axis ranges from 36 to 46 years, with financial



managers again represented by a blue line and survey researchers by a red line. Financial managers, as mentioned, are generally more experienced professionals who oversee complex financial operations and are often in senior roles. In 2005, the average age of financial managers was 43 years, increasing steadily to 45 years by 2020. This gradual

aging can be attributed to the fact that financial management is a profession that typically requires years of experience to attain leadership positions. Conversely, survey researchers started with an average age of 40 years in 2005, but their average age declined over time, reaching 38 years in 2020. This shift suggests that younger individuals may be entering the field in greater numbers, likely driven by the appeal of new technologies in data collection and analysis. As the tools and methods for conducting surveys become more automated, individuals with strong technical skills may be entering the profession at a younger age, pushing the overall average age down.

Gender Composition



The graph, "Gender Composition Over Time," examines the percentage of males in the workforce for each occupation. Historically, financial management has been a male-dominated field, with more men than

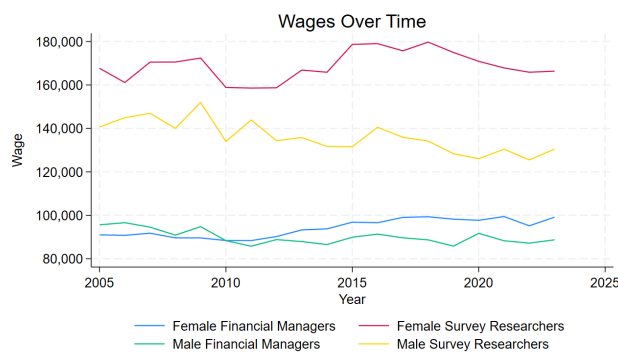
women holding positions in the industry. However, efforts to increase diversity and gender equality in the workplace have led to a

shift in this dynamic. Survey researchers, on the other hand, have traditionally had higher female representation due to the profession's focus on social sciences and research, areas that have been

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more popular with women. In 2005, survey researchers had 50% male representation, but this percentage steadily declined to 39% by 2020. Financial managers had a slightly lower initial male representation at 46%, which fluctuated slightly over the years, and ended at 43% in 2020. This data suggests that both occupations have seen a decline in male representation, though survey researchers have experienced a sharper drop in male workforce participation. Several factors could explain this trend, including changes in societal attitudes toward gender roles, greater efforts to promote gender equality in both professions and the increasing appeal of research-based work to women.

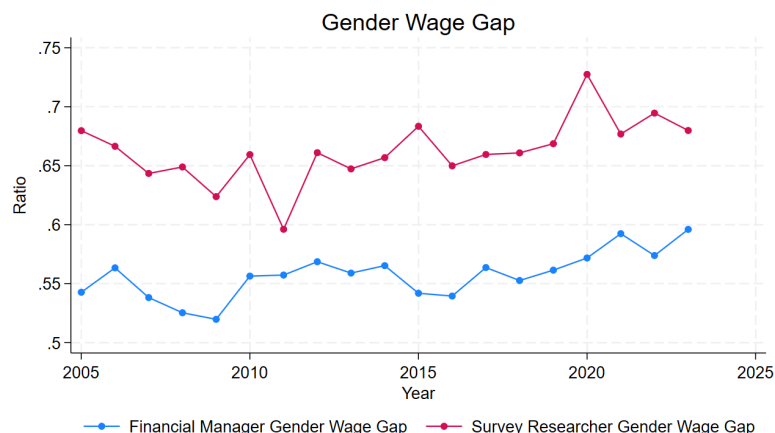
Wages



The first graph, "Wages Over Time," tracks the earnings of financial managers and survey researchers. Financial managers are typically employed in large corporations, government agencies, and non-profit organizations, where their expertise is crucial in handling everything from day-to-day accounting to long-term financial strategies. In general,

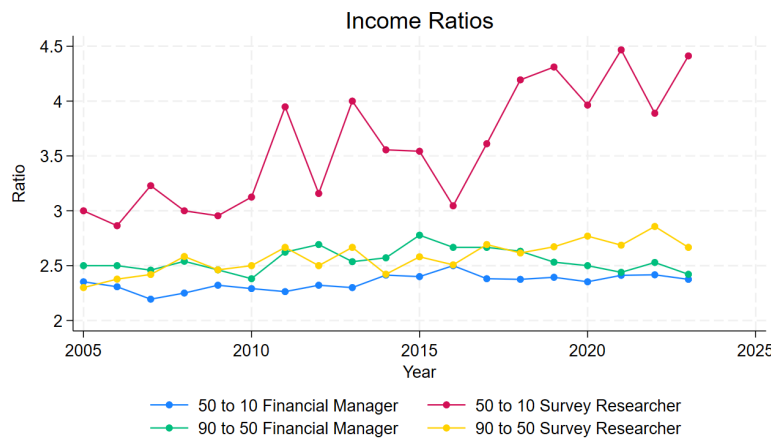
financial management is often considered a higher-paying profession due to its direct impact on an organization's profitability and long-term success. The gap between survey researchers and financial managers is a direct reflection of this. Additionally, there is also a gender wage gap for financial managers. From 2005 to 2010, there was about a \$15,000 wage difference between male and female financial managers. This is a wage gap that has only increased over time.

Income Ratio and Gender Wage Gap



Survey Researchers consistently exhibit a smaller gender wage gap than Financial Managers throughout the time period. The ratio generally ranged from 0.60 and 0.73, with some fluctuations.

Notably, there is a slight dip around 2011, but the ratio recovers and peaks around 0.73 in 2020, suggesting that women in this profession were earning about 73% of what men earned. This

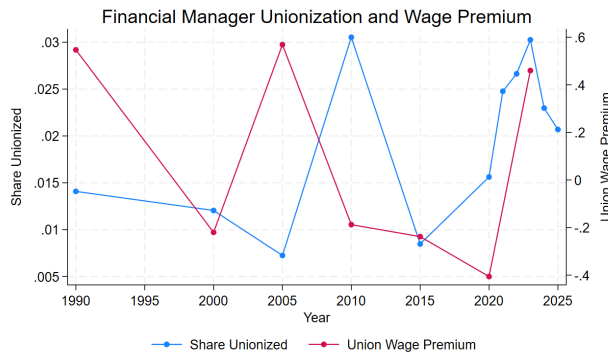


overall trend indicates modest progress toward gender wage parity in this profession. As for Financial managers, the wage gap is more pronounced. The ratio started at around 0.54 in 2005 and remains relatively stable with a slight increase over time. Finally reaching approximately 0.59 in

2024, suggesting that although there have been small improvements, women in finance continue to earn less than men. In 2015, the wage ratio for women to men among Survey Researchers was approximately 0.68, meaning that women earned about 68% of what men earned on average in this profession. While this gap is significant, it is less severe compared to Financial Managers, where the ratio was closer to 0.54. This indicates that women in financial roles were earning only 54% of the average male income, reflecting a much wider gender wage gap. When looking at contributing factors to this gap, age—and by extension, work experience—may help explain part of the difference. Based on previous summary statistics, the average age of men in 2015 was around 45, with an average income of \$100,000, while women averaged 38 years old and earned about \$70,000. This seven-year age difference suggests that men may have had more years in the workforce, which could contribute to higher earnings through greater experience. Overall age appears to be a significant factor in wage differences across both occupations. Survey Researchers tend to be younger, with an average of 39, while Financial Managers have a higher average age of around 44. This age gap may reflect the differences in career stages, level of experience, or time spent in the workforce, all of which can influence earning potential. The older average age among Financial Managers could help explain the generally higher wages seen in that field, though it is important to recognize that age alone does not account for the persistent gender wage gaps observed in either profession.

Occupational Comparisons

Unionization

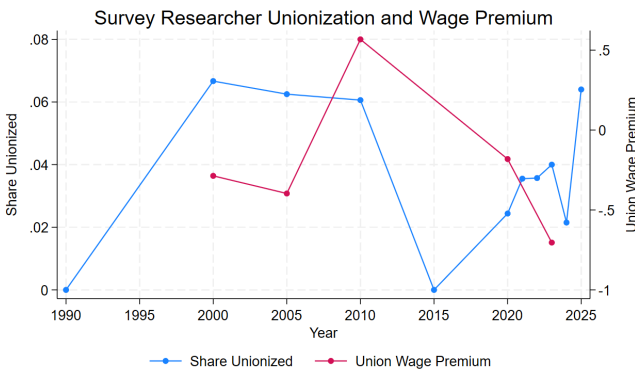


The first graph on Survey Researchers shows an increase in unionization from 1990 to around 2010, followed by a steep decline and a recent increase within the last few years.

This mirrors the national trend of fluctuating union membership aimed at changing labor dynamics. The union wage premium for survey researchers peaked around 2010 but

has since turned negative, this could reflect the challenges unions face in negotiating higher wages in sectors with high turnover and smaller establishments as stated in Greg Rosalsky's NPR article "You May Have Heard of the "Union Boom." The Numbers Tell a Different Story.", The NPR article highlights that while there has been an increase in union activity in certain sectors, the overall union membership rate has increased while the premium remains negative, suggesting

unions may not be yielding higher wages.



The graph on Financial Managers shows constantly low unionization rates, followed by some fluctuation over the years. Unlike Survey Researchers, this graph shows an incredibly unclear trend when it comes to union wage premiums, as it continues to increase and decrease throughout the years. (This instability may be due to the

individualized nature of union negotiations in the US, which can lead to inconsistent outcomes across different establishments.) The NPR article notes that the most unionized sectors, such as manufacturing and construction, are shrinking as a share of the workforce, while sectors like finance remain less unionized. This aligns with the persistently low unionization rates, as we observed.

Supply and Demand

Financial Managers and survey researchers experience different trends in wages and employment changes due to shifts in supply and demand. Understanding these changes in supply and demand shows why certain occupations grow faster than others and how factors like gender, age, and education influence these trends. Financial managers typically earn higher salaries compared to survey researchers. According to labor market data, the median annual wage for financial managers is higher. This wage gap exists because financial managers play an important role in maintaining a company's profitability and compliance with financial regulations. Their responsibilities include risk management, investment decisions, and financial planning, making them valuable assets to businesses. Survey researchers, on the other hand, earn lower salaries on average because their job market is more specialized and dependent on funding from businesses, government agencies, and academic institutions. Employment growth in this field is slower, as companies increasingly rely on automated data collection tools and artificial intelligence (AI) to conduct surveys and analyze data. In terms of employment changes, financial managers have seen a steady increase in demand due to economic growth and the need for skilled professionals to navigate financial complexities. The expansion of industries like banking, investment management, and corporate finance has led to more job opportunities. Survey researchers, however, have experienced shifts in job growth. While demand remains for data-driven decision making, automation and big data analytics have reduced the need for traditional survey research roles.

The changes in wages and employment in both occupations are mainly driven by demand rather than supply. For financial managers, the demand for their expertise has grown due to an increasingly complex financial landscape. Companies need professionals who can manage investments, financial risks, and regulatory compliance, leading to a rise in job opportunities and wages. The supply of financial managers has not kept pace with demand, resulting in competitive salaries and job instability. For survey researchers, the demand for traditional survey methods has decreased due to tech advancements. Automated data collection, machine learning, and alternative data sources have reduced reliance on survey research. This shift has led to slower wage growth and fewer job opportunities. However, survey researchers who adapt to new data analysis methods and digital tools can still find employment in emerging areas of research and analytics.

Autor and Dorn Model

According to the classification by Autor and Dorn, Survey Researchers and Financial Managers may fall into the category of being high-skilled with non-routine cognitive skills. Survey Researchers require advanced analytical skills, critical thinking, and the ability to design and interpret complex surveys that are not easily automated or routinized. The O*NET OnLine list also shows essential skills such as data analysis, research design, and communication, indicating the need for a strong reliance on abstract reasoning and judgment. The increasing importance of data-driven decision making in both public and private sectors has made their role more central and less susceptible to automation. As for Financial Managers, their work requires interpreting complex financial data, making strategic investment decisions, and managing organizational finances, all tasks that involve abstract problem-solving and long-term planning. With some emphasized skills such as critical thinking, complete problem solving, and systems evaluation, which are tasks that are not routine and resistant to automation. Unlike middle skill level jobs that are more susceptible to computerization, financial management demands flexibility and decision making in uncertain situations, placing its classification as a high-skilled occupation.

German Style Wage Determination

If survey researchers and financial managers operated under a German-style labor management system, which emphasizes codetermination and sector bargaining, their work environments would be rationally different. In Germany, employee representation is institutionalized through works councils and union involvement at the company and industry levels, fostering collaboration rather than conflict. In the case of Survey Researchers, greater worker voice could lead to more stable employment and stronger wage protection. A works council could advocate for fair scheduling and improved research conditions, addressing the volatility often found in research-based roles. However, the administration burden of codetermination may slow down innovation and responsiveness in fast-paced research settings. For Financial Managers, sectoral bargaining could reduce wage inequality and ensure consistent standards across the industry. Collaborative decision-making could enhance morale and long-term strategic planning. However, the downside to this might be a reduction in managerial autonomy and flexibility, especially in a field that often rewards people based on performance

and rapid adaptation to market shifts. According to the German Model of Industrial Relations, this system promotes social peace and economic resilience but requires trust, legal infrastructure, and strong unions, which aren't always present in the US workforce. Therefore, while German-style relations might improve job quality, they may also pose challenges to adaptability and competitiveness in these fields.

Conclusion

This analysis of financial managers and survey researchers reveals how labor market trends are shaped by education, age, gender dynamics, income disparities, and broader economic forces such as technology and policy. Financial managers have seen consistent growth in employment and wages, driven by increasing global financial complexity and demand for strategic planning. In contrast, survey researchers have experienced slower growth, impacted by automation and evolving data collection methods. Both occupations show persistent gender wage gaps, with financial management displaying a wider disparity. Looking ahead, financial managers are likely to remain in high demand, especially those skilled in financial technology and data analytics. Survey researchers may face more pressure to adapt, but those who can leverage new tools and specialize in high-demand areas will continue to find opportunities. As automation reshapes work and policies evolve, both professions will require adaptability, continuous learning, and a focus on equitable workplace practices to thrive in the future economy.

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