

## **Title: “You make me feel so young”: A sequence analysis of time use among older adults in France (1985–2010)**

### **Extended Abstract**

How have the daily routines of older adults in France evolved over the past forty years? Furthermore, how do functional limitations affect their daily lives, and in what ways do their routines differ from those of individuals without such limitations? This paper analyses how ageing, health limitations, and work transitions shape the daily routines of older adults in France over the past decades. Using the French Time-Use Surveys (TUS 1985, 1999, 2010) and sequence analysis, it examines how people aged 60 and over allocate their time between work, domestic activities, care, rest, and social participation, distinguishing between those with and without chronic or functional limitations.

This study treats daily activities as states that follow one another throughout the day. It focuses on two populations: individuals with chronic functional limitations and those without a chronic condition. The analysis aims to identify clusters of sequences representing typical routines. These typical routines are then compared across the two populations to assess their similarities and differences. Finally, the study examines sociodemographic determinants to understand how sex, income level, place of residence, education, and other factors are associated with different types of routines.

Our study is based on the hypothesis that routines reflect lifestyle patterns and serve as an expression of social class. However, the presence of functional limitations may alter this dynamic. Could limitations be more influential than social class in producing homogeneous routines among socially diverse individuals?

This study also allows us to examine how the perception of limitations evolves through a key indicator: daily routines. Following decades of inclusion efforts, campaigns against ageism, and policies supporting autonomy, we expect to observe a reduced overlap between the routines of individuals living with limitations and those without over time. This also allows us to assess how perceptions of ageing and loss of autonomy have evolved over the past forty years in France.

Building on the research questions outlined above, this study presents initial findings from the 2010 French TUS, which includes 16,242 respondents, among whom 4,913 (30%) are aged 60 and over. The questionnaire includes a question on chronic physical or mental health conditions: 39.5% of respondents aged 60 and over report having such a condition, 10.2% report none, and roughly half fall into “not applicable”, “no response” or “refusal”. This variable is conceptually aligned with the European Global Activity Limitation Indicator (GALI), serving as a proxy for functional limitations or self-reported disability. The 2010 sample is thus divided into two populations: older adults living with chronic conditions and those without. This division allows us to compare their daily routines and examine how functional limitations shape the allocation of time to various activities, including personal care, household tasks, paid work, caregiving, social participation, and leisure.

To reconstruct daily routines, we employed sequence analysis, treating each day as a series of 144 time slots of 10 minutes each. Each time slot was coded into one of seven macro-activities: personal care; employment; household and family care; help to an adult family member; social, cultural, sports, or volunteer activities; study, hobbies, games, or media; and auxiliary codes capturing technical or unspecified activities. This method allows us to capture the temporal structure of daily life and identify typical sequences of activities for each population.

For individuals with chronic conditions ( $n = 1,941$  sequences, 1,936 unique), sequence analysis revealed six clusters of routines (Figure 1): Full-Time Workers (2.5%), Household

Chores & Hobbies/Media (18.3%), Household Chores & Social/Study (26.2%), Intensive Household Chores (21.1%), Intensive Personal Care (14.0%), and Marginal Household Chores & Hobbies/Media (17.9%). The cluster of full-time workers remained distinct, illustrating that continued employment is rare among older adults with functional limitations.

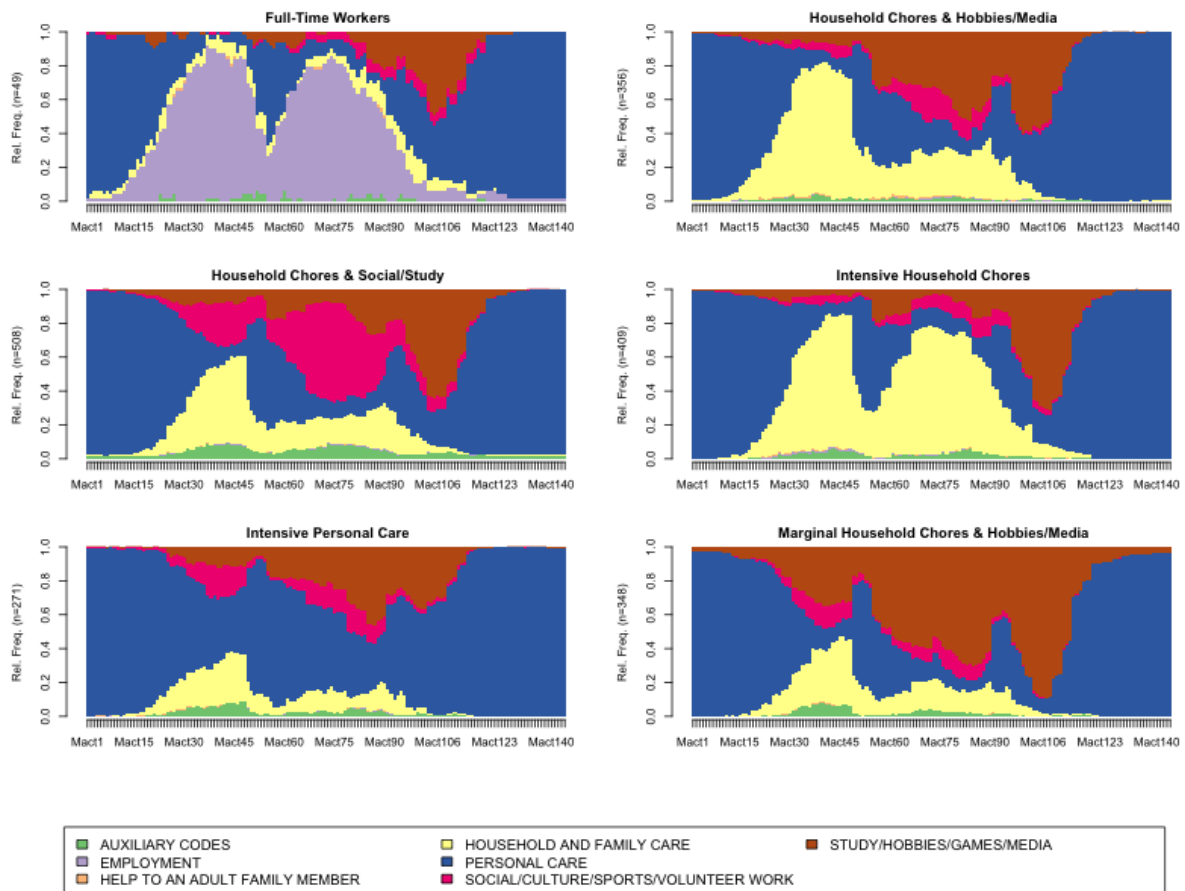


Figure 1 Daily Routines - individuals with chronic conditions

Among individuals without chronic conditions ( $n = 2,972$ ), six clusters were also identified (Figure 2): Full-Time Workers (6.3%), Household Chores & Social/Study (26.7%), Household Chores, Personal/Social/Study (7.7%), Intensive Household Chores (36.3%), Intensive Social Life (4.6%), and Marginal Household Chores & Hobbies/Media (18.2%). Compared with the population with chronic conditions, these sequences show greater engagement in social, cultural, and leisure activities. Some clusters overlap with those of the population with limitations, but differences in intensity and composition highlight the impact of health status on daily routines.

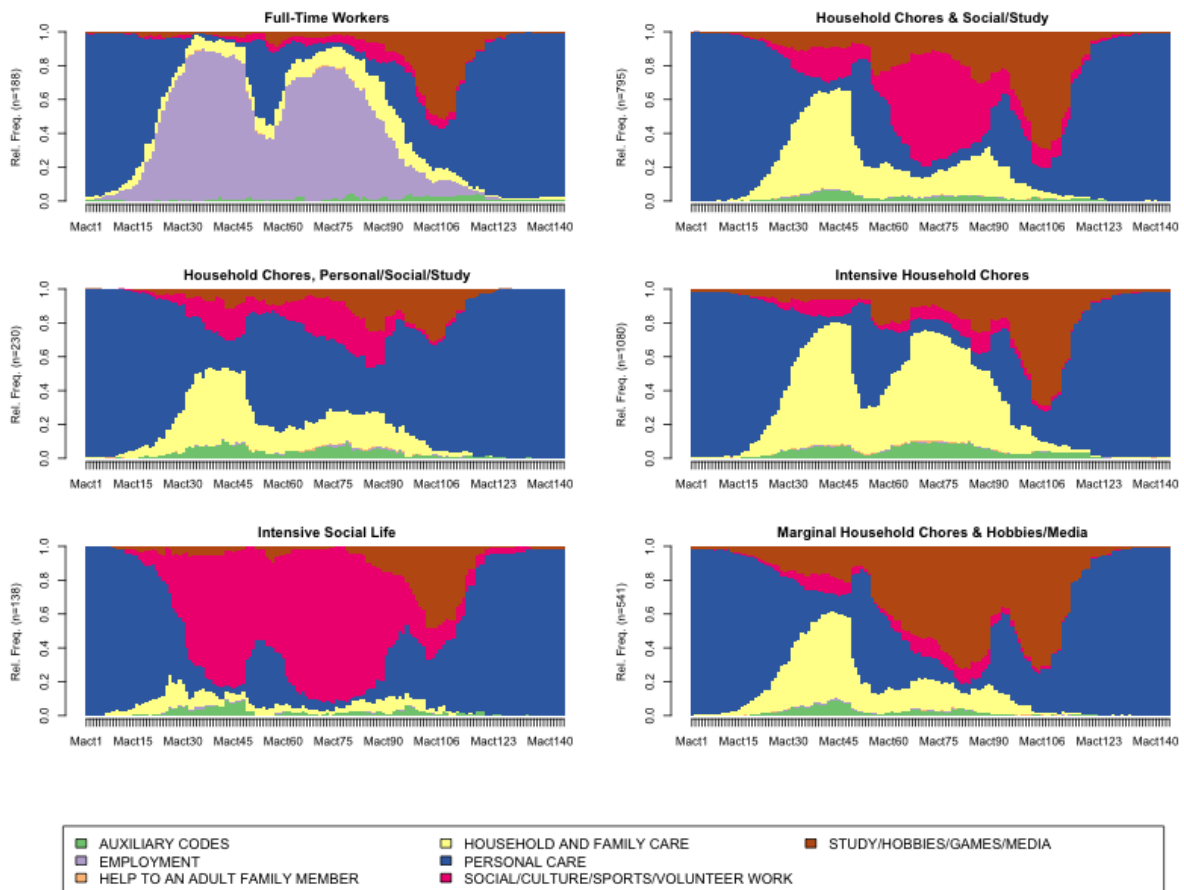


Figure 2 Daily Routines - individuals without chronic conditions

These 2010 analyses serve as a baseline for comparative work with earlier editions of the TUSs, allowing us to track changes in daily routines over the past decades. In particular, they provide a reference point for evaluating the long-term effects of policy reforms, and social campaigns promoting active ageing. Looking forward, the forthcoming TUS 2027 survey will enable us to extend this research, examining the evolution of time use patterns among dependent older adults and assessing how functional limitations, social policies, and demographic changes continue to shape everyday life.

By combining sequence analysis with longitudinal comparisons across survey waves, this work contributes to understanding how ageing, health limitations, and social factors jointly shape the organisation of everyday life among older adults in France. It highlights both the persistence and transformation of routines, shedding light on the social processes through which ageing, autonomy, and dependency are experienced in daily life.

**Keywords:** ageing, time use, sequence analysis, health limitations, France