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Emil Israel & Nadav Rozenzwaige

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Space and the precariat: labour and land uses in Neoliberal cities and regions

Emil Israel and Nadav Rozenzwaige

Faculty of Architecture and Town Planning, Technion Israel Institute of Technology, Haifa, Israel

ABSTRACT

Over the past four decades, neoliberalism has reshaped labour markets and urban–regional planning. This study examines the urban and regional precariat – a growing class shaped by neoliberal policies and marked by precarious work. While planning studies have addressed urban injustices, little attention has been given to the precariat's interaction with space and its links to land use and satisfaction. To fill this gap, the study explores how the neoliberal city is segmented into precariat types, their use of urban and regional resources, and lifestyle integration across areas.

The study examined Israel, where neoliberal reforms began in the 1980s, surveying 352 employees in central and northern regions and assessing their residential environments. Factor analysis identified four precarity types, while statistical analysis evaluated their relation to urban space use and alignment with local services and institutions.

The findings reveal distinct precariat types and their varied interactions with land use in neoliberal urban space, emphasizing contrasts between economic cores and peripheral areas. The study challenges the notion of 'good urbanism', arguing that mixed land uses may reflect inequalities driven by neoliberal labour markets. It calls for urban strategies addressing precarious employment, improving service access, and ensuring affordable housing.

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1. Introduction

In the last forty years, the global economy has undergone significant changes, as have interpretations of 'good urbanism'. A key aim was to improve cities through diverse land uses and greater density of population (Stein 2019). This shift aligned with the neoliberal paradigm, which replaced the welfare state model in many industrialized nations (Harvey 2007). These transformations affected the labour market, where workers' conditions deteriorated, leading to a new class, the *precariat*. In recent decades, this class has expanded to include not only the most disadvantaged but also segments of the middle class (Ranci et al. 2021).

A significant share of precariat workers reside in or relocate to densely populated urban areas (Elliott 2019). Neoliberalism is exacerbating inequality, underscoring the

CONTACT Emil Israel emil.israel@technion.ac.il Faculty of Architecture and Town Planning, Technion Israel Institute of Technology, Haifa 3200003, Israel

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gaps between professional elites and the precariat (Powell and Scanlon 2016). Studies in urban and regional planning have raised awareness of these injustices in neoliberal cities (Gourzis, Herod, and Gialis 2019; Harvey 2012; Jaatsi and Kymäläinen 2023; Stein 2015). However, less has been said about how to define precariousness, and its interaction with urban housing and employment. To address this shortage, the current study investigates the segmentation of the neoliberal cities and regions into various precariat forms.

This study defines precarity as employment characterized by short-term or nonexistent employment contracts, insufficient workplace protections and frequently the absence of a representative labour organization (Barbier 2011). The world in which the precariat exists often conflates labour, leisure and rest, with few defined limits between them (Huws 2016; Legault 2013). During the industrial era, workers and unions set these limits, but the global economy has blurred or eliminated them (Kiersztyn 2017; Vosko 2011). The study argues that unstructured daily schedules require diverse land uses in residential settings. Build environments with varied land uses might ease the challenges of time management for the precariat. Nevertheless, some might still find this configuration inadequate, leading to less effective use of the city for coping with unstructured routines. Rising precarity may therefore intensify the gap between people's needs and available land uses. This study examines these claims by defining and mapping levels of precarity.

It does so by using Israel as a case study of labour market neoliberalization, a policy that emerged there during the 1980s (Maron and Shalev 2018). A structured questionnaire was distributed to 352 employees in the central and northern parts of the country. We also used Google Maps to analyze the quantity and diversity of land uses in the respondents' living environments. The collected data and hypothesized relationships were analyzed using quantitative methods.

The research expands the existing literature in three ways. First, it adds to our knowledge about the precariat and examines its use of neoliberal urban and regional space, a topic still lacking in-depth attention. We establish a correlation between land uses and the contemporary labour market. In doing so, we also partially challenge the notion of 'good urbanism,' which encompasses principles such as mixed land uses, walkability and density. The relationship between the labour market and urban space is significant, as it may benefit city workers by aligning urban and regional development with their needs. The employees' working hours and workplace conditions affect their needs. Therefore, identifying the employees' needs can help city and region planners and policymakers improve the living standards of urban residents. In addition, classifying precarity into various groups provides a method for measuring and quantifying precarity in the context of urban and regional behaviour.

2. Theoretical background

2.1. The precariat – general definitions and metrics

The term precariat is not new to economics (Barbier 2002). *Précarité* was coined by Pierre Bourdieu in the 1960s (Waite 2009), who compared it to Marx's reserve proletariat army – labourers available to capitalists. Marx argued that this reserve gave workers jobs

but left them transient, unstable and expendable (Jonna and Foster 2016). Later, the term became synonymous with poverty rather than a social class (Waite 2009). Agnès Pitrou (1978) used 'precariat families' to describe disadvantaged French households. Waite (2009) noted that in the late 1980s Claudine Offredi (1988) first linked the phrase to the job market, defining it as poor employment conditions in addition to poverty.

In the 1990s, the term was still used to describe low-wage employment contracts but also the erosion of workers' rights gained during the welfare state era (Casas-Cortés 2014). The word precariat gained prominence at the millennium's onset (Neilson and Rossiter 2005; Waite 2009) and became more widespread after the 2008 economic crisis (Casas-Cortés 2014). This crisis, with rising unemployment and economic restructuring, resulted in a labour market with growing part-time and temporary jobs. The situation prompted extensive writing on the precariat's status, challenges and struggles (Jonna and Foster 2016), culminating in Guy Standing's *The Precariat: The New Dangerous Class* (2011).

Standing linked the precariat to neoliberalism. In this category he included employees without social rights, those who worked unusually long hours and those with fragmented work lives. Another characteristic this group shares is lack of control over their time (Standing 2011). Standing described the precariat as a class with flexible, varied routines and work, making striking a balance between work and life difficult. He classified many Millennials as part of the precariat: young people with limited rights and weak bargaining power, employed mostly in the service sector. This sector has expanded markedly since the neoliberal shift, with many workers lacking vocational training.

Precarity in the neoliberal labour market affects not only low-wage workers such as cleaners, drivers and builders (Standing 2011), but also high-wage workers including IT specialists, developers and artists (Neilson and Rossiter 2005; Waite 2009). However, these groups differ in several ways. High-wage earners can switch jobs and hold multiple positions, improving their standing and reducing their risk of unemployment. Lower-paid workers, with limited training and soft skills, remain more vulnerable to layoffs (Huws 2021; Salmieri 2009). 'Independent' precariat workers may lack employment contracts (Kosmas et al. 2023). Part-time or contractless work offers flexibility but often entails extra hours without agreed-upon compensation (Standing 2011; Thompson 2020).

Precarity is also linked to familial, housing and relationship instability. Unstable work limits long-term planning and risk. Unmarried and married couples are more likely to separate due to economic uncertainty (Luppi, Zanasi, and Rosina 2025; Palumbo, Berrington, and Eibich 2025). Partnership breakup and job loss were linked (Anderson, Bukodi, and Monden 2021), while German research related precarious work to delayed family formation (Schmitt 2021). Young individuals, especially those in fragile labour-market positions, were more likely to delay leaving or return to their parents' homes, reflecting welfare-state support across countries (Luppi, Rosina, and Sironi 2024). In Chile, for example, precarious employment is associated with reduced expectations of stability linked to deregulated labour markets and weak social protection (Señoret, Ramirez, and Rehner 2022). The findings support the notion that welfare regimes to market-dependent, neoliberal frameworks increase household-level risk and employment deregulation, which leads to increased personal and familial instability (Alderotti et al. 2021; Karabchuk 2020).

Despite its importance, there have been limited attempts to quantify precarity. Vosko (2010), for instance, developed a scale assessing: (1) Job security, including whether employees work in financially stable industries; (2) State regulations protecting employees; (3) Workplace control, such as union affiliation or collective agreements; and (4) Sufficient income from salary, benefits and employer supplements. Kiersztyn (2017) proposed measuring precarity subjectively, through employees' feelings and perceptions, including their sense of security in their personal life and the labour market.

Olsthoorn (2014) used work instability as a measure of precarity, including vulnerability (no or insufficient additional income, and no other financial means) and lack of institutional support (no guaranteed income or social benefits in case of layoffs). Additional metrics assess the workers' situation relative to their social class, such as family or environmental support, or vulnerability arising from a combination of unfavourable working conditions and unstable economic contexts (Kosmas et al. 2023).

2.2. The precariat and the neoliberal space

Many of those who constitute the precariat are urban residents (Foti 2017). They include industrial workers adversely affected by the decline of the Fordist economy and the ascendance of the service economy. In addition to the urban precariat are those in the Left Behind regions – agricultural and industrial regions whose means of production have decreased as a result of the global economy (Johnson 2011). Furthermore, some scholars have considered creative knowledge labourers as a component of the urban precariat (Scott 2014). The research in this context resulted from discussions about global cities and their precariat class, which exemplify their neoliberal regimes (Campbell and Laheij 2021).

The headquarters of multinational corporations in global cities demanded jobs in producer services (e.g. finance, software and insurance) and real estate (Leffel, Smith, and Marahrens 2026). This demand required trained, well-paid workers, yet leaving much of the workforce unskilled (B. Campbell and Laheij 2021; Eraydin 2011). Neoliberal urbanism shaped by the rise of the need for those jobs as a dominant growth model, brought to the concentration of financial and advanced producer services and reconfigured metropolitan landscapes. Manifestation of this is regarded in central business district expansion and prestige redevelopment (Sassen 2001), that from the perspective of urban governance, increased the adoption of entrepreneurial strategies centred on real estate–led regeneration and public–private partnerships. Land and property markets were positioned at the core of urban economic development (Brenner and Theodore 2002; Harvey 2007), and urban policies resulted in favouring cutting public spending (Powell and Scanlon 2016). Housing and commercial property were thus inclined to transform into financial assets embedded in global circuits of capital – a process widely described as the financialization of housing (Aalbers 2016; Fields 2017).

While economic prosperity and urban renovation encourage the concentration of the precariat in cities, which provide employment and help people manage their work and leisure (Flanagan 2019), precarious workers often lack access to housing and opportunities in these cities or regions due to limited resources and unstable employment

(Elliott 2020). Increasing property values transformed urban economies, including retail environments, while replacing essential services and creating consumption and leisure spaces tailored for affluent consumers (Glaeser, Luca, and Moszkowski 2023; Meltzer and Capperis 2017; Zukin 2009).

In this regard, the urban precariat is linked to Richard Florida's (2005) concept of the creative city and creative class, introduced two decades ago to highlight their role in urban and regional economic development. Initially appealing, Florida's concept later faced strong criticism for promoting inequality, elitism, underinvestment, spatial exclusion and the displacement of middle- and lower-class residents (Hollands 2023).

In urban and regional planning, the creative city concept stresses the need for cities to become livable environments with medium- and high-density buildings, or\and mixed land uses (Ferm and Jones 2016; Stein 2019). However, Elsa Vivant (2013) argued that policies tied to this concept failed to foster economic recovery or support the creative class, whose vulnerability increased despite the city's claimed intention to cater to their needs and address their material preferences. When lower-income households and precarious workers, tend to relocate to more isolated, insufficiently serviced and insecure urban peripheries (Aalbers 2016), these policies often led to irregular working hours, disjointed schedules and blurred boundaries between work and leisure (Hollands 2023; Kozina, Bole, and Tiran 2021). Consequently, many in the precariat sought to minimize commuting between home, work and essential services (Ettlinger 2007). Sub-urban living in North America, for example, proved unsatisfactory for those needing access to jobs or creative workers seeking flexible, autonomous work in cafés or shared spaces (Franzese 2018).

In this regard, precarity as an urban condition seemed to be shaping the stabilization of intimate, family and housing trajectories. Urban housing insecurity correlated with personal life precarity (Debrunner et al. 2024). Low-income households experience repeated, long-term moves and lower tenure security and satisfaction – especially renters and families with children – demonstrating how housing mediated employment insecurity into personal instability (Debrunner et al. 2024; Kang 2023).

3. Research hypotheses

The following hypotheses outline possibilities for how the city and regions (in general) are divided to suit these groups and to what extent the living environment aligns with their daily schedules.

3.1. Hypothesis 1

In the neoliberal city, there are various forms of the precariat class, defined by the insecurity of their jobs and the overall instability of their personal lives.

3.1.1. Theoretical rationale

Transformations in the neoliberal labour market have created the precariat class, marked by instability, uncertain conditions and fragile employment prospects.

3.2. Hypothesis 2

The neoliberal city is compatible with precariat jobs and the lifestyle of the precariat class, for whom the neoliberal city constitutes a comfortable and convenient living environment.

3.1.2. Theoretical rationale

Individuals' professional lives influence the living environments they select. The more unstable their work, the more dynamic, diverse and livable the environment will become. Workers engaged in several jobs for extended hours, including responsibilities beyond the traditional office environment, need various alternatives for their time outside of work.

3.3. Hypothesis 3

Differences between various groups of the precariat result in variations in their occupational requirements and in the disparity between these needs and the availability of land uses in the neoliberal city.

3.1.3. Theoretical rationale

The category into which precariat workers fall affects their satisfaction with their living environment and its suitability for daily life. The compatibility between these factors stems from the degree of 'livability' of their surroundings. Living in a lively area might benefit employees working long hours. Workers in precarious jobs but whose housing and family lives are stable can live comfortably in areas that are less compatible with their daily routines. In contrast, those whose lives are unstable both at work and personally often reside in mismatched areas, unable to afford more dynamic environments, usually due to their insufficient income.

4. Methodology

4.1. Research methods

We used several methods to identify the various groups of precariats and their use of neoliberal urban space. First, we conducted an exploratory factor analysis to determine the dimensions of precarity. Identifying types of instability required a multidimensional measure that included observable variables expressing instability in both personal life and work. The data-reduction method (Frenkel and Ashkenazi 2008) we utilized relied on established variables from the literature, representing various levels of precarity.

Through latent variables or factors, the exploratory factor analysis produced indices from observed variables, reflecting dimensions of precariat stability. Each observation (employee; see discussion below) received a score for each latent variable, representing the intensity of precarity experienced in that dimension. A higher score indicates a stronger position in the job market or personal life and thus, greater stability.

The standardized scores allowed us to examine the relationship and significant differences between the intensity of the participants' precarity in specific dimensions and their

living space, including compatibility between the time devoted to their needs and their living environment. Analyses were based on cross-tables, χ^2 tests, and regression models. By monitoring the geographical characteristics of their neighbourhoods and the characteristics of their employment, we could test the statistical relationship between their degree of precarity and their daily land-use activity in the city.

4.2. Research area and population

We conducted our study among precarious labourers in Israeli neoliberal regional environments. Over the last 40 years, Israel has shifted from a welfare state to a neoliberal economy (Maron and Shalev 2018). The country has also experienced spatial changes similar to other transitioning nations, with rising disparities between the core regions and the periphery and the emergence of a new precariat class (Shefer and Antonio 2013). Accordingly, we focused on the central city of Tel Aviv and the central metropolitan area that surroundings it, the more peripheral northern city of Haifa, and the northern metropolitan area that surroundings this city, all of which experienced different outcomes of this transformation.

Before the 1980s, Haifa was an industrial centre (Mansfeld 1992), while Tel Aviv developed around private capital and business services. Globalization boosted Tel Aviv's role in the Israeli economy, making it a global neoliberal city and region (Alfasi and Fenster 2005; Cohen and Aharon-Gutman 2014). With about 470,000 residents (2021[1]), it hosts much of Israel's creative class and serves as the national economic hub, where demand for trade and employment are concentrated (Alfasi and Fenster 2009; Yavo–Ayalon, Aharon–Gutman, and Alon–Mozes 2019). The Tel Aviv metropolitan area has about 4.2 million residents (2021[2]), with Tel Aviv as its core. Housing costs, the highest in Israel, force many unable to afford them to relocate to nearby or peripheral cities such as Haifa. Nonetheless, dualistic growth defined the Tel Aviv metropolitan area. Inner urban regions, especially the metropolitan core of Tel Aviv, drew middle- and upper-class families as well as youthful, innovative populations seeking to capitalize on the city's distinctive prospects (Alfasi and Fenster 2009; Feder and Israel 2026). In contrast, the outskirts of the metropolis, notably rural or peri-urban areas, exhibited suburban patterns, particularly among middle-class households experiencing peak fertility and significant economic consolidation (Frenkel, Bendit, and Kaplan 2013; Israel and Frenkel 2015).

Haifa had about 280,000 residents in 2021 (around one million in the greater metropolitan area[3]). The Haifa metropolis has transformed into a 'more American' model, marked by affluent middle- and upper-class Jewish families migrating to the suburbs from the inner urban regions, especially the city of Haifa. Moreover, young, creative people have migrated to Tel Aviv, especially its centre urban areas (Jakar and Razin 2012). Conversely, Haifa has become a migration hub for Arab Palestinians, especially young who have promoted Arab culture and economic innovation (Karkabi 2018; Shilon et al. 2022). Despite this achievement, the city of Haifa has not adapted to global trends as well as Tel Aviv (Cohen and Aharon-Gutman 2014). Neoliberalism has precipitated adverse migratory patterns and industrial deterioration, compromising its urban area. As a result, housing is more affordable than in Tel Aviv.

4.3. Sampling population

The study classified the precariat as those working or living in Tel Aviv, Haifa, and their metropolises. Given that Israel lacks a database defining this class, we sampled a large number of people to determine a precariat population and a less precarious one. We assumed greater precarity among those working long, non-standard hours, such as early morning, late evening (after 19:00), or more than nine hours daily, the standard Israeli workday. The precariat also includes individuals working during leisure time or holding multiple jobs.

The research sample focused on those who were likely to have independent or short-term employment contracts, signaling job instability. Examples include employees in service industries such as couriers, and those in public services and customer service, media and the arts. We also sampled those in high-tech and business services that employed an educated, creative population facing career uncertainty.

4.4. Data sources

The primary tool for data collection was a questionnaire. It examined factors such as individual precarity, the respondents' schedules and their lifestyles. It also assessed the compatibility between their residential and work locations and the correlation between these areas and their daily schedules. Questions on precarity were based on Standing's (2011) and Carré's (2016) definition of the precariat: type of employment contract, working hours and geographic layout of employment in the city. The questionnaire also included statements assessing how respondents subjectively assessed the stability of their work arrangements (Kiersztyn 2017). They described their routine weekly schedule: needs fulfilled in the urban space, frequency of visits to institutions and services, their distance from home, times of use and means of transport. In addition, the respondents reported their start and end times of the workday and whether tasks were taken home.

The questionnaire also gathered the respondents' residential and work addresses, and asked about their satisfaction with their residential area and its compatibility with their leisure or off-work hours. Respondents rated how well their area met their daily needs. These questions, together with those about the workplace, painted a picture of the livability of the areas where the respondents spent time – their residence and employment.

In addition to the questionnaire, we used Google Maps to collect data on the number and type of sites of interest in the respondents' residential areas. The sites functioned as proxies for land uses near the residence; thus, we will refer to these sites as land uses henceforth. A 300-meter radius (walking distance) was set around each residence point. Within each radius, the sites of interest were categorized by daily (e.g. schools, shopping malls) and recreational needs (e.g. bar, gym), as well as places enabling remote work, such as libraries, cafés and parks.

4.5. Precariat survey and characteristics of the sample

The research questionnaire was distributed online between March and July 2021 via Qualtrics. We contacted prospective participants through personal approaches (mainly

young people in Haifa, Tel Aviv and their metropolises), links on social media such as Twitter and Facebook and billboard posters with QR codes. In addition, unions of couriers, media, film, paramedical and high-tech workers (potential precariat workplaces) circulated the link to the questionnaire.[4]

The survey produced 352 complete questionnaires. The sample did not represent the precariat in Israel, as it has never been assessed or sampled, leaving no basis for comparison. However, the findings enabled us to examine whether the sampled population aligned with the precariat class described in the literature.

Table 1 lists the socioeconomic characteristics and geographical dispersion of the respondents. To identify which were most or least precariat, we divided them into two groups based on three yes/no questions: Have they worked over eight years at the same job? Are they represented by a union or other employees? Are their household earnings close to the Israeli market average? Non-precariat respondents answered yes to two questions.

Table 1 shows that 57% of respondents are men and precariat. Many live and work in Tel Aviv, with non-precariat employees working there in higher proportions than those in the precariat. Precariat labour is more prevalent in the northern metropolitan area, consistent with known patterns in Israel.[5]

Most respondents (67.8%) are in a relationship. Of the sample, 55.7% earn above Israel's average wage, with non-precariat employees earning significantly more ($p < 0.05$). Nearly 90% of non-precariats own a car, a significant difference ($p < 0.01$) from precariat employees. The majority (71.5%) rent or live with their parents. In Israel, both renting and co-residing with parents are linked to instability (Levine and Aharon-Gutman 2023; Weiss 2014), and are factors consistent with global trends of high rates of renting among those born after the 1980s (Kolomatsky 2021).[6]

Moreover, 84% of the respondents hold an academic degree, with 45.1% having a master's or higher. This finding holds across both groups in Table 1. As Standing (2011) notes, many precariat workers are overqualified and overeducated, so higher education does not guarantee job security.

4.6. Research variables

Table 2 presents the variables used to examine personal precarity, employment and leisure traits, spatial features, their means and standard deviations. Several variables show large deviations, suggesting heterogeneity in the studied cities and differences between precariat types, neoliberal city areas and land uses. Nevertheless, the discrepancy is consistent. There is relative homogeneity in the sampled population's geographic and demographic concentration – young people in Tel Aviv and Haifa (and their metropolitan regions) with similar employment traits.

Of all the variables, 15 represent possible dimensions of precarity (see brackets in Table 2). Four describe personal life traits suggesting precarity, such as frequent apartment moves or lack of a stable family (Kiersztyn 2017; Stein 2019). Subjective precarity is measured by three work-life variables (Kosmas et al. 2023). They indicate that people may work long hours but still feel that they have control over their professional and leisure time. Eight other indicators capture objective precarity, reflecting actual workplace conditions rather than subjective perceptions (Thompson 2020; Vosko 2010).

Table 1. Socioeconomic and geographical attributes based on the preliminary classification of the precariat.

Variable	Categories (%)						
Gender	**Male**	**Female**	**Other**	**N**			
Precariat	56.5	43.1	0.31	313			
Non-Precariat	64.1	35.8		39			
Total	57.3	42.3	0.4	352			
Matrimonial status	**Single**	**In a relationship**	**No answer**	**N**			
Precariat	32.2	67.4	0.31	313			
Non-precariat	28.2	71.7		39			
Total	31.8	67.8		352			
Home ownership	**Owning**	**Non owning**	**N**				
Precariat	27.8	72.2	313				
Non-precariat	33.3	66.6	39				
Total	28.4	71.6	352				
Education	**Non-academic**	**B.A**	**M.A+**	**N**			
Precariat	16.9	39.3	43.8	313			
Non-Precariat	10.2	33.3	56.4	39			
Total	16.2	38.6	45.1	352			
Age[1]	**15–19 Years**	**20–29 Years**	**30–44 Years**	**45–59 Years**	**60–64 Years**	**65+ Years**	**N**
Precariat	0.7	21.4	66.4	9.9	0.6	0.9	313
Non-precariat			51.3	43.6	2.6	2.5	39
Total	0.5	191.	64.7	13.7	0.8	1.2	352
Income	**Significantly below average**	**Below average**	**Average**	**Above Average**	**Significantly above average**	**N**	
Precariat	15.1	21.4	10.8	22.3	30.4	312	
Non-precariat	5.2	7.7	7.7	43.6	35.8	39	
Total	13.9	19.9	10.5	24.5	31.2	351	
economic condition	**Not good**	**Average**	**Good**	**Very good**	**N**		
Precariat	8.3	31.8	39.4	20.5	312		
Non-precariat	2.5	28.2	46.1	23.2	39		
Total	7.7	31.3	40.3	20.7	351		
Car ownership	**Yes**	**No**	**N**				
Precariat	64.4	35.5	**312**				
Non-precariat	89.7	10.2	**39**				
Total	67.2	32.7	**351**				
Israeli born	**Yes**	**No**	**N**				
Precariat	88.7	11.3	312				
Non-precariat	92.3	7.6	39				
Total	89.1	10.8	351				

metropolis of employment	**Tel Aviv**	**Northern**	**Central**	**Other**	**N**
Precariat	43.2	30.6	25.5	0.6	313
Non-precariat	53.9	17.9	23.2	5.2	39
Total	44.3	29.3	25.2	1.1	352
metropolis of residence	**Tel Aviv**	**Northern**	**Central**	**N**	
Precariat	42.1	34.8	23.0	313	
Non-precariat	51.3	17.9	30.7	39	
Total	43.2	32.9	23.8	352	

[1]The table indicates that no individuals under 30 belong to the non-precariat group. One criterion employed to differentiate between precariat and non-precariat respondents was their tenure of over eight years in the same employment. Thus, notice that this indicator may have precluded a significant proportion of young individuals from being categorized as non-precariat due to their inherently shorter duration in the job market.

Table 2. Research variables.

Group Belonging	The variable	Mean	S.D
Personal characteristics	Marital status (Precarity manifestation)	1.68	0.46
	Number of children (Precarity manifestation)	0.82	1.18
	Residence status (Precarity manifestation)	2.23	0.53
	Number of years in the workforce	12.34	8.64
	Education (Precarity manifestation)	5.17	0.97
	Satisfaction with the residential area	3.82	0.97
	The ranking of the means of transportation required to reach locations that satisfy daily necessities	2.24	1.40
	The number of institutions and services consumed during the week for leisure purposes	1.55	0.52
	The number of institutions and services consumed during the week for meeting daily necessities	2.06	3.62
	The number of land uses utilized for meeting daily necessities (according to Google)	3.62	2.06
	The length of time (in minutes) needed to get to locations utilized for meeting daily necessities	6.96	5.62
	The length of time (in minutes) needed to get to locations that satisfy all needs	9.22	6.00
	The extent to which land-use operating hours correspond to a person's working hours	3.81	0.90
	The services and institutions in the residential area are varied	3.70	1.01
Schedule	The weekly number of activities in leisure institutions	2.65	2.52
	The weekly number of operations in institutions for meeting daily necessities	4.92	3.75
	The number of times per week that an operation is performed in institutions and services for the various needs of the individual	7.58	4.60
	The average time (daily hour) when all needs are fulfilled	14:44:30	Two hours and fiftythree minutes
	The distribution of the hours of the day during which an individual fulfils their daily requirements (standard deviation)	0.16	0.08
	Work-life balance (Precarity manifestation)	3.29	1.09
Job	Number of simultaneous jobs (Precarity manifestation)	1.28	0.71
	Work hours per week (Precarity manifestation)	40.23	12.96
	Number of hours worked outside the workplace (Precarity manifestation)	10.34	14.37
	Number of jobs in last decade (Precarity manifestation)	2.98	2.63
	Daily clocking-in and out (Precarity manifestation)	12.70	1.99
	Workday end time	16:48	23:45
	Employment contract and terms (Precarity manifestation)	2.59	0.72
	The existence of a labour union in the workplace	1.49	0.81
	Regular fixed work hours and days (Precarity manifestation)	3.72	1.06
	Sense of control of work hours (Precarity manifestation)	3.04	1.23
	Sense of control in the job (Precarity manifestation)	3.90	0.96
	Salary (Precarity manifestation)	3.38	1.44

5. Results

5.1. Dimensions of precarity

The exploratory factor analysis identified composite variables indicating distinct levels of precarity in the sample. The need for internal consistency and adequacy of the sample were met. The items dealing with level of precarity were reliable (Cronbach's alpha = 0.6). Based on the Kaiser-Meyer-Olkin measure (Kaiser 1974), the sample was adequate. Pearson's correlations ranged from −0.5–0.5, confirming correlations without multicollinearity. Hotelling's *t*-squared test rejected the null hypothesis that the correlation matrix is a unit matrix ($P = 0.000$).

Conducting an exploratory principal axis factor analysis with orthogonal rotation (Varimax with Kaiser Normalization) produced four factors representing dimensions of precarity. Table 3 lists the factor loadings. We retained all items that loaded on 0.5, although most variables loaded above 0.60 (Frenkel, Bendit, and Kaplan 2013). Higher loadings indicate less precarity. The four factors explained 52% of the variance in the levels of precarity, supporting the study's first hypothesis.

The first factor is stable working hours, a key dimension of precarity. Three time-related variables dominate its loading. Precarity is often defined as a lack of control over work, leisure and home time (I. Campbell and Price 2016). An extended workweek complicates people's time management, forcing them to work extra hours daily and weekly (Standing 2011). This factor explains the most variance, 13.8%. Higher loadings suggest greater stability and regularity in work hours, as well as schedules that allow quality leisure time.

The second factor is sense of job stability and refers to the respondents' subjective views about their work life. It explains 13.7% of the variation. Perceptions of stability are supported by objective metrics, such as the number of positions held in past years and related salaries. Higher loadings indicate that the respondents feel more secure in their professional life. Although the number of past positions loads high, it may now signal stability after years of frequent transitions. This explanation is reasonable for young, degree-holding individuals working in volatile service sectors who gain stability in their jobs after accumulating experience and seniority.

Table 3. Exploratory factor analysis of the major factors[a] affecting precarity and their loading values

	Component (groups of factors)[b]				
Variables/factors	1 Stable work hours	2 Sense of job stability	3 Stability in personal life	4 Stable employment	Percentage of explained variance
Daily clocking-in and out	0.787	−0.066	0.077	0.073	13.8%
Work hours per week	0.781	−0.106	−0.057	−0.018	
Work-life balance	0.687	0.413	0.043-	0.02-	
Sense of control at work	0.317	0.702	0.089	0.108	13.7%
Sense of control of work hours	0.068	0.701	0.080	0.231-	
Number of jobs in last decade	0.148-	0.560	0.055	0.164	
Salary	0.332-	0.546	0.325	0.197	
Number of children	0.037	0.246	0.738	0.007	12.9%
Residential status	0.057	0.073	0.717	0.081-	
Marital status	0.046-	0.007-	0.678	0.065	
Education	0.030-	0.009	0.453*	0.075	
Employment contract and terms	0.131-	0.001	0.153	0.732	11.9%
Fixed work hours and days	0.086	0.208	0.083	0.677	
Hours working outside the workplace	0.225	0.216-	0.019-	0.620	
Number of simultaneous jobs	0.216-	0.342	0.216-	0.501	

[a]Major factors are defined by eigenvalues >1.
[b]The leading items that loaded above 0.5 are marked in gray.
*We included education in the results of the latent factors, even though it loaded below 0.5. We did so due to the attention given to this variable in the literature review, and because it qualifies based on the definitions we created. In addition, including it did not harm the consistency of Cronbach's alpha.

The third factor is stability in one's personal life. It refers to the respondents' personal situation and explains 12.9% of the variance. Instability in people's personal lives may cause frequent changes in their residence and less control over their lives (Stein 2015), making such groups more vulnerable (Standing 2011). The highest-loading variable is child count, which may indicate age. Marital status also loads high, reflecting family stability. Educational level, another strong variable, may represent age and background; hence it correlates strongly with this component. However, having a high level of education does not always align with stability, as many educated individuals remain part of the precariat (Standing 2011).

The fourth element is stable employment, which explains about 12% of the variance. Variables in this category include having a stable employment contract, regular hours and a permanent workplace and the number of supplementary jobs. Higher loadings indicate secure, well-supported employment. Nevertheless, those with steady jobs also tend to work extra hours beyond the workplace, reflecting a demanding neoliberal labour market. These extra hours might include the need to be in constant online communication with one's work or seniority within organizations, which often entails longer work hours.

5.2. Calculation of a super index of precarity

We created a super index of precarity using all of the factors from the exploratory factor analysis. To do so, we used the standard score (e.g. a, b) that the analysis assigned to each observation ($_{xn}$), along with the proportion of explained variation (e.g. v1, v2) attributed to each factor. Equation (1) provides the calculation:

$$a_{xn}v1 + b_{xn}v2 + c_{xn}v3 + d_{xn}v4 = PRECARIAT\ LEVEL$$

Each observation's standard score under each factor was multiplied by that factor's explained variance. For instance, the score for stable work hours (e.g. a) was multiplied by its explained variance (e.g. $v1$, $v2$), and added to the other products, resulting in the respondent's total precariat level. Index scores range from −97.99, the most precarious, to 60.35, the most stable and ostensibly outside the precariat class. The mean is 0.03 with a standard deviation of 26.15, reflecting a wide range of precariat scores.

We transformed the latent variables from the exploratory factor analysis into ordinal variables for analysis. Table 4 shows how each latent variable's findings have been divided into four equal groups of 88 samples to highlight its precariousness.[7]

5.3. Spatial discrepancies in land use consumption and dimensions of precarity

The findings show that precariat types are spread differently across geographic space. Respondents with stable personal lives (factor 3) tend to live in less livable environments\areas, such as smaller communities (Table 5), while those with less stability are more likely ($p < 0.01$) to reside in the livable city of Tel Aviv. Individuals with greater stability often inhabit the central metropolis of the country (Table 5). These results are unsurprising given each type's distinct utilization of the land.

Individuals with stable personal lives use institutions and services more often to meet their weekly needs than those with less stability (Table 6). This difference may relate to

Table 4. Division of latent variables into four equal groups.

Ranking of Factors	Min. value	Max. value
Stable work hours		
Low stability	−3.10	−0.58
Medium-low stability	−0.58	−0.05
Medium-high stability	−0.05	0.50
Very stable	0.50	3.68
Sense of job stability		
Low stability	−5.03	−0.63
Medium-low stability	−0.63	−0.12
Medium-high stability	−0.12	0.73
Very stable	0.73	2.21
Stability in personal life		
Low stability	−2.76	−0.73
Medium-low stability	−0.73	−0.02
Medium-high stability	−0.02	0.71
Very stable	0.71	2.28
Super Index of Precarity		
Low level of precarity	−97.99	−14.29
Medium-low level of precarity	−14.29	4.01
Medium-high level of precarity	4.01	17.29
High level of precarity	17.29	60.35

child-rearing and the need for services for typical family life. Findings show a negative connection ($p < 0.01$) between the residence of those with a stable personal life and the number of land uses they utilize for daily needs (Table 6). Frenkel and Kaplan (2015) corroborate that those prioritizing domestic issues experience greater stability and have more time for services. They may have more time to attend to their daily needs by visiting services and institutions more often than those whose personal lives are less stable. This explanation is corroborated by the evidence presented in Table 6, which indicates that the quantity of local land-uses for daily necessities declines among respondents with more stable personal lives. Some land uses likely require more time to access. Nevertheless, individuals with stable personal lives use them more often than those with less stability. More stable respondents may compensate for limited nearby land uses by relying on private cars (Table 6).

In contrast to the dimension of having a stable personal life, those who score high on the sense of job stability are more likely to reside in areas with land uses that meet their daily needs (Table 6). They can make use of these services easily as access to them (measured in minutes) improves. In contrast, those who feel that their jobs are less secure devote more time to accessing essential land uses (Table 6). In addition, those who feel that their jobs are secure are also more likely ($p < 0.1$) to reside in areas with a greater prevalence of land designated for leisure activities (Table 6). Individuals experiencing job instability tend to live in less livable areas, necessitating longer travel times to reach various land uses (Table 6).

Interestingly, those who see their employment as precarious do not always live in the same regions as individuals with unstable personal lives. The former usually gravitate toward less livable environments, while the latter tend to reside in more livable places. For instance, participants sensing a decline in their job stability are less likely to live in the city of Tel Aviv (Table 5). Moreover, there is a positive correlation between feeling that one's job is less stable and the peripherality of one's residence.

Table 5. Differences between precariat groups using chi-squared tests.

Degrees of sense of job stability (factor 2)		High	Mid-High	Mid-Low	Low
		(%)			
The metropolis of residence	Tel-Aviv city	59.00	36.30	43.10	34.00
	Central metro	18.80	30.60	28.40	18.80
	Northern metro	22.70	32.90	28.40	47.70
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 21.81$;df = 6;sig. = 0.0013			
Satisfaction with the residential area	To a very large extent	40.91	18.18	20.45	12.50
	Very much	42.05	51.14	47.73	51.14
	Moderately	15.91	23.86	26.14	27.27
	Not at all	1.14	6.82	5.68	9.09
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 26.80$;df = 9;sig. = 0.0015			
The services and institutions in the residential area are varied	To a very large extent	47.73	14.77	23.86	18.18
	Very much	25.00	38.64	30.68	32.95
	Moderately	20.45	25.00	30.68	31.82
	Not at all	6.82	21.59	14.77	17.05
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 34.14$;df = 9;sig. = <0.0001			
Hours of activity of the land uses accord with working hours	To a very large extent	47.73	17.05	17.05	18.18
	Very much	26.14	42.05	38.64	44.32
	Moderately	19.32	27.27	36.36	26.14
	Not at all	6.82	13.64	7.95	11.36
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 36.21$;df = 9;sig. = < 0.0001			
The size of the residential community (i.e. municipality)	Large city	80.68	65.91	75.00	81.82
	Medium city	4.55	18.18	9.09	6.82
	Small city/Suburbs	14.77	15.91	15.91	11.36
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 12.44$;df = 6;sig. = 0.0527			
Degrees of stability in personal life (factor 3)		High	Mid-High	Mid-Low	Low
The size of the residential community (i.e. municipality)	Large city	60.23	80.68	81.82	80.68
	Medium city	18.18	5.68	4.55	10.23
	Small city/Suburbs	21.59	13.64	13.64	9.09
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 19.17$;df = 6;sig. = 0.0039			
The metropolis of residence	Tel-Aviv city	27.27	44.32	48.86	52.27
	Central metro	39.77	18.18	17.05	20.45
	Northern metro	32.95	37.50	34.09	27.27
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 21.64$;df = 6;sig. = 0.0014			
Degrees of stability of working hours (factor 1)		High	Mid-High	Mid-Low	Low
Satisfaction with the residential area	To a very large extent	26.14	25.00	27.27	13.64
	Very much	46.59	57.95	39.77	47.73
	Moderately	21.59	15.91	25.00	30.68
	Not at all	5.68	1.14	7.95	7.95
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 16.81$;df = 9;sig. = 0.0517			
Index of Precarity		High	Mid-High	Mid-Low	Low
	Large city	64.77	77.27	81.82	79.55

(*Continued*)

Table 5. Continued.

Degrees of sense of job stability (factor 2)		High	Mid-High	Mid-Low	Low
The size of the residential community (i.e. municipality)	Medium city	17.05	5.68	7.95	7.95
	Small city/Suburbs	18.18	17.05	10.23	12.50
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 11.52$;df = 6;sig. = 0.0734			
Satisfaction with the residential area	To a very large extent	31.82	32.95	12.50	14.77
	Very much	51.14	46.59	51.14	43.18
	Moderately	12.50	14.77	32.95	32.95
	Not at all	4.55	5.68	3.41	9.09
	N	88	88	88	88
	Total	100	100	100	100
	Statistical test	$X^2 = 31.38$;df = 9;sig. = 0.0003			

*For the distribution by size of residential community (i.e. municipality), see Appendix B, Table 4.

Individuals facing heightened uncertainty in their professional life are more likely to live in Haifa than Tel Aviv. The precarious worker in Israel often remains in left-behind regions outside the economic core, notably the city of Tel Aviv. Unsurprisingly, those viewing their jobs as stable report greater satisfaction ($p < 0.01$) with their place of residence, as land uses are more diverse and aligned with their work hours (Table 5). Both those with very stable and very unstable jobs reside in areas classified as 'large cities' (Table 5). The former typically live in the city of Tel Aviv, which offers diverse land uses supporting daily activities. Those experiencing work instability also reside in central Israel's major cities but in locations with land uses that are less conducive to their routines.

In the realm of precarity, reflecting objective employment stability (factor 4), more insecure work conditions have a positive correlation with weekly visits to institutions and services that provide both everyday demands ($p < 0.05$, Table 6) and recreation ($p < 0.0001$, Table 6). One explanation for the inverse relationship might be that insecure employment, as among freelancers or the self-employed, increases the need for errands such as going to the banks or the post office that are less common for full-time workers. Deteriorating job circumstances are also tied to younger individuals, more often have precarious employment contracts (Standing 2011). They are also more inclined to utilize additional services such as recreation and leisure, because they typically have fewer familial responsibilities than older counterparts.

Another dimension of the precariat concerns the stability of their work hours (factor 1). Greater instability amplifies the variety of neighbourhood land uses employed to meet daily needs ($p < 0.1$, Table 6). This is reflected in access time, which decreases as volatility in work hours rises (Table 6). Those in unstable precariats require more access to essential land uses than those with more stable work hours, because their irregular schedules leave them less time to run errands. Therefore, they need to live closer to the places that provide the services they need. At the same time, these respondents report less satisfaction with their living environment than those with more stable schedules (Table 5).

The index of precarity shows that heightened precarity correlates with increased leisure time (Table 6). Those in this category make fewer visits ($p < 0.0001$) to land uses for daily needs than those whose existence is less precarious (Table 6). The timing of their activities further indicates that greater precarity aligns with later hours and greater reliance on non-motorized transit, such as walking or biking (Table 6).

Table 6. Results of the logit model estimations: Dependent variable = The study's factors

Precariat Elements (factor)	Explanatory variables1	Parameter		Intercept	
		Estimate	SE	Estimate	SE
Stability in personal life (factor 3)	The number of institutions and services consumed during the week for meeting daily necessities	0.29	0.05***	2.06***	0.05
	The number of land uses utilized for meeting daily necessities	−10.62	3.55***	72.98	3.34***
	The ranking of the means of transportation required to reach locations that satisfy daily necessities	−0.25	0.07***	3.63	0.07***
Sense of job stability (factor 2)	The number of land uses utilized for meeting daily necessities	6.78	3.24**	74.28	3.33**
	The number of land uses utilized for leisure purposes	14.17	7.56*	121.74	7.76***
	The number of institutions and services consumed during the week for meeting daily necessities	0.11	0.05**	2.06	0.05***
	The length of time (in minutes) needed to get to locations utilized for meeting daily necessities	−0.62	0.3 **	6.96	0.29***
	The length of time (in minutes) needed to get to locations that satisfy all needs	−0.83	0.31 ***	9.22	0.31***
Stable employment (factor 4)	The weekly number of operations in institutions for daily needs	−0.45	0.19 **	4.92	0.19***
	The weekly number of activities in leisure institutions	−0.53	0.13 ***	2.65	0.13***
	The number of times per week that an operation is performed in institutions and services for the various needs of the individual	−0.99	0.24 ***	7.58	0.23***
Stable work hours (factor 1)	The number of land uses utilized for meeting daily necessities	−6.06	3.39*	74.33	3.34***
	The length of time (in minutes) needed to get to locations utilized for meeting daily necessities	0.61	0.29**	6.96	0.29***
Index of Precarity	The number of institutions and services consumed during the week for leisure purposes	−0.004	0.002**	1.55	0.06***
	The number of institutions and services consumed during the week for meeting daily necessities	0.009	0.002***	2.06	0.05***
	The weekly number of activities in leisure institutions	−0.013	0.005***	2.65	0.13***
	The weekly number of operations in institutions for daily needs	0.02	0.007***	4.92	0.19***
	The average time (daily hour) when all needs are fulfilled	−59.44	21.17***	53071.03	553.26***
	The ranking of the means of transportation required to reach locations that satisfy daily necessities	−0.005	0.002*	3.63	0.07***
	Number of years in the workforce	0.08	0.017***	12.33	0.44***

Notes: [1]For an explanation of the scales used to measure the variables, see Appendix A.
*significant at the 0.10 level.
**significant at the 0.05 level.
***significant at the 0.01 level.

The rise in precarity is linked to younger people who have fewer years of labour market experience (Table 6). Younger precariat tend to reside in more livable areas tied to larger cities, enabling greater leisure and less reliance on private vehicles (Table 5). Those with less precarious lives tend to live in smaller towns or neighbourhoods

outside major cities and are more satisfied with where they live (Table 5). Indeed, living in a large city does not guarantee satisfaction with doing so; respondents with the least precarity appear most content with their environment.

5.4. The relationship between quality of life in the city and precarity – multivariable regression models

We created multivariable linear regression models to analyze the impact of precarity on meeting daily demands in urban environments with varying levels of neoliberalism and livability. The three models in Table 7 were constructed after eliminating potential multicollinearity ($p > 0.7$) among the explanatory variables and excluding those with strong correlations.[8]

Models 1 and 2 explain the number of institutions and services individuals use weekly to meet their daily needs (the dependent variable). These models consider this number in light of three dimensions of precarity: the sense of having a stable job, stability in one's personal life, and having stable employment. The models also incorporate variables denoting the times at which the respondents' workday ends and the average time of day that they accessed institutions and services to fulfil their daily needs.[9]

The results in Table 7 generally support the second hypothesis about the link between precarious work and comfort in a neoliberal city. They show a positive correlation between the weekly use of institutions and services and personal stability. Model 1 indicates that individuals who end the workday at a 'normal' hour are more likely to attend essential institutions and services during the week to fulfil their daily needs.

Models 1 and 2 suggest that the earlier individuals satisfy their own demands, the greater their ability to meet additional daily requirements. Those with greater stability in both their personal and professional lives can meet more needs throughout an average week, as they have more free time earlier in the day. Conversely, overloaded workdays, consistent with increased precarity, may delay satisfying their needs. Model 2 shows that individuals leaving work later struggle ($p < 0.1$) to meet their own needs. Late departures from work hinder the fulfilment of weekly demands and may reduce the respondents' quality of life.

The study's third model also examines the urban environment. It specifies the minutes individuals spend accessing services and institutions for daily needs (the dependent variable). The model shows that stable work hours result in more time spent on these tasks ($p < 0.05$), because less precariat respondents live farther from needed services. There is a significant negative association ($p < 0.000$) between the operating hours of various services and respondents' work hours, indicating a mismatch between them. The presence or absence of a labour union in the workplace might play a role in this association. Model 3 shows that the deterioration in the existence of labour unions is linked to individuals' travel time (in minutes) from home to needed services and institutions. Interestingly, those with a labour union at work ($p < 0.05$) live farther from these land uses than individuals with only partial worker representation. It is also evident that this latter group resides farther from the same land uses than those without access to unions at work. Model 3 shows that individuals with variable working hours reside mainly in Israel's major cities. These variable hours might reflect the absence of a labour union to set working hours. Those in the more peripheral northern metropolis have less access

Table 7. Results of the models' estimations.

Variables	Model 1 – The number of institutions and services consumed during the week for meeting daily necessities	Model 2 – The weekly number of operations in institutions for meeting daily necessities	Model 3 – The length of time (in minutes) needed to get to locations utilized for meeting daily necessities
Intercept	3.62 (0.306)***	13.12 (1.461)***	8.23 (1.259)***
Sense of job stability (factor 2)	0.14 (0.054)***	0.35 (0.174)**	
Stability in personal life (factor 3)	0.21 (0.56)***	0.85 (0.186)***	
Stable employment (factor 4)	0.11 (0.055)**		
Stable work hours (factor 1)			0.66 (0.292)**
Workday end time		−0.17 (0.088)*	
The degree of regularity with which the workday ends (regular-late)	−0.15 (0.124)		
The degree of regularity with which the workday ends (early-regular)	0.50 (0.177)***		
The average time (daily hour) when all needs are fulfilled	−2.85 (5.468)***	−0.0001 (1.75)***	
The size of the residential community\municipality (Medium-sized city–Big city)			1.95 (1.039)*
The distribution of the hours of the day during which people fulfil their daily requirements (standard deviation)			7.85 (3.428)**
The extent to which land-use operating hours correspond to a person's working hours (Not at all or to a very small extent-Moderately)			−3.25 (1.079)***
The extent to which land-use operating hours correspond to a person's working hours (Moderately-To a large extent)			−1.20 (0.734)
The extent to which land-use operating hours correspond to a person's working hours (To a large extent-To a very large extent)			−1.08 (0.743)
A person's residential metropolis (Center)			0.87 (0.672)
A person's residential metropolis (North)			1.04 (0.458)**
The existence of a labour union in the workplace (Only in some jobs–No)			2.81 (1.077)***
The existence of a labour union in the workplace (Yes, in all jobs – Only in some jobs)			−2.62 (1.207)**
N	345	344	339
Adjusted R^2	0.18	0.23	0.16
F	13.7512	27.0105	7.4059

Notes: * significant at the 0.10 level.
** significant at the 0.05 level.
*** significant at the 0.01 level.

($p < 0.05$) to land uses providing essential municipal services necessary for meeting daily requirements than those living in Tel Aviv, the model's reference category.

6. Discussion and conclusion

The study examined the utilization of neoliberal urban and regional areas by the precariat and the alignment of their needs with satisfaction levels. The four dimensions of precarity and the super-index, together with the principal variables employed to examine the urban and regional context in the Israeli case study, are discussed below.

Individuals with greater personal stability (factor 3) often live in areas lacking diverse land uses, increasing the time needed to meet daily demands. Likewise, those who sense that their employment is unstable (factor 2) tend to inhabit communities with limited land use diversity. This result contradicts the second hypothesis but supports the third: people facing professional instability frequently express dissatisfaction with their living conditions that are misaligned with their needs. The findings confirm the third hypothesis that perceived instability increases in precarious people living in peripheral regions with minimal land use diversification. The individual's income, a variable under factor 2, suggests that respondents in peripheral locations earn less than those in core areas, particularly Tel Aviv. Peripherality in Haifa means less land use diversity for low-income persons. Desirable neighbourhoods frequently have elevated land rents, rendering them less accessible to individuals with restricted resources, hence compelling these individuals to reside in areas characterized by suboptimal land use mixes that may provide relief and access to essential amenities. This undoubtedly intensifies the sense of inadequacy.

Conversely, those with stable personal lives (factor 3) usually reside in Israel's central metropolis, particularly near the city of Tel Aviv (i.e. more suburban locales). Despite living in areas lacking diverse land uses, they are more satisfied with their communities than their colleagues in the periphery, implying a possible correlation with individuals' income levels (despite this variable not being included in the third factor). Income gives people more freedom to choose where they live and in what community, regardless of urban form and land use (Israel 2021).

The precariat, with irregular work hours (factor 1), usually lives in areas with diverse land uses (Vivant 2013). As the instability in their lives increases, their dissatisfaction with their living conditions grows, especially in smaller metropolitan regions with limited diversification in their land use. The study indicates that the schedules of these workers are often a mismatch with such spaces, which fail to meet their needs. Those with unstable employment (factor 4) may face greater daily demands and require more access to varied land uses, making living in separate residential, leisure and work areas less convenient. Such segregation reduces access to services, lengthens the time needed to meet needs and disrupts work productivity. Thus, the enjoyment of many services and institutions probably requires living in areas that are more expensive to begin with (such as the Tel Aviv metropolitan centre), thereby rendering it predominantly dependent on monetary resources, even amongst those that benefit from precarious job circumstances.

The precariat super index we developed also indicates that the precariat frequently engages in activities to satisfy their leisure demands multiple times each week. As

Frenkel and Kaplan (2015) noted, this type of precariat might prefer leisure over other demands. We also found that individuals who scored higher on our precariousness index meet their daily demands later in the day, using non-motorized mobility. This lifestyle, consistent with the third hypothesis, suggests the need to live near workplaces in areas with diverse land uses and extended service hours.

The precariat has expanded under neoliberal economic policies (Hollands 2023). Israel's economic transformations in the 1980s divided the country into core and periphery regions (Bar-El et al. 2024; Shokeid 2011). The study shows that the city of Tel Aviv, the core region of the country, offers abundant land uses suitable for the precariat, whose employment stability is uncertain. Life in Tel Aviv accommodates them by providing services in various locales that have extended hours. In contrast, other Israeli cities, which attract various types of precariats, offer services that align only partially with their schedules and needs.

Despite Israel's distinct context, our findings may contribute to future research across many cultures and locales. Broadening the analysis of structural (e.g. geopolitical) and agentic factors influencing precarious living conditions may address certain shortcomings of our study. A sample of elder precariat people may produce divergent results owing to the study sample's youthful composition. Factors such as work stage or ethnicity (that is unrelated to age), influence the development of precarity and its alignment with desired objectives and satisfaction in urban environments. Investigating these elements is essential in global cities, the epicenter of the Neoliberal economy, and in the underprivileged regions adversely impacted by it.

Future research should also consider the impact of gender on experiences of precarity in neoliberal urban geography. Gender is significant not only because of its low weight in this study but also due to the challenges women face in accessing jobs, especially early in their careers, when they seek a work-life balance (Chung and van der Lippe 2020). Quantitative methods, such as modelling gender as a variable, might prove useful, although qualitative approaches may be more suitable. The current literature based on personal interviews remains limited in addressing male and female precariat perceptions of the significance, experiences and impacts of precarious employment on urban land use and well-being.

Overall, the research offers insights for urban and regional planning. Policymakers must determine ways to better serve diverse working populations and ensure access to housing for those who cannot afford to live in the city. Given that precariat workers often do not hold typical 9-to-5 jobs, urban and regional planners should consider their daily activities and adapt the built environment accordingly.

Notes

1. The Statistical Yearbook for Israel 73, Table 2.25.
2. Ibid.
3. Ibid.
4. During the survey for the present investigation, the researchers were not obligated to secure any ethical approvals. The research project was accepted as part of the graduate studies program. Participation in the study was entirely optional, with no incentive offered for completing the questionnaire.
5. For the borders of the metropolises, see Appendix B, Table 1.
6. The average age of the respondents is young, at 35 years of age.

7. The ordinal scale does not rank stable employment because it did not explain the study's hypothesis and failed all statistical tests (see below).
8. We did not include personal characteristics such as gender, marital status, and having children, or economic characteristics such as homeownership in the analysis, because of their statistical non-significance vis-à-vis the independent variables.
9. A potential issue in our estimations is the existence of a confounding variable related to both the independent and dependent variables. We do not suspect reverse causality, where urban usage (e.g., number of institutions and services used weekly, frequency of visits, or access time) could cause precarity, metropolitan residence, or union membership.

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ORCID

Emil Israel http://orcid.org/0000-0002-6313-8248

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