

EPC Extended Abstract

Network Effects on Retirement and Time Scarcity

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Abstract

Why is it that life in retirement remains equally rushed for many, despite a lack of participation in the paid labor force? This study examines the puzzling phenomenon of post-retirement time scarcity using a mixed methods approach: data come from MTUS (N=15,390) in combination with in-depth interviews (N=167) and long-term participant observation (980 hours). I show that post-retirement, the number of minutes of leisure time per day and/or number of hours worked per week do not adequately capture the lived experience of time scarcity. Extending the notion of time as a network good, I delineate both the individual and social network-based factors that lead to time scarcity. I differentiate between the three types of subjective time scarcity experienced by the aged. I conclude that continued focus on relating network-based stratification processes with the micro-level influence of time scarcity is necessary for understanding the links between the micro and macro levels of these phenomena.

Introduction

Navigating oft-competing deadlines, responsibilities and needs, adults in the industrialized nations of the world frequently long for the copious free time retirement promises. *So, why is it that life in retirement remains equally rushed for many, despite a lack of engagement in the paid labor force?*¹ This study examines the puzzling phenomenon of post-retirement time scarcity. Time is an integral component of social life (OECD 2013). The human condition is demarcated by our ability to experience both time scarcity and periods of abundance. Shortages of time are especially troubling, as the prolonged experience of time scarcity can lead to poor mental health outcomes and detrimental health behaviors (Strazdins et al. 2011; Mani et al. 2013). Time scarcity is closely shaped by gender, household composition, socioeconomic status and sociopolitical location (Clawson and Gerstel 2014; Harvey and Mukhopadhyay 2007; Vickery 1977). Economic and social inequalities tend to magnify the detrimental effects of time scarcity (Kalenkoski and Hamrick 2013; Bittman 2002; Lam 2014; Mullainathan and Shafir 2013; Hamermesh 2010; Becker 1965).

Inequality scholars most often conceive of time as a fixed quantity, measuring individual and intrahousehold time scarcity via retrospective time use surveys assessing respondent accounts of total work and leisure time (Fisher and Gershuny 2013; Williams et al. 2016). However, a surprisingly high percentage of retired respondents in the Multinational Time Use Study (MTUS) report often feeling pressed for time². This is irrespective of their country of residence, age, total work and leisure time. This tells us that post-retirement, strict accounts of the number of minutes of leisure time per day and/or number of hours worked per week do not

¹ MTUS, latest waves (US2010 & CA 2010) assessing subjective time scarcity

² See preliminary analysis below

adequately capture the lived experience of time scarcity. Unfortunately, most of what we know about the experience is largely derived from analyses examining the experiences of the working population, relegating the realities of the aged to the sidelines. It is also possible that the recall bias (Masuda et al. 2014) lurking in retrospective time use data collection methods may be more salient for the aged. Reproductive labor, care work and the mental labor of household management also remains mostly invisible in existing time diary surveys, as it is often unacknowledged by respondents (Lentz et al. 2018; Schneider & Hastings 2017). Due to budgetary limitations, most quantitative time use surveys only track time use over the course of one day. This makes it hard to unpack the drivers and the experience of time scarcity as it unfolds in crucial moments over the life course, such as retirement. In sum, we still do not know what factors contribute to the continued presence of subjective time scarcity post-retirement and how individuals experience, navigate and understand the phenomenon.

This paper relies on a mixed methods-approach to advance the above multidisciplinary body of research. To determine how different quantities and qualities of time may matter differently pre and post retirement, I argue that measures need to be grounded in the lived experiences of individuals as they navigate different geographic, economic, institutional and familial contexts. By doing so, my aim is the conceptualization of the experience of time scarcity through embodied, interactive, network-based processes. To do this, I extend the notion of “time as a network good”. This is a concept developed by Cristobal Young and Chaeyoon Lim (2014), showing that both the quantity and coordination of time matter for how time is valued. This concept goes beyond the simple understanding of time as a fixed quantity. It highlights the *relational nature of time*, while also pointing to the importance of network characteristics. It additionally hints at the necessity to consider life course transition periods

during which familial and institutional networks may change, along with individual social position, agency and geographic location. This is important since the ability to coordinate one's time with others may matter as much as having a particular amount of free time (Young and Lim 2014; Etkin et al. 2015).

By studying how adults living in one large global city (Toronto) experience and use time — while undergoing the major life transition period of retirement — my paper seeks to illuminate the determinants of post-retirement time scarcity. A focus on *periods of transition* is important for multiple reasons. Studying unique cases can be very useful understanding general social patterns (Leidner 1993; Hochschild 1983). It also mitigates temporal event recall bias (Masuda et al. 2014), while illuminating clear alterations in the temporal fabric of the mundane. Attention to this particular transition moments is *uniquely relevant*, as it can be characterized by distinct *network formation patterns*. During the transition period to retirement, social, institutional and familial networks change. In the case of retirement, networks steadily contract as individuals exit the labor force and friends die. Yet, there is potential for new network formation, both through individual effort and through institutional chance encounters (health care system, new jobs/volunteering, etc.). A close eye on how time scarcity is situated in the ebb and flow of social networks will help us understand how 'time as a networked good' is experienced and internalized during crucial transition periods.

I begin by analyzing data from the MTUS, sketching the contours and sociodemographic determinants of time scarcity, pre and post retirement. Next, I draw on insights gathered from 176 in-depth interviews and longitudinal participant observation over the course of eight months. This allows me to highlight the determinants of subjective time scarcity, pre and post retirement. With a deep-dive into the puzzle of post-retirement time

scarcity, I additionally differentiate between the three main types of subjective time scarcity experienced by my retired participants. The final section of the article offers an analysis and interpretation of these results.

I ask:

- (1) What proportion of the population experiences time scarcity?
- (2) What are the determinants of subjective time scarcity pre and post retirement?

Theoretical Framework

Time is an integral, deterministic component of how we experience life (Urry 1997). Multiple social theorists have pointed to the necessity to understand the experience of both objective and subjective time scarcity (Cornwell, Gershuny and Robinson 2019; Rosa and Scheuerman 2009; Agger 2011; Giddens 1990; Zuzanek 1998). The general consensus is that modernity started the current intense period of feeling rushed and pressed for time. Whereas in rural farming communities, time was tracked by the movement of the sun, factories and paid employment led to 'being on the clock' and the idea that 'time is money'. Arguably, in the post-industrial economy of Western countries, time pressures arising from juggling work, school, family and medical needs (etc.) are even more acute (Rosa 2013; Giddens 1990; Harvey 1999). Although the empirical evidence tends to be context-dependent (Hsu 2014), people report: a subjective feeling of not having enough time (Ulferts et al. 2013; Szollos 2009), increased time-pressure induced stress (Gonzalez and Mark 2004; Hilbrecht 2007), the wish to slow down time (Geißler 1996); the necessity to multitask (Rosen et al. 2013; Kenyon 2008),

and the erosion of work-life balance (Carayon and Smith 2014; Wajcman and Rose 2011; Hurtienne et al. 2014; Nansen et al. 2010). Time-use surveys also provide limited empirical evidence of how people cope with time scarcity, showing that we now sleep less than in the past and spend less time on personal hygiene and meals (Garhammer 2002; Robinson and Godbey 1997).

The literature points to a paradox: despite having more leisure time now than ever before in human history, increases in leisure time are often accompanied by increased feelings of time scarcity (Qian et al. 2014). Instead of saving time, modern technology has led to feeling time scarce (Rosa 2010; Towers et al. 2006). An unexpected outcome of labor-saving technology has been an increase in the total time devoted to paid labor, resulting in a perpetually rushing consumer class (Garhammer 2002; Hochschild 1997). Since consumption itself requires time, the time available to enjoy consumer products declines (Scheuerman 2004). As new time-saving technological devices continuously render old ones obsolete, this creates cognitive stress from need to spend time mastering new ones (Rosa 2011).

The social patterning of the experience of time in modern life is dependent on gender, race, socioeconomic status, social support, neighborhood characteristics and life course location (Adam 2006; Hunt et al. 2008). Care work is still largely allocated in households and in the labor market by gender, leaving women with overall less time (Strazdins et al. 2011). Unfortunately, the full extent and subjective experience of time scarcity as it is shaped by gender is still invisible in existing time use surveys (Lentz et al. 2018). The aged, those marginalized, and those lower on socioeconomic and racial hierarchies also have less access to potentially time saving resources, technological devices and to efficient transportation

(Tranter 2010). Still, we do not know how and when different people experience time scarcity, and why subjective time scarcity remains so persistent for many even after retirement.

Objective vs Subjective Time Scarcity

The measures of subjective and objective time scarcity are rooted in the idea of social time and clock time. Social time and clock time are different (Bergson 2014). While we often organize modern life by clocks, clock time and social time are seldom perfectly correlated. Two of the earliest sociologists tackling the topic, Pitirim Sorokin and Robert Merton (1937), define social time as “the change or movement of social phenomena in terms of other social phenomena taken as points of reference” (618). Social time illuminates the ordering of the social, with attention to the subjective, relational patterns of social groups and processes. When thinking about social time, synchronicity, order, rhythm, tempo, rate, temporal orientation and perspective come to the fore (Cornwell, Gershuny and Robinson 2019; Hawley 1950). Yet, in our modern world, our subjective experience of time and our objective experience of time have a codependent relationship: objective time informs subjective time and subjective time informs objective time (Sorokin 2017). This is partly because social meanings are often imposed on the objective time of clocks (Zerubavel 1979).

The takeaway from the above is that: (1) Both clock time and social time matter, because they inform each other. Or in other words, both subjective and objective time matter. (2) At times clock time and social time may be intertwined, but at times, across particular moments during the life course and in differing contexts, they may be distinct. (3) They are both important, as they matter for our understanding of both social behavior and the social world. (4) We must remain mindful that though clock time can be measured independently of

the social (such as in physics), social time cannot exist independently of the social world and its processes. (5) Thus, when struggling with responsibly incorporating time into sociological research, we must consider both the subjective and objective experience of time.

Operationalizing Time Scarcity

The above differences are important to note, as they greatly matter for how we grapple with the operationalization of subjective and objective time scarcity. Time use studies allow for the continuous (often retroactive) measures of time, focusing on time spent on various activities. Popular measures of objective time scarcity require researchers to carefully consider how to measure discretionary and necessary time, through the categorization of various activities individuals spend time on (Williams et al. 2015). All time deficit measures rest on the presumption that some level of discretionary time is an inherent requirement for social functioning and individual well-being (Goodin et al. 2008). Activities required for the necessities of life, including activities necessitated by legal, social and cultural norms are generally considered necessary time (Williams et al. 2015). Subjective measures generally limit their considerations to self-reported time pressure, such as how often a respondent may feel rushed.

The measures of time abundance, time scarcity and time poverty exist on a continuum. Time poverty and scarcity are concepts that capture a lack of discretionary time. This is the time left over after partaking in necessary activities like sleep and the committed activities of paid and unpaid work. The construct of time poverty relies on the clear definition of thresholds below which individuals are considered to be time poor (Michalos 2014). Time poverty thresholds are often constructed relative to population distributions of median discretionary

time, though they can also be constructed based on attempting to estimate minimum amounts of time required for particular tasks (Vickery 1977; Douthitt 2000; Harvey and Mukhopadhyay 2007). Time availability matters, as discretionary time is necessary for belonging and contributing to one's community (Lassibille and Gómez 2014).

For example, looking at time poverty in the United States, Kalenkoski, Hamrick, and Andrews (2011) used American Time Use Survey data to define thresholds for time poverty. They calculate a 289.8 minute threshold for time poverty at 60% of the median population discretionary minutes (where the median discretionary minutes of the total population are 483 minutes). Controlling for the presence of children, in this formulation, a two-adult, one-child household's time poverty threshold is 250 minutes at 60% of median discretionary minutes. Thus, a two-adult, one-child household would be time scarce if they would have more discretionary time than 250 minutes per day (as this is the time poverty threshold), but less discretionary time than 418 minutes per day (population's median discretionary time). As we can see, time poverty measures incorporate absolute measures or cut-offs, while time scarcity tends to be a continuous measure. People are more time scarce as they approach the time poverty threshold, less time scarce the farther they are from it when it comes to their available discretionary time per day.

The literature exhibits considerable tension when it comes to the unit of measurement used, with many studies aggregating across all adults in the household, or just considering the response of the household head. This masks important differences between the genders. Results also differ, depending on how the researchers measure absolute versus relative time. The estimates used in studies for necessary minimum absolute time thresholds for discretionary time, unpaid work time, and basic needs vary greatly (Harvey and

Mukhopadhyay 2007). While seemingly straightforward, absolute time poverty thresholds are problematic in that they incorporate assumptions about minimum levels of time needed to maintain basic standards of living without grounding them in prior research (Williams et al. 2015).

Relative time poverty measures attempt to define what constitutes a critically low level of time based on the sample in question. For example, Kalenkoski (2013) defines relative time poverty for select subpopulations (differentiated by household composition, income and employment) using at or below 50, 60, and 70% of median discretionary time. However, the existing literature gives little justification for the percentage used for the relative time poverty threshold selected. Researchers often arbitrarily resort to a 60% threshold, without consideration for the lived experience of the people in the sample (Williams et al. 2015).

Relative time poverty thresholds also do not consider how age, gender, family composition and socioeconomic status influence the level of free time critical for well-being. Given these problems in quantifying time scarcity, this paper situates the experience of time in the lived experiences of individuals as they navigate the ebb and flow of their social networks. This will allow for the examination of how time as a networked good shapes the various types and determinants of subjective time scarcity, grounding the measure in lived experience.

The Empirical Milieu

“If you do not have enough time and money to travel around the world, in Toronto, you just need a subway ticket. Here, you can visit every country in a day” (Crombie 2016). Home to over 2.8 million people, Toronto is the world writ small: a multicultural, economically powerful

global city, with representation from every racial, religious and ethnic group. Over 52% of the residents in the city belong to a *visible* minority group³, and Torontonians view their diversity as a source of national pride (Trudeau 2015). Unlike other cities of this size around the world, in addition to being highly racially integrated culturally and spatially, Toronto is also integrated generationally (TPH 2015; CoT 2018). Seniors represent 20% of the city's population. Families with children under 18 years old represent 19%, with 35% of the children being under 5 years old (StatsCan 2016). When it comes to community networks, 77% of seniors in Toronto report strong social ties, good or better health, along with reliable healthcare access. This is very similar to the levels reported by working-age adults (CCHS 2014). Both the young and the aged are well dispersed throughout the city (fin 2018). *Thus, situating my study specifically in Toronto allows for the 'control' of a baseline level of healthcare, family support and social safety net access.* This differentiates Toronto from similarly sized US cities, as unlike in the US (where some doctors refuse aged Medicare and poor Medicaid patients), in Toronto all have universal access to healthcare, regardless of socioeconomic status or age.

However, though Toronto was the second most equitable among Canada's largest cities in the not-so-distant past, this has drastically changed: the gap between the rich and poor rose to 31% in the last 30 years. This earned Toronto the dubious title of being the socioeconomic "inequality capital of Canada" (UWT 2015). This geographically manifests by visible segregation into low or high-income neighborhoods (Vafaei et al 2016; Hulchanski 2009). For example, in Bridle Path and Sunnybrook, the average family income is over \$400,000 per year. On the other hand, the same is \$34,000 per year in the poorest neighborhoods of Regent Park and Thorncliffe.⁴

³ The Canadian term for racial minority non-Caucasian populations. <https://www12.statcan.gc.ca>

⁴ Figures 3 & 4 in Appendix.

The above population characteristics shape the experience of both socioeconomic and time scarcity in Toronto. Over two-thirds of the working-aged in the city work more than 45 hours/week, and over 54% report working at home after leaving work (Duxbury and Higgins 2012). The number of seniors in the workforce (by necessity or choice) has also skyrocketed to 62% in the last decade. To put this in context, one out of every eight seniors still works in Toronto (Shillington 2016). Parallel with the increase of inequality in the city, the number of working-poor in Toronto grew by 42%. This is largely due to the proliferation of low-paying, precarious jobs (Houston 2009). Over 45% of the city's working-poor report being severely time poor (Lewchuk 2013; Paperny 2018). They are predictably more likely to live in the above listed poorest neighborhoods (Paperny 2018). In this multicultural context, minority immigrants form nearly 60% of the working-age population, representing 75% of the working poor (Lewchuk 2017). While empirical data on the exact levels of time scarcity among minorities is scarce, we do know that minority women suffer disproportionately from extreme levels of time pressure (Nichols et al 2018).

Care obligations also play a large part in the Torontonians experience of time scarcity (Nichols et al 2018). Nearly 60% of those in the workforce report being overwhelmed by their work and domestic duties (Duxbury and Higgins 2012). When it comes to work-life balance, in addition to working nearly as many hours in the paid labor force as their male counterparts, women spend twice as much time on both household and care labor than do men (StatsCan 2010). This is because Canada's health policy context sits in-between the US' laissez-faire and continental Europe's public-care systems: there is government-paid care for those needing access to hospitals, but there are few public-assisted living options. Unlike some parts of Europe, Canada does not have a well-developed system of home health care workers. Thus,

care responsibilities fall on social networks. In this context, female single parents report being most pressed for time (StatsCan 2012). Surprisingly, seemingly no one is safe from time scarcity Toronto. Those with the highest levels of education and income also report being extremely time poor, leading to high levels of work-family conflict. It may be that this is due to the subjective feelings of time pressure arising from the higher economic value of time (Koltai et al. 2018; DeVoe and Pfeffer 2011), but it does not negate the need to consider the detrimental well-being effects of time scarcity for the wealthy too.

The Study

This article relies on *both quantitative and qualitative methods*. To examine the contours of time scarcity both pre and post retirement, I utilize the latest wave of Canadian Multinational Time Use Survey data that contains a both subjective and objective time scarcity measures (2010) from the Integrated Public Use Microdata Series (MTUS IPUMS 2019). This allows me to calculate *baseline aggregate total discretionary time availability and time scarcity* metrics (Kalenkoski et al 2013), with socioeconomic status (household income, education, employment status, partner's employment status, home ownership status, access to vehicle), demographic characteristics (age, sex) and social network characteristics (marital status, household size, number of children) in mind. In order to understand the determinants of time scarcity over the before and after retirement, I combine this data with in-depth interview and participant observation data.

My primary data was collected through a qualitative study, putting an emphasis on immersed participant observation, shadowing and open-ended, in-depth interviews. I rely

primarily on qualitative data, because my focus is mainly on the ways in which the experience of subjective time scarcity is understood, internalized and negotiated by individuals at the localized setting. To collect my data, I spent approximately 980 hours over a period of 8 months conducting participant observations and interviews in the four highly socioeconomically segregated neighborhoods of Toronto noted above. At each of my field sites, I joined community centers and support groups focused on aiding people through major life transition moments such as retirement. To access the more socially isolated, I placed fliers on physical community bulletin boards located in community centers, libraries, coffee houses, along with the virtual bulletin boards of Craigslist and Kijiji.

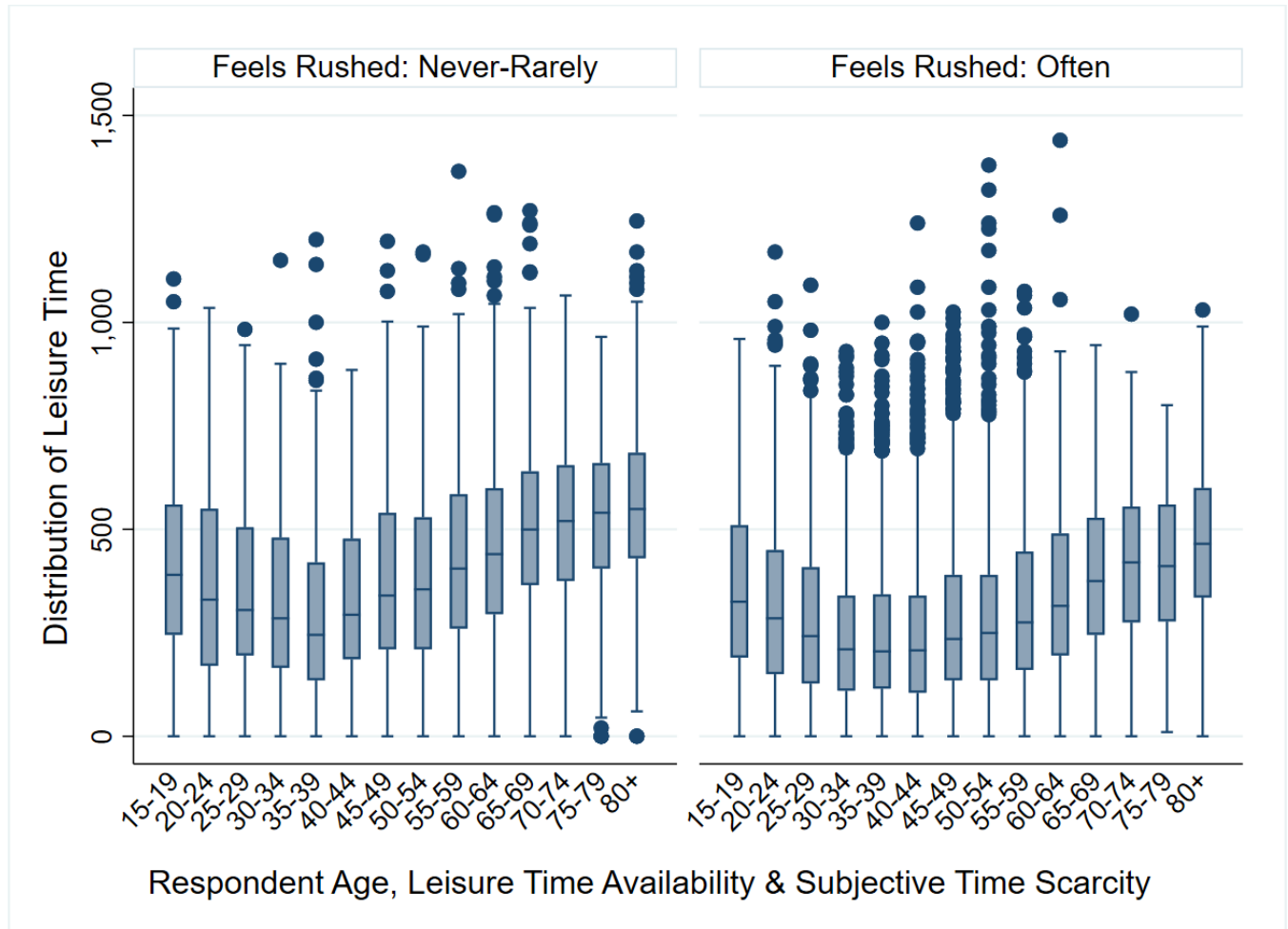
Over the course of the study, I also longitudinally followed 8 pre and post retirement individuals, checking-in regularly during the entire fieldwork period: observing their daily routines, informal meetings with family and friends, shopping trips, doctor's visits, etc. Spending time with my respondents over multiple days and months was imperative in capturing how the experience of time and its associated effects differed both during different days of the week and at different stages of the life course.

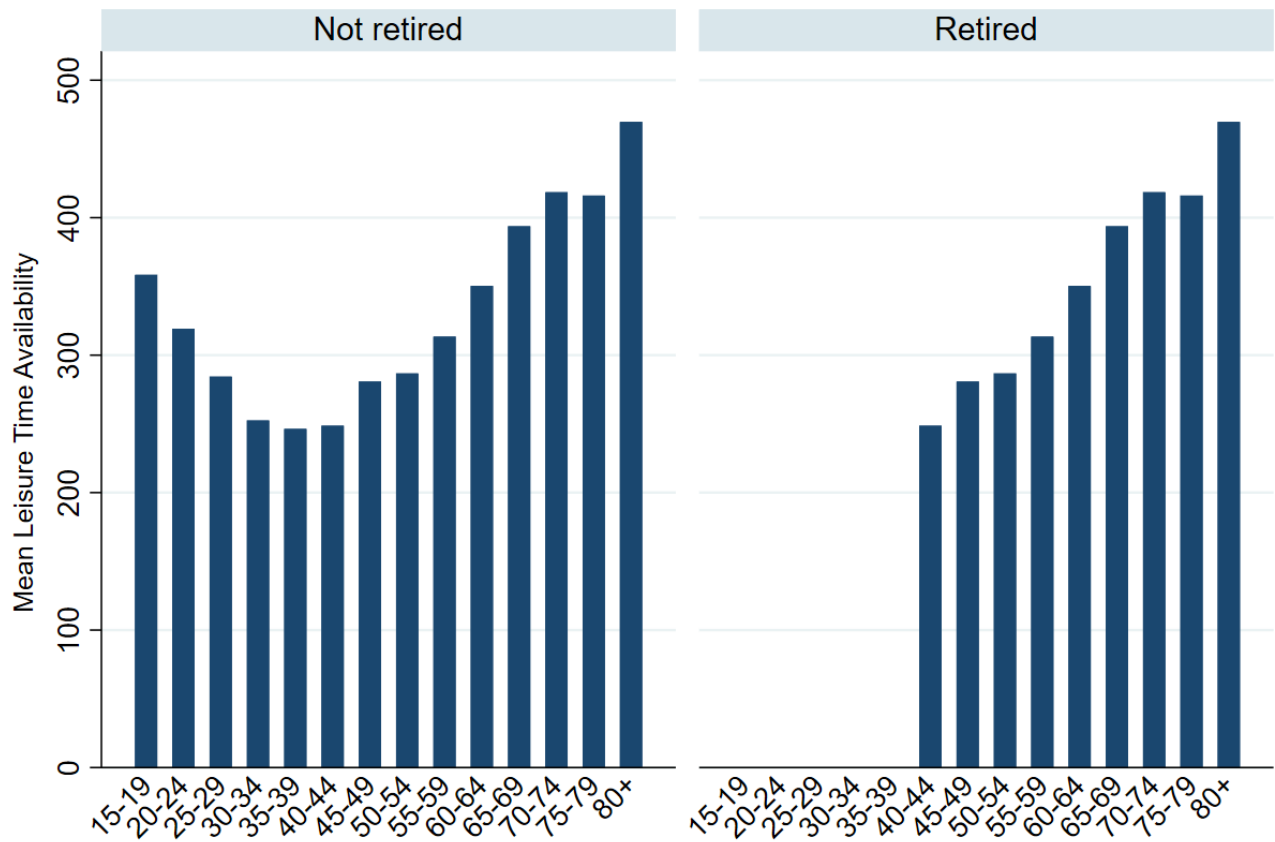
Participants for the interviews were selected with an eye on differences when it comes to neighborhood characteristics, subjective and objective socioeconomic status, gender, age, race and household composition. These variables are significant drivers of free time (Harvey and Mukhopadhyay 2007; Nichols et al. 2018). Each of the 88 participants (44 pre-retirement, 44 in the first three years of retirement) had two rounds of interviews (176 total): a life history interview and a guided interview, both querying aspects of time scarcity, experiences with time, well-being and social network composition. At the end of the 2nd interview, they also completed

a small questionnaire, ascertaining their sociodemographic characteristics and self-assessments of well-being.

Preliminary Results

Quantitative Analysis





Subjectively Time Scarce Respondents by Retirement Status, Age and Leisure Time Availability

Table 1. Quantitative Sample Characteristics (N=15390)

Variable	% or (mean/SDev)
<i>Respondent Demographic Characteristics</i>	
Sex	
Male	43.54
Female	56.46
Age	(51.46/16.77)
Retired	24.04
Single	41.26
Urban	74.82
Migrant	17.73
<i>Respondent Household Characteristics</i>	
Household Size	(2.4/1.25)
Number of Children	(0.43/0.82)
Age of Coresident Children	
0-4	26.26
5-12	27.66
13-17	14.97
18+	31.11
<i>Socioeconomic Characteristics</i>	
Household Income	
Lowest 25%	28.88
Middle 50%	44.61
Highest 25%	26.51
Education	
Incomplete Secondary	15.55
Completed Secondary	14.45
Above Secondary	70.00
Employment Status	
Unemployed	38.25
Part Time	9.10
Full Time	52.65
Partner's Employment Status	
Unemployed	37.17
Part Time	12.95
Full Time	49.88
Rents Home	22.84
Has access to private vehicle	92.01

Table 2. Time Scarcity and Age (%)

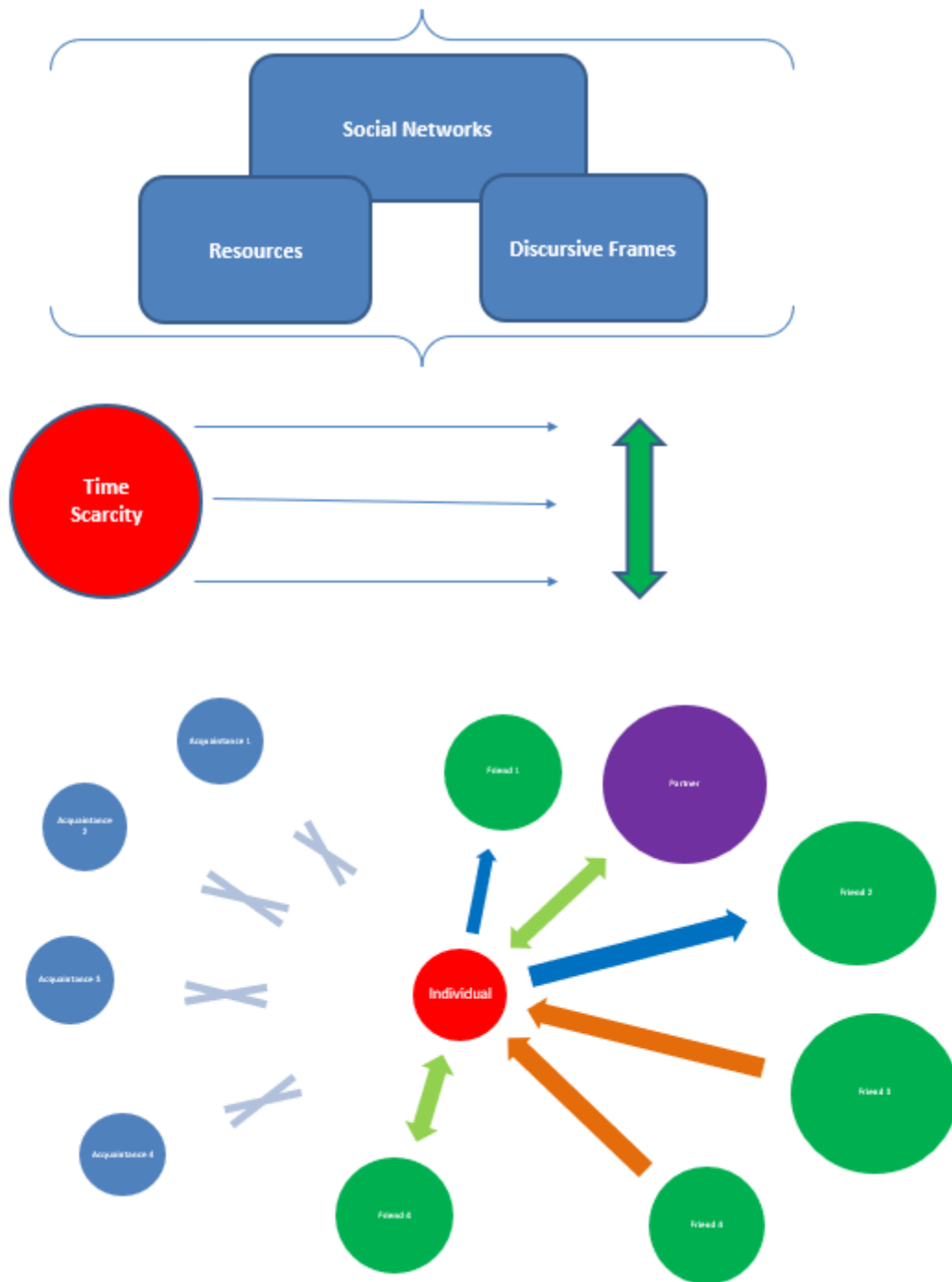
	Subjective Time Scarcity	Objective Time Scarcity
15-19	61.92	21.41
20-24	70.41	30.68
25-29	71.92	34.62
30-34	78.99	39.46
35-39	81.51	43.49
40-44	79.55	40.24
45-49	74.77	33.26
50-54	66.80	30.54
55-59	58.66	24.06
60-64	44.27	15.48
65-69	36.54	8.45
70-74	25.31	6.41
75-79	24.12	6.06
80+	21.20	3.62
Total	58.64	25.15

Table 3. Time scarcity categories by retirement status and gender (%)

		Subjective Time Scarcity	Objective Time Scarcity
Retired			
	Men	21.41	4.53
	Women	25.82	4.51
Not retired			
	Men	66.11	29.93
	Women	71.31	32.53

Qualitative Analysis

- Description of the three types of subjective time scarcity experienced by my respondents.
- Network effects: social determinants of each type of time scarcity.



The final paper will elaborate on both the quantitative and qualitative results, directly situating the individual experience of subjective time scarcity in the social.

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