Everyday Life Infrastructure, Access Gaps and Subjective Well-Being: Evidence from Spain

Gloria Alarcón García
Universidad de Murcia (gloria@um.es)

Edgardo Arturo Ayala Gaytán
Universidad Autónoma de Nuevo León (edgardo.ayalagytn@uanl.mx)

Jose Manuel Mayor Balsas
Universidad de Murcia (josemanuel.mayor@um.es)

Abstract

This research explores the effect that greater access to, or a reduction in the access gap of, daily life infrastructures has on individual well-being, measured via life satisfaction. To this end, we constructed three structural equation models and applied them to a representative sample for Spain in 2024, derived from the survey*" Everyday Life Infrastructures from a Feminist Welfare Economics Perspective “,* from the University of Murcia. Even though the estimations are exploratory and the study can be extended in multiple ways, it was found that the models measure the constructs acceptably, and that both access to infrastructure and the reduction of access gaps increase life satisfaction. No gender differences were found.

Key Words: Everyday Life Infrastructures, Satisfaction with Life, Subjective Wellbeing, España

Introduction

Everyday infrastructure encompasses the physical, environmental, and social systems that improve quality of life in cities, such as transportation, parks, and street lighting. Although these are common elements of daily life, they also influence equality between women and men. Both genders use and depend differently on infrastructures like streets, public restrooms, sports facilities, and social services (such as daycare centers and nursing homes). These differences reflect gender roles in family care, labor market participation, and time use.

Traditionally, physical infrastructure has been considered gender-neutral, since it is available to everyone. However, this view has been challenged. Pioneering studies (Hayden, 1981, 1984) pointed to the crisis of the prevailing urban model and the need to connect public and private spaces to respond to everyday life (child-rearing, access to transport, etc.). Other research confirms that women live and experience the city more intensely than men (Bofill, 1998), but they have less voice in decision-making due to their limited control over productive resources and their low representation in positions of responsibility (Dahlerup, 1999, 2006, 2007).

It is well established that women and men have different duties, opportunities, and interests due to social constructs (Picchio, 1992; Himmelweit, 2007). Power relations and unequal access to resources generate a higher workload for women, who combine reproductive labor, economic participation, and community life (Elson, 1995). Therefore, infrastructure planning must consider these differences to ensure collective well-being and the sustainability of public projects.

In practice, integrating a gender perspective into infrastructure policies requires generating data and analyzing multiple factors that help to answer key questions as: Are men and women equally affected by the lack of daycare centers? What public investment is needed to close gaps in use and benefit? Does public transport connect both genders equally to work, schools, hospitals, or recreational areas? Even large infrastructures (highways, high-speed trains) can benefit men and women unequally (Lasaosa, 2006).

This article provides empirical evidence on the importance of understanding the use of built infrastructure and social services to advance gender equality and collective well-being in Spain. Unlike previous studies focused on transport and health, this research covers eight types of infrastructure (from parks and sidewalks to medical center and daycare facilities), estimating impacts differentiated by gender. Besides, this study is the first to present results from the survey "*Everyday Life Infrastructures from a Feminist Welfare Economics Perspective*". This survey was designed and implemented by the research group at the Gender Center of the University of Murcia, led by Gloria Alarcón", administered to more than 1,500 inhabitants of Spain. The survey measured access to, use of, and importance attached to different infrastructures, as well as several scales of subjective well-being.

Infrastrcture and Wellbeing: International Evidence

Subjective well-being (SWB) is a broad concept that includes experiencing positive emotions, low levels of negative moods, and high life satisfaction (Diener and Shigehiro, 2002). In simple terms, it refers to how people evaluate their own lives (Upasna, 2010). This evaluation encompasses both emotional reactions to specific events and cognitive judgments about personal satisfaction and fulfillment, whether globally (life satisfaction as a whole) or in specific domains such as work or personal relationships.

This approach has a clear democratic nature, as it captures citizens' own views of their lives (Diener, 2013). Therefore, it is very useful for public policy design: if governments use SWB methodologies, they can better align their institutional strategies with the real needs of society.

Easterlin (2013) argues that improving population well-being is the most important goal governments should pursue, and that public policies can be shaped to achieve this aim. SWB allows for comparing and evaluating the benefits of different public programs. However, traditionally, in the absence of direct well-being measurements, policies have been based on assumptions about what benefits people, without distinguishing between the needs of women and men.

Although few studies have linked gender and SWB theory (Froh et al., 2008; Upasna, 2010), this methodology can be applied to analyze differences between both sexes, as it collects direct information on how people globally evaluate their lives and their daily emotions.

In the context of the European Union, many public policies are assumed to improve well-being but lack impact studies with a gender perspective. Their evaluation usually focuses on instrumental objectives (inputs) rather than on actual well-being improvements. Research on subjective well-being can increase the effectiveness (achieving real improvements) and efficiency (at lower cost) of public policies, while also contributing to gender equality and a more sustainable society.

The authors propose building a model to estimate the marginal impact of access to different types of infrastructure on the subjective well-being of men and women in Europe. Although there are few attempts to measure this relationship, the area of public transport has been the most explored.

For example, Delbosc and Currie (2011) showed in Melbourne, Australia, that improving transport access increases well-being, although this relationship is mediated by the degree of social exclusion individuals experience. Stanley et al. (2011) found that higher mobility is associated with greater capabilities or freedoms (better economic situation, employment, and social connectedness), which in turn improves subjective well-being.

Similarly, Sun and Du (2023) conducted a study in Hong Kong comparable to a natural experiment, forming control and treatment groups before and after the construction of a new metro line. They found that those who changed their travel habits showed a significant increase in certain well-being metrics.

In the same vein, Lei, Desai, and Vanneman (2019) provided evidence that access to roads and higher bus frequencies increase women's labor participation in non-farm jobs and reduce the gender gap in formal and modern occupations in India.

Other studies have found that greater mobility contributes to the subjective well-being of older adults in developed countries (Banister and Bowling, 2004; Mollenkopf et al., 2005; Spinney et al., 2009). Vella-Broderick and Stanley (2013) extended this conclusion to the general base of public transport users in Australia. In a review of twelve studies (mainly in Australia and Canada), Delbosc (2012) concluded that better transport positively impacts quality of life measured through subjective well-being. This effect is usually indirect and operates through channels such as improved economic situation, employment, or social contact.

Although studies on infrastructure and well-being are more established in the transport arena, infrastructure investment can also accelerate economic growth. Agénor and Agénor (2014, 2023) simulated theoretical models including paid and unpaid work, finding that any infrastructure that alleviates the time poverty suffered by many women in developing countries can positively affect labor participation and economic growth through greater human capital formation in their children.

Finally, a recent study in health shows the strong relationship between objective infrastructure data and subjective well-being. Schmitz and Brandt (2022) combined information from European surveys of individuals aged 50+ with data on long-term care beds and other macroeconomic variables. They found a positive and significant effect of long-term care beds on well-being across 96 European regions, confirming that self-reported well-being measures are informative about the objective conditions in which people live.

Model

The proposed model builds upon the framework developed by Alarcón, Ayala, Mayor & Quintanilla (2024) and several papers from Alarcón et al. (2020ª, 2020b, 2020c, 2020d), which was applied to the European Union using data from the "*Benefits of Gender Equality through Infrastructure Provision (BGEIP) 2015*" survey, featuring a sample of 3,000 adults across 28 countries. This paper addresses the relationship between infrastructure access and individual well-being primarily through the estimation of a system of equations, where subjective well-being is explained by infrastructure access and variables reflecting the socioeconomic status of individuals.

The model presented here acknowledges that the self-reported score regarding access to each infrastructure reflects an individual's sentiment toward the general state of access to a cluster of facilities that can either ease or complicate daily life. This sentiment is, in itself, a latent variable. Similarly, Life Satisfaction, operationalized through the renowned scale by Diener et al. (1985), is undeniably another latent variable. While many applications follow the practice of summing the scores of the five items comprising the scale to operationalize this latent variable, this approach is only valid if the weight of each item in the scale is identical. In this model, we relax this assumption, allowing the paths from each item to the latent variable to be freely estimated through a reflective model.

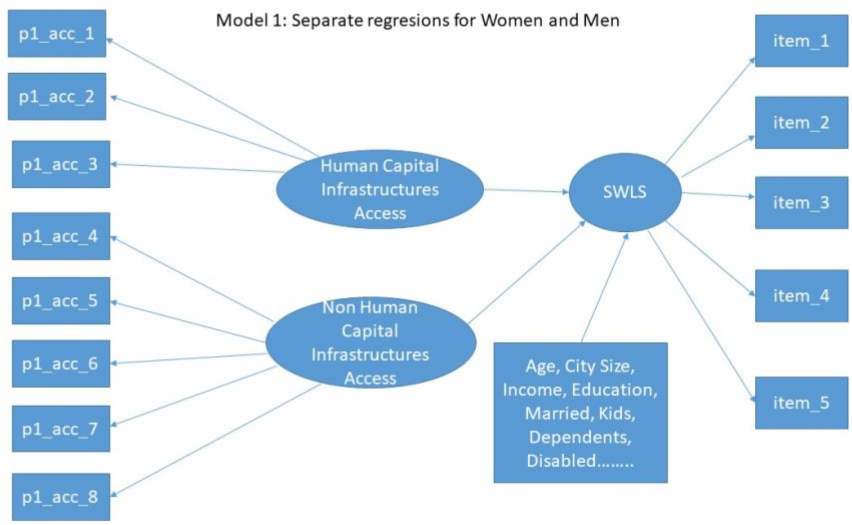
Three models are proposed, as shown in Figure 1. The first model features a simple structure. For reasons that will become clearer in the results section, we divide infrastructure access into two constructs: the first encompasses infrastructures that support human capital accumulation—namely, those directly linked to education and health. The remaining infrastructures, though they may indirectly influence human capital, are directly related to other aspects of daily life, such as mobility, leisure, entertainment, and work. To simplify the nomenclature, these are termed **Human** and **Non-Human Infrastructures**, respectively.

The dependent latent variable is Life Satisfaction, and each latent variable or construct is reflected in the items of the Diener et al. (1985) scale. To differentiate potential gender-based effects, Model 1 is estimated separately for women and men. Estimation can be carried out using any structural equation modeling method, such as covariance-based SEM (CB-SEM) or partial least squares (PLS-SEM).

Model 2 is designed to conduct a joint estimation for both men and women by introducing a dummy moderating variable that takes the value of 1 if the individual is a woman and 0 otherwise. Figure 2 illustrates the moderation effects on the paths originating from the observable variable *woman* toward the structural paths of Human and Non-Human infrastructures.

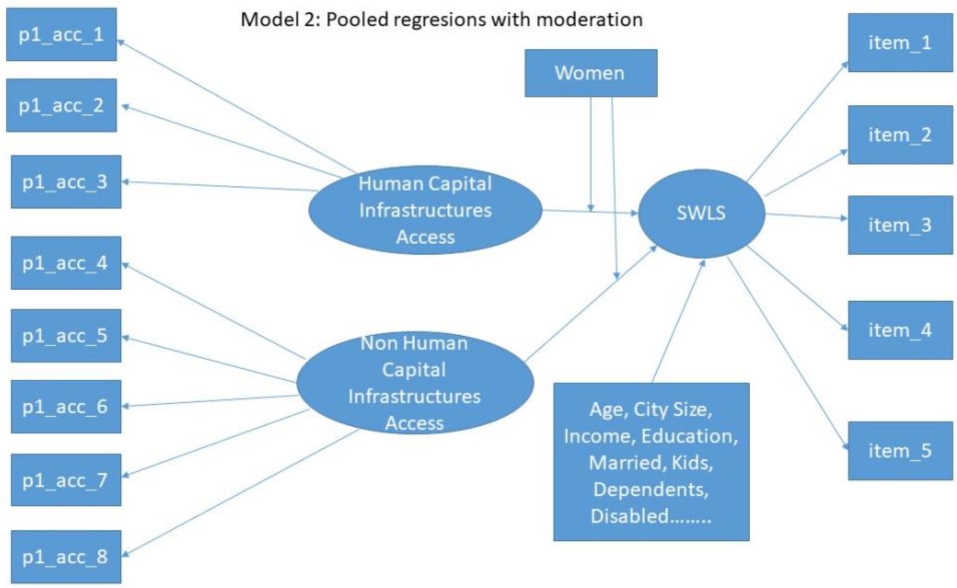
Finally, Model 3 is similar to Model 2, but instead of utilizing an infrastructure access construct, we introduce a construct that measures the *access gap*. That is, each observable variable and the independent latent variables reflect the balance between the importance individuals assign to each infrastructure relative to their self-reported access to them. The observable variables for the various gaps are measured as the ratio of importance to infrastructure access. Figure 3 displays this model.

Figure 1. Path diagram of Infrastructue Gap and Satisfaction with Life Model 1 in Spain 2024



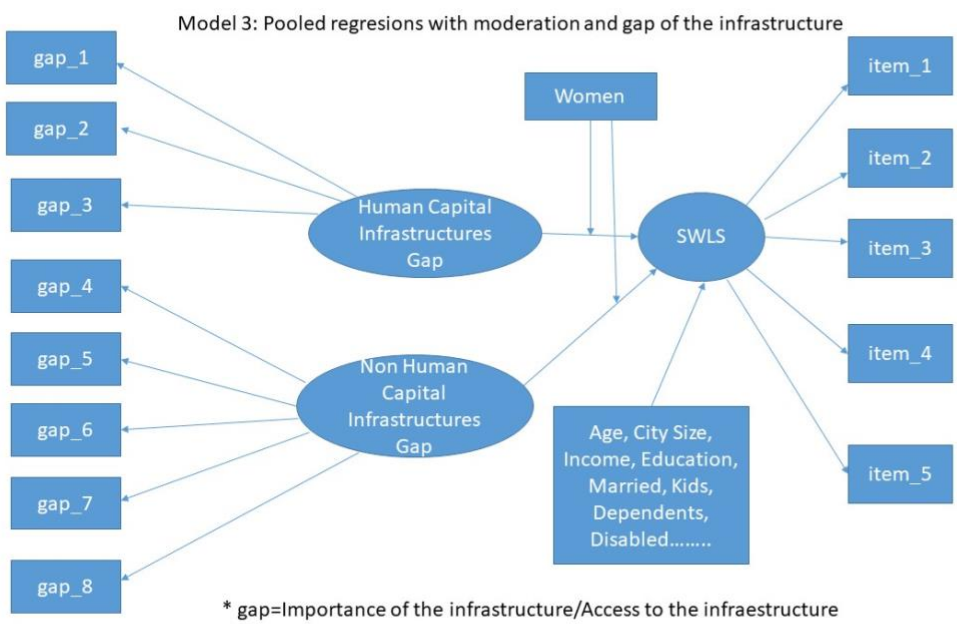
Source: Elaborated by the authors

Figure 2. Path diagram of Infrastructue Access and Satisfaction with Life Model 2 in Spain 2024



Source: Elaborated by the authors

Figure 3. Path diagram of Infrastructue Gap and Satisfaction with Life Model 3 in Spain 2024



Source: Elaborated by the authors

Data Collection

The models described in the previous section were estimated using data from the survey *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*. This survey was designed and implemented by the research group at the Gender Center of the University of Murcia, led by Gloria Alarcón. A total of 1,502 telephone surveys were conducted between April and June 2024 among a random sample of individuals over 18 years of age. The sample is representative by sex and across three locality sizes: "small" (fewer than 5,000 inhabitants), "medium" (between 5,000 and 400,000 inhabitants), and "large" (more than 400,000 inhabitants).

Table 1 displays the primary characteristics of the individuals included in the sample. The average age is approximately 50 years, which is slightly higher than the median age of adults in Spain, while the proportion of adults indicating they are retired reaches 27%. Population estimates for these statistics place the mean age of adults between 44 and 48 years , and the proportion of retirees between 22% and 25%. The sample is balanced by gender; slightly more than half of the respondents live with another person, and 46% of the surveyed adults report having children or living with other dependents.

Table 1
Descriptive Statistics of the survey: *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*

	Observations	Mean	Std Dev	Minimun	Maximum
Characteristics					
Female	1,502	0.5100	0.5001	0	1
Age	1,502	50.1012	17.1045	18	94
Married or cohabiting	1,495	0.5431	0.4983	0	1
Has children under 18	1,501	0.2865	0.4523	0	1
Has other dependents	1,501	0.1845	0.3881	0	1
Religious	1,471	0.6179	0.4861	0	1
Heterosexual	1,457	0.9307	0.2541	0	1
Education					
Secondary or less	1,499	0.1755	0.3805	0	1
Upper Secondary	1,499	0.3976	0.4896	0	1
Higher Education	1,499	0.4270	0.4948	0	1
Monthly Income (euros)					
0 a 1,200	1,356	0.4004	0.4902	0	1
1201 a 2400	1,356	0.4403	0.4966	0	1
More than 2401	1,356	0.1593	0.3661	0	1

Employment Status					
Student	1,501	0.0420	0.2006	0	1
Retired	1,501	0.2725	0.4454	0	1
Unemployed	1,501	0.0926	0.2900	0	1
Homemaker	1,501	0.0300	0.1706	0	1
Private employee	1,501	0.3411	0.4742	0	1
Public employee	1,501	0.1073	0.3095	0	1
Self employed	1,501	0.1113	0.3146	0	1

Source: Elaborated by the authors with the information of the survey: *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*, Universidad de Murcia

The survey comprises a sociodemographic section, a section on daily infrastructures, another on time use, and a final section regarding satisfaction with different life domains. It is designed to be administered over the phone in no more than 20 minutes. Most of the questions are closed-ended and straightforward to understand.

In the infrastructure section, respondents rate both their access to and the importance in their daily lives of various infrastructures using a score ranging from 1 to 10, where 1 indicates the complete absence of the attribute and 10 indicates maximum presence. Respondents were also asked for their opinion on the importance of each infrastructure in reducing gender-based violence.

The infrastructures analyzed are the following:

- Nursery schools for children under 3 years old
- Health centers and hospitals
- Centers for dependent persons (nursing homes, day centers, centers for people with disabilities, among others)
- Sidewalks, pedestrian streets, parks, public lighting, and green spaces
- Markets and shopping centers
- Public transportation (used for local trips and daily commuting)
- Cultural leisure areas (theaters, cinemas, exhibition halls) and sports facilities (swimming pools, gyms, fitness centers)
- Industrial parks

Finally, individuals assigned scores from 1 to 10 based on their level of agreement with the items corresponding to the Diener et al. (1985) Life Satisfaction Scale—one of the most widely used instruments in the field—where 1 represents "strongly disagree" and 10 represents "strongly agree". The items are:

1. In most ways, my life is close to my ideal.
2. The conditions of my life are excellent.
3. So far, I have gotten the important things I want in life.
4. If I could live my life over, I would change almost nothing.
5. I am highly satisfied with my life overall.

Results

All model estimations were performed using Partial Least Squares (PLS). As previously noted, we recognize that access and/or the access gap regarding the two types of infrastructure—those indirectly linked to human capital and the rest—are unobserved or latent variables, which are reflected in the self-reported access and importance scores provided by the respondents. The same applies to Life Satisfaction.

The advantage of using structural equation modeling compared to traditional regression models is that if variables are not recognized as unobservable, the regression coefficient estimates become downwardly biased, leading to a loss of power in statistical tests. We selected PLS over covariance-based models because it performs better with smaller samples (which is our case when running separate models for men and women), it does not assume a specific distribution of residuals—as required by maximum likelihood estimation—and it handles moderations more easily.

Table 2 presents the reliability coefficients for Cronbach's Alpha, Dillon-Goldstein's rho (rho_c), and Dijkstra-Henseler's rho (rho_A), alongside the Average Variance Extracted (AVE) for convergent validity and the Heterotrait-Monotrait (HTMT) ratio for discriminant validity. Table 3 presents the same statistics for Models 2 and 3, which correspond to the estimations using the full sample but including the moderation of *woman* by access or the access gap of the two latent infrastructures considered.

Reliability coefficients measure measurement precision—that is, the internal consistency or correlation among the items measuring a construct. A high level of reliability is typically assigned if these coefficients exceed a threshold of 0.7, although for exploratory studies such as this one, the threshold is relaxed to 0.6. Convergent validity is similar but more specific to the nature of the construct. Convergent validity is achieved in the measurement model if the items used for measurement are predominantly reflected in or explained by the construct. Generally, the average of standardized loadings, known as AVE, is used with a minimum threshold of 0.5.

Discriminant validity occurs when different constructs are distinct from one another. There are several measures of discriminant validity, though some have been deemed lenient. For this reason, we include the Heterotrait-Monotrait (HTMT) statistic, which is the most rigorous. For each pair of constructs A and B, the HTMT measures the ratio between the average correlation of items from A with items from B (Heterotrait, or different constructs) and the average correlation of items within construct B (Monotrait, or the same construct).

HTMT statistics below 0.85 indicate that the constructs are distinct, while values between 0.85 and 0.90 are still considered acceptable.

Table 2
Reliability, Convergent and Disciminant Validity statistics for Model 1

	Human	Non Human	SWLS
Model 1: Women			
Reliability Coefficients			
Cronbach Alpha	0.533	0.729	0.872
Dillon-Goldstein's rho (ρc)	0.762	0.809	0.907
Dijkstra-Henseler's rho (ρA)	0.535	0.758	0.884
Convegrent Validity			
Average Variance Extracted (AVE)	0.517	0.564	0.663
Discriminant Validity			
Heterotrait-Monotrait (HTMT)	0.814	0.814	0.24
Model 1:Men			
Reliability Coefficients			
Cronbach Alpha	0.560	0.726	0.876
Dillon-Goldstein's rho (ρc)	0.76	0.817	0.908
Dijkstra-Henseler's rho (ρA)	0.623	0.745	0.9
Convegrent Validity			
Average Variance Extracted (AVE)	0.519	0.573	0.667
Discriminant Validity			
Heterotrait-Monotrait (HTMT)	0.807	0.807	0.196

Source: Elaborated by the authors with the information of the survey: *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*, Universidad de Murcia

Table 3
Reliability, Convergent and Disciminant Validity statistics for Model 2 & 3

	Human	Non Human	SWLS
Model 3: Moderación Model			
Reliability Coefficients			
Cronbach Alpha	0.548	0.727	0.873
Dillon-Goldstein's rho (ρc)	0.765	0.818	0.908
Dijkstra-Henseler's rho (ρA)	0.562	0.735	0.891
Convegrent Validity			
Average Variance Extracted (AVE)	0.622	0.675	0.665
Discriminant Validity			
Heterotrait-Monotrait (HTMT)	0.845	0.812	0.127
Model 4: Gap Model			

Reliability Coefficients			
Cronbach Alpha	0.599	0.657	0.873
Dillon-Goldstein's rho (ρc)	0.650	0.769	0.908
Dijkstra-Henseler's rho (ρA)	0.682	0.641	0.887
Convegrent Validity			
Average Variance Extracted (AVE)	0.519	0.504	0.666
Discriminant Validity			
Heterotrait-Monotrait (HTMT)	0.818	0.818	0.152

Source: Elaborated by the authors with the information of the survey: *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*, Universidad de Murcia

An inspection of Tables 2 and 3 shows that the reliability indicators are acceptable, at least for exploratory purposes regarding the latent infrastructure variables. In general, they manage to surpass the convergent validity threshold, indicating that they represent distinct constructs. However, it must be acknowledged that the HTMT tends to increase when introducing moderations, as the correlation between a variable and an interaction involving that same variable tends to be high.

Table 4

Structural coefficients of Models 1, 2 & 3 about Satisfaction with Life explained by the Access or the Gap to the Access of Human and No Human Infrastructures in Spain 2024

	Dependent Variable: Satisfaction with life			
	Model 1		Model 2	Model 3
	Women	Men	Moderation	Gap
Human Capital Infrastructure	0.117*	0.097*	0.093*	-0.083*
Non Human Capital Infrastructure	0.067	0.162***	0.135**	-0.009
Woman			0.027	0.036
Interaction Human* Women			0.016	0.066
Interaction Non Human* Women			-0.064	-0.072
Age		-0.165***	-0.101**	-0.122***
Middle Income	0.066		0.061	0.066
High Income	0.049	0.093**	0.1***	0.109***
Higher Education	0.158***		0.084***	0.079**
Disabled	-0.217***		-0.116***	-0.11***
Private Employee	0.017	0.289***	0.112**	0.117***
Public Employee	0.118**	0.268***	0.177***	0.176***
Married or with partner	0.141***	0.112**	0.142***	0.151***
Retired	0.206***	0.421***	0.276***	0.291***
Catholic	0.063***	0.113***	0.104***	0.112***
Has Dependents			-0.101***	-0.106***

Self employed		0.282***	0.139***	0.131***
Living in middle size location		0.077*	0.05	0.056*
Madrid			0.048	0.05
Observations	396	468	863	860
R2 adjusted	0.15	0.156	0.153	0.131

Nota: ***p<0.01;**p<0.05;*p<0.1

Source: Elaborated by the authors with the information of the survey: *"Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*, Universidad de Murcia

Once it was confirmed that the measurement models met the minimum acceptable thresholds, we analyzed the structural estimation in Table 4. The estimates for Model 1 indicate that infrastructures related to human capital (education and health) increase life satisfaction for both women and men, whereas the remaining infrastructures only increase life satisfaction for men. The point estimates suggest that the increase in satisfaction is greater for men than for women; however, because separate (non-nested) models were run, a coefficient difference test cannot be constructed.

In contrast, Model 2—by utilizing the full sample and differentiating through the moderation of *woman* with access to each type of infrastructure—does allow for a formal test of whether these differences are statistically significant. The interaction or moderation coefficient estimates are positive, suggesting that the sensitivity of life satisfaction to infrastructure access is higher for women than for men; however, we cannot reject the null hypothesis that they are equal to zero, even at a 10% significance level. The evidence shows that, at least within this sample, sensitivity does not differ by gender. Consequently, the effect of access to human capital-related infrastructure is 0.093, and 0.135 for the rest. Both estimates indicate the standard deviation increase in life satisfaction resulting from a one standard deviation increase in access to each type of infrastructure.

Model 3 is formulated not in terms of infrastructure access, but rather the gap between importance and access. For instance, an access gap of 2 implies that individuals assign an importance to that infrastructure that is twice its perceived access; conversely, a gap of 0.5 means that access is twice as high as the importance assigned to it. In this model, only the gaps for human capital-related infrastructures are significantly different from zero. Their negative sign indicates that a larger gap in these infrastructures corresponds to lower life satisfaction. As in Model 2, the interactions are not significantly different from zero; thus, we cannot reject the hypothesis that the impact does not differ by gender.

Finally, control variables were selected using the backward elimination method, which involves including the entire potential set of control variables in an initial estimation and subsequently removing one variable per round—choosing the one with the highest p-value—until all remaining control variables have a p-value of 0.15 or less. With minor differences, the same subset of control variables is retained, and the estimates are consistent with typical findings in the literature. For example, individuals with higher income, higher education, those who are married or cohabiting, retired, religious, employed, or self-employed generally exhibit higher life satisfaction.

Conclusions

This research explores the effect that greater access to, or a reduction in the access gap of, daily life infrastructures has on individual well-being, measured via life satisfaction. To this end, we constructed three structural equation models and applied them to a representative sample for Spain in 2024, derived from the survey *" Everyday Life Infrastructures from a Feminist Welfare Economics Perspective"*.

Even though the estimations are exploratory and the study can be extended in multiple ways, it was found that the models measure the constructs acceptably, and that both access to infrastructure and the reduction of access gaps increase life satisfaction. No gender differences were found.

References

Alarcón-García, Gloria; Addabbo, Tindara; Ayala-Gaytan, Edgardo; Fernández, Estela; Rubio, María; Castellet, Andreu; O'Hagan, Angela; and Mayor, José Manuel. *Benefits of Gender Equality through Infrastructure Provision: An EU-Wide Survey,* 2020a. Available online: https://eige.europa.eu/publications/benefits-gender-equality-through-infrastructure-provision-eu-wide-survey (accessed on 14 December 2021).

Alarcón-García, Gloria; Addabbo, Tindara; Ayala-Gaytan, Edgardo; Fernández, Estela; Rubio, María; Castellet, Andreu; O'Hagan, Angela; and Mayor, José Manuel. *Gender Equality and Care Infrastructure,* 2020b. Available online: https://eige.europa.eu/publications/gender-equality-and-care-infrastructure (accessed on 14 December 2021).

Alarcón-García, Gloria; Addabbo, Tindara; Ayala-Gaytan, Edgardo; Fernández, Estela; Rubio, María; Castellet, Andreu; O'Hagan, Angela; and Mayor, José Manuel. *Gender Equality and Health Service Infrastructure,* 2020c. Available online: https://eige.europa.eu/publications/gender-equality-and-health-service-infrastructure (accessed on 14 December 2021).

Alarcón-García, Gloria; Addabbo, Tindara; Ayala-Gaytan, Edgardo; Fernández, Estela; Rubio, María; Castellet, Andreu; O'Hagan, Angela; and Mayor, José Manuel. *Gender Equality and Urban Mobility,* 2020d. Available online:

https://eige.europa.eu/publications/gender-equality-and-urban-mobility (accessed on 14 December 2021).

Alarcón-García, Gloria; Buendía-Azorín, José Daniel; and Sánchez-de-la-Vega, María del Mar. Infrastructure and Subjective Well-Being from a Gender Perspective. *Administrative Sciences* 2022, 12(1), 32.

Agénor, P. R., & Agénor, M. (2014). Infrastructure, women's time allocation, and economic development. *Journal of Economics*, *113*, 1-30.

Agénor, P. R., & Agénor, M. (2023). Access to infrastructure and women's time allocation: Implications for growth and gender equality. *Journal of Macroeconomics*, *75*, 103472.Banister, D., and Bowling, A. (2004). Quality of life for the elderly: the transport dimension. Transport Policy,11 (2), 105-115.

Bofill, A. (1998). De la ciudad actual a la ciudad habitable. http://www.lamujerconstruye.org/encuentros/es/iiencuentro.htm.

Dahlerup, D. (1999). Using Quotas to Increase Women's Political Representation, IDEA, Women in Politics beyond Numbers. Stockholm: IDEA.

Dahlerup, D. ed. (2006). Women, quotas and politics, Routledge.

Dahlerup, D. (2007). Electoral gender quotas: between equality of opportunity and equality of result, Representation, Volume 43, Issue 2, pages 73-92, DOI:10.1080/00344890701363227.

Diener , E. (2013). ¿Por qué las sociedades necesitan la felicidad y cuentas nacionales de bienestar? In Manzanilla F. *Ranking de Felicidad en México 2012*. Universidad Popular Autónoma del Estado de Puebla.

Diener, E., Emmons, R., Larsen, R. and S. Griffin (1985). The Satisfaction with Life Scale. Journal of Personality Assessment, 49 (1), 71-75.

Diener, E. Lucas and Shigehiro Oishi (2002). Subjective Well-Being. The Science of Happiness and Life Satisfaction, Snyder, C.R. and López, Shane J. (ed.) The Hand book of positive psichology, Oxford, University Press.

Delbosc A. (2012). The role of well-being in transport policy. Transport Policy, 23, 25-33.

Delbosc A. and G. Currie (2011). Exploring the relative influences of transport disadvantage and social exclusion on well-being. Transport Policy, 18, 555-562.

Easterlin, R. A. (2013). Bienestar subjetivo y políticas públicas, Manzanilla Prieto Fernando (Ed.) (2013) Ranking de Felicidad en México 2012: ¿En qué municipios viven con mayor calidad de vida los mexicanos?, Universidad Popular Autónoma del Estado de Puebla.

Elson, D. (1995). *Male bias in the development process*. Manchester University Press, UK.

Froh Jeffrey J. , Yurkewicz Charles , Kashdan, Todd B. (2008). Gratitude and subjective well-being in early adolescence: Examining gender differences, Journal of Adolescence,doi:10.1016/j.adolescence.2008.06.006.

Hayden, D. (1981). The Grand Domestic Revolution . Cambridge, Mass.: MIT Press.

Hayden, D. (1984). Redesigning the American Dream.

Himmelweit, S. (2007). ‘The prospects for caring: economic theory and policy analysis’, Cambridge Journal of Economics, 31(4), 581-99.

Lasaosa Castellanos, M.J. (2006): “Ciudad y mujer”, http://www.ciudaddemujeres.com/articulos/Ciudad-y-Mujer.

Lei, L., Desai, S., & Vanneman, R. (2019). The impact of transportation infrastructure on women's employment in India. *Feminist economics*, *25*(4), 94-125.

Mollenkopf, H.; Baas, S.; Marcellini, F.; Oswald, F (2005). Mobility and quality of life. IOS Press, Amsterdan, Netherland.

Picchio, A. (1992). Social Reproduction: the political economy of the labour market. Cambridge: Cambridge University Press.

Schmitz, A., & Brandt, M. (2022). Health limitations, regional care infrastructure and wellbeing in later life: A multilevel analysis of 96 European regions. *Social Indicators Research*, *164*(2), 693-709.

Spinney, J. E., D. M. Scott, and K. B. Newbold (2009). Transport mobility benefits and quality of life: A time-use perspective of elderly Canadians. Transport Policy, 16 (1), 1-11

Stanley J. K., Hensher, D. A, Stanley J. R. and D. Vella-Brodrick (2011). Mobility, social exclusion and well-being: Exploring the links. Transport Research Part A, 45, 789-801.

Sun, G., & Du, Y. (2023). New metro and subjective wellbeing among older people: a natural experiment in Hong Kong. *Transportation research part A: policy and practice*, *169*, 103592.

Upasna J. (2010). Subjective Well-Being by Gender, Journal of Economics and Behavioral Studies Vol. 1, No. 1, pp. 20-26, Dec 2010.

Vella-Brodrick, D. and J. Stanley (2013). The significance of transport mobility in predicting well-being. Transport Policy, 29, 236-242

Zellner, A. (1962). An efficient method of estimating seemingly unrelated regression equations and tests for aggregation bias. Journal of the American Statistical Association 57, 348–368.