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Everyday Life Infrastructure Impact on Subjective Well-Being in the European Union: A Gender Perspective

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Abstract: This paper processes the 2015 Benefits of Gender Equality through Infrastructure Provision (BGEIP) Survey, a representative survey for the EU-28, to estimating the impact of everyday life infrastructure access on subjective well-being (SWB) from a gender perspective in Europe. Our estimations prove that accessing everyday life infrastructure in Europe indeed increases SWB, but it contributes to increasing more the SWB of women than that of men. Women's well-being is positively affected for all kinds of everyday life infrastructures, but the differences with respect to men are larger for the Nursery category for children up to 3 years and for the Centers category for people with long term disabilities. In contrast, men's well-being is only sensitive to the Health infrastructure and to the Gym and Workout places. Clearly, targeting infrastructure investment helping women in caring children, and other dependents in the family constitute an excellent vehicle for increasing women's SWB and reducing gender inequality in Europe.

Keywords: everyday life infrastructure; subjective well-being; gender analysis; gender inequality

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1. Introduction

Everyday life infrastructure refers to the physical, environmental, and social systems that contribute to improve the quality of living of the inhabitants of the cities, such as public transportation that allows individuals to mobilize, parks and streetlights that enhance social networking and safety, centers for elderly people and nursery schools that that help in the care of dependents, and health facilities, among others. They form part of the daily life, making the access and quality of this type of infrastructure a key factor for the realization or restriction of equality between women and men [1].

Traditionally, physical and environmental infrastructure such as roads, bridges, buildings and public spaces more generally have been universal and gender neutral. These infrastructures are considered to be available for use by women and men and, as built objects, have no gender in themselves nor any role in reinforcing socially constructed gender roles. That perception of universality and neutrality has been constantly questioned in recent years [2–4].

The perception of the neutrality of infrastructure has been changed in recent years thanks to the architectural and the gender budgeting literature. Since 1970, there have been multiple challenges to previous conceptions of infrastructure as removed from concerns and intentions for social development and well-being. The focus is placed on how women have carried out their daily routines and on to what extent the design of material and sociocultural infrastructure can support their activities [4,5].

From the 1970s [6,7] until the present, architectural analyses have proven the existence of differences in the way men and women use and perceive urban space. These

analyses also show a spatial and urban dimension in enduring gender inequalities [8]. The differences in use and perception between genders are not only related to cultural and psychological factors [9], but also to women's double working load [10]. Bofill [11] analyzed how cities have been planned and built on the assumption that both sexes have some roles given by society.

By examining public policies on infrastructure design and implementation in Western countries, Sánchez De Madariaga [10,12] considered how the transformation of gender relations and the sexual division of labor have changed the needs for services supporting families, especially those with dependent persons. The quality of life relies upon the level to which the infrastructure can meet individual needs.

Thus, there are many architectural studies that have addressed urban planning and infrastructure for daily life from a gender perspective [8,10,12]. These studies indicate that urban planning for everyday life leads to more accessible, comfortable, and safe cities, in addition to eliminating the generalized approach in its planning that both sexes have the roles that society gives them [11,13].

It is well established across the gender economic and budgetary literature that men and women have different duties, opportunities, needs and interests because of socially constructed roles ascribed to gender differences. Power relations between women and men and their access to resources, as well as their concentration in traditional roles, result in unequal gender relations [14]. One manifestation of these factors is the higher workload experienced by women given their reproductive labor, as well as their contribution to the productive economy and wider community. Siemiatycki, Enright, and Valverde [15] considered how, over the years, many studies have documented how women, the poor, and racial minorities disproportionately bear the negative impacts of infrastructure investments, showing how masculinity is deeply embedded in the organizational structures, employment practices, symbolic narratives, and systems of power that create the wide variety of infrastructure worldwide. The position of the OECD in its document Gender Equality and Sustainable Infrastructure [16] is very interesting, in which the importance of infrastructure for gender equality is clearly stated.

It is true that women and men use and depend upon physical infrastructure such as roads, pavements, street lighting, public toilets, sports centers, and the social infrastructure of residential, day care, and childcare facilities differently. These different uses and dependencies largely reflect the gendered roles of women and men in providing care, labor market participation, and in-time use.

This paper presents both a rationale and empirical evidence that reinforce the importance of understanding the use of the built infrastructure and service provision in different forms of social infrastructure with respect to the advancement and sustainability of gender equality and collective well-being between women and men in the European Union (EU). Furthermore, the discussion presented in this paper reaffirms the benefits of adopting a gender mainstreaming approach in policymaking, including in decisions on public infrastructure design, investment, budgeting, and evaluation [17–20].

Our research contributes to different lines of research. From the infrastructure point of view, it brings empirical evidence for the EU regarding the impact of a comprehensive set of dozen types of social and physical facilities on the inhabitants' well-being, which is very uncommon, while most of the studies tackling this issue usually limit themselves to public transportation [10,21–36] or the water supply [37,38].

From a feministic approach, the impact estimation is differentiated by gender, proving that men's and women's needs are essentially different and implying that gender inequality might be reduced to targeting infrastructure investment to the ones that maximizes women's subjective well-being [3,4,20]. In addition, most studies on the impact of infrastructure on women's lives have been conducted for developing countries and for disruptive cases, such as introducing piped water and drainage, electricity, or transport for the first time, but few studies have approached everyday infrastructures such as parks or nursery schools in developed countries. In our case, in this research we show that in

developed countries, as the ones forming the EU-28, the everyday life infrastructure is crucial in women's lives, even if the population already has some access to it for a long time. Finally, up to our knowledge, this paper is the first one to present results from the survey "Benefits of Gender Equality through Infrastructure Provision (BGEIP[1]) Survey in 2015", that randomly sampled more than five thousand inhabitants living in the EU-28 measuring their access to different pieces of infrastructure, use, and importance attached to them, as well as several scales of subjective well-being.

The next section presents the different perspectives about infrastructure and gender and a brief survey of the literature regarding the impact of infrastructure on subjective well-being. The following section describes the BGEIP survey conducted in the EU-28, its composition and importance, and the access and use of infrastructure by gender statistics. The econometric model used for testing the different hypotheses of the paper and the main empirical contrasts estimates are presented in the fourth section. The final remarks and implications of the results are discussed in the conclusions.

2. Infrastructure, Gender, and Well-Being

Early studies from an architecture point of view [6,7] pointed to the existing crisis in the prevailing model of infrastructure provision and urban planning. Hayden focused her analysis on the relationship between everyday life (child-rearing, access to public space, public transport) and the existing provision of public infrastructure spaces coupled with the need for creating innovative institutions that link public and private spaces [7,10,11,39,40]. These early studies from the architecture reaffirm that women live and experience the city more than men [11], but they have a limited voice in decision making given their lack of control of productive resources, as well as the small share of women in high-responsibility posts [41–43]. These early studies reaffirm the necessity of gender mainstreaming in the field of infrastructure design, development, and investment, with particular attention to the following considerations:

- Women live and experience the city more than men, as women use urban public space more to develop the daily tasks of household management [11].
- Women's excessive workload arising from gendered roles in reproductive and productive labor and community engagement [10,44–50].
- Women's limited voice in decision making given their limited control of productive resources, as well as the small share of women in high-responsibility posts [41–43].
- Due to cultural factors and transportation systems that better favor men's patterns of use, women often experience limited or no mobility [10,21–23,25–36] and a lower quality of life [24].
- Both women and men are vulnerable to violence in public spaces, and their safety is vulnerable. There are significant gendered differences in these experiences, with women being more vulnerable to sexual assault by men [51,52].
- Along with the above, the importance of this perspective in security should be mentioned in housing design and urban planning [13].

Within the gender equality economics literature, it is well established that women and men have different duties, opportunities, needs, and interests because of socially constructed roles ascribed to gender differences [53,54]. Power relations between women and men and their access to resources, as well as their concentration in traditional roles, result in unequal gender relations [14]. One manifestation of these factors is the higher workload experienced by women given their reproductive labor, as well as their contribution to the productive economy and wider community.

Gender mainstreaming in infrastructure planning therefore means setting aside the perception that infrastructure is neutral and universal. Instead, it means exploring whether men and women use infrastructure in the same ways and whether infrastructure provision has been created according to established gendered roles [2,55–57].

Hence, evidence from existing research reaffirms the necessity for public infrastructure planning to consider the different obligations, opportunities, needs, and interests of women

and men. This insight must be acknowledged in policymaking to ensure a positive impact on all members of a community and secure the full effectiveness and sustainability of public works projects and infrastructure provision.

On the other hand, there is an incipient line of research providing empirical evidence on the impact of infrastructure to subjective well-being, which is understood as "a broad concept that includes experiencing pleasant emotions, low levels of negative moods, and high life satisfaction" [58]. "Subjective well-being is the scientific name for how people evaluate their lives" [59]. Diener et al. [58] defined subjective well-being as "a person's cognitive and affective evaluations of his or her life. These evaluations include emotional reactions to events as well as cognitive judgments of satisfaction and fulfilment in terms of a global judgment (life satisfaction) that comprises an evaluation of the domains of their lives (such as work and relationships) [59]. These evaluations include emotional reactions to events as well as cognitive judgments of satisfaction and fulfilment".

Furthermore, there is a direct relationship with public policy and policy domains, as the information collected through the SWB methodology is directly related to citizens' vision of their own lives and therefore has a clearly democratic nature [60]. The use of this theory and methodology (survey data collection) is helpful in public policy design. Public policies and major strategies of institutional development will more closely meet the needs of society (the set of needs and requirements of the individuals directly measured and obtained) if they employ this approach to improve well-being.

Easterlin [61] concluded that the improvement of well-being is the most important issue governments must address and that public policies can be shaped so that people's lives are improved. SWB allows for the comparison and assessment of the benefits of alternative government programs and public policies. Hence, SWB theory provides additional criteria for assessing the success or failure of development strategies and social programs, included in these everyday life infrastructures people enjoy, because their final purpose is increasing the well-being standards of the population.

Despite the clear potential of everyday life infrastructure to enhance personal well-being, it is surprising that there is a scarcity of empirical research testing the relationship, assessing its magnitude and providing metrics to help decide which infrastructure to invest in. Probably, the main exception is public transportation. Delbosc and Currie [62] demonstrated this for the case of Melbourne, Australia that improving access to transport increases well-being, but the relationship is moderated by the degree of social exclusion individuals experience. In contrast, Stanley et al. [63] found that as higher mobility is higher, so are the capabilities or freedoms about the economic situation, as well as the employment and social connectedness of the individuals improving their subjective well-being.

The impact of public transportation on the well-being in developed countries has been extensively documented [64,65], especially among the elderly [24,66,67]. In almost all studies, the effect is indirect and operates through several channels, most of them in close connection with the essential freedoms of human beings, such as achieving a prosperous economic situation, having a good job, or maintaining close contact with others.

The opening of new transportation routes or the heterogeneity of the transportation systems provides an opportunity to design a bold empirical strategy. In this line of research, Sun and Du [68] recently built an interesting research design compatible with natural experiment assumptions. They formed control and treatment groups of adults before and after the construction of the new metro line in Hong Kong, finding that among those that changed their transportation modes habits, there was a significant increase in their well-being metrics compared with the control group. In contrast, Lei et al. [69] supplied evidence that access to roads and having higher bus frequencies increased women's participation in non-farm jobs and decreased the gender gap in formal and modern occupations in India.

Even though studies on well-being and infrastructure are well rooted in the public transportation arena, other types of infrastructure might affect personal well-being. A recent study in health showed the strong relationship between objective infrastructure data and subjective well-being. Schmitz and Brandt [70] combined personal information

from a European survey for 50 years-or-older individuals with the density of long-term care beds (LTC) in their residence location and other macro variables, finding a positive and significant effect of LTC on well-being for 96 European regions. In this sense, the study showed that although SWB is usually measured as a self-reported measure, this metric is informative with respect to the objective conditions in which people live.

In general, investing in infrastructure has the potential to accelerate economic growth and change lives, especially for women. Agénor and Agénor [44,71] simulated economic theoretical models of paid and unpaid work, finding that any infrastructure that alleviates the time poverty most women suffer in developing countries might affect labor participation and economic growth through a higher human capital formation in their children.

3. The BGEIP Survey and Data

The purpose of this work is to estimate the impact of everyday life infrastructure access on subjective well-being from a gender perspective in Europe. For this end, we used the original micro data collected in the Benefits of Gender Equality through Infrastructure Provision (BGEIP) Survey in 2015, which is a 28-EU Members States[2] survey conducted by the European Institute for Gender Equality (EIGE).

The main aim of the BGEIP survey is to provide information on how infrastructure affects citizens' well-being. The survey was specially designed to compute the Well-being and Infrastructure from a Gender Perspective Index from here and after the WIGI Index created by Alarcón-García and Ayala [72]. The purpose of the model is to provide a metric of the contribution of each type of infrastructure to men's and women's well-being by combining the two leading approaches in the well-being literature: *the Capability Approach (CA) and the Subjective Well-Being (SWB) approach*. The data were collected by submitting a questionnaire to a representative sample of households in every EU-28 country.

The survey was implemented by 11 contractors covering 28 member states. As they were not survey organizations, the contractors were requested to contract professional survey organizations for this project. All in all, there were 10 different survey organizations from various European countries: one of them covered 17 countries (working with their own branches/sub-sub-contractors but using one coherent methodology).

Respondents from the 28 countries of the European Union took part in this study. The design was based on one sample of 5385 respondents (sampling error = 1.4%). The sample was designed to be representative at the European level.

The universe was made up by the total population rather than the by the over-18 population, because it has been considered that infrastructure and/or services are used by the general population. It was just for ethical and legal reasons that respondents had to be over 18 to participate in the survey. Moreover, the share of people over 18 in the total population was very similar across the 28 EU countries, accounting for 80% approximately.

The object under consideration in every Member State (MS) was the general population of both sexes, aged 18 and above ($\geq$18), and residing in the EU countries. To address the survey to the selected populations, a stratified probabilistic sample (populations/regions, sex and age) was carried out with a stratification of units from the first and second stages, selecting an independent sample within every population (MS).

The data were collected through a telephone-based survey addressed to the general population of the EU Member States. The information was obtained through telephone conversations between the interviewer and the eligible respondent. The program chosen, Computer-Assisted Telephone Interviews (CATI), makes random calls and allows the interviewer to manage and fill in the questionnaire with computer aid. This type of telephone-based survey is an economic advantage, as fewer interviewers are needed, monitoring is appropriate, and it makes it fast and efficient to access a great population diversity.

The country sample was one of named individuals with telephone numbers. At the beginning, the expected response rate was set at 70%. But this response rate was too positive. Considering the topic of the survey (benefits of gender equality), a response rate of 20 to 30% was found to be more realistic.

Data collection from the EU-28 revealed the differences in the evaluation of the infrastructure based on both gender (male/female) and role (caregiver/non-caregiver) in Europe as a whole. Other aspects considered were age, place of residence (rural or urban), income, and the employment situation. In the latter case, for example, there is amount of large empirical literature linking unemployment and employment status to subjective well-being using panel data (e.g., [73]).

The BGEIP Survey is structured in four main parts: (a) General Background Information: gender, age, place of living and employment status, time use, education, and income level; (b) Importance, access, satisfaction, and quality of several types of infrastructure; (c) Identification of the importance the selected infrastructure in seven different domains of life (education, participation in employment, and others); (d) SWB-related questions and scales.

The everyday life infrastructures considered in the survey are Nursery schools up to 3 years; Nursery schools 3–5 years; Health services and medical centers; Centers for the elderly; Centers for people with long-term disabilities; Sidewalks and pedestrians' paths; Parks and green areas; Public transport; Cultural centers for activities and workshops; Gyms and other centers for work out and play; and Street lights.

The object under consideration in every Member State (MS) was the general population of both sexes, aged 18 and above, and residing in the EU countries. To address the survey to the selected populations, a stratified probabilistic sample (populations/regions, sex, and age) was designed with a stratification of units from the first and second stages, selecting an independent sample within every population (MS). The units of the first stage were populations/regions, while those of the second stage were sex and age variables.

In every region, the organizational level above the local entity of every MS was Unit NUTS 2, wherein the units of the first stage were stratified by following age and sex criteria. The allocation among stages and strata was strictly proportional. Although these are not stratification criteria, it was considered that at least 25% of respondents lived in rural areas and at least 35% must be employed workers (Q4: self-employed, employers with employees, and employed).

Prior to the survey, a pre-test of the translated questionnaire took place. The aim of that pre-test was to ensure that the question-and-answer scales in the translated questionnaire were sufficiently clear, complete, and correct. The data were gathered through a telephone-based survey by Computer-Assisted Telephone Interviews (CATI) and addressed to the general population of the EU Member States. Table 1 presents the structure of the sample according to the main socioeconomic characteristic of the individuals.

Table 1. Descriptives of the socioeconomic variables of the Benefits of Gender Equality through Infrastructure Provision Survey (BGEIP-2015).

	Observations	Mean	Standard Deviation
Women	5.385	0.5168	0.4998
Living in			
Countryside	5.375	0.2690	0.4435
Small Town	5.375	0.2013	0.4010
Median to Large Town	5.375	0.2327	0.4226
City or City Suburb	5.375	0.2969	0.4569
Labor Status			
Housewife/Stay at home	5.385	0.0635	0.2439
Retired	5.385	0.2522	0.4343
Self-employment	5.385	0.0776	0.2676
Student	5.385	0.0591	0.2357
Unemployed	5.385	0.0700	0.2552
Employee	5.385	0.4605	0.4985
Other	5.385	0.0171	0.1296

Table 1. *Cont.*

	Observations	Mean	Standard Deviation
Education Achievement			
Primary or less	5.326	0.0627	0.2425
Secondary	5.326	0.4161	0.4930
Lower Tertiary	5.326	0.2597	0.4385
Postgraduate	5.326	0.1211	0.3263
Age	5.385	48.2745	16.8603
Country			
France	5.385	0.1174	0.3219
Germany	5.385	0.1491	0.3562
Italy	5.385	0.1116	0.3149
Poland	5.385	0.0799	0.2711
Spain	5.385	0.0854	0.2795
United Kingdom	5.385	0.1181	0.3228
Other country	5.385	0.3385	0.4733

Source: Estimated by the authors with the Benefits of Gender Equality through Infrastructure Provision Survey (BGEIP-2015).

All the details of the methodology of the BGEIP are described in Alarcón-García, et al. [3]. Some developments derived from the survey regarding gender equality and care can be found in Alarcón-García et al. [17], for health services in Alarcón-García et al. [18], and for urban mobility infrastructures in Alarcón-García et al. [19][3].

4. Results

The research question guiding this paper is whether everyday infrastructure is gender-neutral or, to rephrase it, whether infrastructure affects the personal well-being of women and men differently. For this purpose, a regression model that allows for estimating the marginal impact of access of different types of infrastructures in the SWB states of women and men in Europe with the BGEIP survey was developed. The dependent variable was a comprehensive measure of the SWB of the individual, whereas the independent variables were their access to infrastructure, gender acting as a moderator, and other control variables.

Ideally, the proper model to test the hypotheses involves regressing the SWB on all infrastructure access, as well as all interactions between each infrastructure access and gender, to allow for differences in marginal responses according to gender and other control variables. However, given the high correlation among all access of the 11 infrastructure variables and the high number of trunk cases or non-response observations in the BGEIP Survey, it was not possible to include all infrastructures access variables in just one regression equation.

The simplest solution would be estimating a regression equation separated for each type of infrastructure and control variables. But the true model in the population certainly includes all infrastructures at the same time not one by one; therefore, estimating this naïve model would incur in the bias of relevant omitted variables—in this case, all the other infrastructures. The marginal coefficients surely would be overestimated because of the positive correlation between all types of infrastructure. We employed a different strategy. We included a proxy variable in each equation representing some kind of average of the score of all the other infrastructures. We hoped to mitigate any remaining bias for omitted variables.

Thus, the model consists of eleven equations: one for each type of infrastructure. The equation for infrastructure h (h = 1, 2, . . . 11) takes individual SWB as the dependent variable, among the independent ones are access to infrastructure h, its interaction with a dummy variable takes the value 1 if the subject is a woman and 0 otherwise, an average of the access to the others infrastructures with exception of the h type—what is denominated as -h—and other controls. In this sense, the model can be represented as follows:

$$SWB_i = \alpha_h + \beta_h A_{ih} + \lambda_h (A_{ih} * f_i) + \pi_h A_{i,-h} + X_i' \gamma_h + \varepsilon_{ih} \quad (1)$$

where SWB stands for subjective well-being, *i* is the index for the subject, h is an index for each one of the eleven infrastructure, A_h stands for access to the infrastructure, A_{-h} stands for an average of the access to the other infrastructures that are not the h type, f_i is a dummy variable that takes the value of 1 if the subject is women and 0 for men, and X_i' is a vector of control variables.

The β's coefficients are interpreted as the effect on subjective well-being of a one unit increases in each infrastructure access. And the interaction with the "f" variable allows for differentiating the effect between women and men, for example, for infrastructure h, the effect on SWB of a higher access to infrastructure for women or females is $\beta_h + \lambda_h$ and β_h for men; hence, λ_h represents the difference of the effect between women and men.

The main variables needed to estimate model Equation (1) are available in the Benefits of Gender Equality through Infrastructure Provision (BGEIP) Survey in 2015. Regarding SWB, Questions 12 and 13 of the BGEIP Survey comprise five items that shape the Satisfaction with Life Scale, SWLS, of Diener et al. [74], which is an overall life satisfaction representation of well-being extensively used in well-being analysis.

The Satisfaction with Life Scale is a self-report instrument comprising five items, rated on a 5-point Likert scale. Respondents are asked to indicate their level of agreement with four statements: "In most ways, my life is close to my ideal", "The conditions of my life are excellent", "I am satisfied with my life", and "If I could live my life over, I would change almost nothing". In this section, SWB is used to approach an overall judgement of individual well-being.

Access to infrastructure was measured with Question 7 of the BGEIP Survey, which asks "Could you please assess the provision of these public services where 1 means that you have no access to the service at all and 10 means you have full access. "Access" means whether the public service exists, whether it can be reached, and whether it is affordable it. In case an individual cannot use the service for one of these reasons, it means it is not accessible. This scale can help in measuring the provision or access to a specific infrastructure.

The main control variables include dummy variables for countries, for the type of community where the individuals live (e.g., small village versus cities), income, education, if there are dependents to care in the house, and other variables that probably affect an individual's SWB.

The system of equations (1), 11 in total, were estimated using ordinary least squares (OLS) and partial least squares (PLS) controlling for the subject's sociodemographic profile (age, income, labor status, family role, dependents, and others) and country-fixed effects. The average of the rest of the infrastructures were computed by weighting the access to each infrastructure variable with the importance that the individual gives to it, whereas Importance was measured using Question 6, which asks about the importance individuals attach to every infrastructure—because they help them with their everyday life or contribute to friendlier neighborhoods—on a scale of 1 to 10. In addition, Use of infrastructures was collected in Question 8, which asks if the subjects have used each one of them in the last ten years, where "yes" or "no" are the possible answers.

The key distinction between the OLS and PLS estimation methods is that OLS assumes variables are observable and without measurement problems, whereas PLS allows for the modeling of latent or imperfectly observed variables. A latent variable is one that is not directly observable but is reflected in a set of observed variables, which are typically the items of a scale. Subjective well-being is a construct that is not observable. In the OLS model, SWB is constructed as the simple addition of the five items of the Diener scale, with equal weight given to each. In the PLS model, the weight or paths of this construct are jointly estimated with the paths of access to infrastructure for well-being. Hence, employing OLS and PLS makes the estimations more robust.

The system was also estimated under different specifications. An alternative model using the simple average of access was computed instead of the weighted average by infrastructure importance. In addition, other specifications allow for heteroscedasticity in

the residuals or the probable correlation between residuals of different equations. As the results are basically the same as in the simplest specification, only the OLS estimations are reported in the paper.

Table 2 presents the means of infrastructure usage, as well as the importance and access for women and men in the Benefits of Gender Equality through Infrastructure Provision (BGEIP) Survey in 2015. The mean statistical contrasts between women and men, taking at 5% of statistical significance as the benchmark, show an interesting insight: even though the usage and access of each infrastructure variable seems to be almost the same across gender in Europe, the importance that women give to any everyday life infrastructure is higher than men, with the only exception being gyms and workout workplaces. This evidence suggests that everyday life infrastructure is indeed more important in the lives of women than men.

Table 2. Use, Importance, and Access to Everyday Infrastructures by Gender in Europe.

	Use			**Importance**			**Access**		
Variable	**Women**	**Men**	**Difference**	**Women**	**Men**	**Difference**	**Women**	**Men**	**Difference**
Nursery Schools up to 3 years	0.181	0.162	−0.019 **	5.934	5.545	0.389 ***	5.685	5.427	−0.258
Nursery Schools 3–5 years	0.276	0.247	−0.029 **	6.586	6.065	0.522 ***	6.795	6.313	−0.482 *
Health Services and Medical Centers	0.896	0.895	−0.001	8.944	8.591	0.353 ***	7.802	7.616	−0.185 *
Centers for Elderly	0.163	0.156	−0.007	7.249	6.755	0.494 ***	6.078	5.802	−0.276 *
Centers for people with long term disabilities	0.089	0.085	−0.004	7.127	6.787	0.339 ***	5.041	5.000	−0.040 *
Sidewalks and pedestrians paths	0.868	0.884	−0.016 *	8.218	7.725	0.493 ***	7.552	7.479	−0.072 *
Parks and green areas	0.834	0.855	−0.021 *	8.406	7.859	0.547 ***	7.724	7.562	−0.162 *
Public Transport	0.759	0.746	−0.013	8.135	7.528	0.607 ***	7.227	7.047	−0.180 *
Cultural Centers for Activities and Workshops	0.575	0.562	−0.012	7.389	6.849	0.540 ***	6.359	6.251	−0.108 *
Gyms and other centers for workouts and play	0.517	0.566	−0.048 ***	6.903	6.616	0.287 ***	6.394	6.499	−0.105 *
Street Lights	0.882	0.896	−0.014	8.324	7.834	0.489 ***	7.992	7.845	−0.148 *

Note: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$. Source: Estimated by the authors with the Benefits of Gender Equality through Infrastructure Provision Survey (BGEIP-2015).

Does having more access to these infrastructures make women happier than men? To answer this question, it is necessary to estimate the marginal responses of SWB to infrastructure access. The main estimations of the system of Equation (1) using OLS and PLS are displayed in Table 3, presenting in each row the coefficient of accessing a specific infrastructure to SWB for women, men, and the difference between women and men controlling for the average of the access to the other infrastructures, as well as the socio-demographic profile of the subjects (whose coefficients are omitted to save space here, but they are available under request to the authors).

Table 3. Marginal effect of Everyday Infrastructure access on Subjective Well-Being by Gender in Europe: Ordinary and Partial Least Squares estimates.

		Ordinary Least Squares				Partial Least Squares			
Variable	**N**	**Men**	**Women**	**Difference**	**r2**	**Men**	**Women**	**Difference**	**r2**
Nursery Schools up to 3 years	2.980	0.033	0.201 ***	0.168 ***	0.130	0.011	0.047 ***	0.036 ***	0.104
Nursery Schools 3–5 years	2.977	0.110 **	0.237 ***	0.127 ***	0.129	0.025 ***	0.057 ***	0.031 ***	0.106
Health Services and Medical Centers	2.977	0.327 ***	0.460 ***	0.134 ***	0.133	0.074 ***	0.106 ***	0.031 ***	0.112
Centers for Elderly	2.978	0.059	0.213 ***	0.153 ***	0.130	0.020 *	0.051 ***	0.031 ***	0.103
Centers for people with long term disabilities	2.978	−0.018	0.155 **	0.173 ***	0.129	0.009	0.039 ***	0.030 ***	0.103
Sidewalks and pedestrians paths	2.979	−0.116	0.0240	0.139 ***	0.129	0.009	0.041 ***	0.032 ***	0.105
Parks and green areas	2.976	0.152 *	0.282 ***	0.129 ***	0.129	0.045 ***	0.073 ***	0.028 ***	0.106
Public Transport	2.978	0.059	0.190 ***	0.130 ***	0.127	0.025 **	0.053 ***	0.028 ***	0.103
Cultural Centers for Activities and Workshops	2.976	0.029	0.187 **	0.158 ***	0.129	0.046 ***	0.077 ***	0.031 ***	0.107
Gyms and centers for workouts and play	2.985	0.178 ***	0.326 ***	0.148 ***	0.130	0.052 ***	0.087 ***	0.035 ***	0.110
Street Lights	2.984	0.108	0.254 ***	0.146 ***	0.130	0.030 **	0.061 ***	0.031 ***	0.106

Note: *** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$. Source: Estimated by the authors with the Benefits of Gender Equality through Infrastructure Provision Survey (BGEIP-2015).

In the case of OLS, as previously stated, heteroscedasticity does not present a concern in the estimation process, as the use of robust standard errors does not alter the statistical significance of the results. The Variance Inflation Factors for the eleven equations came out to approximately 1.3, indicating that multicollinearity is not a significant issue. Additionally, the goodness of fit measures were deemed acceptable for a cross-sectional estimation, and the F statistic was significant at the 1% level. Estimation was made employing the STATA software.

Any coefficient indicates the increment in the SWB product of the increase of one unit in the scale (from 1 to 10) of access to infrastructure. Almost all the coefficients of the effect of access on well-being were positive and statistically different from zero at 1% or 5% for women, with the exception of sidewalks. These coefficients ranged in the interval 0.15 for Centers for long-term disabilities to 0.46 for Health services. For men, the situation was very different: only three types of infrastructures were significant at 1% or 5%—Nursery for 3–5, Health services, and Gyms—men's coefficients ranged between 0 (not being significantly different from zero) and 0.32. The difference in the marginal response of SWB to infrastructure for women and men were significantly different from zero at 1% ($p < 0.01$) for all infrastructures, and women's coefficients were higher for all infrastructure variables, with differences between 0.13 and 0.17.

For women and men, well-being is more sensitive to the access to Health infrastructure than the others. Women's largest difference with men occurred in Nursery for children up to 3 years and in Centers for people with disabilities, clearly reflecting women's role as caregivers that is not shared by men.

The PLS coefficients correspond to the unstandardized paths from access to infrastructures and its interaction with the female dummy variable to the latent variable SWB. The size of the coefficients is different to the ones estimated with OLS because the weights of the five items of SWB are not one for every item as in the OLS estimate. Under PLS the weights are endogenously determined by the estimation, therefore the score of the SWB might be different from the simple sum of the items. We used the bootstrapping method with 1000 resample to estimate the standard errors of the coefficients. The SMART-PLS software was employed for this purpose.

As with the OLS, the story is the same here. The well-being of women is more sensitive to the access to each infrastructure considered in the study than that of men. The women coefficients were four or more times higher than the men's in nursery schools up to 3 years old, centers for people with long-term disabilities, and sidewalks and pedestrian paths. In the rest of the infrastructures, the ratio varied between 1.5 to 3 times.

It is important to note that the interpretation of the results in Tables 2 and 3 are distinct but complementary. The conclusion of Table 2 is that even though access to and use of everyday infrastructures is similar between women and men, women generally consider these infrastructures more important than men. On the other hand, the results of the regression model confirm that women who have better access to all types of daily infrastructure are generally happier or have better well-being, whereas for men this is only true for a few infrastructures.

5. Discussion

The results of our work provide evidence from economics to the theses defended by gender studies in the field of architecture, which is very relevant, as it means giving support from another social science approach based on other methodological tools. In addition, our analysis shows consistency in economic studies in a field that has never been explored before, which is that of economic analysis of public policies on public infrastructures. Finally, our work revalidates the importance of gender mainstreaming as a necessary methodology for implementing the gender perspective in all public policies, as suggested previously in the literature [10,12,13,75,76].

Gender mainstreaming in infrastructure planning implies leaving aside the perception that infrastructure is neutral and universal. On the contrary, it can be debated whether men and women make the same use of infrastructure and whether they are addressed to the female or male roles. Thinking about the gender of nurseries, sports centers, street lighting, or parks means wondering about when, how, and why they are used by men and women and whether that use belongs to the public/productive sphere or the private/reproductive one. The answer will determine if the infrastructure is equally useful to men and women and to both roles, as well as whether the impact on the well-being is the same regardless of gender [2,55–57].

Therefore, gender mainstreaming in the first stages of infrastructure projects (identification and planning) is crucial, because it is on these stages that the concept and the structure are defined. Otherwise, if this approach is ignored, the project is unsuccessful, and the correction of resulting deficiencies in later stages is hampered [77].

Our previous studies [56,78] showed that the infrastructure that most determine gender inequality in well-being are those related to caretaking services for children and the dependent.

In practice, mainstreaming gender analysis into policymaking on infrastructure requires the generation of relevant data and the analysis of multiple factors to be able to explore, understand, and respond to a range of gendered issues. These include, for example, questions such as the following: are women and men equally affected by the lack of availability or quality of services such as nursery schools and day care centers when engaging in working or social activities? What level or what allocation of public investment is necessary to address any current gaps in use and benefit between women and men? Does current public transport provision support access to work, markets, nursery schools, hospitals, recreational areas, schools, or centers for the elderly equally for women and men? Are these centers well connected to residential areas? Is access to private transport equal for women and men? Are there any gaps in gender usage or benefits from the most expensive infrastructure, such as highways, high-speed trains, or airports? These are of course significant infrastructure provisions for any country or community. The issue of interest here is the extent to which such provision equally benefits women and men. Therefore, the usage and the impacts of the design, delivery, and investment in public infrastructure must be analyzed from a gender perspective to ensure that women and men benefit in appropriate and equal ways from public resources.

6. Conclusions

This paper used the Benefits of Gender Equality through Infrastructure Provision (BGEIP) Survey in 2015, a representative survey for the EU-28, to estimate the impact of infrastructure access and quality on subjective well-being from a gender perspective. Our estimations prove that access to infrastructure indeed increase SWB, that the increase is in general different for men than for women, and in general the infrastructure contributes to more of an increase in the SWB of women than of men. Both women and men are more sensitive to Health infrastructure, but the differences are larger for women for Nursery for children up to 3 years and Centers for people with long-term disabilities. Clearly, targeting infrastructure investment helping women in caring children and other dependents in the family is an excellent vehicle to increase women SWB and reduce gender inequality.

Even though these results are encouraging, some caution must be required. First, access and satisfaction with the infrastructure quality are self-reported and subject to different judgement biases. Second, we did not incorporate an important interaction, quality assessments about infrastructure, and even though the survey included a scale for the variable, it was collected only for individuals who have used the different infrastructure types in the recent past, which significantly filtered several individuals out, severely reducing the sample size. Thirdly, it would be advisable to replicate this study to check whether the results are robust and whether differences are observed over time, which is why a new survey is planned in coming years.

We believe that the present effort allows for several extensions in the future, despite these limitations. From a theoretical perspective, our empirical contrasts about the direction and size of the differences in the impact of access to infrastructures on women's and men's well-being, provide valuable input for further developments of feminist theories. These theories will help us understand how everyday infrastructures can be used to reduce gender gaps among nations. They will also show us why it is crucial to prioritize the implementation of public budgeting for infrastructure from a gender perspective.

From an empirical perspective, the BGEIP survey is representative only for the EU-28. Therefore, our results are valid for the average European citizen. Therefore, even when country-fixed effects were included to capture any systematic influence resulting from differences in cultural settings or geography, it is clear that the paths from infrastructure access to individuals' well-being and the moderation role of gender may vary across countries. Further waves of the BGEIP survey must be representative by country, at least the largest ones, to allow for a more detailed analysis.

Nevertheless, the results are sound enough to prove that infrastructure is an important driver of well-being and that it is useful and necessary to adopt a gender perspective when analyzing infrastructure public policy issues, because infrastructure is not gender-neutral.

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Notes

[1] The BGEIP Survey is an adaptation of the WIGI Survey [39].

[2] Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

[3] The interested reader can consult the page of the European Institute for Gender Equality, in the site https://eige.europa.eu/publications/benefits-gender-equality-through-infrastructure-provision-eu-wide-survey (accessed on 14 December 2021).

References

1. Horelli, L.; Vepsä, K. In search of supportive structures for everyday life. In *Women and the Environment*; Altman, I., Churchman, A., Eds.; Springer: Boston, MA, USA, 1994.
2. Alarcón-García, G.; Colino, J. La perspectiva de género en los gastos en infraestructuras públicas: Los equipamientos educativos y deportivos en el FEIL. *Presup. Y Gasto Público* **2011**, *64*, 155–178.
3. Alarcón-García, G.; Addabbo, T.; Ayala-Gaytan, E.; Fernández, E.; Rubio, M.; Castellet, A.; O'Hagan, A.; Mayor, J.M. Benefits of Gender Equality through Infrastructure Provision: An EU-Wide Survey. 2020. Available online: https://eige.europa.eu/publications/benefits-gender-equality-through-infrastructure-provision-eu-wide-survey (accessed on 14 December 2021).
4. Alarcón-García, G. Las infraestructuras para la vida cotidiana. Impregnar los presupuestos públicos de la perspectiva de género feminista e interseccional. In *Economía, Política y Ciudadanía, Ed. Catarata*; Fabra Utray, J., González, A., Muro, I., Eds.; Economistas frente a la Crisis: Madrid, Spain, 2023.
5. Gilroy, R.; Booth, C. Building Infrastructure for Everyday Lives. *Eur. Plan. Stud.* **1999**, *7*, 307–324. [CrossRef]
6. Hayden, D. *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighborhoods, and Cities*; MIT Press: Cambridge, MA, USA, 1981.
7. Hayden, D. *Redesigning the American Dream: The Future of Housing, Work and Family Life*; W.W. Northon & Company: New York, NY, USA, 1984.
8. Carpio-Pinedo, J.; De Gregorio, S.; Sánchez De Madariaga, I. Gender mainstreaming in urban planning: The potential of geographic information systems and open data sources. *Plan. Theory Pract.* **2019**, *20*, 221–240. [CrossRef]
9. Greed, C.H. *Women and Planning, Creating Gendered Realities*; Routledge: London, UK; New York, NY, USA, 1994.
10. Sánchez de Madariaga, I. *Urbanismo con Perspectiva de Género*; Fondo Social Europeo-Junta de Andalucía: Sevilla, Spain, 2004.
11. Bofill, A. De la Ciudad Actual a la Ciudad Habitable. 1998. Available online: http://www.lamujerconstruye.org/encuentros/es/iiencuentro.html (accessed on 14 December 2021).
12. Sánchez de Madariaga, I.; Urbanismo con Perspectiva de Género. Instituto Andaluz de la Mujer, Junta de Andalucía. On: Foro Social Europeo, Sevilla. 2006. Available online: http://www.juntadeandalucia.es/institutodelamujer/institutodelamujer/ugen/sites/default/files/documentos/98.pdf (accessed on 12 November 2022).
13. Bofill, A. Hacia modelos alternativos de ciudad compatibles con una sociedad inclusiva. Estudios urbanos, género y feminismos. In *Teorías y Experiencias*; Gutierrez Valdivia, B., Ciocoletto, A., Eds.; Col.lectiu Punt 6: Barcelona, Spain, 2012.
14. Elson, D. *Male Bias in the Development Process*; Manchester University Press: Manchester, UK, 1995.
15. Siemiatycki, M.; Enright, T.; Valverde, M. The gendered production of infrastructure. *Prog. Hum. Geogr.* **2020**, *44*, 297–314. [CrossRef]
16. OCDE. Gender Equality and Sustainable Infrastructure. 2019. Available online: https://www.oecd.org/gov/gender-mainstreaming/gender-equality-and-sustainable-infrastructure-7-march-2019.pdf (accessed on 11 December 2021).
17. Alarcón-García, G.; Addabbo, T.; Ayala-Gaytan, E.; Fernández, E.; Rubio, M.; Castellet, A.; O'Hagan, A.; Mayor, J.M. Gender Equality and Care Infrastructure. 2020. Available online: https://eige.europa.eu/publications-resources/publications/gender-equality-and-care-infrastructures (accessed on 14 December 2021).
18. Alarcón-García, G.; Addabbo, T.; Ayala-Gaytan, E.; Fernández, E.; Rubio, M.; Castellet, A.; O'Hagan, A.; Mayor, J.M. Gender Equality and Health Service Infrastructure. 2020. Available online: https://eige.europa.eu/publications-resources/publications/gender-equality-and-health-service-infrastructures (accessed on 14 December 2021).
19. Alarcón-García, G.; Addabbo, T.; Ayala-Gaytan, E.; Fernández, E.; Rubio, M.; Castellet, A.; O'Hagan, A.; Mayor, J.M. Gender Equality and Urban Mobility. 2020. Available online: https://eige.europa.eu/publications/gender-equality-and-urban-mobility (accessed on 14 December 2021).
20. Alarcón-García, G.; Buendía-Azorín, J.D.; Sánchez-de-la-Vega, M.d.M. Infrastructure and Subjective Well-Being from a Gender Perspective. *Adm. Sci.* **2022**, *12*, 32. [CrossRef]
21. Koskela, H. *Fear, Control and Space; Geographies of Gender, Fear of Violence, and Video Surveillance*; Helsinging ylioispiston maantieteen laitos: Helsinki, Finland, 1999.
22. Koskela, H. Gendered exclusions: Women's fear of violence and changing relations to space. *Geogr. Ann. Ser. B Hum. Geogr.* **1999**, *81*, 111–124. [CrossRef]
23. Valentine, G. The Geography of Women's Fear. *Area* **1989**, *21*, 385–390.
24. Mollenkopf, H.; Baas, S.; Marcellini, F.; Oswald, F. Mobility and quality of life. In *Enhancing Mobility in Later Life*; IOS Press: Amsterdam, The Netherlands, 2005.

25. Rammohan, A.; Johar, M. The determinants of married women's autonomy in Indonesia. *Fem. Econ.* **2009**, *15*, 31–55. [CrossRef]
26. Tran, H.A.; Schlyter, A. Gender and class in urban transport: The cases of Xian and Hanoi. *Environ. Urban.* **2010**, *22*, 139–155. [CrossRef]
27. Miralles-Guasch, C.; Domene, E. Sustainable transport challenges in a suburban university: The case of the Autonomous University of Barcelona. *Transp. Policy* **2010**, *17*, 454–463. [CrossRef]
28. Miralles-Guasch, C. *Cataluña Dones, Mobilitat, Temps i Ciutats—Collecció Quaderns de l'Institut, nº 14*; Institut Català de les Dones: Barcelona, Spain, 2010.
29. Miralles-Guasch, C.; Martinez, M. Las divergencias de género en las pautas de movilidad en Cataluña, según edad y tamaño del municipio. *Rev. Lat.-Am. Geogr. Gênero* **2012**, *3*, 49–60.
30. Miralles-Guasch, C.; Martínez, M.; Marquet, O. A gender analysis of everyday mobility in urban and rural territories: From challenges to sustainability. *Gend. Place Cult.* **2016**, *23*, 398–417. [CrossRef]
31. Sánchez De Madariaga, I. The mobility of care. Introducing new concepts in urban transportation. In *Fair Shared Cities. The Impact of Gender Planning in Europe*; Sánchez De Madariaga, I., Roberts, M., Eds.; Routledge: London, UK; New York, NY, USA, 2013.
32. Cuthill, N.; Cao, M.; Liu, Y.; Gao, X.; Zhang, Y. The Association between Urban Public Transport Infrastructure and Social Equity and Spatial Accessibility within the Urban Environment: An Investigation of Tramlink in London. *Sustainability* **2019**, *11*, 1229. [CrossRef]
33. Levin, L.; Faith-Ell, C. How to Apply Gender Equality Goals in Transport and Infrastructure Planning. In *Integrating Gender into Transport Planning*; Scholten, C., Joelsson, T., Eds.; Palgrave Macmillan: Cham, Germany, 2019.
34. Ravagnan, C.; Rossi, F.; Amiriaref, M. Sustainable Mobility and Resilient Urban Spaces in the United Kingdom. Practices and Proposals. *Transp. Res. Procedia* **2022**, *60*, 164–171. [CrossRef]
35. Johansson, S.; Haandrikman, K. Gendered fear of crime in the urban context: A comparative multilevel study of women's and men's fear of crime. *J. Urban Aff.* **2023**, *45*, 1238–1264. [CrossRef]
36. Small, S.F.; Rodgers, Y.v.d.M. The gendered effects of investing in physical and social infrastructure. *World Dev.* **2023**, *171*, 106347. [CrossRef]
37. Winter, J.C.; Darmstadt, G.L.; Davis, J. The role of piped water supplies in advancing health, economic development, and gender equality in rural communities. *Soc. Sci. Med.* **2021**, *270*, 113599. [CrossRef]
38. De Guzman, K.; Stone, G.; Yang, A.R.; Schaffer, K.E.; Lo, S.; Kojok, R.; Kirkpatrick, C.R.; Del Pozo, A.G.; Le, T.T.; DePledge, L.; et al. Drinking water and the implications for gen-der equity and empowerment: A systematic review of qualitative and quantitative evidence. *Int. J. Hyg. Environ. Health* **2023**, *247*, 114044. [CrossRef]
39. Alarcón-García, G.; Fernandez-Sabiote, E. Well-being and Infrastructure from a Gender Perspective Survey, WIGI Survey. *Observatorio Fiscal de la Universidad de Murcia, Murcia*. 2016. Available online: http://hdl.handle.net/10201/50228 (accessed on 4 June 2020).
40. García-Ferrer, M. Infraestructuras para la vida cotidiana. In Proceedings of the Segundo Seminario Internacional sobre Género y Urbanismo Infraestructuras para la vida cotidiana, Madrid, Spain, 27 May 2003.
41. Dahlerup, D. *Using Quotas to Increase Women's Political Representation—IDEA, Women in Politics beyond Numbers*; IDEA: Stockholm, Sweden, 1999.
42. Dahlerup, D. *Women, Quotas and Politics*; Routledge: London, UK; New York, NY, USA, 2006.
43. Dahlerup, D. Electoral gender quotas: Between equality of opportunity and equality of result. *Representation* **2007**, *43*, 73–92. [CrossRef]
44. Agénor, P.-R.; Agénor, M. Access to infrastructure and women's time allocation: Implications for growth and gender equality. *J. Macroecon.* **2023**, *75*, 103472. [CrossRef]
45. Anggaunitakiranantika, A. Treasuring Career from Home: The Sustainability of Women Homeworkers and Household Divisions. *J. Soc. Political Sci.* **2021**, *4*, 63–71. [CrossRef]
46. Assaad, R.; Levison, D.; Zibani, N. The effect of domestic work on girls' schooling: Evidence from Egypt. *Fem. Econ.* **2010**, *16*, 79–128. [CrossRef]
47. Barrett, H.R. Women, occupation and health in rural Africa: Adaptation to a changing socioeconomic climate. *J. Occup. Sci.* **1997**, *4*, 93–105. [CrossRef]
48. Gammage, S. Gender, time poverty and Amartya Sen's capability approach: Evidence from Guatemala. In *The International Handbook of Gender and Poverty*; Edward Elgar Publishing: Cheltenham, UK, 2010.
49. Kitterød, R.H.; Rønsen, M. Does involved fathering produce a larger total workload for fathers than for mothers? Evidence from Norway. *Fam. Relat.* **2017**, *66*, 468–483. [CrossRef]
50. Tinker, I. *Persistent Inequalities: Women and World Development*; Oxford University Press: Oxford, UK, 1990.
51. Massolo, A. Género y seguridad ciudadana: El papel y reto de los gobiernos locales. *ECA Estud. Centroam.* **2005**, *681*, 643–658. [CrossRef]
52. Morrell, H. Seguridad de las mujeres en la ciudad. In *La Vida de las Mujeres en las Ciudades. La Ciudad, un Espacio para el Cambio*; Narcea, S.A. Ediciones: Madrid, Spain, 1998.
53. Picchio, A. *Social Reproduction: The Political Economy of the Labour Market*; Cambridge University Press: Cambridge, UK, 1992.
54. Himmelweit, S. The prospects for caring: Economic theory and policy analysis. *Camb. J. Econ.* **2007**, *31*, 581–599. [CrossRef]

55. Alarcón-García, G.; Arias, C.; Colino, J. Infraestructuras y género (Infrastructure and gender). *Rev. De Investig. Fem.* **2012**, *2*, 151–174. Available online: https://www.academia.edu/download/34095356/Articulo_RIF__marzo_2012.pdf (accessed on 14 December 2021).
56. Alarcón-García, G.; Colino, J. Infrastructure and Gender: Right and Left, Mayors and Mayoresses. *Wulfenia* **2013**, *20*, 423–461.
57. Alarcón-García, G.; Colino, J.; Castellet, A. Los gastos en infraestructuras públicas asociados a los servicios públicos desde la óptica de su contribución a la igualdad o la desigualdad de género. In *La Igualdad de Género Como Eje de un Nuevo Modelo Económico y Social Eficiente y Sostenible: El Cometido de las Políticas Públicas*; Alarcón-García, G., Ed.; Instituto de la Mujer: Madrid, Spain, 2015.
58. Diener, E.; Lucas, R.E.; Oishi, S. Subjective well-being: The science of happiness and life satisfaction. In *Handbook of Positive Psychology 2*; Snyder, C.R., Lopez, S.J., Eds.; Oxford Academic: New York, NY, USA, 2002. [CrossRef]
59. Upasna, J. Subjective Well-Being by Gender. *J. Econ. Behav. Stud.* **2010**, *1*, 20–26. [CrossRef]
60. Diener, E. Por qué las sociedades necesitan la felicidad y cuentas nacionales de bienestar? In *Ranking de Felicidad en México 2012*; Manzanilla, F., Ed.; Universidad Popular Autónoma del Estado de Puebla: Puebla, Mexico, 2013.
61. Easterlin, R.A. Bienestar subjetivo y políticas públicas. In *Ranking de Felicidad en México 2012*; Manzanilla, F., Ed.; Universidad Popular Autónoma del Estado de Puebla: Puebla, Mexico, 2013.
62. Delbosc, A.; Currie, G. Exploring the relative influences of transport disadvantage and social exclusion on well-being. *Transp. Policy* **2011**, *18*, 555–562. [CrossRef]
63. Stanley, J.K.; Hensher, D.A.; Stanley, J.R.; Vella-Brodrick, D. Mobility, social exclusion and well-being: Exploring the links. *Transp. Res. Part A* **2011**, *45*, 789–801. [CrossRef]
64. Vella-Brodrick, D.; Stanley, J.R. The significance of transport mobility in predicting well-being. *Transp. Policy* **2013**, *29*, 236–242. [CrossRef]
65. Delbosc, A. The role of well-being in transport policy. *Transp. Policy* **2012**, *23*, 25–33. [CrossRef]
66. Banister, D.; Bowling, A. Quality of life for the elderly: The transport dimension. *Transp. Policy* **2004**, *11*, 105–115. [CrossRef]
67. Spinney, J.E.; Scott, D.M.; Newbold, K.B. Transport mobility benefits and quality of life: A time-use perspective of elderly Canadians. *Transp. Policy* **2009**, *16*, 1–11. [CrossRef]
68. Sun, G.; Du, Y. New metro and subjective wellbeing among older people: A natural experiment in Hong Kong. *Transp. Res. Part A Policy Pract.* **2023**, *169*, 103592. [CrossRef]
69. Lei, L.; Desai, S.; Vanneman, R. The impact of transportation infrastructure on women's employment in India. *Fem. Econ.* **2019**, *25*, 94–125. [CrossRef]
70. Schmitz, A.; Brandt, M. Health limitations, regional care infrastructure and wellbeing in later life: A multilevel analysis of 96 European regions. *Soc. Indic. Res.* **2022**, *164*, 693–709. [CrossRef]
71. Agénor, P.-R.; Agénor, M. Infrastructure, women's time allocation, and economic development. *J. Econ.* **2014**, *113*, 1–30. [CrossRef]
72. Alarcón-García, G.; Ayala-Gaytán, E. *Índice de Bienestar e Infraestructura desde una Perspectiva de Género. La Metodología de Construcción del Índice del Observatorio Fiscal: Análisis de las Políticas Públicas*; Universidad de Murcia: Murcia, Spain, 2018.
73. Böckerman, P.; Ilmakunnas, P. Unemployment and self-assessed health: Evidence from panel data. *Health Econ.* **2009**, *18*, 161–179. [CrossRef]
74. Diener, E.; Emmons, R.A.; Larsen, R.J.; Griffin, S. The Satisfaction with Life Scale. *J. Personal. Assess.* **1985**, *49*, 71–75. [CrossRef] [PubMed]
75. Lasaosa Castellanos, M.J. Ciudad y Mujer. 2006. Available online: http://www.ciudaddemujeres.com/articulos/Ciudad-y-Mujer (accessed on 11 November 2022).
76. Tacoli, C. *Urbanization, Gender and Urban Poverty: Paid Work and Unpaid Carework in the City*; International Institute for Environment and Development United Nations Population: New York, NY, USA, 2012.
77. Guixé, I. Género e Infraestructuras: Una Mirada Diferente. 2003. Available online: http://guiagenero.mzc.org.es/GuiaGeneroCache/Pagina_Pobreza_000420.html (accessed on 10 November 2010).
78. Alarcón-García, G. The Gender Equality as Axe of a New Social and Economic Efficient and Sustainable Model: The Role of Public Policies. 2015. Available online: http://www.inmujer.gob.es/areasTematicas/estudios/estudioslinea2015/docs/LaigualdaddegeneroWeb.pdf (accessed on 18 July 2021).