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**Understanding the Linkages Between Precarious Working Conditions, Financial
Security and Financial Wellbeing**

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Sacha Louisa Welch

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Abstract

Precarious Working Conditions, characterised by their insecure and unstable nature, have consistently been found to negatively impact one's Wellbeing. However, their relationship to Financial Wellbeing remains unexplored. This study developed a model which explored the links between Objective and Subjective Working Conditions, Financial Security and Financial Wellbeing within an Aotearoa New Zealand context. Participants (N = 90) completed an online questionnaire assessing each construct. Based on the emerging nature of Financial Wellbeing research, an Exploratory Factor Analysis was conducted on existing measures. This identified two distinct factors: Making Ends Meet and Comfort. Path analyses using linear and non-linear regression revealed that Financial Security fully mediated the link to Financial Wellbeing 'Making Ends Meet' and partially mediated the link between Subjective Working Conditions and Financial Wellbeing 'Comfort'. The findings extend upon the growing literature on employment precarity and financial vulnerability. They demonstrate that the perceived inadequacy of financial resources from one's employment significantly undermines an individual's sense of Financial Security. This constrains both their capacity to meet immediate and ongoing financial obligations and their capacity to plan. The results offer timely insights into the financial consequences of Precarious Work, with implications for labour policy in increasingly volatile employment landscapes.

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Chapter 1 – Introduction

Since the advent of the Washington Consensus which gave birth to a neoliberal work agenda in the 1980s, labour market policies have arguably been shifting in a way that has made working conditions less and less decent for most workers (van der Hoeven, 2000). With this shift in the labour market, accessing stable and secure employment has become increasingly difficult for most people (Allan et al., 2021). Many employers adopt a dual labour market approach, under which core employees are permanently employed (Seo, 2021). However, the remainder of employees are hired under ‘flexible work contracts’, otherwise identified as non-permanent, cheap, and easily disposable labour. Poor working conditions like these, including for example irregular hours and poor pay, are often incurred at the expense of employee Wellbeing (International Labour Organization (ILO), 2011). One such aspect of Wellbeing that has come into sharp relief recently, as a result of the COVID-19 pandemic, is Financial Wellbeing. Relatively unexplored as a research topic, this thesis explores potential links between objective work conditions, their subjective interpretation, their links with overall sense of Financial Security, and the ways in which all of the above link to Financial Wellbeing.

A theoretical model which has been developed for this thesis can be seen in Figure 1. The criterion variable is Financial Wellbeing and is a relatively new construct in the research literature. In everyday life, it is akin to feeling free from money worries, after appraising one’s resources and means (Financial Security and Subjective Work Conditions). Due to the events of the COVID-19 pandemic, finding and conducting new research within this area has become increasingly relevant. For example, the COVID-19 pandemic had a substantial effect on the global economy and its labour markets, with an

increase in the number of financial shocks one experienced, including businesses shutting down and sudden losses (Naseer et al., 2023; Olufadewa et al., 2021). Hence, the model in Figure 1 is both tentative and exploratory in understanding how such variables of Objective Work Conditions, Subjective Work Conditions and Financial Security may be linked to Financial Wellbeing; a critical analysis of the current literature and research will now be conducted.

Critical Literature Review

Financial Wellbeing

The focal construct of Financial Wellbeing, as seen in Figure 1, is a domain of general Wellbeing which encompasses happiness, comfort, and satisfaction with one's financial circumstances (Vlaev & Elliot, 2014). It is focally associated with an individual's self-appraised feelings of freedom from financial worry or stress (Salignac et al., 2020). In that sense, according to Sabri et al. (2019), Financial Wellbeing entails one's felt ability to (a) meet ongoing financial commitments, (b) maintain a sense of Financial Security to ensure resilience for the future, and to (c) make free choices which bring enjoyment to everyday life.

An illustrative study which identifies the importance of Financial Wellbeing (as seen in Figure 1) for general subjective Wellbeing was conducted by Vlaev and Elliot (2014). In their UK-based study, Financial Wellbeing outcomes were driven by an overall "sense of financial control" of one's money. Additionally, Financial Wellbeing outcomes "financial satisfaction" were linked to experiencing a decent "quality of life" (Vlaev & Elliot, 2014). However, little research has been conducted on the predictors of Financial Wellbeing, especially so in the context of employment. Thus, the construct of

Financial Wellbeing has been incorporated into the model in Figure 1, with potential predictors that include conditions of work.

Working Conditions

Working conditions are representative of the contractual and environmental demands and characteristics of one's employment (Fried & Ferris, 1987). Research has consistently shown that working conditions are significantly linked to an employee's personal and work-based outcomes (Wall et al., 1978). For example, through interviews and survey responses, Ravalier et al. (2020) found employee Wellbeing for UK-based social workers was much lower when exposed to poor working conditions. The poor conditions were linked to high work demands (e.g., long hours and dealing with verbally abusive clients), low levels of control, little to no change of working conditions, negative managerial relationships, and limited peer support. The findings from this study reinforce previous findings of poor working conditions negatively impacting employee Wellbeing (Allan et al., 2021). However, few studies have assessed the link between working conditions and Wellbeing in the context of income. In particular, how these components link to the recent construct of Financial Wellbeing.

With the continual shift in labour-market flexibility and the associated policy changes, we see an increase in non-standard working arrangements (e.g., part-time, fixed-term, contractor) (Kalleberg & Vallas, 2018). This form of employment is frequently referred to as 'Precarious Work'. It is operationalised as (a) insecurity in the continuity of work (job insecurity), (b) limited control and power within the workplace, (c) economic insecurity through limited income or limited access to benefits, and (d) reduced social protections and rights (Allan et al., 2021; Kalleberg, 2009). Though Precarious Work has emerged as an impactful employment arrangement that broadly

affects employee Wellbeing, further investigation is required to understand its link to Financial Wellbeing outcomes and address its unique challenges. Accordingly, the current model (Figure 1) has incorporated Objective and Subjective Working Conditions, specifically capturing the working conditions of those under Precarious Work contracts (any form of non-permanent full-time work).

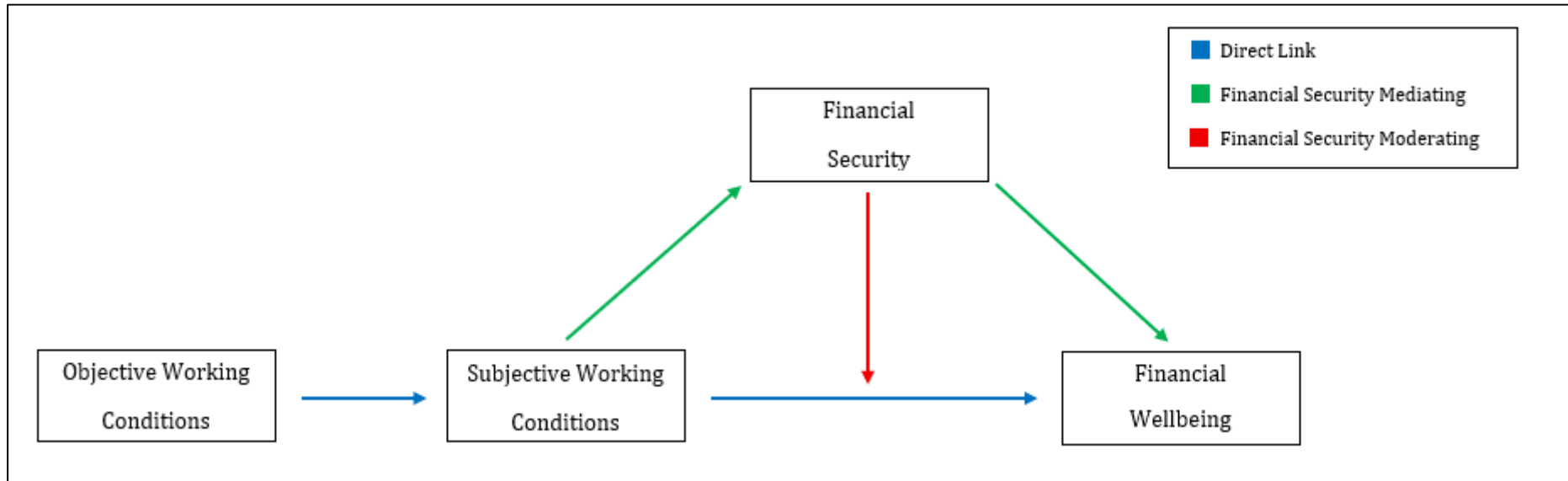
Objective Working Conditions and Precarious Work

Objective Working Conditions refers to the factual, quantifiable, and unbiased conditions of one's employment circumstances (Eurofound & ILO, 2019). These are commonly represented by the contract-based components and characteristics of one's employment, e.g., contract type, place of work (environment), work hours and income level (Kalleberg, 2009). Recent policy regulation changes and business cost-cutting methods have led to an increase in Precarious Work (Burgess & Campbell, 1998). Though the shift in employment standards has benefited employers, there are significant consequences for the employees (Quinlan & Mayhew, 1999).

There was a shift in employment legislation towards non-standard employment contracts to improve the unemployment rates in the decades following the Second World War (Brady, 2019). Utilising data from the Statistics Bureau, Management and Coordination Agency in Japan, Osawa et al. (2013) found, in comparison to those in permanent employment, Precarious Work contracts (e.g., part-time, casual) were exposed to limited wages, fewer social protections (including an inability to apply for employment insurance) and reduced political safeguards, making employees more vulnerable to sudden dismissal and or income loss. Although Precarious Work was introduced to circumnavigate the previously high unemployment rates, the evidence suggests it has resulted in significant consequences for the employees and the

Figure 1.

Potential Links Between Core Constructs



Note. Potential links between the core constructs of Objective Working Conditions, Subjective Working Conditions, Financial Security, and Financial Wellbeing.

working conditions they experience. To explore the role of poorer working conditions associated with Precarious Work as an antecedent to individual outcomes and to bridge the gap in understanding their link to Financial Wellbeing, I have indirectly linked Objective Working Conditions to Financial Wellbeing within Figure 1.

The shift in employment legislation towards Precarious Work contracts has resulted in significant consequences for employees' Psychological Wellbeing (Jaramillo et al., 2022). This is supported by the findings from the study by Lopez et al. (2021). They assessed Objective Working Conditions within Precarious Work (job security, wages, social security benefits, and working schedules) and their link to Psychological Wellbeing (anxiety and depression) in Chile (N = 1,900). Their analysis utilised central tendency and dispersion indicators in combination with bivariate ANOVA. Their findings indicate that for every one-unit increase in each Precarious Working Conditions subscale, there was a 14% increase in symptoms of anxiety/depression and a 35% increase in the overall precariousness scale. Though many studies have explored the link between Precarious Working Conditions and Psychological Wellbeing, relatively few have assessed these conditions in the context of Financial Wellbeing. Thus, to understand further the influence of Precarious Working Conditions on Wellbeing outcomes, an indirect link has been placed between Objective Working Conditions and Financial Wellbeing, as seen in Figure 1.

Labour governments have argued that the shift in employment legislation towards Precarious Work increases employment flexibility, with employees having greater control over their working schedules (Hayman, 2009). However, a review of Precarious Work research within Australia found that employees under Precarious Work contracts (e.g., casual and part-time) often experienced increased variability of

hours worked and lacked control over their working schedules (Bohle, 2016). Bohle (2016) suggests that variability and lack of control over hours worked may place financial pressure on employees due to an inability to source adequate income. Thus, employees may experience difficulty in meeting ongoing financial commitments. As a component of Financial Wellbeing, I seek to understand whether one's ability to meet ongoing financial commitments (e.g., regular bills) is altered by Precarious Working Conditions. Therefore, a focus has been placed on the Objective Working Conditions of Precarious Work and their indirect link to Financial Wellbeing (Figure 1).

The 'increased flexibility' of employment and contract types due to the shift in employment legislation has allowed for the creation of various new roles (e.g., casual employee, contractor), with employers able to increase and reduce their workforce when needed (Rubery et al., 2016). Verick (2009) assessed employment during the financial crises in Spain, Norway, Finland, Sweden and Japan from 1977-1991. Compared to those aged 25-54 years, young men and women <24 years reported higher unemployment rates during an economic crisis. This was linked to the increased rate of employment under a Precarious Work contract (i.e., contractor, part-time, fixed term, casual etc.) within this age group. Those within permanent employment saw significantly lower unemployment rates during a financial crisis. Suggesting that those subjected to a Precarious Work contract are more likely to experience uncertainty around their employment and income continuity in a time of crisis. Hence, I will specifically assess the Objective Working Conditions of Precarious Work contracts (Objective Working Conditions in Figure 1) and their link to Financial Wellbeing outcomes.

As with a lack of control over working hours, Precarious Work often exposes employees to lower wages than those within permanent employment (Kalleberg, 2000). Laß and Wooden (2019) used data from the Australian Household, Income and Labour Dynamics Survey (HILDA), sampling 151,502 responses. Explanatory factors (e.g., weekly work hours, hourly wage, secondary employment, etc.) were used to identify potential income disadvantages, and a Blinder-Oaxaca decomposition was used to quantify the results. Not surprisingly perhaps, there were significant income gaps for casual workers (AUD \$11,643), temporary agency workers (AUD \$6,51) and fixed-term workers (AUD \$1,378) compared to those in permanent employment, where income levels were higher. An assessment of how income levels associated with Precarious Work link to Financial Wellbeing will be incorporated into the current study through Objective Working Conditions (Figure 1).

The New Zealand Court of Appeal's decision in *Rasier Operations BV v E tū Inc* [2024] highlights significant findings regarding Precarious Working Conditions within the gig economy. Under the Employment Relations Act 2000 (ERA), the court determined that Uber drivers are employees rather than independent contractors, as Uber defines them. This case emphasised the high level of control Uber exercised over its drivers, including unilateral control over contract terms and the inability of drivers to establish their own business goodwill, work quantity, and revenue. This decision underscores the nature of the gig economy, where workers lack control and security over their working conditions. Consequently, it reinforces precarious employees' vulnerability and lack of legal protection. It emphasises the need for further research into the employment conditions associated with Precarious Work contracts and employee outcomes. Thus, I have focused on the link between Precarious Working

Conditions through Objective Working Conditions and Financial Wellbeing within the current study (Figure 1).

Objective Working Conditions of Precarious Work and Financial Wellbeing

With the immature state of the Financial Wellbeing construct, there are few studies which have assessed its link to Precarious Working Conditions. An early study on Financial Wellbeing was conducted by Buchler et al. (2009). Using data from wave 1 (2001) of the Household Income and Labour Dynamics in Australia (HILDA) Buchler et al. (2009) assessed the difference in Financial Wellbeing outcomes for those in casual employment and permanent employment (N = 6,020). Using logistic regression, Buchler et al. (2009) found that those within casual employment were 1.51 times more likely to experience an inability to pay bills on time than those in permanent employment. Casual employees were also more likely to seek alternative sources of financial aid to assist with paying bills on time. Using Multiple Linear regression, casual employees were more likely to report experiencing financial difficulty making ends meet ($r = .22$, $p < .001$) compared to permanent employees ($r = .02$, $p > .05$). Casual employees also reported a lower level of financial satisfaction ($r = -.60$, $p < .001$) compared to those in permanent employment ($r = .08$, $p > .05$). This study indicates there is a significant reduction in Financial Wellbeing factors for those in casual employment, compared to those in permanent employment. However, Buchler et al. (2009) did not evaluate whether alternative conditions, besides contract type, impacted the link to Financial Wellbeing. Thus, to further understand the impact of Precarious Working Conditions, Figure 1 posits an indirect link between Objective Working Conditions of Precarious Work and Financial Wellbeing within the current model (Figure 1).

The limited employment security and control over work schedules associated with Precarious Work can sometimes lead to sudden job loss and/or income loss (Allan et al., 2021). Focusing particularly on a time of global crises, a cross-sectional study by Botha et al. (2021) assessed sudden income loss' effects on Financial Wellbeing during the Covid-19 pandemic. They assessed income through labour market shocks and Financial Wellbeing for 2,078 Australian residents. The online survey found those who experienced labour market shocks, such as a reduction in salary/wages and hours worked, reported significantly reduced levels of Financial Wellbeing. However, this study was conducted in the Australian context, and little focus was placed on everyday employment factors that could influence wages and perceptions of employment conditions (e.g., employment security). Hence, Figure 1 posits for empirical exploration, a potential link between Objective Working Conditions, Subjective Working Conditions and Financial Wellbeing, in Aotearoa New Zealand, as the country emerges from the pandemic.

Though Objective Working Conditions provide factual and quantifiable information about employment circumstances, employment literature suggests that objective components are rather ambiguous in their ability to explain employee outcomes (Helbling & Kanji, 2018). Thus, Objective Working Conditions were linked to Financial Wellbeing through Subjective Working Conditions (Figure 1).

Subjective Working Conditions

Unlike Objective measures, Subjective measures encompass and are influenced by an individual's experiences, perspectives, values and viewpoints (Dolan et al., 2017; Muckler & Seven, 1992). As Seubert et al. (2021) have argued, Wellbeing is first and foremost a subjective state or set of states; and one's appraisal of Objective Working

Conditions are too. However, few studies have examined the link between Subjective Working Conditions and Financial Wellbeing.

Linking Objective Working Conditions and Subjective Working Conditions

Employee outcomes may be better explained by subjective perceptions of one's Objective Working Conditions (De Witte & Näswall, 2003). A recent study on the Job Demands and Resources model by Li et al. (2022) assessed the link between Objective and Subjective (perceived) employment characteristics for an Australian sample of N = 2,049 across 97 jobs. Using multilevel modelling with lagged and multisource data, Subjective (perceived) Working Conditions mediated the link between Objective Working Conditions and employee outcomes (exhaustion, physical health and work engagement). Subjective perspectives consider an individual's life circumstances, more accurately, representing the effects of Objective Working Conditions. Based on the current assumptions, a more proximal link was placed between Subjective Working Conditions and Financial Wellbeing in Figure 1 than Objective Working Conditions.

Subjective Working Conditions and Precarious Work

Prior research suggests working conditions associated with Precarious Work are linked to Psychological Wellbeing outcomes (Robone et al., 2011). The study by Vives et al. (2013) assessed individuals from Spain in Precarious Work (temporary contracts) and their mental health (N = 5,679). Data was captured using the Employment Precariousness Scale (subjective and objective factors) and the 5-item Mental Health scale (MH), which assesses feelings of anxiety, Psychological Wellbeing and depression. Their multivariate regression found that higher levels of Precarious Working Conditions (low wages, instability, vulnerability, reduced rights, etc.) were linked to a greater prevalence of poor mental health. Suggesting that in some instances, a link exists

between the conditions of Precarious Work and Wellbeing outcomes. However, few studies have extended their assessment of experiences of Precarious Work to Financial Wellbeing. To close this gap, we focus on individuals' perceptions of Precarious Working Conditions through Subjective Working Conditions and their link to Financial Wellbeing (Figure 1).

Focusing on specific aspects of Precarious Work, research on economic scarcity suggests that those in low-wage employment are at an increased risk of experiencing financial deprivation, worry, and stress due to a lack of financial resources (Meuris & Leana, 2015). Yao et al. (2017) assessed perceived wage effectiveness in a Aotearoa New Zealand context (N = 606), collecting qualitative data through online surveys. At the time of this study (2014), individuals who earned low wages (less than the living wage of \$18.08NZD an hour) were more likely to report having trouble meeting their basic needs (e.g., rent, mortgage repayments, fuel) and/or saving for the future. Additionally, low wages negatively impacted individuals' sense of security, quality of living, and Psychological Wellbeing (stress and worry). Those who perceived they were earning a fair or decent wage reported they could meet their basic needs and had an increased sense of financial freedom and choice. However, few studies have assessed how these conditions link to the construct of Financial Wellbeing. In a time of high inflation and a cost-of-living crisis (Broadbent et al., 2023; Müller, 2023), we must understand how the perceptions of low wages and Precarious Working Conditions link to Wellbeing outcomes, particularly, Financial Wellbeing. Hence, the links presented in my model (Figure 1).

Alongside reduced wages, the unpredictable nature of Precarious Work can make it challenging to plan for future expenses, save for long-term goals, or manage

unexpected financial obligations (Lei & Mai, 2024). Chesters and Cuervo (2019) explored how young adults (ages 26-29) perceive Precarious Working Conditions and their impact on financial planning. Quantitative and qualitative data were obtained through surveys from the Life Patterns project in Australia (N = 520). The qualitative responses indicated that those in Precarious Work experienced increased feelings of job insecurity (job continuity), difficulty with financial planning, and an inability to plan for the future (e.g., buying a house or supporting their families). Their assessment further identified Precarious Work was linked to increased feelings of financial worry and stress (e.g., the ability to pay unexpected bills and commit to personal and/or home loans). Building upon these findings, I posit a direct link between Subjective Working Conditions and Financial Wellbeing as illustrated within my model (Figure 1).

It is widely acknowledged in the literature that the uncertainty inherent in Precarious Work is associated with increased rates of job insecurity and fear of job loss, compared to those in permanent positions (Gunn et al., 2021). Wilson et al. (2020) sought to understand the links between subjective job insecurity (fear of job continuity/job loss), financial concerns, and mental health (anxiety) from a sample of N = 474 employed U.S. residents during the COVID-19 outbreak. Their results suggest job insecurity is directly related to mental health, in particular, anxiety. An indirect pathway was found, with financial concerns (indicating financial situations were likely to worsen within the next 12 months) partially mediating the link between job insecurity and mental health (anxiety). These findings identify an essential relationship between job insecurity and financial concerns, though this study is limited by its lack of measures for the construct of financial concern. To clarify why this link may occur, I have incorporated a more comprehensive construct of financial worry into my model (Figure

1), Financial Wellbeing, with a direct link from Subjective Working Conditions of Precarious Work.

A core component of employment-related insecurity stems from one's ability to obtain a secure and stable income, as identified in the qualitative study by Bosmans et al. (2023). They conducted (N = 250) interviews in 2021 with workers in non-standard employment (not working full time or having a permanent contract) from Belgium, Chile, Spain, Sweden and the US. Employment precariousness was assessed using the Employment Precarity Index (EPI) and the Employment Precariousness Scale (EPRES), focusing on employment insecurity, income inadequacy and a lack of employment rights and protections. Their findings indicate that despite significant differences in each country's welfare states, similar themes emerged from the narratives. Perceptions of insecurity with the continuity of employment, Financial Security due to inadequate wages, and insecurity due to unpredictable working schedules were common themes that emerged from the interviews. Feelings of anxiety towards income continuity and little power to negotiate terms due to income insecurity were mentioned throughout the interviews. These findings indicate that non-standard or Precarious Work employees are likely to experience income and job insecurity. However, little is understood about the specific conditions which elicit feelings of insecurity in Precarious Work and whether they are linked to Financial Wellbeing outcomes. To address this gap in the literature, a link has been placed between Subjective Working Conditions for Precarious Work and Financial Wellbeing in Figure 1.

Subjective Working Conditions of Precarious Work and Financial Wellbeing

One's income and perceived satisfaction with their financial circumstances are key determinants of Financial Wellbeing (Mahdzan et al., 2019). Those who perceive

they cannot ascertain adequate and/or stable financial resources from employment are more likely to experience negative feelings such as financial stress, anxiety, and fear (Rodrigues et al., 2023). Research has shown those in Precarious Work are in a more volatile position and more likely to experience material hardship due to income fluctuations, compared to those who have a steady and stable income (Schneider & Harknett, 2017). At the time of this study, there has not been an investigation into the perceptions of Precarious Working Conditions and how they are linked to Financial Wellbeing outcomes. Hence, the direct link presented between these two components within my model (Figure 1).

Though few studies have assessed how the perceptions of Precarious Work conditions are linked to Financial Wellbeing outcomes, a study by To et al. (2020) did assess the link between perceived job security and personal Financial Wellbeing for service workers within China (N = 334). Using structural equation modelling on survey response data, To et al. (2020) found perceived job security was negatively and significantly linked to personal Financial Wellbeing. With those who felt insecure within their current role or within their employment sector reporting a lower level of Financial Wellbeing. These findings align with the existing literature which suggest those with limited financial resources are more likely to experience an increased level of financial stress and worry about their financial circumstances (Friedline et al., 2021). However, this research does not bridge the gap within the literature on how types of employment can influence Financial Wellbeing. Thus, I have focused on the everyday components of a particularly insecure form of employment, Precarious Work, and its link to Financial Wellbeing within my model (Figure 1).

Research on Precarious Work has consistently identified links between Precarious Working Conditions and health-related and Wellbeing outcomes (Gunn et al., 2021). However, few studies have assessed the link between Precarious Working Conditions and social outcomes, particularly an individual's financial standing. Utilising data from Sweden (N = 401), Matilla-Santander et al. (2022) assessed the link between Precarious Employment Relations and Social Precarity (risk of social exclusion through living conditions (i.e. financial resources and financial constraints) and working life (i.e. job security) through generalised linear models and quartile analysis of Employment Precariousness Scale (EPRES-Se) scores. Their analysis found that as EPRES-Se scores increased, so did the outcome of living conditions. Those who reported an increased rate of Precarious Working Conditions were more likely to experience difficulty meeting regular expenses and an inability to afford social activities. The findings from the study by Matilla-Santander et al. (2022) suggest there may be a link between Precarious Working Conditions and components of Financial Wellbeing, as previously defined. I will expand upon these findings by directly linking Subjective Working Conditions of Precarious Work and Financial Wellbeing within my model (Figure 1).

Financial Security

Osberg (1998, p. 23) defines Financial Security as “the anxiety produced by a lack of economic safety, i.e. by an inability to obtain protection against subjectively significant potential economic losses”. Financial Security is a multifaceted construct (Bossert & D’Ambrosio, 2013) relating to an individual's or household's current and future financial circumstances and or status (Lee & Kim, 2016). It is characterised by the awareness of financial resources one can access, e.g., savings, credit cards and other personal loans (Corman et al., 2012). It is also linked to one's ability to cope with and or

financially recover from adverse events (Jacobs, 2007). A formal definition has not yet been developed. However, the literature may be converging on summarising Financial Security as the certainty of material or monetary conditions that alter one's sense of economic safety (Hacker et al., 2010; Stiglitz et al., 2009).

Financial Security is a basic psychological need which influences subjective Wellbeing, as demonstrated in the study by Weinstein and Stone (2018). They assessed the link between Financial Security, Psychological Need Satisfaction and Wellbeing in a UK sample from the market research agency Harris Interactive (N = 2,079). Using regression analysis, Weinstein and Stone (2018) found Financial Security was both directly and indirectly (through psychological need satisfaction) linked to Wellbeing outcomes. Financial Security accounted for lower Wellbeing and Psychological Need Satisfaction. The study by Weinstein and Stone (2018) highlights the importance of Financial Security for Psychological Need Satisfaction and Wellbeing. However, the antecedents of the link between Financial Security and Financial Wellbeing remain unclear. Individuals continue to face job insecurity and uncertainty (Kalleberg, 2009). Therefore, it is essential to investigate how these employment conditions affect one's perceived Financial Security and overall Financial Wellbeing. Hence, Financial Security will be tested as a mediating variable between Subjective Working Conditions of Precarious Work and Financial Wellbeing (Figure 1).

Perceptions of receiving adequate financial resources, including wages, significantly influence one's ability to meet one's economic needs (Meuris & Leana, 2015). This is particularly true for those who are exposed to low wages, who often feel they are unable to maintain financial stability and comfort. Kendall et al. (2019) examined the relationship between Financial Security and the factors of income (annual

household disposable income) and wealth (total value of assets minus total debt). Data was obtained from the Household, Income and Labour Dynamics in Australia Studies (HILDA); 2002, 2006 and 2010. Income and wealth were both linked to perceptions of Financial Security. However, income was found to better explain perceptions of Financial Security, with higher income linked to increased Financial Security. Based on the findings of this study, I have incorporated wages as income within this study's model (Figure 1), represented as Objective Working Conditions. I specifically examine the interaction within the context of Precarious Working Conditions, a type of employment often linked to low wages (Vanroelen et al., 2021).

Wages are a significant financial resource for households as they constitute the primary source of income for many families, with higher-income households having a greater level of financial resources and buffers compared to low-income households (Friedline et al., 2021). Munyon et al. (2020) assessed the link between household income and perceptions of Financial Security across two studies (Study 1 consisted of business students $N = 254$, Study 2 consisted of real estate agents, $N = 71$). Through multilevel analysis and correlation assessments, Munyon et al. (2020) found that family income was positively linked to Financial Security. Higher levels of income correlated with higher levels of perceived Financial Security. However, research has not yet assessed perceptions of income as wages in the context of Precarious Work (e.g., low-wage conditions) and the link to Financial Security. Thus, a direct link has been placed between Subjective Working Conditions of Precarious Work and Financial Security within the current study's model (Figure 1).

Linking Precarious Working Conditions and Financial Security

Labour market precarisation has led to a rise in low-wage work, resulting in an increase in the number of low-income households (Trlifajová & Hurrell, 2019). Lee and Kim (2016) assessed Financial Security of Low-Income households in the United States, using data from the 2012 Survey of Consumer Finances (N = 2,433). They selected households with incomes no greater than 3 times the 2009 poverty threshold to focus on the influence of poverty and low income. They focused on liquid (monetary) assets (savings, income flow), debt-to-income ratios and solvency ratios (debt burden in relation to liquid assets). Through logistic regression and multivariate analysis, Lee and Kim (2016) found that as poverty levels increased, the debt-to-income ratio and solvency ratios increased, with households in the lowest poverty level less likely to meet the liquidity ratio thresholds. The ability to meet the thresholds increased as income levels increased. These findings suggest that lower wages place additional financial pressure on households and decrease their level of Financial Security. However, this study focused on the objective conditions of one's financial circumstances rather than perceptions of their financial circumstances. In addition, this study did not identify the forms of employment held by the individuals within the household. Therefore, I have focused on Precarious Working Conditions (low-wage work) and wages in my model (Figure 1) to determine if this form of employment is more likely to be associated with a decreased perception of Financial Security.

Expanding on the role of income, the irregular working schedules associated with Precarious Working Conditions can interfere with one's ability to ascertain a stable and secure income (Golden, 2015). Using data from the General Social Survey in the U.S. (N = 3,564), Lambert et al. (2019) assessed Precarious Work schedules for low to

moderate-income groups and the link to Financial Security. Those with fluctuating and inconsistent hours (hourly-based pay) reported significantly lower Financial Security levels than those paid via salary. Individuals working more than 45 hours per week reported higher levels of Financial Security compared to those working fewer hours. Within the current study, I seek to understand what types of employment contracts create these conditions and how they link to one's perceptions of Financial Security. Accordingly, conditions of employment related to Precarious Work contracts and their link to Financial Security have been incorporated into the current model (Figure 1).

While changes in employment legislation have created a more flexible workforce, Precarious Work increases workers' vulnerability to job insecurity, which can heighten perceptions of financial threat regarding income continuity (Oddo et al., 2021). Alcover et al. (2022) assessed the interaction between perceived job security (Job Insecurity Scale) and perceived financial threat (Financial Threat Scale) using an online survey in Chile (N = 592). The bivariate Pearson correlation indicated perceived job insecurity was significantly positively correlated with perceived financial threat ($r = .576, p < .01$), indicating that those who reported a high level of job insecurity are likely to report a higher level of financial threat. However, what is not yet understood is how the perceived threat of income loss due to job insecurity links to the construct of Financial Security. Hence, I have placed a direct link between Subjective Working Conditions of Precarious Work and Financial Security within my model (Figure 1).

The insecure nature and low wage conditions associated with Precarious Work can place employees in financially vulnerable positions and generate feelings of uncertainty and insecurity (Gutiérrez-Barbarrusa, 2016). Narisada and Schieman (2016) assessed whether perceived job security and Financial Security would moderate

the link between perceived underpayment and job dissatisfaction. Narisada and Schieman (2016) assessed public sector and private sector workers from the U.S. using survey data from the 2005 Work, Stress and Health Study (N = 1,498). Through logistic regression and multivariate analysis, job security and Financial Security were found to moderate the link between being underpaid at work and job dissatisfaction. Those with greater Financial Security and job security reported they were less dissatisfied with their job. While this study identifies a significant relationship between working conditions, Financial Security, and individual outcomes, Narisada and Schieman's (2016) assessment relied heavily on Financial Wellbeing measures to assess Financial Security. In the current study, I aim to disentangle the construct of Financial Security and Financial Wellbeing. I will explore these constructs within the context of perceptions of employment conditions in Precarious Work, using Subjective Working Conditions, as illustrated in my model (Figure 1).

Numerous studies have explored the relationship between job security, Financial Security, and employee Wellbeing, offering valuable insights into individual outcomes within the context of Precarious Work. Using data from the 2001 – 2008 HILDA survey, Green and Leeves (2013) assessed the links between job security, Financial Security, and employee Wellbeing for men within Australia (N = 17,621). Utilising structural equation modelling, they identified that a lack of job security was more prominent among those in casual employment. Casual employment was also negatively linked to employees' perceptions of Financial Security. However, this study only focused on two measures for Financial Security: "how often do you pay off monthly credit card balances" and "how often they seek financial support from friends/family?" (Green & Leeves, 2013, p.134). The questions used in the study by Green and Leeves (2013) were unlikely to accurately capture perceptions of Financial Security, as they focused on

quantitative aspects of financial behaviours rather than individuals' perceptions of their current financial situation. Additionally, the study only examined job security in terms of the likelihood of losing or quitting one's job within the next 12 months. There remains a gap in the literature regarding the connection between employment conditions in Precarious Work and perceived Financial Security. To address this gap (see model in Figure 1), I employ more accurate and comprehensive measures to capture Precarious Working Conditions and perceived Financial Security.

The shift in labour market structures towards a highly adaptable workforce has led to an increase in Precarious Work contracts, which offer fewer legal and social protections (Tompa et al., 2007). This is particularly true for those in developing countries where flagship social assistance programmes are being introduced in an attempt to counteract the consequences of Precarious Working Conditions (Harris and Scully, 2015) Joyce et al. (2019) assessed European platform workers (on-demand online work), exploring the interaction between working conditions and social protections. Findings indicate platform workers within Europe experienced limited access to social protections and reduced worker rights. Of the respondents, 76% indicated there were no protections for housing, and between 68% and 82% of platform-dependent workers did not have access to social protections such as sickness insurance/ leave, housing benefits, maternity leave, and protection for unemployment. However, what is not yet understood is how the conditions associated with Precarious Work contracts link to perceptions of Financial Security. Thus, a direct link has been placed between Subjective Working Conditions within Precarious Work and Financial Security within the current model (Figure 1).

Financial Security and Financial Wellbeing

One challenge within the Financial Security literature is its entanglement with the construct of Financial Wellbeing. An example of this entanglement was illustrated

in the study by Howell et al. (2013), where they used four samples (N = 1,438) within the U.S. to investigate the links between economic standing (income, savings, investments debt), Financial Security (measured by the in-charge financial distress/financial wellbeing scale), Psychological Need Satisfaction (Basic Need satisfaction life scale) and life satisfaction (Satisfaction of life scale). Financial Security strongly mediated the relationship between economic standing and life satisfaction. Financial Security was also positively linked to Psychological Need Satisfaction. However, the questions within the In-Charge Financial Distress/Financial Wellbeing Scale tend to focus on the constructs of Financial Wellbeing rather than Financial Security. To provide clarity within the literature and to understand how these components link to Precarious Working Conditions, I will both include and separate the constructs of Financial Security and Financial Wellbeing within the current model (Figure 1).

Further entanglement between the construct of Financial Security and Financial Wellbeing can be seen within the study by Netemeyer et al. (2018). They conducted three studies with U.S.-based samples, looking at the antecedents and consequences of perceived Financial Wellbeing. Utilising survey-based data and hierarchical regression, Netemeyer et al. (2018) found there were several antecedents for perceived Financial Wellbeing. They suggest these antecedents fall into two separate constructs which represent perceived Financial Wellbeing; current money management stress and expected future Financial Security. The antecedents linked to future Financial Security were positive financial behaviours, perceived financial self-efficacy, willingness to take investment risks, planning for money long-term, and positive financial behaviours. Current money management stress was linked to late or minimum payments, lack of

self-control, materialism, and perceived financial self-efficacy. Income was found to act as a resource for these antecedents. Thus, higher wages lead to increased feelings of future Financial Security and a reduction in money management stress. This study further entangles the constructs of Financial Security and Financial Wellbeing, by suggesting Financial Security is a component of the Financial Wellbeing construct. Rather, I suggest Financial Security is an antecedent of Financial Wellbeing within the current study. Hence, I have placed a link between Financial Security and Financial Wellbeing within my model (Figure 1).

A study that has differentiated the two construct of Financial Security and Financial Wellbeing is the survey-based study by Schneider and Harknett (2019). They examined work schedule instability among U.S. service-sector workers (N = 27,792), focusing on hourly-based employment. Over 40% of the respondents reported income variations week-to-week and 26% reported they had experienced difficulty with paying bills. From the U.S.-based sample, 65% reported they had experienced material hardship within the last 12 months, and 54% reported they would be unable to cope with an emergency expense exceeding \$400. Based on their regression analysis, unpredictable schedules and varying hours were significantly linked to an increase in psychological distress (e.g., feeling sad, restless, hopeless etc.). These conditions, alongside low wages, were further linked to a reduction in Psychological Wellbeing. Financial Security was found to partially mediate the link between work schedule instability and an employee's Psychological Distress/Wellbeing. In the current study, I seek to further understand and assess this indirect pathway between Working Conditions, Financial Security and Financial Wellbeing (Figure 1). However, I focus specifically on the conditions of Precarious Work.

In summary, the aim of this paper is to understand the links between Precarious Working Conditions, Financial Security, and Financial Wellbeing. To do so, an exploratory approach will be adopted and administered within the Aotearoa New Zealand context. To rationalise this study, this paper first discussed existing observations and theories within previous research. The information presented provided justification for the current model within this study and the potential links (Figure 1).

Chapter 2 - Method

Participants

The online survey originally obtained 169 individual responses. However, after a quality check of the data, only N = 90 responses completed the attitudinal component of the survey. Thus, 78 incomplete responses were removed from the dataset, leaving a sample size of N=90. The final sample comprised 92% female, 7% male, and 1% LGBTQ. Ages ranged from 18-64 years, with 30% between 18-24 years, 36% 25-34 years, 14% 35-44 years, 16% 45-54 years, and 4% 55-64 years. Ethnically, 10% were Māori, 77% New Zealand European, 2% Chinese, 3% Indian, 2% Canadian, 2% Polish, 2% British, 2% Hispanic. Thus, the sample was heavily skewed on gender and self-reported ethnicity.

When asked about their role as an income provider ($n = 79$) 18% of the participants were the sole income providers, 2% were the main income providers, 42% equally shared financial responsibilities and 38% were the secondary income providers. Participants were further asked about their employment contract type, with 44% in Part-time employment, 17% Casual, 21% Self-employed, 8% Fixed-term, 1% Temporary work, 6% On-call, and 3% were Home-based. Hence, the sample was predominantly part of a dual-income household, not on fixed, secure and stable employment.

Measures

A complete copy of the questionnaire can be found in Appendix A.

Financial Wellbeing

Two separate measures were utilised to capture participants Financial Wellbeing (Figure 1). The first measure comprised of 11-items (e.g., How confident do you feel about your financial situation over the next 12 months?), across three sub-components/factors: meeting commitments, being financially comfortable and resilience. The items were graded using a frequency scale, various 5-point scales and a 3-point scale (all of it; some of it; none of it). High scores indicated a positive outcome (low score = negative outcome), with six items (survey questions 2, 4, 7, 8, 10 and 11 from the Financial Wellbeing section in Appendix A) reverse-coded to ensure the data met this criterion. This measure was developed using Principal Components Analysis from a Norwegian sample survey (Kempson & Poppe, 2018). However, the measure has never been verified outside of Norway, including in Aotearoa New Zealand. The researchers gave permission to use the measure for this exploratory study (E. Kempson, personal communication, October 4, 2021).

A complementary measure of Financial Wellbeing (Figure 1) was developed by the Consumer Financial Protection Bureau (CFPB) (2015). The 10-item measure splits into two subcomponents/factors: Security and Freedom of Choice. Data was collected for this measure using two standardised 5-point Likert scales (Strongly Disagree to Strongly Agree) with high scores indicating a positive outcome (low scores = negative outcome). As with the supporting measure, four items have been reverse-coded (survey questions 12,13,15 and 19 from the Financial Wellbeing section in Appendix A) to meet this criterion. The measure has been incorporated into a range of studies, such as the cross-sectional study by Roll et al. (2022) with 200,000 tax filers from low- to moderate-income households in the U.S. Their findings suggest a supporting Financial

Wellbeing measure is required to further account for day-to-day financial circumstances, for which this study accommodates. This measure has not, to my knowledge, been applied to a sample of Precarious Workers from Aotearoa New Zealand.

Objective Working Conditions

As recommended by Seubert et al. (2021), Objective Working Conditions were captured using quantifiable components found within other Precarious Work literature. The objective components of Precarious Working Conditions that have been commonly measured were hours worked and wages (Allan et al., 2021; Helbling & Kanji, 2018; Kalleberg, 2009). Contract type was incorporated, though participants were only asked about the various Precarious Work contracts they may work under (Sampling criteria, Chapter 2).

Subjective Working Conditions

The Subjective Experience of Work-Related Precariousness (SEWP) measure was developed by Seubert, Hopfgartner and Glaser (2021). This 15-item SEWP theoretically consisted of five dimensions: Reproductive materials (income from work and employment), Social communicative (social networks and work-related communication), Legal-institutional (the legal aspects of health and safety, labour and social security), Status and recognition (appreciation and recognition in the workplace), and Meaningful subject related (experienced fulfilment and meaningfulness at work). All questions within each dimension were measured using a 5-point applicability scale (not at all, rather not, somewhat, rather yes, completely). Low scores indicated a positive outcome (high scores = negative outcome), with participants having experienced less Precarious Working Conditions. Validation studies were conducted with students from the

University of Innsbruck, using correlation and confirmatory factor analysis (Seubert et al., 2021). As of yet, however, little or no published testing has been conducted within a Aotearoa New Zealand context. Indeed, the measure itself was described as experimental by its authors, who gave the researcher permission to use it for this exploratory study (L. Hopfgartner, personal communication, September 15, 2021).

Financial Security

A recent measure for Financial Security was developed by Rohde et al. (2015). The six items within this measure were developed using data from the Household Income and Labour Dynamics in Australia (HILDA) Survey, waves 2001 – 2011. The items (Appendix A) assess both Subjective and Objective aspects of Financial Security and are scored using mixed word Likert and applicability scales, independent of one another e.g., frequency, likelihood, and satisfaction scales (see the full range of scales in Appendix A). This measure was scaled so high scores would indicate a positive outcome (low score = negative outcome, indicating low levels of Financial Security). To fit this criterion, items 1, 2, 4, and 5 within the Financial Security section were reverse-coded. Rohde et al. (2015) tracked their measure across various datasets from Australia (i.e., longitudinal and cross-sectional) and applied a range of econometric techniques to help further develop their model and measure of Financial Security. This measure is limited in its application throughout the existing literature and has not yet undergone reasonable validity testing. The researchers permitted this exploratory study to use the measure (N. Rohde, personal communication, October 1, 2021).

Procedure

Given this study's use of Human participants, an application was submitted to and accepted by the Massey University Human Ethics Committee during 2021 (Reference Number NOR 21/68, November 29th, 2021).

Next, quantitative data was collected through an online survey, using the Qualtrics XM survey maker software. The online survey was distributed via the pragmatic method of network sampling. A link was shared to Facebook community groups throughout Aotearoa New Zealand and to direct contacts of the researcher via email. The communications encouraged individuals to pass on the link to members within their own networks, so to initiate a snowball effect. The direct contacts of the main researcher were informed of their ineligibility to take part in the survey.

Once participants had voluntarily selected the survey link, they were directed to an information page (Appendix A). Participants were also informed of a Koha which would be presented at the end of the survey in appreciation for the participants' efforts. The Koha was an unconditional gift where participants were given the opportunity to enter a draw to win one of fifty \$20 supermarket vouchers, totalling \$1,000 worth of prizes.

Chapter 3 - Results

Data Clean

The data was checked to ensure any irregular and unrelated responses were removed (e.g., random letters and symbols). Responses with incorrect formatting (e.g., “10 hours” rather than “10”) were re-coded in SPSS, for consistency. High scores on Financial Wellbeing and Financial Security always indicated a positive outcome. To meet this criterion, several items (indicated above) were reversed using the transformation tool in SPSS. These items were reverse-coded as their wording and corresponding answers initially associated a low score with a positive outcome. Thus, going against the criterion set above.

Given that the data output was quantitative, value labels were allocated to the response scores accordingly. The Subjective Working Conditions measure obtained applicability scores from 1 – 5, value labels were applied as 1 = not at all, 2 = rather not, 3 = somewhat, 4 = rather yes, and 5 = completely). The same process was carried out for each measure according to their corresponding scoring criterion and scales (Appendix A).

To help preserve statistical power for this relatively small sample, any missing data was handled using a pairwise rather than listwise deletion command in SPSS.

Data Reduction

The first step for my data analysis was to reduce the items to a parsimonious and reliable set of measures for each variable in Figure 1 (Chapter 1). Given the immature state of this research field and with this study focusing on the new explanatory model (and measures) in Figure 1, an Exploratory Factor Analysis (EFA) was deemed the most

appropriate method for data reduction compared to Confirmatory Factor Analysis (CFA). Principal Axis Factoring (PAF) was chosen as it is an effective method for data reduction which does not place restrictive assumptions (e.g., multivariate normal distribution) on the data, unlike other methods such as maximum likelihood factor analysis (Fabrigar et al., 1999). Eigenvalues (and linked Scree plots) were utilised under the Kaiser's criterion of >1 for factor extraction. Given considerations of statistical power, each measure was initially factor analysed separately rather than together with the other measures (Tavakol & Wetzel, 2020).

Rotation was conducted using Oblique (Direct Oblimin) methods, to allow for correlation between factors. A minimum cut off score of >0.3 was assigned to retain items for each factor (Kline, 1994). If questions loaded onto multiple factors, it was assumed the largest loading was representative of the best fit (unless loadings were similar, in which case the item was deleted, see below). Thus, items which loaded highly on more than one factor were deleted, and the EFA was repeated. Cronbach's Alpha scores were calculated under the criterion of >0.8 (Kaiser & Rice, 1974). Items which increased Alpha if deleted were considered for removal from the measure, and another factor analysis was conducted, if appropriate (e.g., if at least 3 items were retained, which is the minimum number of items for a factor (Lloret-Segura et al., 2014). Once determined, data reduction was completed by one of two methods: (1) if the items were all on the same scale, by totalling and dividing by the number of items; and/or (2) if the items were not on the same scale, by saving factor scores from the EFA.

Kempson and Poppe's (2018) Financial Wellbeing Measure

An exploratory PAF solution resulting from applying the above EFA protocol is presented in Table 1. From Table 1, the solution was clear, and interpretable, although

just 58% of the variance was explained. The pattern of loadings as well as item content suggested that the two factors were nonetheless tentatively representative of Financial Security rather than Wellbeing per se, albeit with the factor inter-correlation also being quite high (at .67).

In Table 1, the highest-loading item reflecting 'Making Ends Meet' factor was found to increase Cronbach's Alpha (to .906). If this item was removed (protocol, above), the two factors in Table 1 collapsed into one, a less readily interpretable cluster of items (explaining 52% of the variance). However, two items are not normally enough to constitute or define a factor (Lloret-Segura et al., 2014). For that reason, it was decided to keep all items, and tentatively two factors, rather than one (see Protocol, above).

Consumer Financial Protection Bureau Financial Wellbeing Measure

This secondary Financial Wellbeing measure extracted two factors, which together accounted for a combined 55.95% of the total variance. However, the second factor was under-represented, with just two items (correlating at .51). Hence it was decided to run this second measure alongside the previous measure, in its entirety, through the full PAF/EFA protocol (above).

Table 1*Factor Solution for Kempson and Poppe's (2018) Financial Wellbeing Measure*

Items	Factor	
	Perceived Financial Security	Making Ends Meet
How long could you cope with a fall of income by a third without having to borrow funds?	.860	
How good/bad is your current financial situation?	.844	
How often do you have money left over from your income at the end of each month?	.784	
What savings do you have in terms of number of months income?	.716	
How confident do you feel about your financial situation over the next 12 months?	.618	
How much could you cover of an unexpected expense of one month's income?	.569	
How much would you need to borrow to cover unexpected expense?	.501	
My finances allow me to do the things I want and enjoy in life?	.463	
How often do you find yourself with no money for food and expenses?		.898
In the past 12 months, how often have you been unable to pay bills or loan commitments at the final reminder due to lack of money?		.804
Which one of the following statements best describes how well you are meeting your bills and credit commitments at the moment?		.470
Eigen Value	6.123	1.086
% of Variance	52.07%	6.29%
Cronbach's Alpha	.90	.83

Note. Loadings <.4 have been suppressed ($n = 84-90$).

The resulting factor solution is presented in Table 2. It is clear and interpretable, with no factor overlap and reasonable Alphas. Because the items and measures used a variety of scales, the reduced data from Table 2 were therefore saved as factor scores. Interestingly, one factor (1) is more clearly related to security than Wellbeing, and for that reason was retained as an alternative measure of Financial Security.

Table 2**Factor Solution for the Combined Financial Wellbeing Measures**

Items	Factor		
	Financial Security 1 – Buffer	Financial Wellbeing - Comfort	Financial Wellbeing - Making Ends Meet
What savings do you have in terms of number of months income?	.950		
How often do you have money left over from your income at the end of each month?	.754		
How long could you cope with a fall of income by a third without having to borrow funds?	.746		
I have money left over at the end of the month	.742		
I could handle a major unexpected expense	.670		
I am just getting by financially	.669		
How much would you need to borrow to cover an unexpected expense?	.535		
How much could you cover of an unexpected expense of one month's income?	.504		
Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month	.429		
How confident do you feel about your financial situation over the next 12 months?		.827	
I am securing my financial future		.618	
My finances allow me to do the things I want and enjoy in life?		.602	
I am concerned that the money I have or will save won't last		.563	
How good/bad is your current financial situation?		.533	
I can enjoy life because of the way I'm managing my money		.430	
My finances control my life		.402	
In the past 12 months, how often have you been unable to pay bills or loan commitments at the final reminder due to lack of money?			.861
How often do you find yourself with no money for food and expenses?			.764
Which one of the following statements best describes how well you are meeting your bills and credit commitments at the moment?			.539
I am behind with my finances			.520
Eigenvalue	10.85	1.37	1.26
%age of Variance	52.42%	4.83%	4.56%
Cronbach's Alpha	.94	.88	.86
Factor Scores	3.74	3.23	4.75

Note. Red Items are from the Kempson and Poppe (2018) measure and Black Items are from the Consumer Financial Protection Bureau. Loadings $<.4$ have been suppressed ($n = 79-90$).

Seubert, Hopfgartner & Glaser Subjective Experience of Work-Related Precariousness (SEWP).

The factor solution extracted four factors which accounted for 65.01% of the variance. The Cronbach's Alpha scores increased for the 'Meaningful Subject Related' factor if "I can identify with my work to a limited extent only" was removed (increased to $\alpha=.916$). The same occurred for the status and recognition factor when the item "I receive less recognition for my work by society" was removed (increased to $\alpha=.885$). As previously exclaimed, a factor requires a minimum of three items to be loaded, the removal of the items indicated above would have left each factor with two items (Lloret-Segura et al., 2014). Given the removal of the items did not significantly increase Alpha, and that all factors initially scored $\alpha \geq .80$, it was deemed appropriate to leave all items and factors within the measure (as seen in Table 3).

The factor analysis somewhat reflected the original structure developed by Seubert, Hopfgartner and Glaser (2019). Factor 1 represented 'Meaningful Subject Related', factor 2 'Reproductive Materials', and factor 4 was found to represent 'Status and Recognition', each from the original measure. However, factor 3 has been represented as 'Organisational and Social Inclusion', an adaptation of two constructs from the original measure. The factors and their item loadings are depicted in Table 3.

Table 3*Factor Solutions for the Subjective Experiences of Work-Related Precariousness**Measure (SEWP)*

Items	Factor			
	Meaningful Subject Related	Reproductive Materials	Organisational and Social Participation	Status and Recognition
I experience no fulfilment in my work	.985			
I often see no meaning in my work	.783			
I can identify with my work to a limited extent only	.659			
I can't afford much		.935		
I keep thinking about how to get by financially in the future		.702		
Nothing is usually left of my income by the end of the month		.693		
I do not get sufficient information about important things			.797	
I am not seen as an equal colleague at my workplace			.765	
My organisational participation rights are limited			.594	
Workplace health and safety regulations (e.g., education about risks) are neglected for me.			.544	
Fewer opportunities for vocational development are available to me.			.468	
I am not integrated well into the social networks at work			.437	
I receive less recognition for my work by friends				.930
I receive less recognition for my work by my family				.833
I receive less recognition for my work by society				.432
Eigen Value	5.34	1.94	1.70	1.47
% of Variance	33.23%	10.51%	9.03%	8.00%
Cronbach's Alpha	.88	.82	.80	.83

Note. Loadings <.4 have been suppressed ($n = 87-90$).

Rhode et al. (2015) Financial Security Measure.

The Financial Security Measure developed by Rhode et al. (2015) was factor analysed following the protocol mentioned above. The Financial Security measure obtained a Kaiser-Meyer-Olkin Score of $KMO = .612$. This is below the minimum

requirement of $KMO = >.70$, as stated in the data reduction protocol above. For this reason, this measure was not factor analysed. This measure will not be utilised further within this study. Instead, therefore, the factor Financial Security, from Table 1, served as the key measure of the Financial Security construct for this study (Figure 1).

Correlation

These were performed as a prelude to potential regression. Prior to checking all inter-factor (PAF) score correlations, all reduced data from the factor analysis was checked for normality. The Shapiro-Wilk scores indicated in Appendix B found reduced scores for all variables except Financial Wellbeing 'Comfort' were non-normally distributed. Accordingly, a Spearman correlation calculation was conducted on the scores derived from Tables 1-3. Pairwise deletion was applied to the sample to preserve as much statistical power as possible. Demographic variables of gender, age and number of children were incorporated into the analysis as control variables (Table 4). All variables were entered into the correlation assessment. Only statistically significant results were presented in Table 4 to simplify the interpretability of the correlation output.

Table 4*Spearman's Rho Correlation Matrix for Variables in Figure 1*

	<i>Financial Wellbeing - Comfort</i>	<i>Financial Wellbeing - Making Ends Meet</i>	<i>Financial Security</i>	<i>Subjective Working Conditions - Meaningful Subject Related</i>	<i>Subjective Working Conditions - Reproductive Materials</i>	<i>Subjective Working Conditions - Organisational and Social Participation</i>	<i>Subjective Working Conditions - Status and Recognition</i>	<i>Salary</i>	<i>Hourly Rate</i>	<i>Hours Worked within the Last Week</i>	<i>Gender</i>	<i>Age</i>
Financial Wellbeing – Comfort												
Financial Wellbeing - Making Ends Meet	.609**											
	(n = 57)											
Financial Security	.720**	.692**										
	(n = 57)	(n = 57)										
Subjective Working Conditions - Meaningful Subject Related	-.479**	-.391**	-.399**									
	(n = 55)	(n = 55)	(n = 55)									
Subjective Working Conditions - Reproductive Materials	-.733**	-.592**	-.797**	.352**								
	(n = 55)	(n = 55)	(n = 55)	(n = 85)								
Subjective Working Conditions - Organisational and Social Participation				.452**	.219*							
				(n = 85)	(n = 87)							
Subjective Working Conditions - Status and Recognition			-.318*	.544**	.284**	.456**						
			(n = 55)	(n = 85)	(n = 86)	(n = 86)						
Salary					-.461**							
					(n = 37)							
Hourly Rate		.338*			-.275*	-.259*						
		(n=45)			(n=63)	(n=64)						
Hours Worked within the Last Week	.291*				-.390**			.605**				
	(n=57)				(n=86)			(n=37)				
Gender												
Age							-.241*		.438**			
							(n=88)		(n=65)			
Number of Children												

Note. Spearman Correlation Significance * $p < .05$, ** $p < .01$.

Financial Wellbeing

In column 1 (Table 4), Financial Wellbeing 'Comfort' was significantly and positively correlated with Financial Wellbeing 'Making Ends Meets' ($r = .61, p = <.01$), Financial Security ($r = .72, p = <.01$), and the Objective Working Condition factor of Hours Worked Within the Last Week ($r = .29, p = <.05$). Evidence suggests hours of work and Financial Security are predictors of Financial Wellbeing 'Comfort'. Financial Wellbeing 'Making Ends Meet' correlated significantly and positively with Financial Security ($r = .69, p = <.01$) and the Objective Working Conditions factor of Hourly rate ($r = .34, p = <.05$).

The Subjective Working Condition factors of 'Meaningful Subject Related' ($r = -.48, p = <.01$), 'Reproductive Materials' ($r = -.73, p = <.01$) and Organisational and Social Participation ($r = -.28, p = <.05$) were significantly and negatively correlated with Financial Wellbeing 'Comfort'. Subjective Working Conditions 'Meaningful Subject Related' ($r = -.39, p = <.01$), and 'Reproductive Materials' ($r = -.59, p = <.01$) significantly and negatively correlated with Financial Wellbeing 'Making Ends Meet'. Thus, those who are exposed to less Precarious Working Conditions are likely to experience higher levels of reported Financial Wellbeing compared to those in more Precarious Working Conditions.

The strongest predictors of Financial Wellbeing 'Comfort' and 'Making Ends Meet' were factors which conceptually represent ideas of financial resources; Financial Security and the Subjective Working Condition factor of 'Reproductive Materials'. Suggesting less Precarious Working Conditions and a greater sense of Financial Security are linked to higher levels of reported Financial Wellbeing.

Objective Working Conditions

In column 8 (Table 4), Salary was significantly and positively correlated with Hours Worked Within the Last Week ($r = .61, p = <.01$). Hourly rate was significantly and positively correlated with Age ($r = .44, p = <.01$), suggesting as one gets older their hourly rate will increase.

Subjective Working Conditions

The Subjective Working Conditions factors significantly and positively correlated with one another (Table 4). 'Reproductive Materials' significantly and negatively correlated with the Objective Working Conditions factors of Salary ($r = -.46, p = <.01$), Hourly rate ($r = -.28, p = <.05$), and Hours Worked Within the Last Week ($r = -.39, p = <.01$). In column 6 Organisational and Social Participation was significantly and negatively correlated with Hourly rate ($r = -.26, p = <.05$) and Age ($r = -.24, p = <.05$). Finally, Status and Recognition correlated with all factors except Gender (column 7, Table 4).

Financial Security

Financial Security significantly and negatively correlated with three of the four Subjective Working Conditions factors: 'Meaningful Subject Related' ($r = -.40, p = <.01$), 'Reproductive Materials' ($r = -.80, p = <.01$) and Status and Recognition ($r = -.32, p = <.05$). The Subjective Working Conditions factor of 'Reproductive Materials' was the strongest predictor of Financial Security, with this being the strongest correlation between all factors in Table 4. This link suggests that one's financial resources obtained through work are a significant predictor of one's Financial Security.

Given the significance of the existing links previously described, there was reasonable grounds to further assess the links between the predictor variables and the outcome variable of Financial Wellbeing. Thus, a regression analysis was conducted.

Regression

Based on the exploratory nature of this study and on the correlation output, it was deemed reasonable to proceed with exploring possible multiple linear and non-linear regression(s). As noted in Chapter 1, additional non-linear tests were mainly reserved for testing the potential of pay to predict SEWP, based on nascent literature in this domain of the model in Figure 1. Due to considerations of power, and the exploratory nature of the thesis question, all regressions proceeded one criterion variable at a time, and worked backwards, in Figure 1, from each of two promising factors of Wellbeing separately. For SEWP, there were two factors that usefully predicted Financial Wellbeing, these were each tested separately. Hence when SEWP was re-considered as a criterion in itself, with Objective Working Conditions like pay as the predictor, there were two separate sets of regression analyses, linear and non-linear, that were computed.

Linear Regression

With respect to linearity, checks were first done to rule out multicollinearity as there were multiple predictor variables with correlations exceeding .70 (Table 4). Multicollinearity was assessed using Variance Inflation Factors (VIF), with VIF values being small, <2 (O'Brien, 2007). Thus, multicollinearity was not present within the data and the assumptions for proceeding with linear regressions were generally met.

For each linear regression, the default regression of 'enter' was applied in SPSS. Demographic variables (age, gender, number of children) were excluded as statistical

controls, as their link to the two factors of Financial Wellbeing were not statistically significant (in Table 4 above).

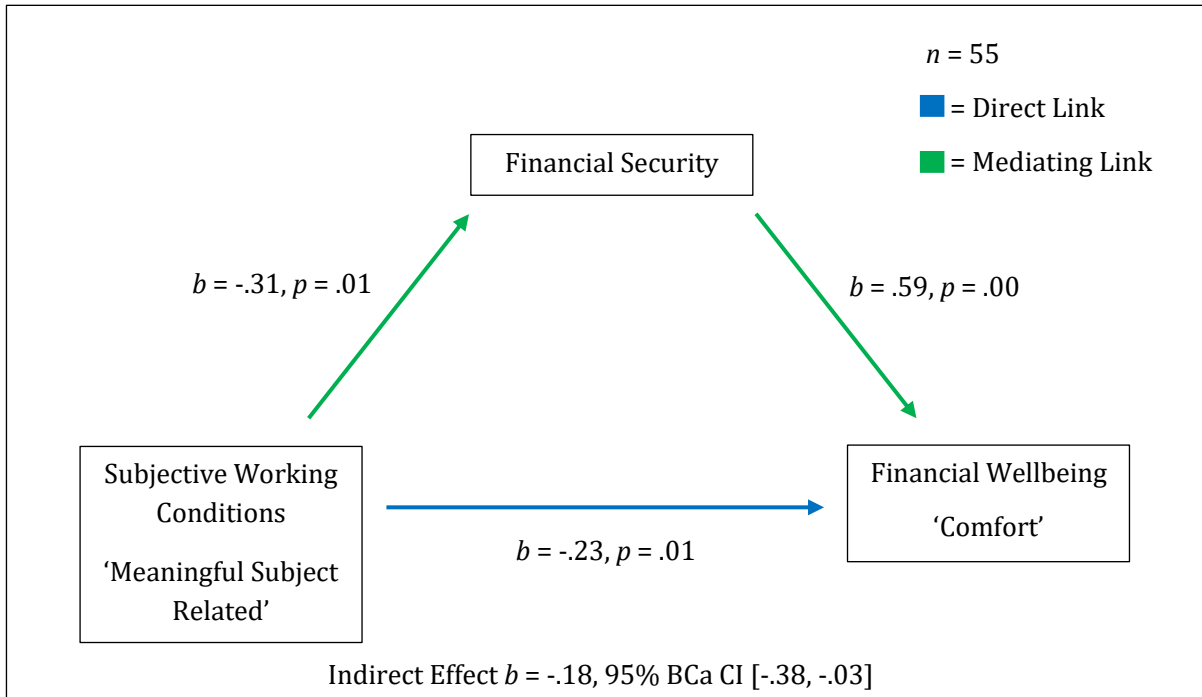
Mediation was tested separately from, and before moderation, for each criterion (Wellbeing factor). An analysis of the variables in Figure 1 and their potential links was conducted using a mediation assessment in IBM SPSS. The PROCESS tool was used under the Model 4 model. 95% confidence intervals were calculated with the default bootstrapping sample size of 5,000. Financial Security was tested as the mediating variable, and then as a potential moderator of the link between Subjective Working Conditions and the two factors of Financial Wellbeing.

Financial Wellbeing 'Comfort' as the Criterion, Testing for Mediation

From Figure 2, the predictor was the Subjective Working Condition factor of 'Meaningful Subject Related' and the potential mediator was Financial Security. The criterion variable was Financial Wellbeing 'Comfort'.

Figure 2

The Mediating Link of Financial Security for Subjective Working Conditions Factor 'Meaningful Subject Related' and Financial Wellbeing 'Comfort'.



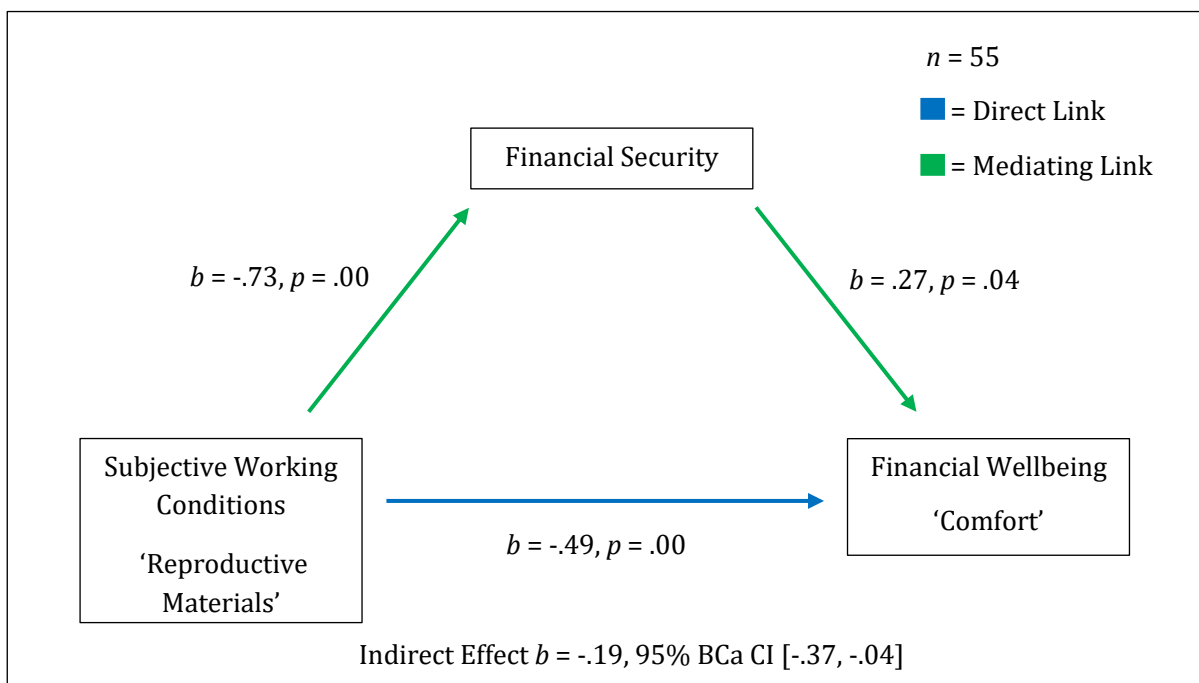
Note. The sample size reduced to $n = 55$ for the mediation assessment, as participants were able to skip some individual questions in the survey. Whenever a participant skipped an item, their data was lost. It was not possible to calibrate the mean score per item as a means of retaining these participants because the items in the Financial Wellbeing measures, in each factor, used different scales. Hence, due to small sample size, the findings in Figure 2 must be interpreted with great caution (see Discussion, Chapter 4).

Figure 2 shows a significant negative indirect link between Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Comfort', through Financial Security, $b = -.18, 95\% \text{ BCa CI } [-.38, -.03]$. There was also a significant negative direct link between the Subjective Working Conditions factor 'Meaningful

Subject Related' and Financial Wellbeing 'Comfort', $b = -.23, p = .01$. The total effect of the model was $b = -.41, p = .00$. The indirect effect accounted for 43.90% of the total effect. Thus, Financial Security partially mediated between Subjective Working Conditions 'Meaningful Subject Related' and Financial Wellbeing 'Comfort'.

Figure 3

The Mediating Link of Financial Security for Subjective Working Conditions Factor 'Reproductive Materials' and Financial Wellbeing 'Comfort'.



From Figure 3, the predictor was the Subjective Working Condition factor of 'Reproductive Materials', and the potential mediator was Financial Security. The criterion variable was Financial Wellbeing 'Comfort'. Within Figure 3, a significant negative indirect link occurred between Subjective Working Conditions factor 'Reproductive Materials' and Financial Wellbeing 'Comfort', through financial Security, $b = -.19, 95\% \text{ BCa CI } [-.37, -.04]$. There was also a significant negative direct link between Subjective Working Conditions factor 'Reproductive Materials' and Financial Wellbeing

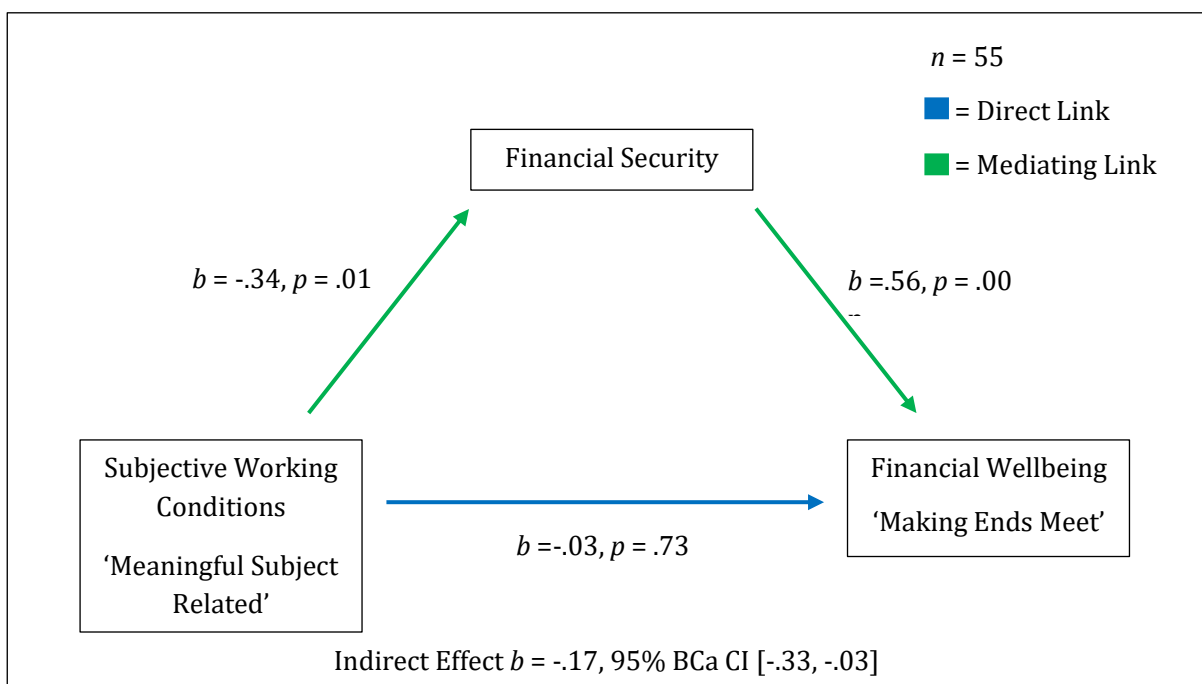
'Comfort', $b = -.49, p = .00$. The total effect of the model equated to $b = -.69, p < .001$. The indirect effect accounted for 27.54% of the total effect. Thus, Financial Security partially mediated between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Comfort'.

Financial Wellbeing 'Making Ends Meet' as the Criterion, Testing for Mediation

In Figure 4, the predictor was the Subjective Working Condition factor of 'Meaningful Subject Related' and the potential mediator was Financial Security. The criterion variable was Financial Wellbeing 'Making Ends Meet'.

Figure 4

The Mediating Link of Financial Security for Subjective Working Conditions Factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet'.



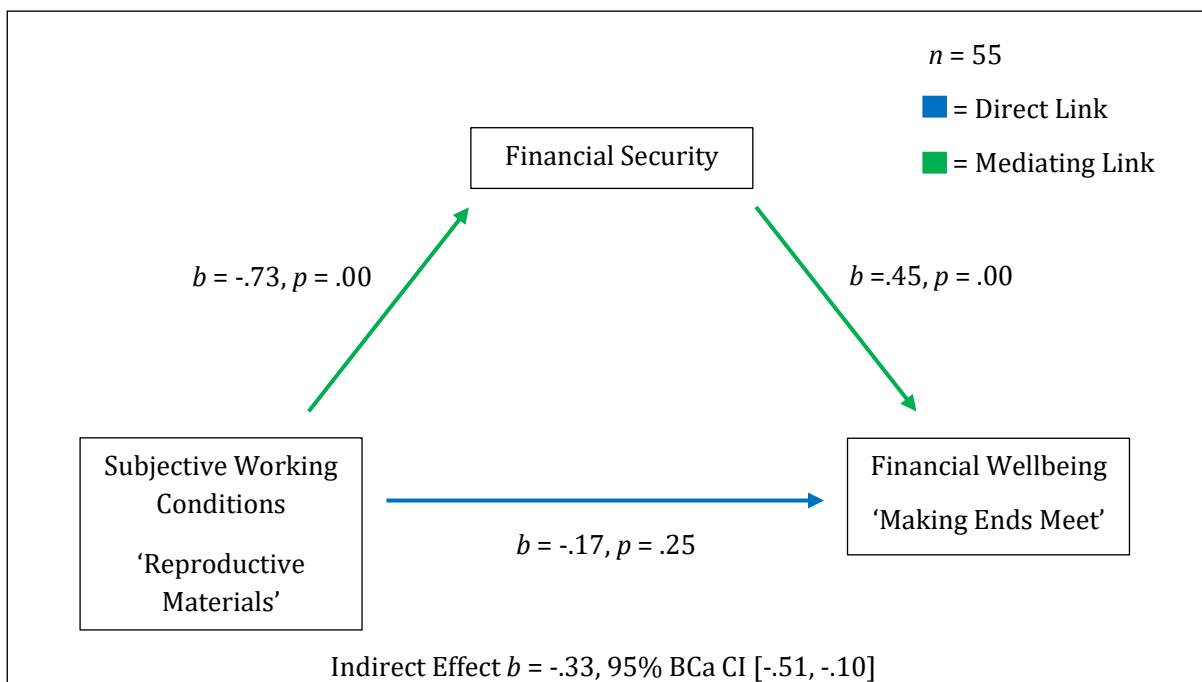
From Figure 4, there was a significant negative indirect link between Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet', through financial Security, $b = -.17, 95\% \text{ BCa CI } [-.38, -.03]$. There

was no direct link between Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet', $b = -.03, p = .73$. The total effect of the model was $b = -.20, p = .06$. Thus, Financial Security fully mediated between Subjective Working Conditions 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet'.

In Figure 5, the predictor was the Subjective Working Condition factor of 'Reproductive Materials', and the potential mediator was Financial Security. The criterion variable was Financial Wellbeing 'Making Ends Meet'.

Figure 5

The Mediating Link of Financial Security for Subjective Working Conditions Factor 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet'.



From Figure 5, there was a significant negative indirect link between Subjective Working Conditions factor 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet', through Financial Security, $b = -.33, 95\% \text{ BCa CI } [-.51, -.10]$. There was no

direct link between the Subjective Working Conditions factor 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet', $b = -.17, p = .25$. Thus, Financial Security fully mediated the link between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet'.

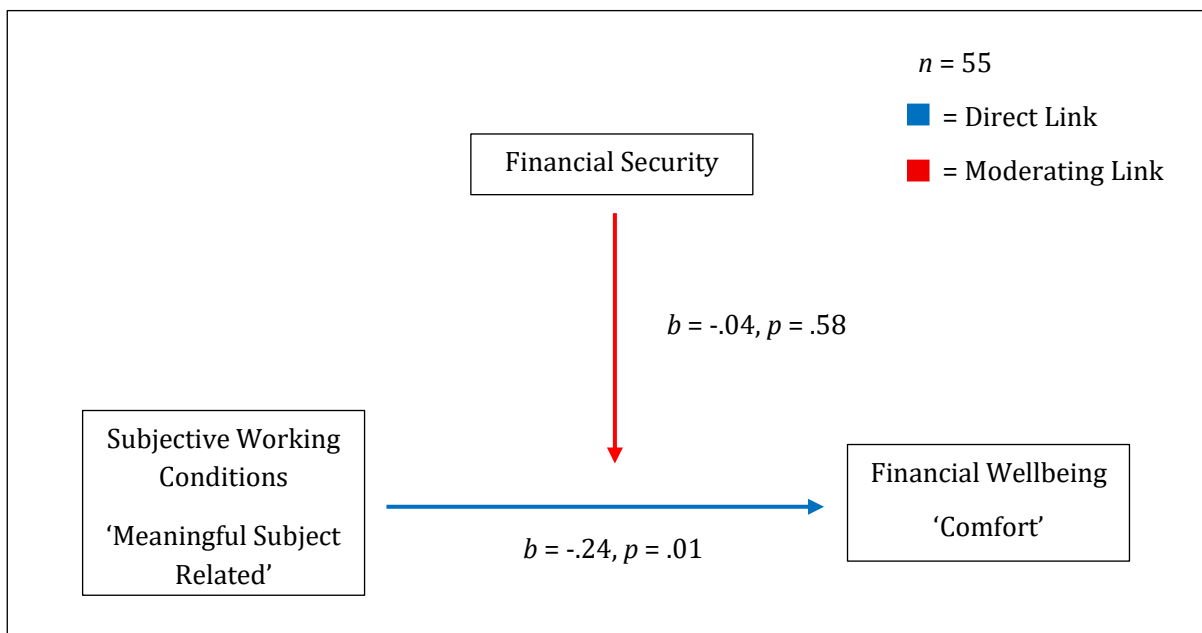
Moderation Testing

Financial Wellbeing 'Comfort' – Linear Regression: Moderation

Financial Security was the only potential moderating variable in Figure 1, a possibility that was explored using the PROCESS tool Model 1 model. To avoid multicollinearity, mean-centering was adopted (Iacobucci et al., 2017). The exploration of possible moderation(s) of the link between SEWP factors 'Meaningful Subject Related' and 'Reproductive Materials' and Financial Wellbeing 'Comfort', by Financial Security, are summarised in Figures 6 and 7, respectively.

Figure 6.

The Moderating Link by Financial Security of the Link Between Subjective Working Condition Factor 'Meaningful Subject Related' and Financial Wellbeing 'Comfort'.



In Figure 6, the moderating link of Financial Security was not statistically significant for the link between Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Comfort' ($b = -.04$, $se = .08$, $t = -.56$, $p = .58$). *R-Squared* was 57% with *R-squared change* from .57 (comparing what with what) as 0%, $p = .58$. Thus, moderation of Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Comfort', by Financial Security, did not occur.

Figure 7

The Moderating Link of Financial Security on the Link Between Subjective Working Condition Factor 'Reproductive Materials' and Financial Wellbeing 'Comfort'.

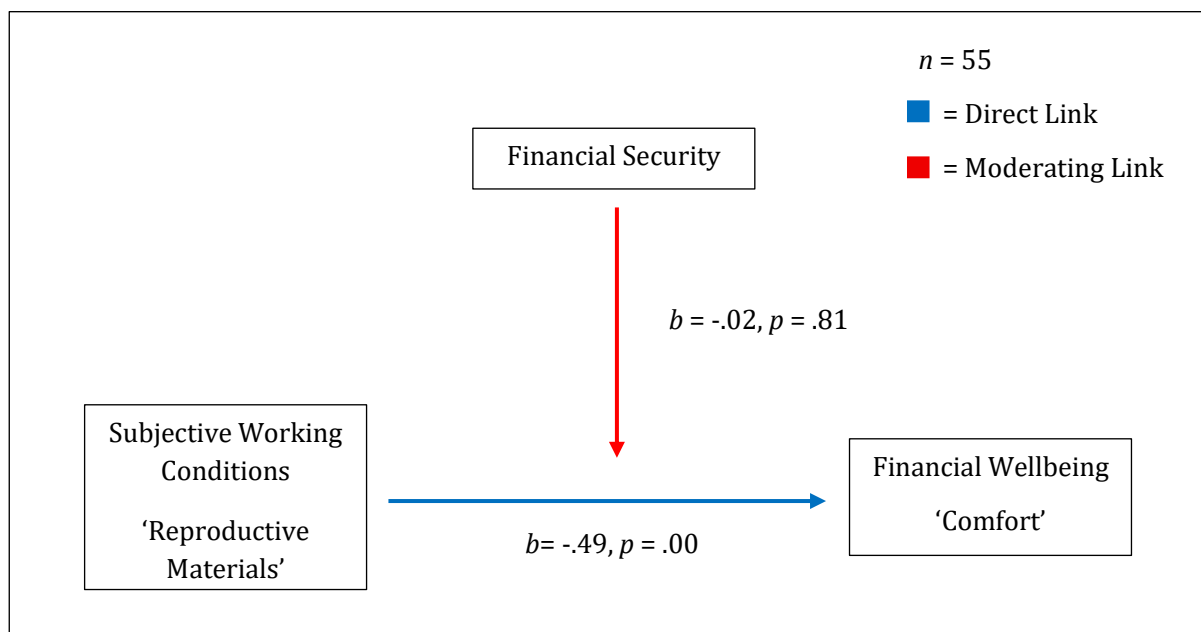


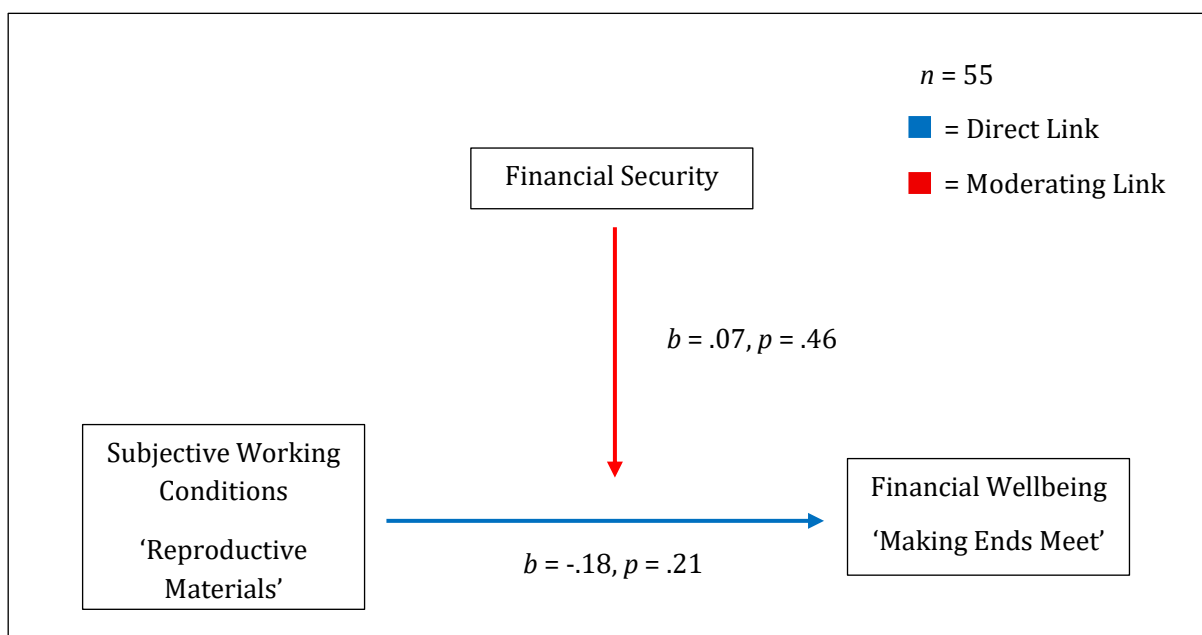
Figure 7 depicts the moderating link of Financial Security for the link between the predictor variable of Subjective Working Conditions factor 'Reproductive Materials' and the criterion variable of Financial Wellbeing 'Comfort' was not statistically significant ($b = -.02$, $se = .08$, $t = -.24$, $p = .58$). *R-Squared* was 64% with *R-squared change* as 0%, $p = .81$. Therefore, moderation did not occur.

Financial Wellbeing 'Making Ends Meet' – Linear Regression: Moderation

Neither of the two factors of Subjective Working Conditions 'Reproductive Materials' or 'Meaningful Subject Related' produced any significant direct links within the mediation analysis (Figure 4 and 5). Though moderation can still occur without a significant direct link between two variables (Field, 2018). Therefore, I proceeded to test for moderation with Financial Security as the potential moderator, the two SEWP factors 'Reproductive Materials' and 'Meaningful Subject Related' as predictors, and the criterion variable of Financial Wellbeing factor 'Making Ends Meet'.

Figure 8

The Moderating Link of Financial Security on the Link Between Subjective Working Condition Factor 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet'.

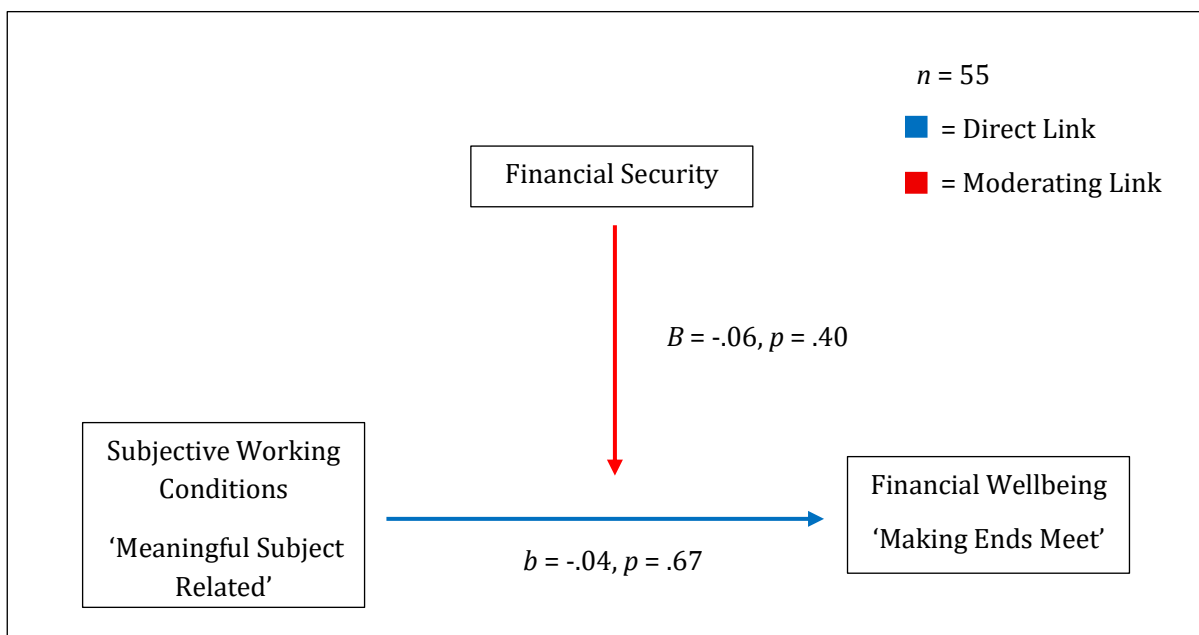


From Figure 8, Financial Security did not moderate the link between the predictor variable of Subjective Working Conditions factor 'Reproductive Materials' and the criterion variable of Financial Wellbeing 'Making Ends Meet' ($b = .07, se = .09, t = .75, p = .46$). *R-Squared* was 44% with *R-squared change* as 0%, $p = .46$. Thus,

moderation of Subjective Working Conditions factor 'Reproductive Materials' and the criterion variable of Financial Wellbeing, by Financial Security, did not occur.

Figure 9.

The Moderating Link of Financial Security on the Link Between Subjective Working Condition Factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet'.



Results depicted in Figure 9 suggest Financial Security does not moderate the link between the predictor variable of Subjective Working Conditions factor 'Meaningful Subject Related' and the criterion variable of Financial Wellbeing 'Making Ends Meet'. The results were non-significant ($b = -.06, se = .08, t = -.84, p = .40$). *R-Squared* was 46% with *R-squared change* as 0%, $p = .40$. Thus, there was no evidence of any moderation by Financial Security of the link between Subjective Working Conditions factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet'.

Non-Linear Regression

As we learned in Chapter 1, the research literature on economic wage conditions, in particular regarding pay as a potential predictor of SEWP, has been shifting from being largely linear to considering the possibility of non-linear linkages. With this tentative recent trend in mind, the first question was to explore whether or not the link between pay and SEWP was more clearly either linear, or non-linear.

Based on recent literature focused on living wages (Carr et al., 2018), I used curve estimation to first probe for any significant linear, logarithmic and cubic relationship(s) between one predictor and one criterion at a time. If a non-linear link was signalled (more explanatory power than linear), then I used Locally Estimated Scatter point Smoothing (LOESS), in SPSS, to check for any more precise shape (e.g., sharp cusp) than the non-linear (cubic, or logarithmic) function linking wage to security (Cleveland & Loader, 1996).

As per the living wage literature, outliers which could potentially distort curve estimations were first removed (Carr et al., 2018). For the current study, outliers with a Z-score at ± 2 standard deviations from the mean were excluded. This led to three outliers being excluded for Salary, with salaries ranging from \$220,000 - \$320,000 (NZD). Two outliers were excluded for Hourly Rate, with rates of \$100 and \$120 (NZD). All items, including outliers, are depicted within Figure 10 (Appendix C). As a precaution, the correlations and linear regressions above were each re-run with these outliers removed. However, there were no significant changes. Therefore, they were only excluded when conducting curve estimations between the variables of Wages (Objective Working Conditions) and SEWP (Subjective Working Conditions).

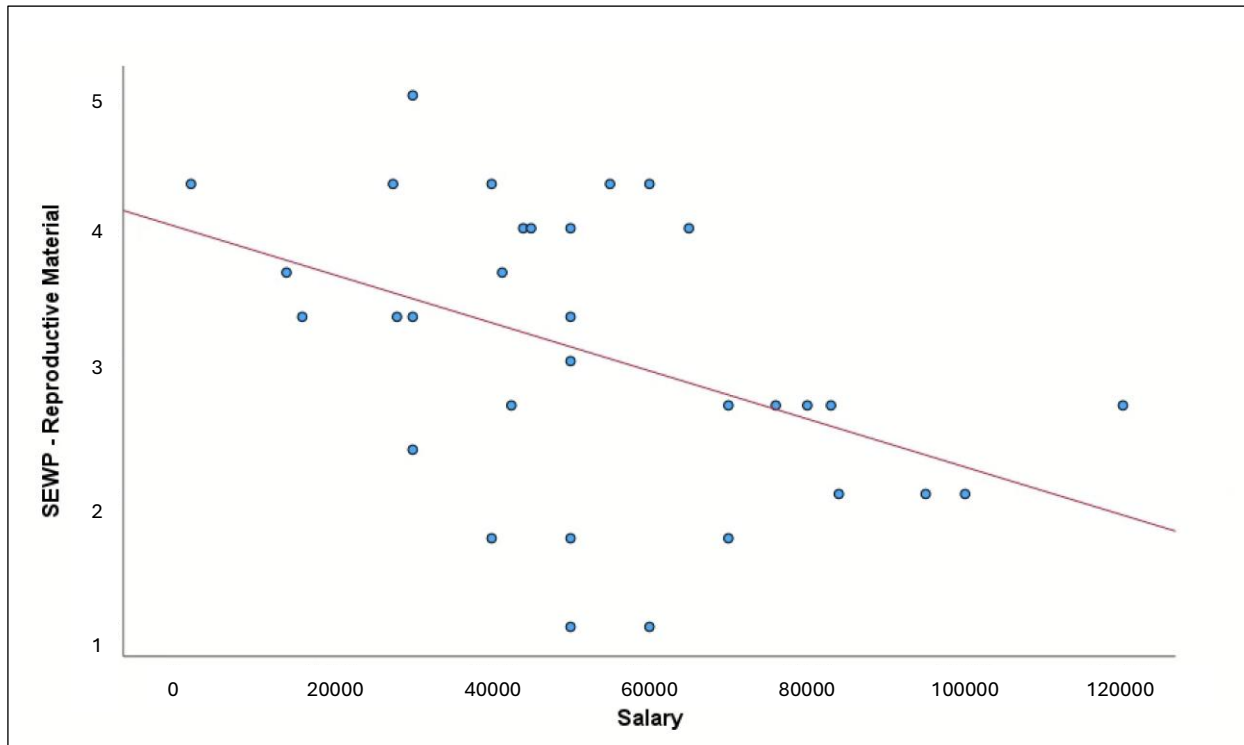
Salary as the Predictor, SEWP Factor of Reproductive Materials as the Criterion

Because Outliers with a Z-score of ± 2 standard deviations from the mean were excluded from this analysis, and only half the sample reported their wages as salary, the sample size was much reduced, from $n = 38$ to $n = 35$. This reduction in sample size meant that the results of any tests were extremely tentative. In addition, from Figure 11, there were two clear outliers at the upper end of the salary distribution, that were removed before the initial curve estimation was conducted. An additional outlier was identified following the removal of the two clear outliers, (salary = \$160,000) this was further removed so as not to distort the data ($n = 34$).

There was a significant link between reported Salary and the Subjective Working Conditions factor 'Reproductive Materials' through a Linear function ($R^2 = .20$, $F = 7.42$, $df = 1$, $p = .01$) (Figure 9). The Logarithmic function was significant but obtained a lower score with $R^2 = .17$ ($F = 6.14$, $df = 1$, $p = .02$) and the Logarithmic function was non-significant with $R^2 = .22$ ($F = 2.58$, $df = 3$, $p = .07$).

Figure 11

Quadratic Function Distribution for Salary and SEWP 'Reproductive Materials'.

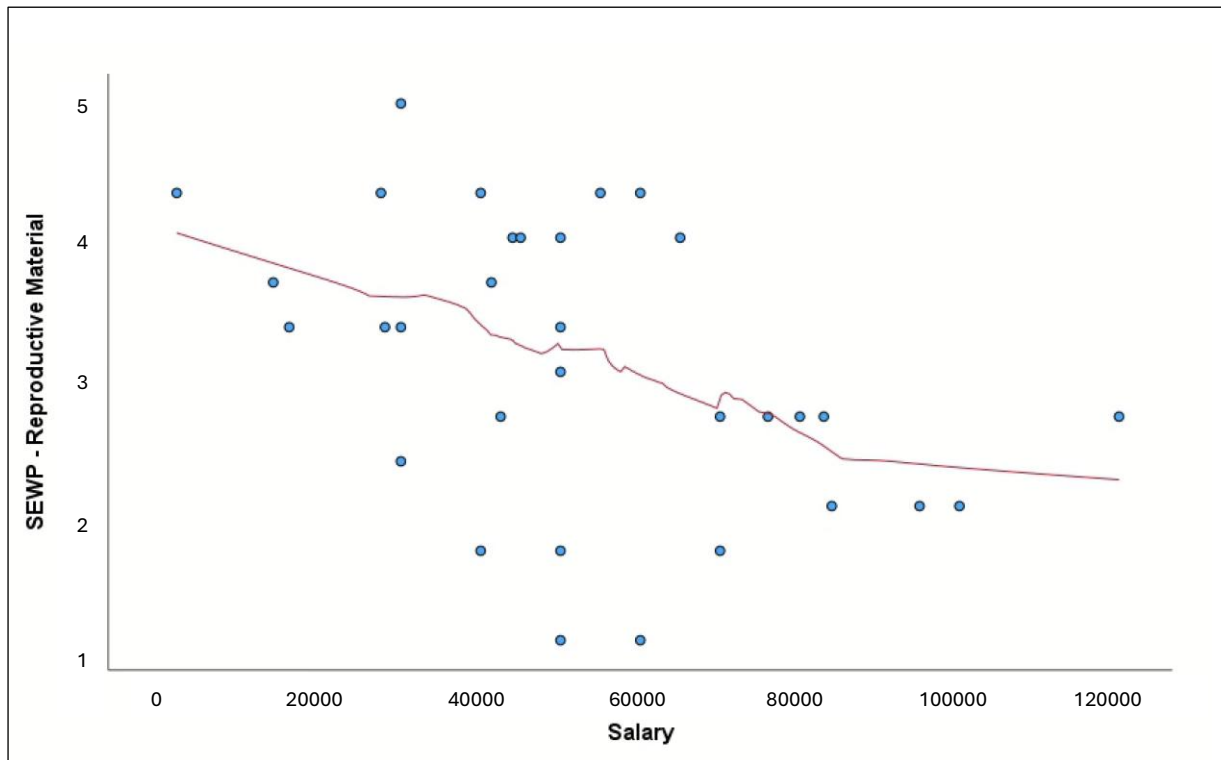


Note. The sample size further reduced to $n = 33$ due to missing data from the SEWP factor 'Reproductive Materials'. Due to the negative wording of items within the SEWP measure, increases in salary were statistically associated with lower scores on the 'Reproductive Materials' factor.

Within Figure 12, a LOESS curve with a tension parameter of 50% (= .5) was fitted to the data to prevent over-smoothing and to further explore the best-fitting function model of fit (Jacoby, 2000).

Figure 12

A LOESS Curve Function Fit with a Tension Parameter of 50% for Salary and SEWP
'Reproductive Materials'.



Hourly Rate as the Predictor, SEWP as the Criterion

Outliers with a Z-score of ± 2 standard deviations from the mean were also excluded from this analysis with the sample reducing from $n = 65$ to $n = 63$ (hourly rate ranging up to \$60 NZD). The sample size was further reduced to $n = 60$ due to missing data from the SEWP factor of 'Reproductive Materials'. The Linear function obtained $R^2 = .01$ ($F = .39$, $df = 1$, $p = .54$), the Logarithmic function obtained $R^2 = .01$ ($F = .68$, $df = 1$, $p = .42$), and the Cubic function obtained $R^2 = .03$ ($F = .63$, $df = 3$, $p = .60$). Thus, there were no significant curvilinear or linear links between the Objective Working Conditions factor of Hourly Rate and the Subjective Working Conditions factor of 'Reproductive Materials' for this sample.

Path Analysis

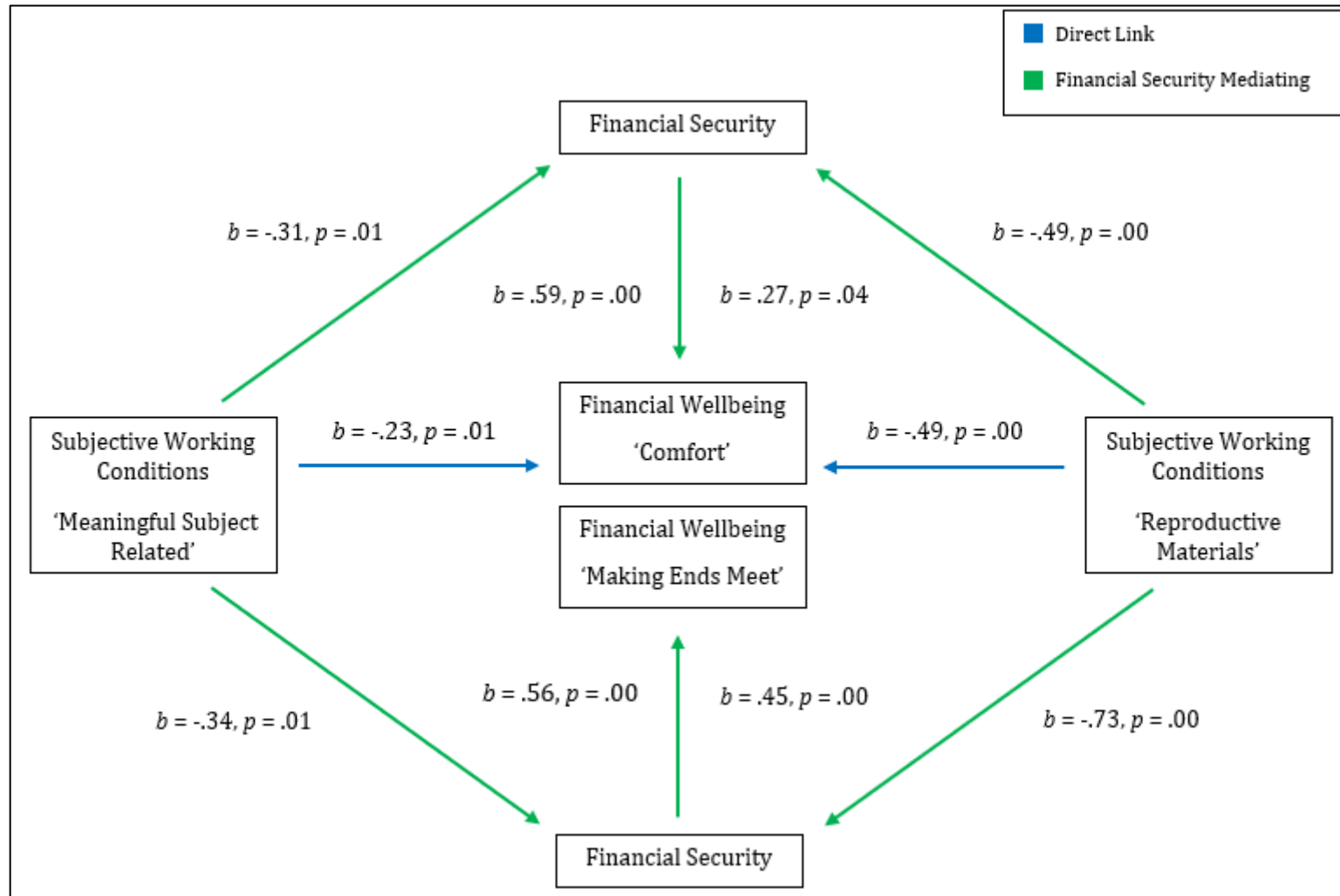
A full (linear) path analysis of the model depicted in Figure 1 was not conducted for this study. The significant reduction in sample size due to different pay types does not meet the suggested ratio of 10 participants to each observed variable for regression (Miller & Kunce, 1973). Thus, the analysis would run the risk of overfitting the data due to its limited power (Hair et al., 2014).

Remaining Links

The remaining links from the initial model in Figure 1 have been depicted in Figure 13. From Subjective Working Conditions, both the 'Reproductive Materials' and 'Meaningful Subject Related' components have direct significant links to Financial Security and to Financial Wellbeing 'Comfort'. Though they do not have direct significant links to Financial Wellbeing 'Making Ends Meet'. Financial Security mediates the link between the two factors of Subjective Working Conditions and Financial Wellbeing 'Making Ends Meet'.

Figure 13

A Kite Diagram Depicting the Remaining Links Between the Key Constructs from the Initial Model in Figure 1.



Chapter 4 – Discussion

This study aimed to investigate the potential links between Precarious Working Conditions, Financial Security and Financial Wellbeing within an Aotearoa New Zealand context. Despite the rise of Precarious Working arrangements in recent decades (Kalleberg, 2009), its implications for the link to Financial Security and Wellbeing remain unexplored. At the time of data collection, this study was among the first in Aotearoa New Zealand to examine these constructs using a combination of subjective perceptions and objective labour market indicators.

Summary of Findings

To examine these potential links, subjective measures were utilised to capture one's perceptions of their working conditions and financial circumstances. These were complemented by objective measures, including salary, hourly wage, and hours worked. An individual measure was applied for Precarious Employment (SEWP), while Financial Security was originally measured using the instrument developed by Rohde et al. (2015). However, the factor analysis revealed that this measure did not meet reliability criteria and was subsequently replaced with a construct derived from the CFPB Financial Wellbeing scale (CFPB, 2015), which demonstrated stronger alignment with the construct of Financial Security. To enhance the reliability and parsimony of Financial Wellbeing measurement, two well-established scales were used (CFPB, 2015; Kempson & Poppe, 2018), resulting in two components: 'Comfort' and 'Making Ends Meet'.

The findings revealed significant direct and indirect negative links between the Subjective Working Conditions components 'Reproductive Materials' and 'Meaningful Subject Related' and both Financial Wellbeing factors. Specifically, Financial Security

partially mediated the relationship with 'Comfort' and fully mediated the relationship with 'Making Ends Meet'. In terms of Objective measures, annual salary was positively associated with reduced perceptions of precariousness in reproductive working conditions, while hourly rate showed no significant association. A full linear path analysis of the model in Figure 1 could not be completed due to the significant reduction in sample size throughout the analysis.

Explanation of Findings

An important observation from this study was that the nature of mediation by Financial Security was shaped not by the preconditions but by the specific outcome factor of Financial Wellbeing. Financial Security partially mediated the link between both Subjective Working Condition factors and Financial Wellbeing 'Comfort', but it fully mediated the link to Financial Wellbeing 'Making Ends Meet'. Interestingly, the survey items underpinning the Financial Wellbeing factors identified a temporal distinction. Financial Wellbeing 'Making Ends Meet' reflected an individual's perceptions about their present financial circumstances, while Financial Wellbeing 'Comfort' more closely aligned with one's perceptions about their financial future.

This interaction and temporal distinction may have occurred due to the way individuals differentiate immediate and long-term financial stressors or financial aspirations. The future-oriented perception associated with Financial Wellbeing 'Comfort' links back to part of the initial definition of Financial Wellbeing, where one is able to maintain a sense of Financial Security to ensure resilience for the future and to make free choices which bring enjoyment to everyday life (Sabri et al., 2019). The perception of having sufficient financial resources through employment can enhance one's sense of Financial Security, empowering individuals with greater freedom to plan

for the future, pursue financial goals, and exercise more control over their financial decisions, thus creating a sense of comfort (Riitsalu et al., 2024).

The present-oriented perceptions of Financial Wellbeing 'Making Ends Meet' primarily reflect an individual's ability to meet ongoing financial commitments (Sabri et al., 2020). The focus on immediate financial sufficiency is linked closely to the satisfaction of lower-order psychological needs. Specifically, one requires adequate financial resources to meet essential living expenses e.g., rent, food and bills (Weinstein & Stone, 2018). Higher and more stable wages have been shown to reduce money management stress, enhancing perceived financial control and security (Netemeyer et al., 2018). Suggesting, the full mediation of Financial Security to Financial Wellbeing 'Making Ends Meet' is not just about the amount of income one receives but the consistent and reliable access to income which allows one to feel Financially Secure in their ability to meet current financial demands (Green & Leeves, 2013; Riitsalu et al., 2024).

Subjective Working Conditions 'Meaningful Subject Related' and the Link to Financial Wellbeing 'Comfort'

The Aotearoa New Zealand sample within this study showed a significant negative link between Subjective Working Conditions 'Meaningful Subject Related' and Financial Wellbeing 'Comfort'. This result was not expected as the factor of Subjective Working Conditions 'Meaningful Subject Related' pertains to whether an individual finds meaning or fulfilment from their work and this study primarily examined the financial aspects of one's employment and their implications.

Research suggests those in financially stable roles, despite potentially deriving less meaning from their work, report lower levels of negative emotional states such as

stress, anxiety, and depression, compared to those in Precarious Work who perceive their work is highly meaningful (Patulny et al., 2020). Those who pursue intrinsically meaningful work may be more vulnerable to Precarious Working Conditions, such as financial instability, which can heighten concerns about long-term Financial Wellbeing and limit their ability to ascertain personal aspirations and financial freedom of choice (Gross et al., 2018; Gross & Musgrave, 2020). The current study's findings, consistent with previous research, indicate that individuals often face a trade-off of choosing between Precarious Work which may be more intrinsically rewarding and positions that offer a higher, more stable income to alleviate financial stress and increase one's sense of financial comfort.

Financial Security Partially Mediating the Link Between Subjective Working Conditions 'Meaningful Subject Related' and Financial Wellbeing 'Comfort'

Within the current study, Financial Security was found to partially mediate the link between Financial Wellbeing 'Comfort' and Subjective Working Conditions 'Meaningful Subject Related'. As previously discussed, research has shown that one may be faced with a trade-off between choosing meaningful work, which is more precarious (e.g., less secure, lower wages) or less meaningful work, which offers greater security and higher pay (Patulny et al., 2020).

Securing work with greater income security is likely to be prioritised over meaningful work as it is perceived to contribute to a more fulfilling personal life (Ward, 2024). Having a stable and secure income enables individuals to maintain a desired standard of living, which positively influences their perceived Financial Wellbeing (Chatterjee et al., 2019). Additionally, increased financial resources, which contribute to one's perceived Financial Security, enhance an individual's capacity to exercise

autonomy over their lifestyle choices (Riitsalu et al., 2024). Consequently, as identified within the current study, individuals who prioritise meaningful work over more financially secure and remunerative roles may face limited or reduced income security and financial resources, which could undermine their sense of Financial Security. This, in turn, may restrict one's ability to make autonomous monetary and lifestyle choices, ultimately lowering their perceived Financial Wellbeing 'Comfort'.

Subjective Working Conditions 'Reproductive Material' and the Link to Financial Wellbeing 'Comfort'

Within this Aotearoa New Zealand sample, Subjective Working Conditions 'Reproductive Materials' (income) was negatively linked to Financial Wellbeing 'Comfort'. It is important to account for the negatively worded items within the 'Reproductive Materials' factor of Subjective Working Conditions. Lower scores on this factor indicate that individuals perceive their income from work as more adequate. This is consistent with the current literature, which identifies income and perceived satisfaction with one's financial circumstances as key determinants of Financial Wellbeing (Mahdzan et al., 2019).

The instability and unpredictability of Precarious Work can leave employees vulnerable to income volatility or sudden loss of earnings (Ballafkih et al., 2017). This may place additional financial strain on individuals, making it difficult to sustain their usual lifestyle and often forcing them to give up non-essential expenses (e.g., hobbies or holidays) to cover sudden income loss or unanticipated financial demands (Gaisukova & Shkaratan, 2019). An inability to plan or manage financial circumstances may interfere with one's perceived opportunity to do what they want and enjoy (Renaldo et al., 2020). Furthermore, individuals who perceive they cannot ascertain adequate and stable

financial resources from employment are more likely to experience negative feelings such as financial stress, anxiety, and fear (Rodrigues et al., 2023). Findings within the current study support these insights, suggesting that individuals in Precarious Work who perceive their income as inadequate under Subjective Working Conditions 'Reproductive Materials' tend to report lower levels of Financial Wellbeing 'Comfort', likely due to constrained financial resources that necessitate prioritising essential over discretionary spending.

Financial Security Partially Mediating the Link Between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Comfort'

Financial Security was found to act as a partial mediator between Financial Wellbeing 'Comfort' and Subjective Working Conditions 'Reproductive Materials'. Financial comfort is associated with an ability to manage financial obligations, experience happiness with one's financial state, and be free from financial worry (Chong et al., 2021; Yuniati & Mukhlis, 2022). However, as previously discussed, individuals employed in Precarious Work are at a greater risk of experiencing material hardship due to income fluctuations or job insecurity than those in permanent and secure employment (Schneider & Harknett, 2017).

Insecure employment conditions may erode income stability and compromise individuals' perceived capacity to obtain sufficient financial resources, ultimately undermining their sense of Financial Security (Cech & Hiltner, 2022). Netemeyer et al. 2018 suggest that income instability heightens worry and concern over current financial conditions and weakens confidence in future Financial Security. The worry and concern over current financial circumstances may be attributed to a reduced capacity to plan for long-term financial commitments, particularly when income is insufficient to

sustain one's current or desired standard of living (Perri et al., 2024; Chatterjee et al., 2019). Together with the results of the current study, these findings highlight the pivotal role of Financial Security in partially mediating the relationship between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Comfort'. Stable employment is associated with more adequate income attainment, enhancing perceived Financial Security and strengthening an individual's financial control.

Financial Security Fully Mediating the Link Between Subjective Working Conditions 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet'

There was a significant negative indirect link between the Subjective Working Conditions Factor 'Meaningful Subject Related' and Financial Wellbeing 'Making Ends Meet' through Financial Security. While engaging in meaningful work can increase one's sense of fulfilment and the meaning of one's life (Martela et al., 2021), work serves as an essential economic function that enables individuals to meet their ongoing financial needs (Kremer et al., 2021).

Research indicates that obtaining income security and employment stability takes precedence over pursuing meaningful work (Chatterjee et al., 2019; Romney et al., 2024). While meaningful work is intrinsically rewarding and supports Wellbeing through higher-order Psychological Need Satisfaction, these roles may not provide sufficient income as financial resources to ensure one feels Financially Secure, undermining lower-order psychological needs (Howell et al., 2013; Ward, 2024). The trade-off between meeting psychological fulfilment and obtaining adequate financial resources may lead to increased financial strain, undermining one's ability to meet their ongoing financial needs and negatively affecting perceived Financial Wellbeing

(Weinstein & Stone, 2018). These conditions may heighten one's feelings of financial stress, worry, or anxiety, which impacts one's perceived Financial Wellbeing. Financial Security, therefore, emerges as a critical mediator that determines whether meaningful work translates into the financial adequacy required to achieve Financial Wellbeing 'Making Ends Meet'.

Financial Security Fully Mediating the Link Between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet'

There was a significant indirect link between Subjective Working Conditions 'Reproductive Materials' and Financial Wellbeing 'Making Ends Meet', through Financial Security. Drawing on Conservation of Resources (COR) theory (Hobfoll, 1989) this finding highlights the significance of financial resources, which serve as foundational assets that enable individuals to access and maintain other essential resources associated with daily living, such as food, clothing, and housing (Jahoda, 1981).

Exposure to Precarious Working Conditions, such as low wages, employment instability and irregular scheduling, with job security and income fluctuations or continuity increases the likelihood of volatility in job security and continuity of income (Han & Hart 2021; Lambert et al., 2019). The unpredictability undermines an individual's ability to sustain steady and adequate financial resources and diminishes their sense of control over their economic circumstances, thereby threatening their perceived Financial Security (Munyon et al., 2020). Consequently, such conditions undermine one's capacity to consistently meet the necessary ongoing costs associated with an individual's basic needs (e.g., food, shelter and healthcare), directly influencing their subjective Wellbeing (Howell et al., 2013). This strain manifests in heightened levels of stress, fear, and anxiety, driven by persistent uncertainty surrounding one's

financial circumstances (Munyon et al., 2020). The current findings indicate that the impact of Precarious Working Conditions on one's ability to make ends meet is directed through Financial Security based on its critical function as a psychological and material buffer that translates employment instability and unpredictability into meaningful consequences for Financial Wellbeing.

Limitations

Firstly, it is important to consider the events which occurred prior to my data collection in Aotearoa New Zealand. At the time of this study, Aotearoa New Zealand had only recently emerged from the Covid-19 lockdowns. Though people were beginning to return to work and gradually resume a normal state of living (prior to Covid-19), the impact of Covid-19 was still acutely felt. Many households reported declines in Wellbeing, financial hardship and resilience to financial shocks (Every-Palmer et al., 2020; Te Ara Ahunga Ora: Commission for Financial Capability, 2020). These conditions may have skewed the data within this study, and the links identified within this study may be less pronounced in more recent contexts.

The gender distribution of this sample was predominantly female. This aligns with existing literature, which indicates women are disproportionately engaged in Precarious Work (Young, 2010). Given the sample composition, the findings from this study may be more reflective of a woman's experience. With a more balanced sample, the results may differ, potentially altering the strength of the links identified.

The small sample size within this study reduced the statistical power of the findings, limiting the strength and reliability of the observed results. This also limits the generalisability of the findings, as they may not accurately represent the experiences of a broader population. The variation in sample size between each analysis was partially

attributed to participants' ability to skip survey questions. This limited my ability to complete all of the planned analyses, including the full linear path from the Objective Precarious Working Conditions and Financial Wellbeing factors. Consequently, restricting the depth and precision of the study's findings.

The study relied on self-reported data, with participants able to skip questions. The choice of this methodology raises concerns about social desirability and participation bias, as the option to skip questions may have influenced how participants responded to questions about their financial circumstances and employment experiences. The combined influence of sample size and response bias may obscure the clarity of these relationships and limit the extent to which conclusions about causality or directionality can be confidently drawn.

Another limitation stems from the objective measure of hours worked not being standardised within the survey. Due to inconsistencies in how this variable was reported within the survey, it could not be reliably included in the analysis. This prevented the evaluation of potential links between the objective measure of hours worked and subjective perceptions of Precarious Work, specifically in assessing whether individuals were receiving adequate working hours within the context of insecure work arrangements.

Implications and Future Research

The findings from this study reinforce existing literature, indicating that Precarious Working Conditions are negatively linked to employees' Wellbeing. However, this study was one of the first to explore how the subjective Working Conditions, specifically the experience of low, unstable, and insecure wages, link to Financial Security and Financial Wellbeing outcomes. This study establishes a

foundation for future research to assess the relationship between Precarious Working Conditions and Financial Wellbeing outcomes. In particular, how employment precarity shapes financial perceptions, resilience and Wellbeing. To build on the current findings, future research should identify the sectors in which participants are employed, as this would help clarify their broader employment contexts. It would also help to determine whether specific industries are disproportionately impacted by Precarious Working Conditions, offering more targeted insights into Financial Wellbeing outcomes.

The findings surrounding the significant influence of one's subjective experiences of objective employment conditions from this study offer valuable insights for informing labour market policy. They highlight the need to move beyond purely objective economic indicators when assessing labour market health and to consider how structural conditions of labour market policy may affect employees' sense of Financial Security. The findings provide foundational evidence for the development of more inclusive and equitable labour market policies which prioritise secure and stable working conditions, financial resilience and Psychological Wellbeing. Such a shift could lay the foundation for a labour market that balances economic efficiency and promotes long-term social equity and sustainability.

Given the immature state of the Financial Security and Financial Wellbeing research, this study contributes both conceptual clarity and empirical insights into the measurement of these constructs. The use of the exploratory factor analysis (EFA) identified key factors and measures within the Financial Wellbeing and Financial Security constructs and supported the initial validation of measures that are relevant to this field. The distinction between the Financial Wellbeing and Financial Security factors provides additional evidence for the conceptual differentiation of the two constructs, a

key step to disentangling the inconsistencies and overlaps within the existing literature. This has important implications for future research and the assessment tools that could be used to capture specific financial experiences. The measurement tools used within this study should be tested across diverse populations and contexts to determine the reliability and validity of these measures. Future research should also explore the stability of these constructs over time and their link to broader constructs of Wellbeing.

Future research should also seek to refine and standardise the measurement tools used within the current study, especially for assessing objective indicators of Precarious Working Conditions and Financial Security, to support a more consistent and meaningful analysis.

In the present study, most participants were not primary household earners, which may have shaped their responses. Future research should attend to sample composition, specifically the economic roles of respondents. Further investigation is warranted to assess whether associations vary in strength depending on individuals' financial responsibilities and household positioning.

Notably, the current study identified a deeper tension individuals may face, the trade-off between pursuing meaningful, purpose-driven work and securing sufficient financial resources to ensure one can make ends meet and is financially comfortable. These insights have practical implications for employers and policy makers. They highlight the importance of integrating income adequacy into policies to improve job quality and financial resilience, particularly in Precarious Working contexts and an increasingly unstable labour market.

Future research should build upon the observed mediation patterns by Financial Security for the two factors of Financial Wellbeing. Particular attention should be paid

to the interaction between Precarious Working Conditions, the temporal characteristics of each factor, and how present and future perceptions shape Financial Wellbeing outcomes. Longitudinal research may be especially valuable in understanding the temporal dynamics of perceived Financial Security and the nature of the mediating relationship to the Financial Wellbeing factors. Policy makers should also consider these findings when reviewing labour market regulations, recognising that employment conditions have both immediate and longer-term effects. A more holistic policy approach that considers objective and subjective perceptions of employment conditions could lead to more financially sustainable and equitable employee outcomes.

To determine whether the contextual factors related to Aotearoa New Zealand's emergence of the COVID-19 lockdown influenced the strength or nature of the observed results, future research should aim to replicate the links identified in Figure 1 with more recent data. Future studies could also benefit from working with larger, more demographically diverse samples. This would strengthen the analysis and make the findings more relevant and applicable across various populations and contexts. Additionally, adapting the survey methodology to require full completion, by restricting one's ability to skip questions, may reduce variations in sample size and allow for a more comprehensive analysis of all pathways outlined within the current model (Figure 1).

Conclusions

This study provides a foundational contribution to understanding how Precarious Working Conditions, Financial Security, and Financial Wellbeing are linked through an analysis focused on the Aotearoa New Zealand context. It is among the first

to explicitly separate the constructs of Financial Security and Financial Wellbeing, enabling a clearer understanding of how Precarious Working Conditions impact them.

The findings from this study demonstrate that Subjective Working Conditions are negatively linked with both factors of Financial Wellbeing, 'Making Ends Meet' and 'Comfort'. Financial Security was found to play a central role in financial experiences and outcomes, partially mediating the link between Precarious Working Conditions and 'Comfort' and fully mediating the link to 'Making Ends Meet'. These findings reaffirm concerns addressed within the broader literature regarding insecure working arrangements and financial vulnerability. They also highlight a complex trade-off many individuals navigate between pursuing meaningful and fulfilling work and achieving financial stability.

This study extends to the theoretical frameworks, such as Self-Determination Theory and Conservation of Resources Theory, by illustrating how insecure working conditions may diminish lower-order Psychological Need Satisfaction and access to material resources. The findings emphasise the importance of addressing Precarious Work through policy reform, thoughtful workplace design, and improved income protections. Factors that are essential for promoting both Financial and Psychological Wellbeing among workers who are navigating increasingly volatile labour markets.

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THE-IMPORTANCE-OF-ENTREPRENEURIAL-RESILIENCE-AND-FINANCIAL-
EFFICACY-ON-FINANCIAL-WELLBEING-FOR-SMEs.pdf

Appendix A

Complete Copy of Survey Questionnaire

Researcher Introduction & Project invitation

Sacha Welch is the student conducting this research for a thesis in a Master of Science degree in Psychology. The academic supervisor is Professor Stuart Carr from the School of Psychology, at Massey University. We invite you to take part in a study which is focused on providing insight into how and why work conditions can improve Wellbeing.

Koha

All respondents are invited to participate in a prize draw in thanks for their participation and time. There will be 50 x \$20.00 supermarket card vouchers to be won. At the end of the survey you will be given the option to enter, all winners will be randomly selected and notified following the close of the survey.

Who can participate?

This study is focused on the New Zealand population, we invite individuals who are 18 years or older currently working under one of the following contract types.

- part-time employment
- casual employment
- self-employment (includes contractors
e.g.builders
- fixed-term work
- temporary work
- on-call work
- home-based workers
- telecommuting

What is involved?

There are four sections to this online survey. The first section asks a few demographic questions, followed by questions asking about your own experiences within work and its working conditions. This will be followed by questions surrounding your feelings of Financial Security, and finally, there will be a few questions surrounding Financial Wellbeing.

Your rights as a Participant

This information is provided to inform your decision to participate in this research. You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- Decline to answer any particular question;
- Withdraw from the study (prior to completing and submitting the questionnaire only);
- Ask any questions about the study at any time during participation;
- Provide information on the understanding that your name will not be used unless you give permission to the researcher.
- You will be given access to a summary of the project findings when it is concluded.

Completion and return of the questionnaire implies consent.

The questionnaire is anonymous to protect your privacy. Any information inadvertently provided in answers you submit that identify an organisation, yourself or another

person will be coded to protect anonymity and confidentiality and will not be accessible to anyone other than the researcher. Data resulting from this research will be securely stored by the researcher in password protected files on a private computer for 5 years, after which they will be destroyed.

Research findings will be published in a thesis for assessment. Overall findings may be published in summary form in scientific journals or presented at scientific conferences in New Zealand and overseas. A summary of findings will be provided to you on request by the researcher, in appreciation of your contribution to this research.

Contact information

If you have any questions or queries regarding this project, please don't hesitate to contact the following:

Researcher

Sacha Welch

Email: Sacha.Welch.1@uni.massey.ac.nz

Supervisor

Professor Stuart Carr

School of Psychology, Massey University, Auckland, New Zealand

Email: S.C.Carr@massey.ac.nz

Massey University School of Psychology – Te Kura Hinengaro

**Te Kunenga
ki Pūrehuroa**

Tangata

Auckland, New Zealand

T +64 9 414-0800 ext 43116 : W psychology.massey.ac.nz

This project has been reviewed and approved by the Massey University Human Ethics Committee:

Northern, Application 21/68.

If you have any concerns about the conduct of this research, please contact Dr Fiona Te Momo,

Chair, Massey University Human Ethics Committee: Northern,

telephone 09 414 0800 x 43347, email humanethicnorth@massey.ac.nz.

Psychological Discomfort

Within this survey you will be asked about your previous, current and future working and financial situations. It is possible that some people may experience discomfort, or psychological harm due to the recollection of these circumstances and events. Anyone wishing to seek support is encouraged to do so; contact details for free or low-cost counselling services are below:

- Depression.org - <https://depression.org.nz/>

(also lists resources specific for Māori wellbeing

at <https://depression.org.nz/maori/>)

- Lifeline 0800 543 354 (0800 LIFELINE) or free text 4357 (HELP) -- for counselling and support
- National Telehealth service – Free text: 1737 or <https://1737.org.nz/>
- The Mental Health Foundation:
<https://www.mentalhealth.org.nz/get-help/in-crisis/find-a-gp-orcounsellor>
<https://mentalhealth.org.nz/help>

In the event of acute distress, please contact a crisis assessment team using the details on the Ministry of Health website below, or in a case of emergency dial 111.

<https://www.health.govt.nz/your-health/services-and-support/health-care-services/mental-health-services/crisis-assessment-teams>

Thank you for participating in this questionnaire.

Your participation implies consent.

You have the right to decline to answer any particular question.

I have read and understood the information sheet for this study and consent to collection of my responses.

(Please click on the 'Yes' choice if you wish to proceed.)

- Yes (1)
- No (2)

Instructions

General instructions for completing the questionnaire

(Please read carefully)

- All the information provided in this form is anonymous, and in confidence and will only be used for the purposes of this study
- Please do not use organisations or people's names when answering the questionnaire
- Any names provided inadvertently will be removed from the final report
- There are no right or wrong answers, please answer honestly and with the best response that suits you
- You can decline to answer any questions you don't want to answer
- If you are unsure of any question and would like clarification, please contact the researcher (contact details on the Information Sheet)
- Completion of this questionnaire implies consent to take part in the study

There are four sections to this questionnaire.

1. The first section asks for background information for socio-demographic data collection. This information is collated for statistical relevance only. All answers will remain anonymous and confidential.
2. The second section has 29 questions which assess your working conditions and feelings of job security

3. The third section consists of 6 questions assessing your feelings of financial security.
4. The final and fourth section has 21 questions which will assess your financial wellbeing.

All questions will be in the form of a scale or will ask to select the relevant items.

To ensure you are eligible to take part in this survey, please confirm you are a New Zealand resident.

- Yes (1)
- No (2)

It appears that you may be located outside of New Zealand.

Can you confirm your location for the purposes of this survey?

- I normally reside in Aotearoa New Zealand (1)
- I do not live in New Zealand (2)
- I am temporarily out of the country (3)

Please select which form of contract you are currently employed under.

- Part-time employment (1)
- Casual employment (2)
- Self-employment (3)

- Fixed-term work (4)
- Temporary work (5)
- On-call work (6)
- Home-based workers (7)
- Telecommuting (8)
- Permanent employment (9)

Demographics

Which Gender do you identify as?

- Female (1)
- Male (2)
- Other (please specify) (3) _____

What is your age?

- Under 18 years old (1)
- 18-24 years old (2)
- 25-34 years old (3)
- 35-44 years old (4)
- 45-54 years old (5)

- 55-64 years old (6)
- 65-74 years old (7)
- 75 years or older (8)

What ethnicity do you identify as?

(If your answer includes more than one ethnic group, please indicate which one you consider to be your primary ethnicity).

- Māori (1)
- NZ European (2)
- Samoan (3)
- Cook Island Māori (4)
- Tongan Niuean (5)
- Chinese (6)
- Indian (7)
- Other (please specify) (8) _____

Please select the location in which you live.

- Northland (1)
- Auckland (2)
- Bay of Plenty (3)

- Waikato (4)
- Gisborne (5)
- Taranaki (6)
- Hawkes Bay (7)
- Whanganui – Manawatu (8)
- Wellington (9)
- Nelson – Tasman (10)
- Marlborough (11)
- West Coast (12)
- Canterbury (13)
- Otago (14)
- Southland (15)

What is the highest degree or level of education you have completed?

- High School (1)
- Bachelor's Degree (2)
- Master's Degree (3)
- Ph.D. or higher (4)
- Trade School (5)

- Other (6) _____

Please indicate which of the following circumstances apply to you.

- Married (1)
- De facto (2)
- Widowed (3)
- Divorced (4)
- Single (5)
- Other (please specify) (6) _____
- None of the above (7)

Please indicate which of the following circumstances apply to you.

- Sole income provider for your household (1)
- Main income provider (2)
- Equally shared financial responsibilities (3)
- Secondary income provider (4)
- None of the above (5)

Do you have children or other dependents who rely on you?

- Yes (please specify how many) (1) _____
- No (2)
- Prefer not to say (3)

Employment (Objective Working Conditions)

The following questions are aimed at assessing your current working conditions.

If you are on a salary, please indicate what your annual income is before tax?

If you are on a salary, please indicate what your annual income is before tax?

Thinking back to your last week of work, how many paid hours did you work?

Employment (Subjective Working Conditions)

Jobs usually vary in terms of how secure they feel. Here are some questions about how your own work conditions and how secure they may or may not feel from your own perspective.

(The subjective measure is based on the scale developed by Lisa Hopfgartner and Christian Seubert. This has been tested within a New Zealand context and has shown to provide reliable and valid results.)

Please indicate to which extent the following statements apply to your current working situation.

	Not at all (1)	Rather not (2)	Somewhat (3)	Rather yes (4)	Completely (5)
Nothing is usually left of my income by the end of the month (HS_Scale_1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep thinking about how to get by financially in the future (HS_Scale_2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I can't afford much (HS_Scale_3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am not seen as an equal colleague at my workplace (HS_Scale_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I do not get sufficient information about important things (HS_Scale_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate to which extent the following statements apply to your current working situation.

	Not at all (1)	Rather not (2)	Somewhat (3)	Rather yes (4)	Completely (5)
I am not integrated well into the social networks at work (HS_Scale_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organisational participation rights are limited (HS_Scale_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Workplace health and safety regulations (e.g. education about risks) are neglected for me. (HS_Scale_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fewer opportunities for vocational development are available to me. (HS_Scale_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate to which extent the following statements apply to your current working situation.

	Not at all (1)	Rather not (2)	Somewhat (3)	Rather yes (4)	Completely (5)
I receive less recognition for my work by society (HS_Scale_10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I receive less recognition for my	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

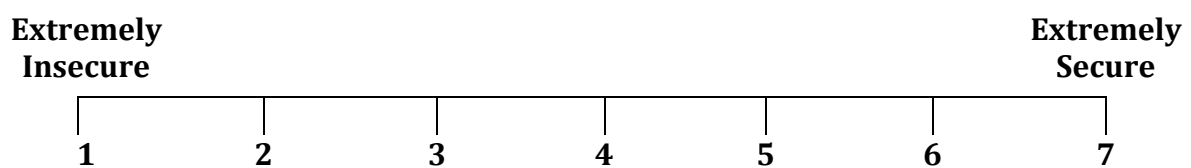
work by friends (HS_Scale_11)					
I receive less recognition for my work by my family (HS_Scale_12)	○	○	○	○	○
I often see no meaning in my work (HS_Scale_13)	○	○	○	○	○
I can identify with my work to a limited extent only (HS_Scale_14)	○	○	○	○	○
I experience no fulfillment in my work (HS_Scale_15)	○	○	○	○	○

Financial Security (FSM)

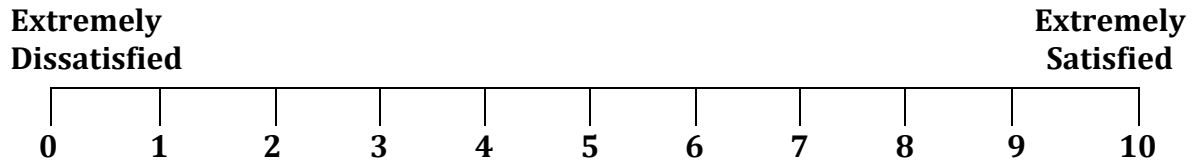
Feeling secure at work can include a sense of Financial Security. These next few questions simply ask how secure you may or may not feel in a financial sense.

(These questions are derived from the Financial Security index developed by Nicholas Rhode and Colleagues.)

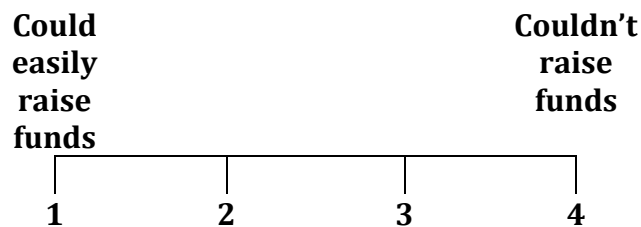
FSM_1 Rate on a seven-point scale whether you believe you have a secure future in your main form of employment.



FSM_2 Rate on a scale of 0 and 10 your overall sense of financial satisfaction.



FSM_3 On a four-point scale, how easily could you raise emergency funds of \$2,000–\$3,000 over a one-week period.



FSM_4 Within your household please indicate whether your disposable income has decreased by 25% or more from the previous year.

- Increase (please specify the increase as a percentage) (1)

- Decrease (please specify the decrease as a percentage) (2)

- No Change (3)

FSM_5 Within your household please indicate whether your current income is less than your permanent income level.

(Permanent income is defined as the long-run average household income.)

- Less Than (1)
- More Than (2)
- The Same (3)

FSM_6 Please indicate whether you have ever experienced any of the following situations within the past year.

- An inability to pay rent (1)
- The pawning of a household item (2)
- Inability to pay utilities (3)
- The skipping of meals (4)
- None of the above (5)

FSM_7 Please estimate the likelihood of becoming unemployed within the next year.

- Nil (1)
- Slight (2)
- Even (3)
- Likely (4)
- Very Likely (5)

Financial Wellbeing (FB)

Financial Wellbeing is a state of being in which an individual is able to meet their current financial commitments, feel financially comfortable and have financial resilience for the future. Here are some questions which will measure your own level of Financial Wellbeing.

(This scale has been derived from the Financial Wellbeing model developed by Elaine Kempson and Christian Poppe. This has been tested on New Zealand populations and returned both reliable and valid results.)

FB_1 How often do you find yourself with no money for food and expenses?

- Very often (1)
- Often (2)
- Sometimes (3)
- Seldom/not very often (4)
- Never (5)
- Don't know (6)

FB_2 Which one of the following statements best describes how well you are meeting your bills and credit commitments at the moment?

- Without difficulty (1)
- It is a struggle from time to time (2)

- It is a constant struggle (3)
- Don't have any bills or credit commitments (4)
- Don't know (5)

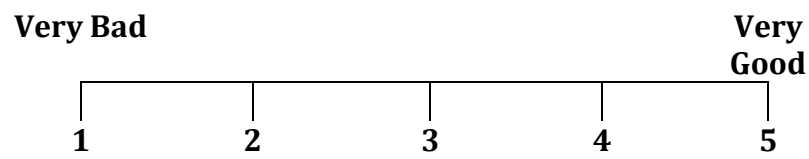
FB_3 In the past 12 months, how often have you been unable to pay bills or loan commitments at the final reminder due to lack of money?

- Very often (1)
- Often (2)
- Sometimes (3)
- Seldom/not very often (4)
- Never (5)
- Don't know (6)

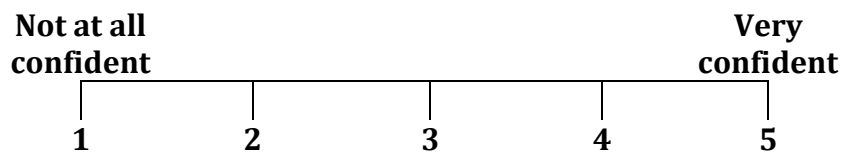
FB_4 How often do you have money left over from your income at the end of each month?

- Very often (1)
- Often (2)
- Sometimes (3)
- Seldom/not very often (4)
- Never (5)
- Don't know (6)

FB_5 How good/bad is your current financial situation?



FB_6 How confident do you feel about your financial situation over the next 12 months?



FB_7 My finances allow me to do the things I want and enjoy in life?

- Very often (1)
- Often (2)
- Sometimes (3)
- Seldom/not very often (4)
- Never (5)
- Don't know (6)

FB_8 How much could you cover of an unexpected expense of one month's income?

- All of it (1)
- Some of it (2)
- None of it (3)
- Don't know (4)

FB_9 How much would you need to borrow to cover unexpected expense?

- All of it (1)
- Some of it (2)
- None of it (3)
- Don't know (4)

FB_10 How long could you cope with a fall of income by a third without having to borrow funds?

- More than 12 months (1)
- Between 6 – 12 months (2)
- Between 3 – 6 months (3)
- Between 1 – 3 months (4)
- 0 – 1 month (5)

- Don't know (6)

FB_11 What savings do you have in terms of number of months income?

- More than 12 months (1)
- Between 6 – 12 months (2)
- Between 3 – 6 months (3)
- Between 1 – 3 months (4)
- 0 – 1 month (5)
- Don't know (6)

Please indicate how well each of the following statements describe your financial situation.

	Completely (1)	Very Well (2)	Somewhat (3)	Very Little (4)	Not at all (5)
I could handle a major unexpected expense (FM_1)	○	○	○	○	○
I am securing my financial future (FM_2)	○	○	○	○	○
Because of my money situation, I feel like I will never have the	○	○	○	○	○

things I want in life (FM_3)					
I can enjoy life because of the way I'm managing my money (FM_4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am just getting by financially (FM_5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am concerned that the money I have or will save won't last (FM_6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate how often the following statements apply to you.

	Always (1)	Often (2)	Sometimes (3)	Rarely (4)	Never (5)
Giving a gift for a wedding, birthday or other occasion would put a strain on my finances for the month (FM_7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have money left over at the end of the month (FM_8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am behind with my finances (FM_9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

My finances control my life (FM_10)	○	○	○	○	○
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Thank you for your participation.

To show our appreciation, you now have the option to take part in a prize draw.

Please just click on the 'Submit' button, which will close this survey and transfer to the separate page to collect your contact details.

Appendix B

Shapiro Wilks Scores

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Financial Wellbeing – Comfort	.076	57	.200*	.976	57	.300
Financial Wellbeing – Making Ends Meet	.125	57	.026	.924	57	.002
Financial Security	.106	57	.170	.939	57	.006
Precarious Work – Meaningful Subject Related	.173	87	<.001	.871	87	<.001
Precarious Work – Reproductive Material	.095	88	.050	.967	88	.023
Precarious Work – Organisational and Social Inclusion	.104	88	.020	.954	88	.004
Precarious Work – Status and Recognition	.139	87	<.001	.947	87	.001

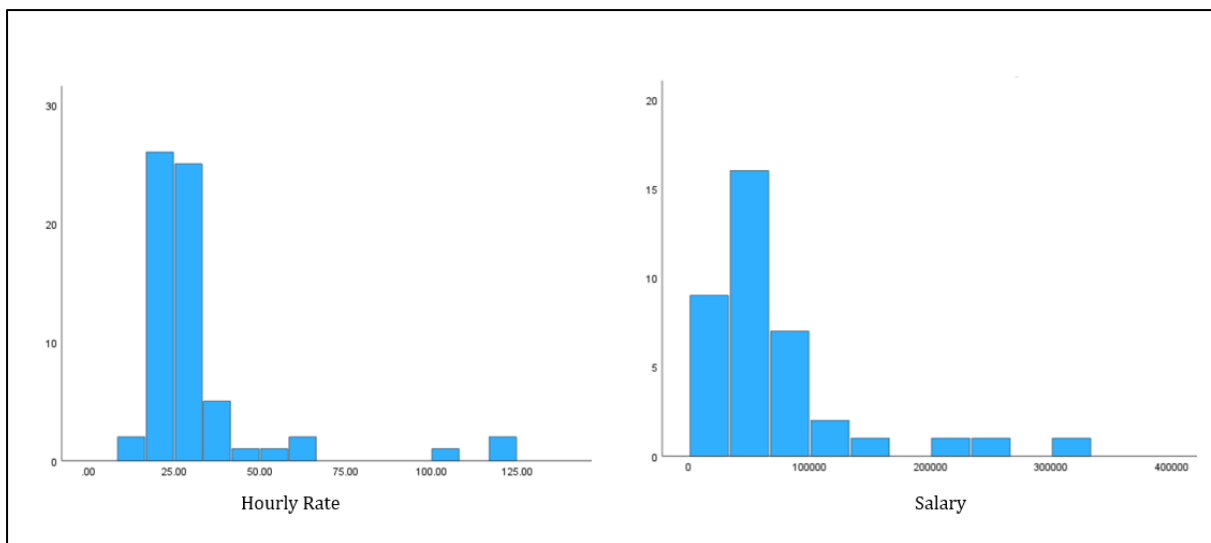
**Note.* Shapiro Wilk scores found reduced scores for all variables except Financial Wellbeing 'Comfort' were non-normally distributed

Appendix C

Distributions of Hourly Rate and Salary within the current sample

Figure 10

Distributions of Hourly Rate and Salary within the Current Sample.



Note. Frequencies are represented on the y-axis. Hourly rate obtained a Kurtosis score of 12 with data centering around \$25.00 (NZD). Outliers sat above \$100 (NZD) per hour. Salary was skewed towards the lower end of the scales with outliers appearing at >\$220,000 (NZD).