IDENTIFYING A CONSTRUCT DEFINITION FOR FINANCIAL STRESS

by

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ABSTRACT

TARYA BARDWELL. Identifying a Construct Definition for Financial Stress. (Under the direction of DR. ERIC HEGGESTAD and DR. LISA WALKER)

Financial stress has received meager attention in organizational science research. So far, financial stress research uses inconsistent or nonexistent definitions, and an array of terms, to describe what appears to be the same overarching construct. I address this definitional ambiguity by reviewing existing work and using qualitative interview data to inductively study workers' financial stress experiences. Findings lead to my development of a comprehensive definition of financial stress, to shed light on how unstable expenses and income lead individuals to experience financial stress, and to identify ways in which financial stress can be mitigated by behaviors and circumstances. Finally, I explore individuals' comparisons to others, including how motivations affect these comparisons. Findings include several applied and theoretical contributions, which drive propositions about financial stress processes and indicate several possible directions for future research.

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LIST OF ABBREVIATIONS

BLS	Bureau of Labor Statistics
CFPB	Consumer Finance Protection Bureau
COR	Conservation of Resources
COVID-19	Coronavirus Disease 2019
IVF	In vitro fertilization
RQ	Research Question
SD	Standard Deviation

CHAPTER 1: INTRODUCTION

Research on individuals' economic experiences is often contextualized by references to the most recent economic crisis. For example, massive job loss and financial stress were prominent concerns during the 2007-2009 recession, and again during the COVID-19 pandemic (e.g., Lin et al., 2021; Sinclair et al., 2010). Economic downturns naturally recur with economic fluctuations, inevitably harming many individuals' personal finances. Following the pandemic, the nature of work itself is changing in many sectors. For example, many educated workers have made more efforts to protect their personal time, even leading to a labor shortage in some sectors (Cech & Hiltner, 2022).

Organizational researchers and other social scientists have identified the importance of individuals' economic experiences, and their potentially harmful outcomes. For example, unemployment is significantly associated with indicators of diabetes (Varanka-Ruuska et al., 2018) and even mortality (Roelfs et al., 2011). Unemployment and perceived job insecurity are both positively associated with depressive symptoms (Kim & von dem Knesebeck, 2015).

Individuals' subjective evaluation of their financial status (financial stress) is less researched, but extant evidence suggests that it is associated with harmful outcomes such as depression, cardiovascular disease, and even mortality (Albert et al., 2017; Carlson, 2008; Guan et al., 2022). In addition to this potential for harm to individuals, research has found that financial stress could affect organizations as well; for example, it is positively associated with counterproductive work behaviors and turnover intentions Phetmisy et al., 2024). Because of this prevalence and potential harm, financial stress is an important concept to study. However, to date, there is little research on the topic, perhaps because there appear to be significant shortcomings with existing conceptualizations of financial stress.

Specifically, there would appear to be no well-articulated specification of what the construct is and is not. Little conceptual work has been done to clarify the distinctions between financial stress and related concepts, such as financial well-being (Brüggen et al., 2017) or financial strain (Vinokur et al., 1996). The same term is sometimes used for constructs that appear to differ definitionally (the jingle fallacy) and different terms are used for what appears to be the same construct (the jangle fallacy; Kelley, 1927). Simply, a clear and comprehensive definition of the financial stress construct is needed for this body of research to move forward. Part of conceptualizing financial stress also includes placing it in relevant theory (e.g., Crosby, 1976) with an exploration of related concepts and of processes that explain financial stress.

These conceptual shortcomings make it difficult to measure financial stress or integrate findings across studies, which prevents clear testing of theoretical models, and ultimately keeps the literature from moving forward in a coherent way. For example, a scholar suggesting a theoretical relationship between financial stress and another construct would have to make assumptions about what financial stress is in order to explain the proposition; their assumption may not be shared by other researchers, leading to the use of inappropriate hypotheses or measurement. Ideally, by addressing definitional and measurement shortcomings, this dissertation will provide researchers with a guide for future theoretical propositions and research designs, so that their contributions would add to a more coherent body of literature.

I address these conceptual shortcomings by carefully examining the construct space related to financial stress. Specifically, following procedures by Podsakoff et al. (2016), I review definitions offered in the literature for concepts related to financial stress. Building on that conceptual work, I will propose an initial definition of financial stress, then conduct qualitative research to evaluate and refine my definition based on information from individuals in the workforce.

CHAPTER 2: LITERATURE REVIEW

2.1 Conceptual Frameworks

To effectively address the construct issues in the financial stress literature, it is important to understand the typologies within which these constructs may function. Two typologies that have commonly been identified in past works (Phetmisy et al., 2024; Probst, 2005) are economic stressors (Voydanoff, 1990) and underemployment (Dooley, 2003; Erdogan & Bauer, 2011) typologies.

Economic Stressors

Voydanoff (1990) proposed a useful typology of economic stressors, which she defined as constructs related to economic life that can cause stress and harm to individuals and their families (see Probst, 2005; see Table 1). Her framework consisted of either objective or subjective employment or income stressors. These create four types of economic stressors, which she called employment instability, employment uncertainty, economic deprivation, and economic strain. First, employment instability is an objective employment stressor and includes job loss, unemployment, and early retirement. Second, employment uncertainty refers to subjective employment stressors such as perceived job insecurity. Third, economic deprivation refers to objective income stressors and includes annual income, hourly wages, and any other concrete indicators of incoming wealth. Finally, economic strain describes subjective income stressors. This category includes individuals' *perceptions* about their financial status, such as financial security and financial distress, and are the constructs of interest for the current study (Table 1).

By distinguishing between the four types of employment stressors, Voydanoff (1990) offers a conceptual starting point for distinguishing economic strain from other constructs. The economic strain category is of particular interest because it focuses on subjective income evaluations, which are important to individuals' wellbeing and work experiences (Phetmisy et al., 2024), but is under-researched in the organizational sciences (Jiang & Probst, 2017; Sinclair et al., 2024; Sinclair & Cheung, 2016). However, organizational scientists' discussions of economic strain extend beyond income perceptions alone. Sinclair and Cheung (2016) suggested that economic strain should account for individuals' financial demands, such as debt and expenses, and additional sources of wealth, such as family support and investments. Specifically, if researchers focus solely on perceptions of income alone, they may not fully capture their participants' subjective financial experiences. By identifying this gap Sinclair and Cheung (2016) suggest one area in which construct clarification is needed, and offer a more inclusive description of the construct space generally referred to as *financial stress.*

Although Voydanoff (1990) provided a simple typology that can be used to evaluate what does and does not qualify as financial stress, there is a lack of specificity around the financial stress construct. A more in-depth exploration of what financial stress means to the individuals experiencing it is required for future research quality and cohesion.

Underemployment

The subjective income stressor described by Sinclair and Chueng (2016) and Sinclair et al. (2024), which I am calling financial stress, also falls under the underemployment typology. Much like economic stressors, underemployment is an umbrella term for a concept that is inconsistently defined and measured. Broadly, underemployment is a form of employment that is in some way inferior or inadequate (Maynard, 2011; McKee-Ryan & Harvey, 2011). In addition to financial stress, constructs under this typology include perceived overqualification, insufficient hours, and sometimes unemployment (Dooley, 2003; McKee-Ryan & Harvey, 2011).

Constructs that appear to fall under the economic stressor or underemployment typologies may or may not have causal relationships with each other. Thus, I believe that these may be better understood as an under-researched network of relationships, rather than separate higher order concepts or constructs (e.g., Johnson et al., 2012). By determining how individuals perceive and experience financial stress, I may clarify the theoretical relationship between financial stress and other constructs that also fall under economic stressors (Voydanoff, 1990) or underemployment (Maynard, 2011; McKee-Ryan & Harvey, 2011).

2.2 Financial Stress Constructs and Definitions

One key step in developing a clear construct definition is distinguishing it from seemingly related constructs (Podsakoff et al., 2016). For example, financial stress can be distinguished from income because it is subjective, and people can experience it in both high and low economic strata. However, considering how financial stress research is siloed and defined in multiple ways, there is ample opportunity for further clarification. Establishing how financial stress is defined in comparison to other constructs that in the underemployment or economic stressor space could help to place financial stress in the nomological net and clarify its place in these typologies (see Probst, 2005).

Proposed constructs in the financial stress space are often ill-defined or undefined. Many of these constructs appear to have more shared attributes than unique ones, suggesting that they are partially redundant (see Banks et al., 2018; Shaffer et al., 2016). Table 2 shows a selection of popular financial stress constructs currently discussed across disciplines. Although highly overlapping, some definitions vary in several ways (see Table 2). For example, Brüggen et al. (2017) defined financial well-being as a distinct construct while Shim et al. (2009) conceptualized financial well-being as a network of causal relationships, such as social norms, financial knowledge, and financial behaviors. The current study is aimed at defining and clarifying financial stress and clarifying how it is distinct from or related to similar constructs.

One may be concerned that developing a new definition will only add to construct proliferation. However, because the current study involves the integration of past conceptualizations across multiple disciplines (see Table 2), financial stress is given a clearer and more comprehensive meaning. Instead of adding another vague definition to the financial stress space (e.g. "perceived economic pressure"; Vinokur et al., 1996), I articulate a definition of financial stress that identifies its logical foundation and clear attributes, which may later be used to guide measurement and empirical research. Following the recommendations of Podsakoff (2016), I presently define financial stress as:

Individuals' perceived sufficiency of financial resources for meeting their perceived needs.

Under this definition, perception is a unifying feature. Perception drives the stress experience and any behavioral responses. These perceptions will be explored further in the current study, allowing for additional refinement in this definition of financial stress. Some overlapping financial stress constructs include: financial well-being (e.g., Brüggen et al., 2017; Jackson & Fransman, 2018), financial distress (e.g. Brüggen et al., 2017; more), financial security, (e.g. Munyon et al., 2019), economic hardship (e.g., Barrera et al., 2001; Mamun et al., 2020), financial stress (e.g., Kim & Garman, 2004; Starrin et al., 2009), and financial strain (e.g., Creed & Klisch, 2005).

Financial Distress and Financial Wellbeing

Definitions for financial distress and financial well-being are often weak or absent. For example, the InCharge Financial Distress/Financial Well-Being measure (IFDFW; Prawitz et al., 2006) did not accompany a definition of either financial distress or financial well-being. However, by their scale construction, they implied that financial distress and financial wellbeing are opposite endpoints of the *same* construct.

Brüggen et al. (2017), among others, argue that these are in fact distinct constructs. According to Brüggen et al. (2017), financial distress is an immediate concern about one's ability to meet financial demands, and financial wellbeing is a broader evaluation of one's financial status both immediately *and* in the future. In other words, the distinction is not only one of valence, but also breadth and timeframes. Little empirical evidence appears to support or discredit the conceptual distinction between financial distress and financial wellbeing; researchers often focus on one of these without mentioning the other. The Consumer Finance Protection Bureau (CFPB; 2015), for example, offers reports on financial well-being in the United States, defined as a "state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future and is able to make choices that allow them to enjoy life" (p. 13). According to the CFPB (2015), financial well-being includes financial security and financial freedom, both currently *and* in the future.

Possibly, evidence of divergence between financial distress and financial wellbeing can be found in studies that measure both constructs separately to test them in a single model (e.g. Choi et al., 2020). However, these correlations are exceedingly difficult to interpret without a clear and consistent definition of both constructs followed by reliability and validity evidence for their measures.

Brüggen et al. (2017) offered the most straightforward definitions and distinction between financial distress and financial well-being, in that the latter includes longer future-oriented timeframes. It is possible that short- and long- term evaluations of one's financial status are important and distinct aspects of financial stress.

Financial Security/Insecurity

In their measurement study, Munyon et al. (2019) define financial security as "a subjective state reflecting the adequacy and stability of monetary assets relative to liabilities" (p. 2). This definition aligns closely with Voydanoff's (1990) description of economic strain. Munyon et al. (2019) do not discuss the possible distinction or redundancy with constructs such as financial distress (Prawitz, et al., 2006), but they do distinguish it from pay satisfaction and financial need. Specifically, pay satisfaction is how positively an individual feels about their income, regardless of debts or other sources of financial support. Financial need, on the other hand, is the demand that one might experience on their finances, such as debts and expenses. According to Munyon et al. (2019), financial security is a function of how one might subjectively evaluate *both* financial need and pay satisfaction. This distinction progresses our understanding of financial security by drawing a line between it and these two overlapping constructs.

Another question is whether financial security is different from financial *in*security. Researchers across disciplines imply that these refer to opposite poles of one construct (Lawrence et al., 2013; Patel & Rietveld, 2020), but usually without an explicit conceptual comparison of the two. The extent to which financial security is redundant with other conceptualizations of financial stress (e.g., Voydanoff, 1990) is also unknown. Munyon et al., (2019) limited their construct to *cognitive* evaluations only. Subjective evaluation constructs can often be broken into affective and cognitive components (e.g., job insecurity; Jiang & Lavaysse, 2018). In other words, basic evaluations of one's finances could be considered cognitive, and the emotions associated with those perceptions would be affective. In their recent review of economic stressors, Sinclair et al., (2024) contend that financial stress researchers should expect both affective and cognitive dimensions, namely that affect follows cognition The inclusion of both affective and cognitive evaluations may be necessary for a more complete view of financial stress.

Economic Hardship

Like other financial stress terms, economic hardship is often unaccompanied by any definition (e.g., Lempers et al., 1989). The range of how economic hardship is conceptualized is notable; sometimes as a general term for anything related to financial troubles (e.g., Blom et al., 2019; Gutman et al., 2005), sometimes more narrowly as purely objective (e.g., Falconier & Jackson, 2020; Vinokur et al., 1996) or subjective (e.g., Barrera et al., 2001; Rios & Zautra, 2011). There is no indication that the construct, when considered subjective (Barrera et al. 2001; Rios & Zautra, 2011), should be defined differently from other constructs outlined here, such as financial distress.

Financial Strain and Financial Stress

Financial strain and financial stress are used across academic disciplines (see Sinclair & Cheung, 2016). Definitions of these, where present, range in scope and clarity, but are usually considered subjective. For example, Vinokur et al. (1996) define financial strain simply as "perceived economic pressure," (p. 166) and Kim and Garman (2004) define financial stress as "the subjective perception of one's personal finances" (p. 70). French and Vigne (2019) are emphatic of *affective* aspects of financial stress in their definition: “Anxiety, worry or feelings of not coping created by economic or financial events” (p. 150).

Scope of the Financial Stress Construct

It may also be helpful to consider what financial stress is *not.* Constructs which are similar but certainly distinct from financial stress are 1) constructs with a wider or narrower content domain, and 2) constructs that may only exist for specific populations or contexts. First, some perspectives include financial stress as one dimension of a larger construct. For example, Latent Deprivation Theory (Jahoda, 1981) lays out an array of important employment-related resources, including income. In their subjective measure, Muller et al. (2005) treats these resources as one higher-order construct, with financial stress as just one dimension (or lower order construct; see Johnson et al., 2012). The current proposal is aimed at financial stress as an independent construct, meaning that conceptualizations of the financial stress dimension fall under the purview of this study, but the other dimensions in Jahoda’s theory (e.g. time structure) may not.

Second, some variants of the financial stress construct are only relevant to certain populations or contexts. These include studies that take a referent-shifted view of family members’ financial stress, or evaluate financial stress at the household level (e.g., Gudmunson et al., 2007). Mamun et al. (2020), for example, asked participants whether *their family* had to cut back on spending and Gutman et al. (2005) administered a scale to parents to measure dependents’ financial stress. Similarly, stress at the organizational level is a distinct but likely related construct (Cooper, 1998). Kahn and Pearlin (2006) include retrospective financial stress among older adults, requiring recollections of participants’ financial situation from childhood through retirement. These are outside the scope of the current study.

Note that some measures historically target a specific population but might still be considered a measure of the financial stress *construct*. For example, Ullah (1990) used a measure of financial stress for unemployed youths. Little or no *construct* difference appears to be present, suggesting that this likely falls under the purview of financial stress. Simply, there is no theoretical reason why financial stress would be a substantively different construct for unemployed youth than other groups (e.g. employed adults).

2.3 Theory

Because currency is a flexible resource, theories that broadly describe resource use (e.g. conservation of resources theory; COR; Hobfoll ,1989) are fitting for research on financial stress. These theories take either an absolute or a relative approach (see Sinclair et al., 2024; Sinclair & Cheung, 2016). Absolute theories focus on individuals' stress experiences, regardless of what they believe others are experiencing. These include conservation of resources theory (COR; Hobfoll, 1989) and appraisal theory (Folkman et al., 1986). In contrast, relative theories describe stress experiences in comparative terms, such as one's income relative to the income of a peer. Examples of relative theories include relative deprivation theory (Crosby, 1976; Smith et al., 2012) and the finance-shame model (Starrin et al., 2009).

Absolute Theories

COR theory has both content and process components, in that it organizes all possible resources into four broad categories and describes stress and coping processes when these resources are perceived to be lost or threatened. The four categories include: 1) object resources (physical items; e.g., car), 2) condition resources (an individual's state; e.g., employment), 3) personal resources (those that come from within an individual; e.g., self-esteem), and 4) energy resources (abstract; e.g., money and time). Importantly, these resources are all fluid, in that one type of resource can often be used to attain a different type. For example, employment is a condition resource that can provide income (an energy resource) and self-esteem (a personal resource).

Conservation of Resources. COR theory also describes processes that lead individuals to experience stress. According to Hobfoll (1989), stress occurs when 1) resources are perceived to be threatened, 2) one loses resources, or 3) one does not get the expected return on invested resources. Additionally, the harm of resource loss or threat is greater than the benefits of resource gain (Halbesleben et al., 2014; Hobfoll, 2011; Odle-Dusseau et al., 2018).

The flexibility of currency makes COR theory particularly applicable in financial stress research. Employment itself involves the investment of resources (e.g. time), to attain money, which in turn is spent on an array of other resources, such as a reliable vehicle (an object that also provides status, time, and physical access to other resources), healthcare (health is a fundamental personal resource and is often necessary for maintaining employment or accomplishing life many goals), or an education (which could provide self-esteem, status, employment, and, in theory, more money).

The present study contextualizes financial stress in COR theory. By exploring individuals' narratives about financial stress, I can uncover patterns in how COR works for these individuals. For example, my study demonstrates exactly what aspects of expenses or employment are perceived as threats to resources, and what resources people most value and strive to obtain and protect. Further, my findings can elucidate specific techniques people use to obtain and protect those resources, and whether those techniques are successful.

Appraisal Theory. Appraisal theory (Folkman et al., 1986; Lazarus & Folkman, 1986) describes a stress process through cognitive evaluations. Specifically, there is primary and secondary appraisal. In primary appraisal, one evaluates their resources and any threat to those resources; in secondary appraisal they evaluate ways to cope with resource loss or threat. If they find themselves unable to cope with a perceived threat, they will experience stress, along with any ensuing stress outcomes.

This process could take place in an individual who is experiencing a precarious financial situation. For example, if a major threat is perceived in primary appraisal (such as a burdensome medical expense) and there is concern about coping resources in secondary appraisal (such as adequate income or access to a loan) stress follows, along with any harmful outcomes that accompany that stress. The current study could potentially ground financial stress in these appraisal processes, by including specific cognitive evaluations individuals make; for example, what constitutes a threat, and how people choose to cope.

Relative Theories

As mentioned, relative theories focus on comparative stress evaluations. First, relative deprivation theory (Davis, 1959) is highly cited in multiple disciplines (see Crosby, 1976; Smith et al., 2012). Second, the finance-shame model (Starrin et al., 1997, 2009) is less well-known but relevant.

Relative Deprivation. According to relative deprivation theory, a person experiences a sense of injustice and distress after a) comparing their possessions to some other standard and b) finding that this other standard has more than they do. At the individual level, researchers usually consider the comparison being made to another person, but the comparison can be made to past- or future- ideal versions of oneself. As part of the parameters of relative deprivation theory Crosby (1976) suggests five pre-requisites for the experience of stress after this evaluation: 1) recognizing that someone else has something that you do not, 2) wanting it, 3) feeling entitled to it, 4) believing that one is capable of attaining it, and 5) bearing no responsibility for currently not possessing it. In the context of wealth, this means that one would experience financial stress if they compared themselves to another, wealthier individual and met the above criteria.

Relative deprivation theory can be used as a lens for interpreting qualitative data in the current study. By evaluating individuals' subjective experiences, I may learn about *how* people decide whether someone else has more than them, *why* they want and feel entitled to it, and so on. A question that is usually left unspecified in relative deprivation theory is: *who* do people typically compare themselves to? Knowing this can drive future empirical research that would add specificity to theoretical propositions.

Finance-Shame. Similarly, the finance-shame model (Starrin et al., 1997, 2009) suggests that individuals' experiences with being shamed for their financial status also play a role in the stress process. Shame is a threat to one's social connection with others and shame indicates low social status. Starrin et al. (2009) further proposes that ill-health is positively predicted by financial stress *and* shaming experiences together, and conversely that people with low financial stress and few shaming experiences will be less likely to experience ill-health.

The financial-shame model is less well-known than the other theories here, perhaps because it focuses on finances rather than resources more generally, and is not as widely applicable to other areas of research. However, its focus on financial status makes it relevant. The current study has the potential to more concretely describe what people perceive as a shaming experience, and from whom the shaming experiences come.

Theory Intersection

Many of the theories described above have notable conceptual overlap, and most likely do not operate in isolation. As mentioned, absolute theories such as COR (Hobfoll, 1989) and appraisal theory (Folkman et al., 1986; Lazarus & Folkman, 1986) both conceptualize resources and the stress process, and are cited in a range of literatures, often in conjunction with each other (e.g., Probst et al., 2018). Hobfoll (2018) contends that appraisal theory is more affect-focused and phenomenological than his own cognition-oriented COR theory. As such, these theories may complement each other as I seek to identify a more complete picture of financial stress and related processes.

Because absolute and relative theories focus on different mechanisms, an individual may experience these in conjunction or in isolation. For example, reasons for experiencing stress may include insufficient income to offset the resources invested in work, a peer making more money, or both. It is also possible that these theories interact. For example, one may feel stressed because they perceive someone else as having greater wealth (relative deprivation theory), and thus interpret that person's wealth and power as a threat to their own resources (COR Theory). Thus, the current study is not aimed at finding support for one theory over others. Rather, by taking an iterative approach, I hope to use knowledge of these theories to inform my data collection and analysis and, ideally, clarify the financial stress process. In doing so, theoretical clarifications emerge in the data, which I address in the discussion.

CHAPTER 3: RESEARCH QUESTIONS

The current study was designed to clarify and expand our understanding of financial stress from diverse perspectives. The primary goal was to determine how individuals define and describe financial stress, and how they distinguish it from other constructs or concepts. As mentioned in the introduction, there are multiple concepts that might be considered overlapping or redundant with financial stress (Table 2). The inductive approach used in the current study will allow the evaluation of participant perspectives on how constructs are distinct.

Research question 1a: How do individuals in the workforce define and describe financial stress?

Research question 1b: How do individuals in the workforce distinguish financial stress from similar constructs?

Another critical aspect of understanding the space in which financial stress operates is understanding where it fits in extant theory. Knowing this will elucidate how financial stress functions as a process. Hobfoll (1989) and Folkman et al. (1986) proposed that when financial resources are perceived to be threatened, efforts to cope or attain additional resources will follow. Ultimately, these absolute theories suggest that individuals' resource management behaviors are a function of their perception of threatened or inadequate financial resources. However, there is a lack of specificity in the context of financial resources– specificity in the processes that lead participants to experiencing financial stress, and specificity in the resource allocation decisions they make to address financial stress. To address these gaps, I asked the following:

Research question 2a: How do individuals in the workforce come to experience financial stress?

Research Question 2b: How do individuals in the workforce cope with or prevent financial stress?

Similarly, there is a need and opportunity to add specificity to comparative theories: relative deprivation theory (Crosby, 1976) and the finance-shame model (Starrin et al., 2009) both suggest harmful outcomes of financial stress may in part be due to comparison. However, in both these theories, the comparison group is non-specific. Researchers are often left to make assumptions about the comparison group, and they have used comparative theories to justify research on individuals' stress compared to other individuals or even to societal wealth gaps (Probst et al., 2018). The current study will allow individuals to use their own words to describe their comparison standards.

Research Question 3: To whom do individuals in the workforce compare themselves when evaluating their own financial stress?

CHAPTER 4: METHODS AND ANALYSES

This study was informed by conventions in qualitative research (Tracy, 2019). Open-ended interview questions targeted information on how people define their own experiences with financial stress. Following my research questions, interviews focused on how people evaluate and cope with financial stress perceptions and to whom they compare themselves.

4.1 Iterative Data Collection and Analyses

Financial stress is often studied using a primarily top-down approach, with less emphasis on construct definitions (e.g. Vinokur et al. (1996). In contrast to this top-down approach are the recommendations from Strauss and Corbin (1990), who commit wholly to inductive processes. Orthodox applications of Strauss and Corbin's grounded theory (1990) would require the researcher to not a priori apply extant research and theory development to the theory that emerges from the data themselves. Researchers would begin to collect and analyze qualitative data apart from their existing prior knowledge of their topic, which could allow them to find new themes and build new theory from the ground-up, without contamination from outside information. In reality, some blending of inductive and deductive processes is far more common, and a critical evaluation of existing work can be invaluable for efforts to advance an area of research.

Along these lines, the current study is not intended to restrict qualitative data collection with prior knowledge of financial stress, nor is it focused narrowly on emergent data without consideration of extant definitions and theories. Because of the existence of quality theoretical work on financial stress, I took a critical realist perspective (Fletcher, 2017) and used an iterative framework for data collection and analysis (Srivastava & Hopwood, 2009; Tracy, 2019; Wiltshire & Ronkainen, 2021).

According to critical realist perspectives, there is a reality which researchers are obliged to examine through the subjective perspectives of their participants (Tracy, 2019). Basically, subjectivity is a fundamental and valuable part of the data. Fryer (2022) even argues that thematic analysis through a critical realist lens is a useful means of determining causality by evaluating causal relationships within participants' lived experiences.

An iterative approach method requires the researcher to bring some topical expertise to their method before collecting qualitative data. Data collection and data analysis also have temporal overlap; the researcher uses their own background knowledge of a topic to inform data collection, expands this knowledge *during* data collection, and then applies the expanded knowledge to additional data collection and analyses. By using an iterative process, the current study had the potential to produce both expected and unanticipated data on financial stress.

4.2 Sample

Interview data were collected from 22 English-speaking individuals in the workforce in the United States. Participants came from a range of backgrounds (a maximum variation sample; see Tracy, 2019). Specifically, I sought a wide range with regards to the demographics that are associated with economic stressors; these were education (United States US Census Bureau, 2021), race (Keister, 2000; Williams, 1999), age (U.S. Bureau of Labor Statistics, 2023) and income (U.S. Bureau of Labor Statistics, 2023).

Recruitment

Attaining a maximum variation of participants through my personal network proved challenging. However, many other sampling approaches would have a restrictive effect on some aspect of important demographics. For example, collecting data from employees of one organization would mean that these participants probably have common experiences that do not necessarily generalize to workers as a class. Additionally, collecting data from employed college students may produce restrictions to part-time status, age, or highest level of education, which are all likely related to financial stress and again restricting the sample.

Using a convenience sample allowed me to seek out a wide range in demographics, but had the potential for biased responses from participants who know me well a) because my questions may be leading or biased by my own preconceptions of the person and b) because respondents may have a bias toward social desirability in order to manage my impression of them for the continuing social relationship.

I collected data using a selective convenience sample, but to address the above concerns, I aimed to interview people with whom I had a degree of social distance. To this end, I used two recruiting strategies: a) I connected with individuals that I encountered in public settings (e.g., a barista at a coffee shop), and b) I asked my personal contacts (e.g., colleagues and former coworkers) to connect me with anyone they thought would be interested. There was some snowball sampling throughout, but always with a degree of separation. As an example for the former approach, a barista interviewee told their coworkers about my study and connected me with three other interviewees. For the latter, a graduate student connected me with a friend from their home state, who then connected me with a sibling.

Once patterns in age, race, and education became evident in my data (after about twelve interviews), I asked my contacts to prioritize groups that I was missing. However, I did not turn down any volunteers who met my basic recruiting criteria. My final sample (n = 22; see Table 3) included 10 women, 10 men, and one non-binary interviewees. One interviewee did not report a gender identity. Income ranged from \$18,000 to \$155,000 (M = \$60,725, SD = \$31,143) and ages ranged from 18 to 65 (M = 34.82, SD = 11.94). For their highest level of education, six people had some or no college experience, 11 people had a bachelor's degree, and five had an advanced degree (see Table 3). Participants received a $5 reward in the form of a digital gift card, in appreciation for their participation.

Interviews

Semi-structured interviews allowed me to gather pertinent data by using both planned and on-the-fly questions, which produced rich and unique responses (Kvale & Brinkmann, 2015). Before being interviewed, each participant provided their informed consent using a Qualtrics form, and were asked to select a pseudonym. A pseudonym was arbitrarily assigned to participants who did not request a specific one.

An interview guide was used to target the research questions outlined above (see Appendix A). First, general questions were asked to orient the interviewee and to establish rapport. This first step is especially important when the interview will touch on sensitive topics, such as money and stress (Tracy, 2019, p. 165.). Then, following the guidelines of Tracy (2019), questions were asked to address the research questions, starting broadly then narrowing each time. Each interview was concluded with some catch-all questions (e.g., "is there anything you'd like to add?").

Notes were also taken on any problems with the interview guide, such as confusing questions or gaps in the responses that the interview invoked, per the recommendations of Braun and Clarke (2006). Edits were made to the interview guide throughout the data collection process. For example, questions that participants struggled to understand were rephrased, and more targeted follow-up questions were added to target themes as they emerged (see discussion for details).

Brief Questionnaire

Following each interview, participants were asked to complete a short supplemental questionnaire. The questionnaire included questions about income and other demographic information (See Appendix B).

Qualitative Coding

Multiple rounds of coding were used to generate codes and themes. After conducting 12 interviews, five interview transcripts were notated and open coded to generate an initial framework for linking interview responses to research questions. Although minor edits were made to my interview guide throughout data collection, my findings for these first five codes were used to make some more significant edits to the guide for interviews 13 – 22. For example, when participants expressed concern about a specific expense (e.g., rent), I would ask them to describe how critical they thought that expense was and explain why.

Following the initial coding cycle, 15 interview transcripts (including the first five) were coded using a constant comparative approach (Fram, 2013). Throughout this process, I continued to make changes to my coding framework by consolidating redundant codes, adding new ones as they emerged, and re-organizing their structure (e.g., parent and child codes). As I approached saturation, later transcripts were coded with minimal edits to the coding structure.

Saturation

In thematic analysis, saturation refers to the point at which new codes no longer emerge in the data (Tracy, 2019). When saturation is reached, the researcher has met the ideal sample size. I reached saturation at different stages for different research questions. For example, when asking for synonyms and antonyms for financial stress, I reached saturation within the first five interviews because participants seemed to struggle to generate these terms. I continued to ask a couple short questions about these throughout, but little new information emerged. I reached saturation for the definition of financial stress around 5-10 interviews, and I reached saturation on more complex questions (e.g. comparisons, RQ3) after the first fifteen interviews.

Member Check

In qualitative research, it is good practice to confirm findings with participants. After qualitative coding was complete, I created a short overview of the findings. I sent this to my interviewees and requested their feedback. I asked them: 1) “Do you have any comments on these findings, including any areas where you disagree?” and, 2) “Is there anything else you'd like to add?” Seven people responded, and none of them reported disagreeing with the findings. These responses were generally positive, and only one person suggested an area where they would like more information; they wanted to know more about the effect of multiple incomes on financial stress, which, insightfully, aligns with a recommended area of future research from Sinclair and Chueng (2016).

CHAPTER 5: RESULTS

5.1 Defining Financial Stress

When asked to define financial stress (RQ1), participants provided both cognitive and affective evaluations of their financial status, aligning with the suppositions of other economic stressor experts (e.g., Sinclair et al., 2024). Perhaps unsurprisingly, interviewee expressions of affect focused on fear, stress, or anxiety. Participants also described feeling confused, overwhelmed, or "under pressure" (Janine). Less commonly, participants reported feelings of anger and frustration, which they associated with mild financial stress. For example, Mark described frustration with an inability to pay for a small luxury, but fear when considering the consequences of serious financial problems. Specifically, participants' affective and cognitive financial stress experiences included three components. Accordingly, I propose a three-part definition of financial stress as worries about: 1) inability to pay for essential resources, 2) insufficient income compared to expenses, and/or 3) an inability to save money for meeting goals (see Table 4 for examples). These three components are interrelated and based on participants' descriptions, are different descriptions of the same general experience (financial stress). This definition is also similar to existing definitions in extant financial stress literature and aligns well with my initial working definition, but the three components provide additional specificity.

Paying for Essential Resources

As a fundamental part of financial stress, many participants referred to an inability to pay for all their basic needs. They described trouble paying for things that they viewed as critical for survival or quality of life. When explicitly asked to define financial stress, many participants primarily described worries about paying for housing, food, utilities, and healthcare (e.g., Rachel).

More Expenses than Income

Financial stress is also a perception that expenses are greater than (or equal to) incoming financial resources. When interviewees mentioned that they were not making a livable wage, they found themselves facing no-win situations. Maurice mentioned that for him to live within biking distance of his two jobs, he had to live in an expensive area where he could barely afford his rent. On the other hand, he could not afford a car to commute from farther away and did not feel like he could afford the time loss associated with a long commute on public transportation. This ongoing struggle to have enough income to meet expenses was common among higher-income employees as well, usually due to a more expensive lifestyle (e.g., Carl).

Ability to Save Money for Goals

Participants expressed concern about their ability to save money as part of their financial stress experiences. Anxieties about future unexpected expenses, such as a medical emergency or something that they failed to plan for (e.g., expenses associated with adopting a dog; April) were often reported. Participants also referred to their struggles to save for things that they *did* predict, and that they considered important for themselves or their families. These could include specific purchases, such as holiday gifts (e.g., Ann).

Interconnectedness

Regarding the three components of financial stress, it may seem apparent that they are closely intertwined. For example, one cannot save money if expenses are not less than incoming funds or if one does not have enough money to pay for basic needs. In fact, I believe that these components are participants' subjective descriptions of the same problem– not having enough money. These three elements of financial stress have a “family resemblance” (pp. 162 – 164; Podsakoff, 2016), meaning that the three of them together provided a more complete description of what financial stress is, and their conceptually intertwined natures supports the notion that they are part of the same construct. Many participants even recognized this interconnectedness themselves. For example, when asked to define financial stress, Juliana described how an emergency could force her to spend all her savings and inhibit her ability to pay for essentials or save for more luxury-type goods.

Related Terms and Concepts

Participants were rarely able to produce synonyms for financial stress independently, and those who did usually thought of different, but related, objective economic stressors (per Voydanoff, 1990) rather than a purely subjective evaluation of one’s financial state. For example, Nick and Anastasia used the word “poor”, which typically refers to one's objective state (e.g., Gallie et al., 2003) instead of their subjective evaluations. Participants occasionally mentioned terms that are used interchangeably with financial stress in the literature (e.g., financial insecurity, Rachel; financial hardship, Samantha), but many also commonly settled on financial stress as the ideal term for this concept (“financial hardship and probably just financial stress,” Janine).

Contrasting with Financial Stress. Research Question 1a asked how people define financial stress, and establishing a definition can be supported by determining how it is distinct from other constructs (hence Research Question 1b). Participants struggled with this. For example, when asked if financial stress is the opposite of financial well-being, responses were mixed. Participants struggled to articulate why they thought financial well-being was or was not a different construct. Instead, participants provided descriptions of how their lives may be different without financial stress, in which they often confounded objective and subjective constructs. I coded these descriptions broadly as *contrast with financial stress.* Many of the subcodes of this category contrasted with the three components in my definition. For example, April described how without financial stress, she would be able to meet her basic needs, and Maurice said that the absence of financial stress meant he would have enough income to be able to save some money. Simply, the absence of financial stress means not worrying about expenses that are near or outpacing income, worrying about trouble paying for critical resources, or worrying about the ability to save.

5.2 Financial Stress: Causes and Mitigators

In Research Questions 2a and 2b, I asked how participants come to experience financial stress, and how they address financial stress. My original question was on how participants address financial stress, but because their causes and mitigators of financial stress were clearly related, it was logical to address both components of this issue.

Causes of Financial Stress

When asked to explain their current or past experiences with financial stress, interviewees considered financial stress in terms of expenses or income. They particularly seemed to focus their attention on objective stressors that they considered extreme and/or challenging to predict.

Expenses. Participants rarely reported experiencing financial stress due to minor predictable expenses. I organized expense codes into two groups 1) expected expenses, and 2) unstable or completely unexpected expenses. After doing this, I was able to recognize that expenses which induced financial stress tended to be either large or difficult to predict (sometimes both), in such a way as to affect perceptions about one or more of the components of financial stress (ability to pay for needs, ability of income to keep up with expenses, and ability to save).

Major expenses are those that participants described as taking a large portion of money from their income or savings. Renters expressed overwhelming concern and frustration around the cost of rent (e.g., Mark). Paying rent often requires a large portion of one’s paycheck, making it difficult to save for any goals or pay for other critical things, such as food or emergencies. Participants rarely talked about their mortgages in the same way, perhaps because those with mortgages were in higher income brackets and were in less financially precarious situations than renters. Rent as a major stressor was emphasized by the two participants who had a history of extreme financial problems, including periods of homelessness (e.g., Rachel and Carl), perhaps indicating a fear of repeating an unpleasant experience. Some other major but anticipated expenses included routine medical expenses (e.g., Mae), college tuition for themselves or children (e.g., Janine), buying a car (e.g., Ann), and moving (e.g., Nick). Some participants described financial stress due to a convergence of major expenses, which they described as major shifts in their lifestyle or a function of a shifting life stage. They considered this increase in their expenses a stressful but temporary state, and one that was worthwhile. For example, Bill described having a baby and putting a down payment on a new house: “So now with a new house, I have a mortgage that I don't fully understand or know up until it's finalized.”

Interviewees found that unexpected and unstable expenses were particularly stressful because they were difficult to plan for. Unexpected expenses included medical emergencies, car accidents, or other expenses that the interview failed to anticipate. Unstable expenses were those that were either routine but prone to changing in cost (e.g., seasonal changes in a power bill) or those that participants expected but were unsure of the timing. Car-related expenses were common examples. Leah's car being totaled in an accident was an entirely unexpected expense. Carl's belief that his older vehicle would eventually break down and require repairs or replacement, but his uncertainty about when that was going to happen, made this an unstable expense. He could not predict with any certainty when that would be or how much it would cost.

Unexpected and unstable expenses were grouped together because they could be difficult to distinguish. This ambiguity was especially prominent when insurance was involved. For example, the expenses of Regina's Regina's IVF (in vitro fertilization) treatments were dependent on several unstable and unexpected factors, including the portion covered by health insurance being dependent on how long the process took (e.g., her success at getting pregnant). In some cases, the distinction between an unexpected and unstable expense was also determined by the awareness and financial skills of the individual; a savvier person would be aware that their aging vehicle will likely break down soon (Carl), while someone who is not attentive to this potential may be taken completely by surprise when their car breaks down (John). These different levels of awareness tie into financial skills as a mitigator (which I will describe in a following section). However, failing to anticipate an expense was consistently a cause of financial stress, regardless of how obvious that expense might have been from the perspective of a financially savvy observer. In fact, some people reported experiencing a spike in financial stress when they realized that they had been charged for a completely routine bill they had just forgotten about (Ted).

Employment and Income. Participants also reported objective employment and income stressors (per Voydanoff, 1990; Sinclair et al., 2024) affecting their financial stress. They described financial stress due their income being insufficient, unstable, or both. Those with insufficient income felt like they were not getting paid enough and often reported other consequences, such as exhaustion from juggling multiple jobs or working extra hours (e.g., Maurice). Some had both insufficient and unstable pay, requiring a paycheck-to-paycheck lifestyle with little margin for error. For example, Taylor's bartending tips were highly variable, and she would often have to supplement a low-tip weekend by working as a food deliverer. Less common were participants who considered their income sufficient with careful management, but whose income was unstable week-to-week (e.g., stock trader, Nick). Income stressors were related to employment stressors as well, as in cases of job loss (e.g., Juliana) or extreme pay cuts accompanying a job change (e.g., Samantha). While participants varied in how much they prioritized money in their job and career decisions, only one person reported that they loved their job so much that they would work for free (Leah). Ultimately, money is a major factor in employees' job choices, and losing that income could have a severe effect on financial stress.

Financial Stress Mitigators

In many ways, causes and mitigators of financial stress are two sides of the same coin. People experienced abrupt increases in financial stress when income was reduced, but also had a dip in financial stress after experiencing an increase in income (e.g., Carl and Rachel). I posed Research Question 2b expecting to learn about how participants choose to prevent or address financial stress. However, participants described mitigators of their financial stress more broadly, as a function of both their efforts, circumstances, and a combination of effort and circumstances.

Efforts. Some efforts were focused on addressing financial stress that one was already experiencing, and some were focused on prevention. Many people reacted directly to the causes of financial stress by seeking to reduce expenses when they perceived these expenses as the major cause of financial stress and increase income when they perceived that insufficient pay was the biggest cause of their financial stress. Efforts to increase the availability of financial resources were wide-ranging, including seeking immediate financial relief (e.g., selling car, Juliana) or setting oneself up for long-term financial success by selecting education or career paths for their financial opportunities (e.g., Janine).

Short-term solutions included looking for ways to cut expenses, which were coded either as *free or cheap alternatives* or *reducing spending*. These two codes overlap, but there is an important distinction. When people are looking for free or cheap alternatives, they are still looking to fulfill the need or want offered by that expense. When they simply focused on reducing spending, they were cutting out expenses entirely, as in the case of Nick equating the experience of financial stress with "being hungry." This is a somewhat extreme (but more common than I expected) example of someone passing on a necessary expense for a short time due to financial stress. Other examples of short-term solutions were about quickly getting more money, including taking on extra side jobs or working extra hours at their primary job, but this was often at the cost of mental health (e.g., Leah, John, Maurice).

Unlike short-term efforts to increase income, long-term planning included a focus on career decisions, which were often complicated by other concerns and values (e.g., education requirements, interest in the work or culture). Taylor described a passing interest in jobs where they thought they could make more money, but ultimately majored in health because they believed this would allow them to optimize both income and work enjoyment in their future career. Mark described selecting a state college that he could afford, and majoring in economics because he found it interesting, and he believed it would set him up for financial success in the future. Without financial worries, he said he would have liked to be a park ranger.

Some people described engaging in more psychological efforts to cope with financial stress, such as compartmentalizing, trying to keep a positive mindset, or engaging in an activity to distract from their financial stress. For example, Juliana described watching tv and trying to not think about her financial stress, and Rachel described focusing on her readings during graduate school both to stay distracted and because she could not afford to go do anything else. Leah even talked about working to accept the things she could not control and engaging in breathing exercises.

Circumstances. As mentioned, interviewees often described their financial stress as being due to things they considered outside of their control. A common thing for them to mention was supplemental resources due to family support or life stage (e.g., 18-year-old Lin living with her parents) or access to resources through work (as in perceptions of the job market for their skillset, Corey). Some circumstantial mitigators were not simple objective resources, but the perception that these resources could be available *if needed.* For example, several participants said that their financial stress was mitigated by having someone in their life that would help in a financial emergency. In fact, just the knowledge that this backup existed was a mitigator of financial stress for many, even though they did not expect to ever need that backup.

Taking Advantage of Opportunities. Whether a mitigator is considered effortful or circumstantial may be a matter of an interviewee's attribution. For example, Ted applied to a low-level job at an electrical company several years ago and is now in a management position at that same company. He originally learned about the job opening from a friend. He expressed to me that he feels incredibly lucky to have gotten that opportunity. He attributed his success to this friend's ability and willingness to help him get this job and did not focus on his own efforts to apply to the job or perform once hired. April's attitude contrasts with John's, in that she ascribed her financial success more to her own actions. Specifically, she referred to her hard work in law school, her selection of a career path with a loan forgiveness program, and her financially responsible lifestyle.

The way participants describe their situations as either a matter of effort or circumstances may be as indicative of the way they think, as much as is of their actual financial lives. Most commonly, they experienced mitigators of financial stress as an interaction– namely their deliberate efforts to take advantage of circumstantial opportunities. One such example of this, which I found surprisingly frequent, was participants' attributing mitigators of financial stress to the financial skills learned from family members and their proactiveness to use those skills (e.g., Samantha).

What Works. Efforts have varying levels of success. Responses to immediate financial problems often offered only short-term relief from financial stress. For example, Bill used a credit card to pay a large expense— meaning that he was expecting a larger credit card bill later due to interest. Juliana had to sell her car when unable to make car payments, but that left her without a car that she could use to take on food delivery work. These were always reactive efforts, focused on addressing a major financial stressor after it had already occurred. More effective strategies focused on longer-term prevention, such as living below one's means and saving money for future emergencies.

Psychological coping strategies were also variable in how effective they were. Juliana found watching tv was somewhat distracting, but she still struggled to not think about her financial stress. Participants who reported the use of substances to cope with short-term psychological stress would sometimes continue to reduce their objective financial resources to do so (e.g., buying alcohol), and possibly harm their future health as well. On the other hand, Juliana reported the use of marijuana to successfully fend off extreme financial stress.

Experience appeared to be an important component of how successful efforts were. Twenty-three-year-old Taylor referred to themself as a “baby adult” when talking about their recent failure to predict the cost of car insurance, and their future efforts to budget for this expense. Others reported prioritizing money after major life events. For example, John described how both his financial and emotional resources were drained when he experienced a breakup, an unexpected pet illness, and the death of a parent in the same month. After finding his way through these hard times, he took several steps to prevent extreme financial stress in the future, including building a client base for his side jobs and careful budgeting for both daily needs and emergency savings. After this behavior change, his financial stress dropped meaningfully. Like many, he attributed his success to several circumstantial and effortful factors, including having the family support to get through his financially challenging times, the education to use his skills as a data analyst, and his own determination to improve his money management skills.

5.3 Comparisons with Other People

My third research question was about comparisons– specifically, to whom people are making comparisons. Broadly, the comparisons fell into two categories: comparisons with strangers and comparisons with people that are known to the interviewee (which I call associates). Participants were quick to compare themselves to people they know, especially people with whom they had some common background such as siblings, friends from high school or college, or people working in the same job or general industry. A few people even called attention to these common backgrounds; Bill said he compares his financial situation to people he grew up with because they are similar in age and have had to navigate the same macroeconomic fluctuations (e.g., the 2008 housing crash).

Another possible explanation for this tendency to make comparisons with associates more than strangers is the participants' access to information. It seems likely that they simply have more information about the people they know than strangers, and they are therefore more able to make some assessment of that other person's situation (similar suppositions were made by Probst et al., 2018). This information can be attained by increased contact with people they know, including direct conversations. For example, Anastasia at one time in her interview described how she evaluates strangers' wealth based on the car they drive, then at another time mentioned how she learns about her friends' financial situation both through observing their possessions and through direct conversations with them.

Comparisons with Associates

Comparisons were not simply evaluations of others' money; rather, they were multi-faceted evaluations of others' economic stressors and lifestyles. Interviewees demonstrated a propensity to compare themselves to associates they perceived as having more resources or as advantaged in some way (upward comparisons). For example, Nick felt like he was stepping outside of his family's expectations with his two career choices as a civil engineer and then as a stock trader, namely because most of his family worked in medical professions. He expressed feeling like he had more to prove and that the desire to make money in his career was driven not only by a desire to avoid financial stress, but by a desire to prove to his family that he could meet their standards for success. Participants also compared the long-term effects of financial inequalities; Bill described feeling jealous of friends who had come from wealthier families and did not have to pay for their own college. Specifically, he expressed frustration at having to pay student loans during his first job as a college graduate, while his friends were able to immediately start saving for their next goals in life.

With slightly less frequency, people made downward comparisons with associates as well (comparisons to people they considered as having less than themselves in some way). The way in which they made these comparisons is not dissimilar from the circumstantial versus deliberate mitigators that many participants saw in themselves (Research Question 2b). In some cases, these comparisons were made by participants viewing themselves as lucky or advantaged compared to others (e.g., Samantha). Other participants attributed their greater success to themselves. For example, John expressed feeling frustrated by co-workers at a former job who regularly complained about having insufficient money but would not work extra hours to take advantage of their overtime pay.

Some comparisons with associates were made with positive goals in mind, such as getting information, learning from others, or being generally inspired and motivated. In such cases, participants made comparisons to people they perceived as either financially successful or financially struggling but did not discuss the target of their comparison negatively; rather, they described the comparisons as a strategy for understanding and improving their own financial situations. A common example of this was participants comparing their incomes with coworkers, to evaluate how fairly they were being paid (e.g., Jason). However, these constructive comparisons also happened with friends and family as well, as was the case of Bill, who described comparing himself to a wealthy uncle, and explicitly seeking financial advice from him.

Comparisons with Strangers

Although less common, comparisons with strangers would often be made after I directly asked about these. When talking about economic stressors, there seemed to be a slight bias toward upward comparisons. Rachel, for example, expressed rage that some people could afford an extravagant lifestyle while people like herself had experiences of extreme financial stress. Like upward comparisons with associates, some upward comparisons with strangers were also aspirational. For example, Nick described making upward comparisons by observing the possessions of wealthier people and using these to stay motivated to earn more money. Upward comparisons with the super-rich usually came with expressions of confusion, as participants could not understand their spending choices or relate to their lifestyles. These also varied in how abstract they were; some participants described upward comparisons with specific individuals, such as celebrities or famous business owners. Others referred to wealthier people more generally. Contrast, for example, Jason's struggle to understand what it would be like to have Taylor Swift's wealth with Carl's general contention that millionaires are not poor compared to the super-rich.

Downward comparisons with strangers were not common. These usually involved comparisons to the homeless (e.g., Ann), or comparisons that were in some way double-edged (as in looking down on others' work ethic; Cory). Participants may have had little to say when making downward comparisons to strangers for a couple reasons 1) participants lacked sufficient information about strangers to confidently make judgements and 2) as people seeking to improve their station, participants lacked little motivation to make downward comparisons to people they did not know or care about.

Double-Edged Comparisons

Comparisons were not entirely focused on wealth. In many of these cases, upward and downward comparisons took place simultaneously, in that an interviewee would perceive a tradeoff between economic factors and something else. One example would be April, who made an upward comparison to the purchase of a new car, but then made a downward comparison regarding money management skills. She believed that this person was overspending and that their purchase was ultimately unwise. Several participants described people who made different, and ultimately higher-paying, career decisions. Rachel and Janine, for example, both described having close friends who took high-paying jobs that were in some way undesirable; in Janine's case she found her friend's work hours and stress untenable, and Rachel seemed to find her friend's career choices to be unhelpful to society.

Emotional Outcomes of Comparisons

The emotions that accompany comparisons to associates and strangers also varied. Some people expressed anxiety about their financial futures, while others expressed anger at perceived injustices. When making comparisons to friends and family, participants seemed more likely to express anxiety than anger, but there were instances of both. Comparisons to strangers were often driven by a desire to evaluate fairness, and frustration or anger when unfairness was perceived. Any hesitation to describe anger, especially toward friends and family, may be due to a social desirability effect (e.g., Bergen & Labonté, 2020), but the motivations for making comparisons also seem important (see discussion). For example, Ted expressed that in making comparisons to his sister, he only wanted to learn that she was doing well. He expressed tremendous pride upon learning about her various career and financial successes.

CHAPTER 6: DISCUSSION

The primary goal of this study was to develop a clear and complete definition of financial stress. I began by reviewing existing conceptualizations of financial stress under two typologies: economic stressors (Voydanoff, 1990) and underemployment (Dooley, 2003; Erdogan & Bauer, 2011). As a subjective evaluation of one's financial status, financial stress falls under both typologies.

6.1 Research Question One: Defining Financial Stress

Financial stress in academic research is driven by sparse (or sometimes nonexistent) definitions, and it is often unclear that these definitions refer to the same overall construct. This ambiguity has been further complicated by the proliferation of terms to describe what appears to be the same overarching concept. In the current study, I first proposed a broad definition based on existing work: individuals' perceived sufficiency of financial resources for meeting their perceived needs. Then my primary research enabled the adoption of a definition of financial stress according to my participants: 1) the evaluation of one's inability to pay for essential resources, 2) perceptions of insufficient income to cover expenses, and/or 3) a perceived inability to save money. These three components converge with some of the extant definitions in academic literature (e.g., Corman et al., 2012; Munyon et al., 2019; Table 1).

My dissertation serves to demonstrate that participants perceive these as the same construct. Further, my choice of the term "financial stress" not only resonates with participants but is being adopted by more recent efforts to address siloing and study this construct in organizational sciences (e.g., Sinclair et al., 2024). It is my hope that my definition of financial stress will empower this body of research to progress more coherently in the future.

Distinguishing Financial Stress from Related Constructs

Financial stress can be distinguished from other constructs under Voydanoff's (1990) economic stressor typology or under an underemployment (Dooley, 2003; Feldman, 1996) typology. Voydanoff's economic stressors typology consists of four general categories created by dimensions of employment and income stressors that are either subjective or objective (See Table 1). Participants in the current study were able to distinguish financial stress from constructs under other distinct categories; for example, they would describe how financial stress relates to experiences of underpay (objective, income) or job insecurity (subjective, employment), clearly showing an understanding that these are different. Similarly, underemployment includes any form of employment that is in some way inadequate, which includes many of the same constructs as economic stressors (e.g., underpay).

Financial stress is indeed distinct from other constructs within both the economic stressor (Voydanoff, 1990) and underemployment (Erdogan & Bauer, 2011) typologies. For example, participants described job insecurity and job loss (employment stressors under Voydanoff's typology) as distinct from, but as predictors of, financial stress. They also described other suboptimal work situations that were associated with their financial stress, such as overeducation or education-job mismatch (e.g., Alex), which falls under the underemployment umbrella (Erdogan & Bauer, 2011).

Terms that seem more proximal to financial stress, such as financial insecurity or financial wellbeing, were not clearly and consistently distinguishable by participants. When asked open-ended questions about whether financial stress was different from financial wellbeing, for example, answers were wide ranging and expressed with little confidence. Some participants even expressed frustration with the question (e.g., "You're asking really tough questions," Nick). As such, it would seem that people cannot easily distinguish financial stress from related concepts such as financial insecurity.

Interestingly, during the final stages of my data analysis Sinclair et al. (2024) published their review of economic stressors in which they described everything under the subjective, income category as financial stress, even when given different labels. Not all my participants would agree with this (e.g., Taylor), but it seems that most of them would. It appears that participants are not comfortable thinking about economic stressor definitions so microscopically. At this stage, I am inclined to agree with Sinclair et al.'s (2024) contention that these are all the same construct. However, their claim could be tested with the careful development of a measure that draws from several research streams in financial stress, and quantitatively tests the similarity of items across these financial stress research areas (e.g., factor analysis; Shaffer et al., 2016). Doing so could also help determine whether there are multiple dimensions of financial stress (similar to Brüggen et al.'s distinction between financial stress and financial wellbeing; 2017), and what those dimensions are. Because my findings demonstrated that people struggle to make such fine distinctions, academics need to clarify possible components of financial stress in future work. This should be prioritized, so that the jingle and jangle fallacies (Kelley, 1927) are not expanded, and further construct proliferation can be prevented within this literature area (Shaffer et al., 2016).

Higher Level Constructs. Existing work offers parallel conceptualizations of financial stress at different levels, such as the household level (e.g., French & Vigne; 2019), the organizational level (e.g., Cooper; 1998), and even more macro levels (e.g., Cevik et al., 2013). Although distinct, my individual-level financial definition of stress may be converted to a higher level construct. For example, at an organizational level, this would likely include parallel factors like an *organization's* ability to pay for necessities, to have greater profits than expenses, and to be able to save money. Future research may be conducted to further develop and test such conceptualizations.

6.2 Research Question Two: Causes and Mitigators of Financial Stress

My findings indicated that causes and mitigators of financial stress were often a function of the same factors; for example, a participant may experience financial stress when a paycheck is insufficient for covering immediate expenses (cause), and they may address this by working extra hours for supplemental pay (mitigator). In the following sections, I add specificity and context to these findings by discussing the importance of causes and mitigators of financial stress in theory and in practice.

Causes

The popular typologies I reviewed (economic stressors and underemployment; Sinclair et al., 2024) categorize people's financial experiences, primarily in the context of their jobs. However, my participants talked about expenses as drivers of financial stress as much, if not more, than employment- and income- related stressors.

There are a few possible reasons for this. Due to the rise in inflation since 2022, the cost of goods was high on peoples' minds. Another, and somewhat related, reason for the focus on expenses may be their perceived unpredictability overall. Many of my participants reported feeling discomfort with economic stressors that they struggled to anticipate such as emergencies and rent increases. Most people reported at least some stability in their paycheck in that they got paid on a regular schedule and there was some limitation to how much their paycheck tended to fluctuate. Also supporting my belief that the focus on expenses is due to a perception of instability, participants who *did* experience significant instability in their pay also described this as a cause of financial stress. A final reason that participants focused on expenses ties into peoples' general dislike of resource loss. In COR theory, Hobfoll (1989) contends that people are more negatively affected by resource loss than the equivalent resource gain, which would lead to a focus on expenses over income.

Although there was a focus on expenses, participants who experienced some form of instability with regard to their pay also described this instability as a factor in their financial stress. Examples include the stock trader and the tip-dependent waitstaff. For example, Taylor described the expense of taking a weekend off from their work as a bartender. Because the weekend is when they would normally make the most tips, they found that their dollars-per-hour were lower than normal. Under COR theory (Hobfoll, 1989), people like Taylor have to contend with the risk that their investments (in the form of time and effort) may exceed their returns (in the form of pay). It should be noted that in addition to being conceptually distinct, income and financial stress are only moderately correlated (Phetmisy et al., 2024). Financial stress is a subjective construct and is driven by considerations of both income and expenses. Therefore, I find it unsurprising that a high-income individual may experience financial stress due to high expenses (e.g., Carl) and that a low-income individual may have less financial stress when their expenses are also minimal (e.g., Linn).

Mitigators

Mitigators were sorted into circumstantial mitigators and mitigators due to participants' actions. The former included resources from family and economic factors. The latter included actions to address or cope with financial stress, which were wide-ranging. Some examples include selling valuables to address immediate financial problems, taking a positive attitude to cope more directly with the cognitive and affective experiences, and saving money for emergencies and predicted expenditures. There are many situations when these perceived mitigators are direct counters for perceived causes of financial stress. For example, someone who is worried about an emergency causing financial stress might also save money to prevent serious financial troubles should such an emergency take place.

COR Theory in Action

Theories that focus on resources to explain stress experiences, without consideration of individuals' comparisons to others, are considered absolute theories (Sinclair et al., 2024; Sinclair and Chueng, 2016). I used two absolute theories as guides for interpreting my data: COR theory (Hobfoll, 1989) and Appraisal theory (Lazarus & Folkman, 1986). COR theory includes broad categories for resources: object resources, condition resources, personal resources, and energy resources. This theory connects perceptions about resource availability to stress outcomes. According to Hobfoll (1989), stress occurs when resources are lost, perceived to be threatened, or when there is not an expected return on resource investments. There were examples of these theoretical tenets throughout my data, particularly with regards to participants' reported causes of financial stress. For example, Ann described a fear of what would happen to her if a "catastrophic event" drained her savings.

Across many works, Hobfoll (2011, 2018) also described resource spirals and resource caravans in COR theory. In a resource spiral, one's loss of resources leads to further resource loss. Caravans are the opposite: the more resources one has, the more resources they are able to invest and the more resources they can obtain. There were instances of resource spirals and caravans in my data. Spirals were common particularly when participants described times in their lives when they were encountering converging expenses. These times accompanied other resource-costly events as well, creating resource spirals that were difficult to recover from.

Caravans happened when participants had more resources available and were proactive about taking advantage of that availability.

As one example, John experienced both. He was in a resource spiral when he lost several types of resources (including money) that came with a pet falling ill, the end of a long-term relationship, and death of a parent. He also described resource caravans following these challenges, after he began to manage his resources more carefully. The change from spiral to caravan required an infusion of resources. In his case, upon realizing he was losing resources, John started to use valuable resources that were previously untapped. Specifically, he received support from his family in the form of housing, loaning a vehicle, and money.

I also reported that strategies for preventing future financial problems seemed more effective than efforts to address immediate financial stressors. It is possible that these longer-term strategies were more effective only because they were available to people who had more resources to begin with. In other words, someone who was making enough money to save for emergencies would already be in a better position than someone living paycheck-to-paycheck.

There are many examples of COR theory in action in my data. However, I also found that COR theory does not universally predict human behavior when it comes to resource management. Carl, for example, increased his spending as his income increased, so that his financial stress remained stable. His income and money management efforts were sufficient for him to avoid a spiral, but he did not successfully engage in the behaviors described by Hobfoll (e.g., using an abundance of resources to further resource gain) in such a way as to experience a resource caravan. Yes, he invested money in other resources, usually objects that brought him joy (e.g., an espresso machine), but the return on investment in these was short-lived and never in the form of more money. Examples such as this led me to believe that boundary conditions to

COR theory (Hobfoll, 1989) are due to individual differences in the decisions people make. Determining what these are (e.g., values learned from friends and family, perhaps), is certainly worth unpacking in future research because they could highlight the intersection between COR theory and other theoretical processes, such as individual risk aversion (e.g., Prelec & Loewenstein, 1998; Rick, 2018).

Appraisal Theory in Action

Another relevant theory is Lazarus and Folkman's appraisal theory (1986), which consists of two stages: primary appraisal in which one evaluates resource availability and threats, and secondary appraisal in which one evaluates means of coping with resource threats. Stress and related harmful outcomes ensue after both appraisals take place and one finds their resources insufficient. This theory has notable overlap with COR theory (Hobfoll, 1989). For example, cognitions about resource insufficiency are what drove John to change his resource management behavior to prevent future financial stress. Unlike COR theory, however, appraisal theory focuses on cognition and does not include expansive claims about resource management behaviors. In this way, appraisal theory also fits my data. Again, consider the example of Carl, who described feelings of financial stress and even anticipated financial stress after he had overspent his monthly income, yet continued to overspend with full awareness of his problematic behavior.

Causes and Mitigators: Propositions and Future Work

There are several possible directions for future research on the causes and mitigators of financial stress. Notable was the potential effect on peoples' financial stress experiences, which includes research on the stability of income and expenses, higher level moderators, and the effectiveness of individual efforts.

Moving Beyond the Current Typologies. The typologies I reviewed (economic stressors; Voydanoff, 1990 and underemployment; Erdogan & Bauer, 2011) provided invaluable tools for framing financial stress and informing my research questions. However, because expenses appear to be critical to how financial stress is experienced, it (financial stress) researchers need to consider how it is not fully contained within these employment-oriented typologies.

The economic stressor typology from Voydanoff (1990) categorizes economic stressors by employment and income. Expenses are not formally included (see Table 1). Sinclair and Chueng (2016) do acknowledge that expenses should be considered when measuring financial stress, but they refer to this as a measurement shortcoming without describing it as the conceptual problem that it is. In other words, expenses are distinct from the categories in this typology, and should be considered as such.

The underemployment typology is restrictive in similar ways. Although it includes constructs that are in the same realm as money and financial stress (e.g., insufficient hours and underpay) it also includes constructs that are not in the conceptual domain (although they may covary; e.g., overeducation). These typologies frame financial stress in terms of employment, but, by talking about the importance of expenses and quality of life, my participants have made it clear that financial stress spans work and nonwork domains.

Under the employment stressor typology (Sinclair et al., 2024; Voydanoff, 1990), employment uncertainty (subjective, employment stressors) and income (objective, income stressors) most likely *directly* predict individuals' financial stress. However, it is likely that employment instability (objective, employment stressors) only predicts financial stress *indirectly*, because changes in employment status inevitably mean changes in income). Income is a critical reason for having a job, and it is the change in income that will affect financial stress. Currently, research linking financial stress to employment (e.g., Creed & Klisch, 2005) may be failing to include income as an implied mediator, or is using employment as an unspoken proxy for income.

Proposition 1: *Income mediates a relationship between employment status and financial stress. Specifically, people who are or become unemployed will experience financial stress due to the loss of income.*

It should also be noted that the subjective employment evaluations are usually described in terms of job security (perceptions about the likelihood of retaining one's current job; Jiang & Lavaysse, 2018), but my participants (Cory) described how it is their belief in their ability to have a job, but not necessarily the same job, that reduced their financial stress. I describe this broadly as perceptions about future employment.

Proposition 2: *Subjective evaluations about future employment affect financial stress. Specifically, people who feel confident about retaining employment in the future, in their current job or in a different job that they find adequate, will have lower financial stress as a result.*

In addition to employment and income (per Voydanoff's 1990 typology), participants also identified expenses as a major predictor of financial stress. They referred to expenses and income with various time frames, but monthly considerations were common. Monthly billing cycles (e.g., rent) and their concerns about having adequate income for each cycle likely explain this focus. Accordingly, I make the following propositions.

Proposition 3a: *Greater monthly income leads workers to experience lower financial stress.*

Proposition 3b: *Greater monthly expenses leads workers to experience greater financial stress.*

Participants also made it clear that they were concerned about whether income was sufficient for expenses. There were several considerations, such as whether their job was high enough paying to meet their needs, and which expenses needed to be prioritized to avoid overspending relative to that income.

Proposition 3c: *The differential between income and expenses affects financial stress. Specifically, when income is greater than expenses, financial stress will be low, and when expenses are greater income, financial stress will be high.*

Economic stressor stability. More research is needed on how the stability of income and expenses affects financial stress. Participants emphasized predictors of financial stress based on what they perceive as the least stable (income or expenses), suggesting that perceptions of stability are important drivers of financial stress experiences. Theorists (e.g., Sinclair et al., 2024) have suggested that research on the stability of financial stress needs to be conducted to progress research on this construct. For example, a clearer understanding of financial stress stability could inform time lags in lagged research designs. I agree that this is important, but a distinct issue is how participants perceive the stability of *direct predictors* of financial stress, namely income, expenses, and perceptions about future employment. To my knowledge, theorists have not explicitly described predictor stability in their understandings of financial stress, suggesting a novel area for future exploration.

In the minds of my participants, stability and predictability are often confounded. However, these are distinguishable conceptually: stability being how much and at what rate a construct changes across time, and predictability being how well someone might anticipate a change. Given that these appear to be important with employment, income, and expenses, I make the following propositions, which should be tested in future research.

Proposition 4a: *Perceptions about the stability of employment, income, and expenses will each negatively affect financial stress. When people believe that their employment, income, or expenses are stable, financial stress will be lower.*

Proposition 4b: *Perceptions about the predictability of employment, income, and expenses will each negatively affect financial stress. When people believe that their employment, income, or expenses are predictable, financial stress will be lower.*

Circumstances from a Higher Level. When evaluating ways in which financial stress can be prevented or addressed, I found that participants tend to attribute these mitigators to their own efforts and/or their circumstances. Circumstances were often factors that could be manipulated, but from a higher level (above the individual level).

For example, participants who could not afford to pay for college were limited to either taking out stress-inducing student loans or restricting their career opportunities by not attaining a college education (e.g., Bill). To address this, organizations could support employee growth and mitigate their financial stress by paying for their college. In organizations that do offer tuition relief (e.g., Publix), financial stress should be studied as a critical outcome to inform and fine-tune these policies in the future. Mitigators of financial stress that can be manipulated from a higher level need not focus solely on job training and education. Access to affordable education varies at a governmental level as well and can be manipulated with policies that provide financial support for education (see New York's Excelsior program, passed in 2018).

Money is a human-made resource and is desirable because of its flexibility in obtaining other resources. As such, money is everywhere, and there are so many ways to affect it, such as regulating housing costs, supporting fast and affordable public transit, and making insurance policies more comprehensive and transparent. Where governments do not provide these solutions, organizations can play a role as well. Efforts could be as simple as providing employee bus passes or as significant as providing quality health insurance. The extent of these services can be explored both logically and philosophically through questions about what would be cost effective for governments and organizations, as well as questions about the extent of higher-level institutions' ethical obligations to address the financial challenges of their members. Existing research shows that financial stress does affect organizational outcomes (Phetmisy et al., 2024), so organizational leaders should take an interest in these policies if only for self-interested reasons. However, given the effects on individual well-being (Phetmisy et al., 2024), an empathetic case can be made for these policies as well. In-depth considerations of the practical and moral implications of organizational and governmental policies are beyond the scope of the current study, but because they are critical to financial stress, they should be considered in future work on this topic.

Addressing Financial Stress: What Works? The successes and failures reported by my interviewees are illuminating for future intervention research. People who were in the worst financial trouble reported less success at addressing financial stress. This is likely because they were experiencing a resource deficiency that was difficult to recover from (resource spiral; Hobfoll, 1989). Further, the earlier in life that people begin to develop financial skills, the lower their financial stress may be throughout their life. Those who described the development of financial skills as a lifelong learning process seemed to report the most success with their efforts to reduce both immediate and longer-term financial stress. This resonates with a popular belief that the best time to provide financial education is during youth, and there are several nonprofit organizations supporting this goal (Global Financial Literacy Excellence Center; National Endowment for Financial Education). The current study also shows, however, that many people are not receiving these opportunities. Organizational interventions for adults could be invaluable. Such interventions could be as basic as providing employees with presentations on good saving habits to as involved as providing employees with one-on-one financial advising services. More research is needed to determine what is most effective for addressing financial stress and what is most plausible for employers to provide.

6.3 Research Question Three: Comparisons to Other People

Participants made comparisons with associates that they perceived as having some common foundation. In contrast, comparisons with strangers often included descriptions of how different these strangers were. Comparisons were also upward, downward, and sometimes both when comparing multiple aspects of another person’s life. These comparisons were complex, such that relative deprivation theory (Crosby, 1976) and the finance-shame model (Starrin et al., 2009) were only relevant for some of the participants.

It seems likely that the question of *who* may be explained by the *motivation* for making the comparisons in the first place. Participants made comparisons for any of a number of reasons, such as learning from other people, finding inspiration, making themselves feel better about their own station in life, to evaluate fairness or equity, or to evaluate their success at meeting a status expectation. Only these latter two are clearly connected to the theories I identified (based on their recognition in economic stressor research; relative deprivation theory, Crosby, 1976); finance-shame model; Starrin et al., 1997).

Relative Deprivation Theory in Action

Relative deprivation theory can be used to explain the path between perceptions of having a resource deficiency and outcomes of distress. Specifically, in relative deprivation theory, a person compares what they have to some other person and finds that the other person has more. Relative deprivation theory includes a list of prerequisites for comparisons leading to anger or distress: 1) recognizing that someone else has something that you do not, 2) wanting it, 3) feeling entitled to it, 4) believing that you can attain it, and 5) bearing no responsibility for currently not possessing it. However, this theory does not clearly specify who this other person is supposed to be, or their relationship with the perceiver (hence Research Question 3; see Crosby, 1976).

In the current study, I found several examples of comparisons to associates that were perceived to have some common background with the participant. Notably, this perception that people who are in the “same league” are worthy of comparisons would be consistent with the contention that people make comparisons when they perceive themselves as entitled to or capable of attaining another individual's resources, and that these comparisons lead to psychological distress (relative deprivation theory; Crosby 1976). In fact, some of my data suggest that *choosing not to compare* oneself to people in radically different economic strata is a way to protect one's own mental health (per Taylor or Ted), supporting that "same league" comparisons may be an important overall theme for relative deprivation theory.

Finance-Shame Model in Action

The Finance-Shame Model (Starrin et al., 1997) refers to how people experience distress due to a history of being shamed for their financial status. Most participants did not describe feelings of shame around finances, but there were cases of this. For example, participants sometimes indicated feelings of shame around the idea of borrowing money from friends or family. They reported that they would not want to ask for money because it would be embarrassing or a burden to the other person. One participant (Ted), even said that this was a gendered problem for him, because he thought that others would perceive that he failed as a man if he could not support himself.

Comparisons: Propositions and Future Work

There are ample opportunities for future research on financial comparisons, which can be informed by theory and the current study. Although I focused primarily on the question of who is being compared, my findings suggest some aspects of relative deprivation theory and the finance-shame model that may need to be revisited and expanded upon in future research.

Relative Deprivation Theory. First, by contending that one must first recognize that someone else has more of something (prerequisite one), relative deprivation theory can only explain stress outcomes for upward comparisons. However, my data show that downward comparisons can also lead to negative emotions including anger and resentment. For example, John expressed irritation at coworkers who made less money because they did not take full advantage of overtime opportunities the way he did. Exactly how and why this is happening was not clear in my data (and not the focus of my research question), so future work should be conducted to shed light on this process. It is possible that this is a double-edged comparison that was not fully expressed, such that John was feeling resentful of the free time that his coworkers had, even with a smaller paycheck. It is also possible that other theories are at play (e.g., attribution theory; Harvey et al., 2014; Weiner, 1985) which could be tested in future research as explanations for the directionality of comparison. For example, attribution theory would suggest that downward financial comparisons entail blaming others for their own financial situations, and upward comparisons entail attributing others' financial situations to good fortune or unfair advantage. This may be reversed when people consider their own financial circumstances, however: one may be eager to take credit for their own financial successes and blame external factors for financial failures.

Comparisons that are both upward and downward at the same time (e.g., identifying another as having more money but less free time) tie into the second and third prerequisites as well. The second perquisite is wanting what the other person has. There are instances when an employee wants something that another person has, but not badly enough to sacrifice other resources (e.g., time or quality of life). The third prerequisite states that a person must feel entitled to what the other person has. These feelings of entitlement are not precisely defined in relative deprivation theory (Crosby, 1976; Davis, 1959), and, when analyzing participants' actual experiences, is difficult to distinguish from the second prerequisite (wanting it). In order for relative deprivation theory to be more useful in deductive research, there should be work to clarify if these are indeed different, and if so, how.

Prerequisites four and five— the belief that one can attain it and bearing no responsibility for not already having it— appear to be related to whether people attribute their financial situation to circumstances or their own actions (per research question two). According to my findings, these do not fully determine whether people feel negative emotions or not. Rather, feelings of resentment may be tempered (when not prevented entirely) by these prerequisites. For example, Bill did not seem to hold himself responsible, nor expect to have somehow changed, the fact that his family was unable to pay for his education. He still expressed anger and frustration with his friends' ability to start their careers without student debt, but his emotions seemed to be tempered by the fact that he did not think this was their fault: "not in a negative way, but I guess a little jealousy". I believe that this effect is because negative emotions from these evaluations are continuous, and relative deprivation theory seems to describe them as binary. In other words, the prerequisites for relative deprivation theory may be determining not only *whether* people experience negative emotions, but *how much.*

Future work could explore the nuance that affects the strength and nature of negative emotions that result from relative deprivation comparisons. Existing theory is often slightly vague about the nature of the negative emotions that one could experience after making a comparison. Crosby (1976) acknowledges that the language around this can be confusing (in addition to a process theory, relative deprivation is used to broadly describe the negative emotions that result from having less than another person).

Participants seem to distinguish between circumstantial and behavioral explanations for others' financial situations, which may explain differences in the emotions that result. Some of my participants described feeling jealous or a little angry at those where better off (Bill and Rachel) while others described feelings of inadequacy and anxiety about their future (Nick and

Ted). I contend that when someone makes an upward comparison and perceives that the other person is just lucky, they are likely to feel jealous; but if they perceive that the other person worked hard for their wealth, they may feel anxiety about their own future.

Proposition 5a: *When making upward comparisons, and attributing another's financial station to circumstances, people will likely feel jealousy or anger.*

Proposition 5b: *When making upward comparisons, and attributing another's financial station to efforts, people will likely feel stress or anxiety.*

Although relative deprivation theory (Crosby, cite) focuses on upward comparisons, people make downward comparisons as well. The emotions that result can be complex. As a few examples, people may feel satisfied that they are better off (Cory) or they may feel empathy (Rachel, Maria) anxiety about the possibility of their own future poverty (Rachel). At this stage, the emotional outcomes of downward comparisons appear to be too complicated to tease apart, but additional explanations for these outcomes (e.g, personal history with poverty; Rachel) should be explored in future research.

It appears that the goals driving a comparison can also drive whether the comparison is upward and downward. Some goals that I identified are learning from others, getting inspired, feeling better about their own station in life, evaluating fairness, or evaluating their success at meeting a status expectation. This is not intended as an exhaustive list of mutually exclusive goals, but rather a preliminary look at what some goals may be. More in-depth research is needed before I can make propositions around every likely goal, but I do propose the following as initial areas of investigation:

Proposition 6a*: When the goal is to feel better about one's own financial status, people make downward comparisons.*

Proposition 6b*: When the goals are to be inspired or to evaluate the success of meeting a status expectation, people make upward comparisons.*

Proposition 6c*: When comparisons are made to learn from others or to evaluate fairness, comparisons may be upward or downward.*

To whom comparisons are made may also affect the strength of emotional reactions. Bill demonstrated how the nature of the relationship (e.g., friendship) may affect emotional reactions. Although he was jealous, he did not express extreme anger at how his situation was different from his own. Because people preferred to make comparison to associates (over strangers), and were particularly keen to compare themselves to others with a common background, the there were also likely other attitudes toward these individuals at play. For example, people are likely to enjoy the misfortune of someone they dislike more than someone they like (Feather & Mckee, 2014).

Proposition 7*: When making an upward comparison to someone they like, a person will experience weaker negative emotions, compared to when making an upward comparison to someone they dislike, in which case the negative emotions will be stronger.*

The above propositions are about the upward or downward comparisons that people make when comparing their perceptions of wealth or financial status. Other resources, such as time or quality of life, may be evaluated as well, often following an evaluation of finances. I did not find a clear pattern with regards to when people made these additional comparisons. It may be tempting to assume that people make downward comparisons with non-financial resources after they make an upward financial comparison. In other words, one may explain their comparatively reduced wealth by saying ‘but I have more free time’. However, this was not always the case. For example, Nick expressed that he was making more money trading stocks, after he left lower-paying career that he also loved. He described how his former colleagues were continuing to do that enjoyable work. Because of the lack of clarity around these double-edged comparisons, I will not make any precise propositions, but only suggest that more exploratory research is needed on when and why these take place.

Finance-shame model. A few participants indicated that they would feel shame specifically if they needed to borrow money from a friend or family member. These participants’ experiences align with Starrin’s (1997) proposition that people would be more vulnerable to financial stress if they felt ashamed of having insufficient resources. According to Starrin (1997) a combination of shame and financial problems can harm wellbeing through threatened social connections. Reluctance to ask for financial support may be a demonstration of the fear of harming or losing a social connection.

However, most participants did not report experiences of shame at all. This may be because participants viewed their financial situation as a function of their circumstances, and therefore they did not feel like they could be blamed by others. Among those who took responsibility for their own financial stress, however, many still expressed a concern about it as a stigmatized topic overall and expressed a desire to normalize conversations about money. Ultimately, shame was not related to financial stress for most participants. I suspect two possible reasons for this.

First, with the economic turmoil of the past few years, massive job loss and insecurity during the pandemic, rising inflation, and general social progress, attitudes about money and work may be changing (Perego & Belardinelli, 2024; Reid, 2018). For example, many employees have re-evaluated what is important to them and began a serious push for a four-day workweek to protect their personal time (Diab-Bahman & Al-Enzi, 2020). With this shift, there seems to be more public conversations about inequality in many facets of American life (e.g., Graham, 2021; Wiwad et al., 2021), and it is possible that more people want to actively contradict any shaming experiences around money.

A second possible explanation is self-selection in the current study. I advertised this as a study on "how people think about money", which likely did not appeal to anyone who had strong feelings of shame related to their financial stress. Most likely, I recruited people who were at least somewhat comfortable talking about money and did not feel any extreme shame with regards to their financial stress.

It seems likely that many participants fit into both of the above points. Some people (e.g., Carl) even expressed an explicit desire to destigmatize conversations about money, and some (e.g., Rachel) mentioned that they felt very comfortable or even enjoyed talking about money. This suggests a need for future research on both societal and individual differences in peoples' shame with regards to money.

Other theories may tie into the finance-shame experiences, such as status or social role theories (Eagly & Wood, 2012; Walker et al., 2011)— suggesting an array of topics for future research. With regards to gender, there is a need for more research on how financial stress processes take place: men may feel more pressure as breadwinners (Gonalons-Pons & Gangl, 2021; Stephens & Al-Bahrani, 2023) but women may experience more financial stress than men because of higher rates of objective financial hardship (Stephens & Al-Bahrani, 2023). Future research could explore these seemingly competing processes to determine 1) if one of them is dominant and 2) if there are other factors (e.g., marital status) that affects a potential relationship between gender and financial stress.

6.4 Scope and Contributions

The goals of this study were driven by a need for construct clarity and a need for clarity on the processes around financial stress. Accordingly, I opted for a qualitative, inductive approach. This allowed for the creation of a more comprehensive (three-part) definition of financial stress than has been offered in previous work—a definition based on employees' perceptions and personal experiences. The use of an inductive method, specifically using a critical realist approach, was also appropriate for finding specificity that existing theory was lacking with regards to financial stress. Namely, my study identified processes by which participants come to experience financial stress, and the circumstantial and deliberate effects that mitigate their financial stress, as well as recognized the upward and downward comparisons that people make based on perceptions of a common background or perceptions of unrelatability to strangers.

This study was not intended to establish how financial stress should be measured, but I developed a definition that could drive efforts to create quality measurement in the future. I was also not seeking to create an all-encompassing test of theory, but rather to identify and explore areas of theory that lacked specificity and highlight these for future researchers. My findings also informed the development of propositions which should be rigorously tested and built upon. Where supported, these propositions may be integrated with existing theory or used to develop new theory.

It is my hope that future research will systematically test the mitigators of financial stress to determine their effectiveness for interventions. My study focused on individuals' perceptions of and experiences with financial stress, but it should be noted that many of the circumstances that people identified as mitigators were constructs that could be manipulated at a higher level (such as education opportunities). On a grander scale, I believe that it is important for organizations and even governments to consider how financial stress can be addressed through interventions and policies.

Methodological Considerations

The iterative method used in this study allowed me to explore findings as they emerged. Some modifications to the interview guide were made regarding every research question, which allowed me to explore emerging findings in greater detail or to find more effective phrasings for getting useful information. For example, when asked to distinguish financial stress from similar constructs participants often got frustrated. After the first few interviews, I became more attuned to this reaction and prioritized other lines of questioning in future interviews. I also added questions that allowed participants to comment on findings as they emerged. For example, once I became aware of comparisons to associates were often driven by a common background, I would ask participants more pointed follow-up questions, such as 'why are you thinking about how much money your friend makes, as opposed to someone else?'

Another important consideration is how my method drives my findings and propositions. The current study is primarily inductive, and it does not include any of the factors that would be used to establish causality in quantitative research. However, this qualitative study was valuable for evaluating causality through participant' perceptions. I was able to examine participants' lived experiences which not only produced rich data, but also allowed me to uniquely study financial stress through the lens of those who experience it (e.g., Tracy, 2019). More practically, the focus on participant perceptions are important to my research goals because it is perception, in addition to any objective truth, that drives people's emotions, cognitions, and behaviors (e.g., Lazarus & Folkman, 1986). For example, the perception of being vulnerable to economic fluctuations might make one experience financial stress and drive them to engage in more saving behaviors- regardless of the actual macroeconomic climate.

Finally, I acknowledge that the range of my participant demographics for this sample is somewhat limited. Although I was hoping for a wide range in economic-relevant demographics, the participant annual income range was 18k, to 155k. I did not capture the perceptions of millionaires or the truly desolate, meaning that my findings should not be interpreted too broadly. For example, Sinclair et al. (2024) argue that people experience financial stress at all income levels. Their contention holds true in my study, but I am not able to explore this claim for people living in the greatest extremes of economic situations. However, there are ways in which my sample captured the widest range that could reasonably be expected (age, for example, which ranged from 18 to 65). Ultimately, my goal was to have a sample that allowed me to address my research questions; a goal that I met and even exceeded with the rich qualitative data that I collected.

The Next Step: Measurement

In this dissertation, my research questions have driven several contributions to the financial stress literature. These contributions indicate areas for future research, such as research on the specific behaviors and circumstances that drive financial stress, possible interventions for financial stress at multiple levels, and the effects of various types of comparisons (e.g., upward and downward) on financial stress.

However, a comprehensive and high-quality measure of financial stress appears to be absent in organizational sciences and other social science disciplines. Existing measures are driven by incomplete or nonexistent construct definitions (Kessler et al., 2004; Pearlin et al., 1981; Prawitz et al., 2006), which undermines the efficacy of these measures, such that researchers using them must make assumptions about what these are actually measuring. By providing a comprehensive and clear definition in the current study, I have created a foundation for developing a quality measure that would allow quantitative financial stress research to move forward more cohesively.

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APPENDIX A: INTERVIEW GUIDE

Interview Guide

Notes: Questions in bold are overall research questions and will not be asked of participants directly. Questions are written in the order in which they will be asked.

How do individuals in the workforce define and describe financial stress?

How do you define financial stress? (Can you tell me what financial stress means to you/How would you define financial stress?)

How do you know when you are feeling financially stressed?
-Can you give me another example?

Many people experience financial stress at some point during their lives, to varying degrees. Would you be able to tell me about your current level of financial stress? On a scale of 1 to 10, how would you rate yourself?

How financially stressed are you currently? Please explain why.

Can you give me an example of a period in your past when you felt very stressed financially? Please explain why you felt that way.
How does it compare to your current situation?

Can you give me an example of a period in your past when you were not at all financially stressed? Please explain why you felt that way. How does it compare to your current situation?

How do individuals in the workforce distinguish financial stress from similar constructs?

Is financial stress the opposite of financial well-being? Why/why not?

Are there other terms you would use to describe financial stress? If so, what are they?

What is the *opposite* of financial stress? What makes it different?

How do you feel when you are financially stressed? (examples: scared, angry, etc.)

How do you feel when you are *not* financially stressed? (examples…)

How do you cope with financial stress?

Has financial stress affected your education or career decisions?

-How? Please explain.

Has financial stress affected your behavior at work?
-How? Please explain.

Has financial stress affected your behavior at home?
-How? Please explain.

How might time horizons affect peoples' evaluation of their financial stress?

What kind of things financially stress you the *most*? (For example, rent, saving for retirement, etc.) Why? Please explain further.

What are some things that you might spend money on that stresses you the *least*? (For example…)
Why? Please explain further.

Are you more worried about making ends meet in a week, in a month, in a year, or years from now?
Why? Please explain further.

How do individuals in the workforce make financial decisions in order to address or prevent financial stress?

Whether your current financial stress is high or low, *why* do you think it is that way?

What do you prioritize the most in your spending?

Do you set aside money for savings or emergencies? Why or why not?

What are some things that cause you to experience financial stress?

To whom do individuals in the workforce compare themselves when evaluating their own financial stress?

Do you compare your financial situation with others? If so, who would you most often compare yourself to?

Do you talk to anyone else about money? If so, who?

How do you feel when you find out that someone is more financially stressed than you?

Do you talk to other people about your financial situation? If so, who?
-people at work?

Other factors that might affect financial stress

Do you share finances with a partner or family member?
If so, please explain. Who do you share finances with, and what is the nature of the shared finances? For example, sharing only *some* income or expenses (e.g. splitting rent), or sharing *all* income and expenses.

Do you have others who count on you to support them?

Do you have someone in your life who provides *some* financial support? Please explain.

Do you have someone in your life who does not financially support you day-to-day, but would help you in an emergency?

How do these other people in your life affect your financial stress?

-people in your nonwork life?

What is one thing that you look forward to purchasing? It can be something small that you buy frequently or a long-term goal. For example, I look forward to buying the occasional fancy coffee from a coffee shop.

Wrap-up
Do you have anything else you'd like to add?
Do you have any questions for me?

May I contact you in the future? I may ask you to review my findings and let me know if they make sense to you.

Please fill out the quantitative survey.

Thank you for your participation!

APPENDIX B: SUPPLEMENTARY SURVEY

1. What is your current age? _

2. About how many hours per week do you work? If you have multiple jobs, please enter total hours. _

3. How many jobs do you have?
   - 1
   - 2
   - 3 or more

4. What is your highest level of education?
   - No degree
   - High school diploma or GED
   - Some college experience or associate's degree
   - Four year degree, such as B.A. or B.S.
   - Graduate degree, such as M.A., M.S., or Ph.D.

5. Approximately, what is your *individual* annual income? _

6. What is your *individual* annual income range?
   - 20k or less
   - Between 20k and $49,999
   - Between 50k and $99,999
   - Between 100k and $499,999
   - Between 500k $999,999
   - 1m or more

7. Approximately, what is your *household* annual income?

8. What is your *household* annual income range?
   - 20k or less
   - Between 20k and $49,999
   - Between 50k and $99,999
   - Between 100k and $499,999
   - Between 500k $999,999
   - 1m or more

9. In what forms do you get paid (select multiple, if applicable)?
   - Wage
   - Salary
   - Bonuses
   - Commission
   - Other

10. What is your gender identity? _

11. What is your race? _

12. Do you have any major sources of debt, such as student loans or credit card debt? If so, please explain. _

Table 1

Economic Stressors (Probst, 2005; Voydanoff, 1990)

	Employment	*Income*
Objective Stressors	Employment Instability ● Unemployment	Economic Deprivation ● Income
Subjective Stressors	Employment Uncertainty ● Perceived job insecurity ● More (see Probst, 2005)	Economic Strain ● **Financial stress, focusing on income-based evaluations**

Table 2

A Selection of Papers with Financial Stress and Related Constructs

Citation	Term	Definition	Definitional Parameters and Related Constructs	Paper Description	Discipline
Bruggen et al. (2017)	Financial Wellbeing	The perception of being able to sustain current and anticipated desired living standards and financial freedom.	A function of both income and personal factors. Includes both current and future evaluations.	Review of financial wellbeing, including individual and contextual factors	Finance/Business
Corman et al. (2012)	Financial Insecurity	Available financial buffers and safety nets...as well as experiences of material hardship.	Measure included both subjective (e.g., perceived ability to pay utility bills) and objective (e.g., having a bank account) indicators.	Multi-method primary study of recent mothers, with 5-year time lag.	Economics
Ervasti & Venetoklis (2010)	Financial Strain	None provided.	Distinguish "financial strain" as subjective and "financial resources" as objective.	Primary study	Sociology
French and Vigne (2019)	Financial Strain	Anxiety, worry or feelings of not coping created by economic or financial events.	Focus on *individuals'* reports of *household* financial strain. A referent-shifted, individual-level construct.	Review of predictors and outcomes of family financial strain.	Management
Kim & Garmen (2004)	Financial Stress	Subjective perception of one's personal finances.	Includes satisfaction with present financial situation, income adequacy, debt, savings and investment.	Primary study- brief research report	Public Health
Munyon et al. (2019)	Financial Security	A subjective state reflecting the adequacy and stability of monetary assets relative to liabilities.	Cognitive only, and distinct from but related to pay satisfaction and financial need. Relatively stable over time.	Measurement development	Management

Citation	Term	Definition	Definitional Parameters and Related Constructs	Paper Description	Discipline
Payne et al. (1984)	Serious Financial Worries	None provided.	Only considers construct among unemployed men.	Primary study	Sociology
Pearlin et al. (1981)	Economic Strain	[T]he difficulty people have in acquiring both the necessities of life…and some of its more optional accoutrements.	Strongly affected across time by major life events in both family and work roles.	Primary research, with development of an original measure	Sociology
Prawitz et al. (2006)	Financial Distress/ Financial Well-Being	None Provided.	Suggests one construct with a negative or positive valence; encompassing perceptions about financial well-being and financial stress.	Measurement development	Finance
Shim et al. (2009)	Financial Well-Being	Not defined as a construct, but as a conceptual model that includes socialization, financial knowledge, and more.	Outcomes include components such as physical health and academic performance.	Model proposition and empirical study of college students	Developmental Psychology
Vinokur, Price, and Kaplan (1996)	Financial Strain	Perceived economic pressure.	Definition and measure developed for application to unemployed populations.	Primary study that uses measure from Kessler. Often mis-cited for this measure.	Social Psychology
Voydanoff (1990)	Economic Strain	An evaluation of current financial status.	Under economic stressor typology (subjective and objective, income and employment) economic strain is a *subjective, income* stressor.	Review of economic stressor and family relations.	Sociology
Patel & Reitveld (2020)	Financial Insecurity	Chance of running out of money	Considered FS as a result of the pandemic	Primary study	Management

Notes. For this project, I chose to use the term Financial Stress after a few considerations: 1) The term "economic" as in "economic strain" also has higher-level meanings in other disciplines, such as country-level economic problems. 2) the term "strain" is conventionally used for stress *outcomes* in OHP, 3) financial stress seems to be an accessible and easily understood term according to the people experiencing it (our participants).

Table 3

Demographics

Demographic	Range or Category	Frequency
Education	No college degree	6
	Four year degree	11
	Advanced degree	5
Gender	Male	10
	Female	10
	Non-binary	1
	Did not report	1
Age (*M* = 24.81, *SD* = 11.93)	18 - 30	9
	31 - 40	8
	41 - 65	5
Individual annual income (*M* = \$60,725, *SD* = \$31,142)	20k or less	1
	Between 20k and 49,999	6
	Between 50k and 99,999	12
	Between 100k and 499,999	3
Household annual income (*M* = \$99,842, *SD* = 55,257)	Between 20k and 49,999	3
	Between 50k and 99,999	8
	Between 100k and 499,999	9
Hours per week (*M* = 38.72, *SD* = 8.96)	15 to 34	4
	35 to 44	11
	45 +	6
Race	White	15
	Black	3
	Mixed or other race	3
	No response	1

Demographic	Range or Category	Frequency
Job*	Service industry	5
	White-collar consulting (e.g., law)	5
	IT or other technology	4
	Education	2
	Self-employed	2
	Other	4
State	North Carolina	12
	Texas	2
	Pennsylvania	2
	Other	6

Notes. *Job type was coded based on how people described their jobs during interviews.

Table 4

Exemplars for Defining Financial Stress

Codes: Subcodes	Pseudonym, age	Exemplar
• Cognitive: inability to pay for critical resources	Rachel, 33	Not making rent, not paying bills, not being able to eat.
• Cognitive: inability to pay for critical resources • Affective: stress/anxiety	Janine, 46	Feeling like you're not able to make ends meet...have to constantly be under the pressure of figuring out how you're going to pay, take care of your responsibilities, and, you know, just feeling like kind of almost like you're bound, not feeling free.
• Cognitive: inability to pay for critical resources • Affective: stress/anxiety, anger	Corey, 30	Worrying about bills and not having the funds to make bills on time...Stress issues and then obviously you get angry about it because you're like, why don't I have any money? You worked all these hours and have no money.
• Cognitive: expenses outpacing income, ability to pay for critical resources, savings goals	Maurice, 23	Essentials. But then I have like this big [expense] taking away my money and maybe the small sum of money that can't pay for everything that I need or want.
• Cognitive: savings goals • Affective: stress/anxiety	Maria, 30	Being worried that I don't have as much income as I would need to live the life I would like to, though that is not an extravagant lifestyle.

Codes: Subcodes	Pseudonym, age	Exemplar
Cognitive: expenses outpacing income, ability to pay for critical resources, ability to save	Juliana, 32	Wanting to purchase something, but not having the funds to be able to do that or having that said goal and being potentially almost there. And then an emergency happens, and then you end up having to spend it on something different than what you were intending to spend it on. And also just being low on cash flow, not having income.
● Affective: stress/anxiety, embarrassment	Anne, 58	Lots of fear and just inadequacy and embarrassment.
● Contrast w/ financial stress: ability to pay for critical resources	April, 34	You're pretty much not worried about any of your basic needs being met.
● Contrast w/ financial stress: ability to save	Maurice, 23	Having enough ability to save money aside.

Table 5

Exemplars for Causes of Financial Stress

Codes: Subcodes	Pseudonym, age	Exemplar
• Predicted expenses: young children or dependents	Corey, 30	My stepson, we have him full time, so he's completely dependent on us for everything that he gets.
• Predicted expenses: routine medical	Mae, 65	I go in every year for this certain test and it's quite pricey. And so they just put it on my bill and I've been paying a certain amount for five years and the bill doesn't even look any less because I still have to have that test every year. So that is stressful.
• Unstable or unexpected expenses: medical	Maria, 30	There were a few months ago where I got a surprise medical bill, like a surprise hospital bill from, three years ago or two years ago, [from] during the height of Covid lockdown.
• Unstable or unexpected expenses: major life changes	Bill, 54	Big purchases...I'm getting a new house and since it's more than before, I'm always concerned. What would happen if [my wife] lost her job? I lost my job? Stuff like that.
• Unstable or unexpected expenses: unspecified expensive emergency	Mark, 26	It's definitely just the amount of money. Because it could be something massive that, you know, would disrupt my budget. I can pay rent, but it still is something that takes up like a lot of my income.
• Unstable or unexpected expenses: changing rent	Rachel, 33	And rent is so dynamic. I don't know what my landlord is going to do in July when our lease is up. Might jack it up $600 a month. We'll see if we can make it work.

Codes: Subcodes	Pseudonym, age	Exemplar
• Predicted Expenses: Rent • Unstable or unexpected expense: Car break down	Juliana, 32	Rent mostly, and then car repairs, because that stuff never seems to happen at a good time. Um, yeah, but mostly just rent.
• Predicted Expenses: Rent, utilities, pet care, clothes, other household	Maurice, 23	So, I'm paying for rent and utilities and also my pet. But also I need to eat and I need to have clothes...Sometimes I need to get laundry detergent, I need to get some cleaning supplies.
• Other expenses: adult children: college, rent, utilities	Janine, 46	If my daughter's tuitions are due and we're kind of short and... didn’t also pay the rent. Like if one of them one of them moved out and she can't work...we have to cover her, rent her utilities.
• Other causes of FS: poor financial skills	Carl, 27	I just sometimes I just don't make smart decisions. And those are those are decisions that I could have been better decisions.
• Employment: job or career, was worth it	Samantha, 44	I switched teaching positions...I just needed to leave for my own mental health...So I actually took a job like, a mile away from my house…and with that job, it was a $20,000 pay cut.

Table 6

Exemplars for Mitigators of Financial Stress

Codes: Subcodes	Pseudonym, age	Exemplar
• Circumstance: Life stage, family resources, limited expenses	Lin, 18	I still live with my parents….I haven't been put in like a stressful situation where I don't have enough money for rent. I don't have that many bills.
• Circumstance: COVID financial relief policies	April, 34	I was very not stressed ironically during the pandemic because...no student loan payments, no interest on the student loan.
• Circumstance: Job market • Other Mitigators: Confidence in skills/abilities	Corey, 30	[The job] market in [my location] is ridiculous. I could quit my job right now and have five job offers before I eat my lunch.
• Deliberate: Problem-solve, partner support	Bill, 54	Readjust my finances...I would talk to my wife, but, you know, I would want to come up with my solution, present it, and...tackle it together.
• Deliberate: Avoidance coping	John, 38	I mean, one foot in front of the other. Yeah. I mean, that's all you can do.
• Deliberate: Outlet or distraction coping, framing or mindset coping	Maurice, 23	Meditation, prayer, spending time with my dog. I know, going outside and...getting out of my space and just being in the world, knowing that it's going to be okay.

Codes: Subcodes	Pseudonym, age	Exemplar
• Deliberate: Selling stuff	Juliana, 32	I lost my job, too. I had to sell my car back to the dealership. Then I didn't have a car.
• Deliberate: Outlet or distraction coping, framing or mindset coping	Leah, 38	I mean sort of your basic mindfulness breathing exercises, trying to be as healthy as possible, just sort of surround yourself with, with positivity in any way that you can control. Um, and also knowing that there's always going to be external factors there that you probably can't control
• Deliberate: Outlet or distraction coping, framing or mindset coping	Juliana, 32	Or just like, even just watching a TV show or something like that. It just creeps in my mind sometimes when I just. When I don't, when I literally am trying to relax and just, it just still comes back to me and stresses me out, even though I'm trying to, like, avoid being stressed at that moment.
• Circumstances: Skills and values learned from family • Deliberate: Saving behaviors	Samantha, 44	Because my grandma instilled it in my mom to be financially savvy. And then that has been passed down through the generations and knowing how I have a 529 for my daughter...so I have a college savings fund for her where like, my mom gives her like $1,000 twice a year...and I just put in $3,000 and it's enough to buy her an espresso when she's in college because that's the trajectory.

Table 7

Exemplars for Comparisons

Comparisons with Associates	Codes, subcodes	Pseudonym, age	Exemplar
Friends	● Comparing education and career decisions	Rachel, 33	We [my friends from high school] were forged in the same area kind of thing. They went through it with me and I intentionally chose to go my route because I want to help the world. I want to do as much good as I can for as many people as I can. So I went into education and public health.
Colleagues and Friends	● Information sharing	Jason, 27	The conversations in that group [friends in the same industry] are very like open and very like, honest about salaries...and so they're like disclosing how much the pay or the package that they're being offered is is worth and everything. Just trying to get advice from everyone else in the group. And it feels very collaborative and open and it's a safe space.
Family	● Comparing career and education decisions ● Comparing income or wealth ● Upward comparisons	Nick, 32	My cousin's a psychologist. My other cousin's a vet. A lot of my family members are in medicine. Great grandparents were also doctors, so I'm kind of the black sheep of the family. I compare myself to them a lot as far as profession. Now that my brother finished dental school and he's earning stupid amounts of money. I have a goal to earn as much as I can as he does in a month. Some months I can beat him. And then other months I'm nowhere near what he's making.

Comparisons with Associates	Codes, subcodes	Pseudonym, age	Exemplar
Friends	• Comparing opportunities • Comparing income or wealth • Upward comparisons	Bill, 54	Some of my friends...not in, like a negative way, but I guess a little jealousy. They had, parents that were able to pay for their college...they could like, immediately start saving once they got their first job. And I don't it's not like I hold it against anybody, but...[if I were in that] situation, where would I be?
Similar Age	• Comparing opportunities • Downward comparisons	Samantha, 44	I would say I'm very privileged. I don't know any other 44 year old women who own their own their house. You know. So I would say I'm privileged and I've also worked hard to be where I am, and I've been lucky.
Colleagues	• Comparing work decisions • Comparing income or wealth • Downward comparisons	John, 38	You could work on Saturday and get time and a half...like, you work 12 hours and you're getting paid for 21. And everybody who complained about like not getting enough money. And it's like any of those people who did not show up on Saturday...I just wrote them off.
Family	• Comparing money management skills • Downward comparisons	Corey, 30	Well, my brother, he makes about the same amount of money as me, but he's a lot more carefree than me. So, like, he'll drop ten grand into his race car, but then he's like, 'Yo, ain't got no food.'

Comparisons with Associates	Codes, subcodes	Pseudonym, age	Exemplar
Nospecific associates	● Comparing money management skills ● Upward comparisons ● Downward comparisons	April, 34	Like if someone will post [on social media]…'it's my new car.' I'm like, oh God, there's no way. How are they possibly affording this? This is such an irresponsible purchase. Like, what the hell?
Friends	● Comparing education and career decisions ● Comparing lifestyle ● Comparing income or wealth ● Upward comparisons ● Downward comparisons	Janine, 46	My best friend, she's a senior VP at [name of bank] and I would call her rich, I think....I'm not really willing to put in the time and effort...I don't want to be a senior VP at [name of bank]...I feel like my aspirations aren't ones that will probably lead me to being extremely affluent.
Strangers in public	● Upward comparisons ● Downward comparisons	Anastasia, 32	Yeah. I mean, if I see a beater, I'm like, man, they might have a little bit of a hard time making ends meet versus if I see a brand new Tesla, 'you're probably doing pretty all right.'
Nonspecific strangers	● Comparing lifestyle ● Upward comparisons ● Downward comparisons	Nick, 32	I tend to look at the people above me and I want all the things that those rich people want or rich people have. But I also tend to look at like the people below me. A lot of [things] middle to lower income earners aren't able to afford. I try to keep a healthy balance of the desire and the drive to get more, but then also remind myself to be thankful. And the opportunity that I've been given to be able to trade stocks instead of work at a [fast food restaurant].

Comparisons with Associates	Codes, subcodes	Pseudonym, age	Exemplar
Strangers in public Nonspecific strangers	● Downward comparisons	Ann, 58	I think there are a lot of people worse off. Yeah. I see people out here begging for money on [name of street].
Celebrities	● Upward comparisons	Jason, 27	Any time you see anything about just celebrities...like Taylor Swift just rents out her private jet. That's so crazy to imagine something like that or to imagine what it must be like to. Literally like, you go to use the bathroom and you walk out and you've made like $500,000 or something like that. It's like so crazy.
Nonspecific strangers	● Upward comparisons	Carl, 27	It's inspiring and disgusting at the same time to think about how much accumulation there is at the top...it is so sinister to imagine the visual of wealth extraction coming up from...people making, you know, 20,000, 30,000, 40,000 a year. People who we actually think of as rich people who are millionaires, right? They are piss poor on the grand scale of things.