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PUBLIC ACCEPTANCE AND CHALLENGES IN INCREASING AFFORDABLE HOUSING IN GERMANY

BRIGITTE STEINHOFF[i]

Abstract: *The continuing shortage and corresponding rise in demand for affordable housing in Germany has developed into a socio-political issue, intensified by escalating costs, stagnating construction rates, and public opposition. This study provides a comprehensive, data-driven examination of acceptance and opposition among the population, considering socio-economic, psychological, and ideological variables. A nationally representative online survey was conducted to evaluate five hypotheses. According to common belief, neither household income nor level of education significantly indicates support for affordable housing, although age indicates a small yet statistically significant positive link. Positive framing is statistically significant. The term "affordable housing" is met with more approval than "social housing", which emphasises the influence of strategic communication in shaping opinion. Consequently, the language implemented is a critical factor. The findings indicate that NIMBY phenomena influenced by stigmatisation as well as imagined neighbourhood risk factors remain. The findings possess significant implications for policy and recommend for focused framing techniques and dedicated participation by the public to minimise resistance and promote socially inclusive urban development, particularly in the contest of affordable housing. In the context of new affordable housing construction, the implementation of ambitious goals is unlikely to succeed if there is no redesign of public image, due to the prevalence of public opposition.*

Keywords: *Affordable housing in German; publicly social new rental housing; framing the issue of affordable housing; not-in-my-backyard, social acceptability*

JEL Classification: *M14; M38; R21; R23*

1. INTRODUCTION

The issue of housing has become increasingly urgent in recent years, particularly concerning the shortage of affordable housing in many German cities. The federal

[i] Doctoral School of Economics and Business Administration, Alexandru Ioan Cuza University of Iasi, 14th Lăpuşneanu Street, 4th Floor, Room 424, Iaşi 700057, Romania E-Mail: steinhoff.brigitte@t-online.de

government has set an ambitious target of creating 400,000 housing units annually in order to mitigate the housing deficit. The latest data indicate a stagnation in construction completions, with only 252,000 units completed in 2024 (Destatis, 2025a). The feasibility of achieving these targets in the near future is questioned by experts. According to projections from the ifo Institute for Economic Research, the annual completion of new housing units is anticipated to decrease markedly, with estimates suggesting it could fall to as low as 175,000 units by the year 2025 (Dorffmeister, 2023). The decline in the number of building permits issued provides further evidence of this downward trend, with a 57.6% decrease in housing approvals observed in 2024 compared to the year 2021 (Destatis, 2025b).

The economic viability of affordable housing has been impacted by several factors, including rising construction costs, land prices, and interest rates. The challenge of establishing rental rates that are accessible to the majority of potential renters has become progressively more complex. Although Germany does not face an overall housing shortage, there is a marked discrepancy in terms of spatial distribution. Rural areas are experiencing a decline in available housing, while cities are confronted with soaring demand and escalating costs. The escalating costs of urban land and materials have been identified as a key factor contributing to the increase in expenses and rents, which has been observed to place a disproportionate financial burden on low- and middle-income households. In order to prevent displacement and to this end preserve social diversity, federal and state governments have introduced subsidies and incentives for private investment in affordable housing. The expectation among policymakers is that the expansion of subsidies will result in a shift in investment priorities. Despite the ongoing movement towards remunicipalisation and the provision of affordable housing, there remains a prevalence of resistance to the implementation of more rigorous policies. Beyond the economic concerns of investors, the prospect of such developments continues to encounter resistance from the populations in which they are proposed. Despite the recognition by society of the necessity for additional affordable housing to address existing shortages, concerns persist regarding the potential adverse effects on local communities. Such concerns are frequently captured in the phenomenon of the "not-in-my-backyard" mentality (NIMBY), whereby citizens acknowledge the necessity of housing projects but oppose their development in close proximity to their neighbourhoods. The extant literature indicates that there are two principal concerns associated with residential development. Firstly, new construction projects are often met with the concern that they could negatively impact the characteristics of a neighbourhood. This apprehension may be associated with concerns that the project could result in a reduction of green space, an increase in traffic, or the obstruction of

views. Secondly, there is a concern that the construction of affordable housing could place additional burdens on social infrastructure and lead to a deterioration in the quality of urban neighbourhoods. This assumes that affordable housing is associated with higher crime rates, poverty and falling property values (Scally, 2012).

Based on the literature review and the current state of research, five hypotheses will guide the analysis of the data. These hypotheses are intended to examine the interactions between residents, the dynamics of the community and politics in relation to affordable housing. The study therefore analyses the hypotheses that campaigns and public relations can be used to reformulate reservations about affordable housing and that the image of affordable housing can be confirmed. The findings of the survey, which incorporated 1,000 respondents (n = 1,000), demonstrate the extent of public acceptance of affordable housing. The study examines various aspects, including income considerations, perceptions of fairness and attitudes towards affordable housing in Germany. It provides comprehensive insights into individual perspectives and forms a valuable basis for decisions and future research in the field of affordable housing. The objective is to evaluate the hypotheses rigorously in order to verify their validity. The forthcoming sections will employ the methodology previously defined to address the objectives. The ensuing results of the data analysis, in conjunction with the ensuing discussions and the conclusions derived, are of particular interest.

2. RESEARCH METHODOLOGY

2.1 Statement of the Problem

Extensive research has been conducted on the subject of affordable housing, encompassing its general framework, development, and the evolution of affordable housing policies and practices. A multitude of studies have evaluated affordable housing within the contexts of urban redevelopment, socio-spatial segregation, and the privatisation of housing. While there are some studies that examine housing needs, individual behaviour and neighbourhood resistance to affordable housing projects, these studies largely refer to the American and European contexts in general. The German context has been comparatively neglected in research. As a consequence, there is an absence of a substantial empirical basis for understanding public acceptability, attitudes, and adoption of new affordable rental housing in Germany, nor the socio-economic factors that influence these perspectives.

The challenge of providing adequate and affordable housing in Germany is an urgent and complex issue shaped by interconnected social, economic, and political

factors. A growing imbalance between the supply of affordable rental housing and the increasing demand, caused by rising housing costs, stagnating incomes and demographic pressure, has exacerbated housing insecurity, particularly for low- to middle-income households. This shortage has been shown to limit access to basic services, increase residential segregation and contribute to the persistence of socio-economic disparities. A further challenge pertains to the social acceptance of affordable housing, to ensure that it is adopted and implemented. In consideration of the escalating urgency of the housing crisis in German cities, this research gap is of substantive importance. The development of affordable housing is of paramount significance in addressing shortages and fostering social diversity. The lack of understanding of how society responds to new affordable housing projects, particularly in relation to demographic variables, socioeconomic conditions and broader ideological and psychological influences, results in challenges for policymakers and planners in designing effective strategies and measures.

2.2 Objectives of the study

The purpose of the study is to address the critical gap between the increasing demand for affordable housing and the decreasing supply and stigmatisation, which has a disproportionately high impact on low- and middle-income households and increases social inequalities. The research seeks to understand how attitudinal perceptions, particularly NIMBY attitudes, influence public resistance to affordable housing initiatives. The objective is to undertake a critical evaluation of these perceptions, with a view to identifying the social, economic, and psychological dimensions that contribute to community resistance.

Based on the literature review and the current state of research, five hypotheses will guide the analysis of the data. These hypotheses are intended to examine the interactions between residents, the dynamics of the community and politics in relation to affordable housing. The study therefore analyses the hypotheses that campaigns and public relations can be used to reformulate reservations about affordable housing and that the image of affordable housing can be confirmed.

H.1: *Individuals with lower incomes are more likely than those with higher incomes to support the construction of affordable housing in their communities.*

Individuals with lower incomes are more likely than those with higher incomes to support the construction of affordable housing in their communities. Those from lower socio-economic backgrounds may view the construction of such housing as both

a potential opportunity and a necessity, whereas those from higher income backgrounds may fear a negative impact on property values and neighbourhoods.

H.2: *People with a higher level of education will show a more positive attitude towards affordable housing initiatives.*

Individuals with higher levels of educational qualification are predicted to demonstrate more favourable attitudes towards affordable housing initiatives. The assumption operates on the premise that enhanced levels of education are associated with greater social awareness and a more informed understanding of structural inequality.

H.3: *The younger a person is, the more likely they are to support initiatives for affordable housing.*

Age can be a key factor influencing the attitudes of people towards affordable housing. Younger people may be more supportive of initiatives to create or expand affordable housing than older people.

H.4: *Public support for affordable housing is increased by positive framing of affordable housing in media communications, for example using terms such as "affordable housing" instead of "social housing".*

The act of framing can have a substantial impact on attitudes and reduce the stigmatisation associated with affordable housing.

H.5: *The perception that affordable housing leads to higher crime rates has a negative impact on public acceptance of such projects and development plans.*

This hypothesis states that individuals who believe that the presence of affordable housing in a given neighbourhood is associated with an increase in criminal activity are less likely to be supportive of the development of affordable housing in their neighbourhood. In other words, the greater the fear of crime, the lower the acceptance.

The attitudes of individuals towards social housing are influenced by a variety of socio-economic, cultural, ideological, and psychological factors. Lower income, insecure residential status, and higher education levels are anticipated to amplify support, while individuals with higher incomes may exhibit resistance due to perceived threats to property values or the character of the neighbourhood. Psychological factors, particularly fear-based perceptions such as the correlation between affordable housing and crime, frequently serve as catalysts for opposition and are indicative of the NIMBY phenomenon. Given that such fears are frequently shaped by stigma and media rather than evidence, the use of strategic language, employing neutral or positive terms instead of "social housing", may improve public perception and reduce resistance.

2.3 Sample of study and data collection

The collection of standardised data allows for efficient and cost-effective analysis and comparison across a large population. Surveys, as a research method, are seen as formal and legitimate by participants and are relatively easy to understand and communicate (Saunders et al., 2016). In this context, quantitative data collection involves conducting surveys that consist of standardised questions and are delivered to households via an online platform. These surveys are designed to collect quantitative data on a range of aspects, including the socioeconomic status of the household, the condition of their housing, and their personal attitudes and perceptions regarding housing quality, living conditions, and views on affordable rental housing options. The collection of these opinions is systematically documented using structured questionnaires and rating scales. The utilisation of survey methodology determines how representative individual opinions and experiences are in relation to affordable housing. When implemented with the appropriate rigour, this approach provides reliable statistical insights into the perspectives and behaviours of respondents. This statistical data can then be used as a foundation for important decisions and as a guide for future studies in the field of affordable housing.

The quantitative data collection is conducted in the form of a survey with standardised questions that are made available to the households for answering via an online platform. In the design of the questionnaire, closed questions were used wherever possible in order to achieve a high degree of comparability of results and more objectivity in the evaluation (Scholl, 2003). The quantitative data collection includes household interviews on their socio-economic situation, housing situation, attitudes, and opinions on affordable new rental housing. The study predicts attitudes and behaviours related to affordable housing. This is done in response to the survey conducted. The study is based on a national survey of residents in Germany (n = 1,000). The survey comprised twenty-six questions designed to assess socio-economic circumstances, perspectives on the national housing market, and attitudes towards affordable housing. The survey was conducted from 23 January 2025 via an online platform. The survey reached its target of 1,000 participants on 22 February 2025, so the survey period ended. The dependent variable is thus presented in the form of behaviour and willingness towards affordable housing, while the independent variables refer to impacts, social and political opinions, including through the survey.

IBM SPSS Statistics was used to perform various statistical tests. Inferential statistics were used to analyse the data. To evaluate the five hypotheses, a series of correlation analyses were performed to determine the degree of influence between the variables. Descriptive statistics were initially applied to characterise the sample. The

investigation of potential correlations between categorical variables was facilitated by the implementation of chi-square tests for independence. The implementation of correlation analyses was instrumental in evaluating the strength and direction of relationships between continuous or ordinal variables. The calculation of both parametric (Pearson's r) and non-parametric (Spearman's ρ and Kendall's τ-b) coefficients was conducted. Linear regression analysis was used to determine the predictive value of attitude variables. One-way analyses of variance (ANOVA) were performed to further investigate the group differences.

3. RESULTS AND RESEARCH FINDINGS

3.1 Hypothesis test – H.1

A Pearson's Chi-Square test, as shown in Table 1, was conducted to investigate *H.1*, which states that individuals with lower incomes are more likely than those with higher incomes to support the construction of affordable housing in their communities. This test evaluated the correlation between the monthly net household income of the participants (independent variable) and their opinion on the expansion and promotion of affordable housing (dependent variable). The test yielded a chi-square statistic of χ^2 (10) = 14.035 and a p-value of 0.171. The significant value by Pearson's Chi-square analysis must be less than 0.05. Given that the p-value is > 0.05, this relationship cannot be considered statistically significant. As a result, there is an insufficient level of evidence to suggest that support for the expansion of affordable housing differs significantly between income groups. Although there are slight variances between the groups concerning substance, such as a marginally elevated support among low-income earners, these variations lack statistical significance and may therefore be ascribed to chance.

Table 1. *Analysis on monthly net income and affordable housing by using Chi-square test*

		Independent variable	**Asymp. Sig. (2-sided) ***	**df**	**X^2**
Significant	No 1	Monthly net income of the household	.171	10	14.035
N of valid cases	961				

X^2: Chi-square
df: Degree of freedom
* Asymptotic Significance (2-sided) at 0.05 probability level

An additional verification of H.1 was performed applying correlation analyses via three complementary statistical methods: Pearson's correlation coefficient (r),

Spearman's rho correlation coefficient (ρ), and Kendall's tau-b coefficient (τ). The reasons for selecting these methods were to ensure the robustness of the results across a range of measurement levels and to resolve any discrepancies from statistical parameters. The Pearson correlation coefficient, requiring continuous data and linearity, yielded a value of r = -0.050 with a p-value of 0.123 (N = 961). This result indicates a moderate negative correlation between monthly net income and the acceptance of affordable housing construction. The association did not reach statistical significance at the conventional α level of 0.05, suggesting that the association may be due to random variations (Table 2).

Table 2. *Correlation analysis on monthly net income and affordable housing by using Pearson correlation*

		Monthly net income of the household
Demand for affordable housing	Pearson Correlation	-.050
	Sig. (2-tailed)	.123
	N of valid cases	961

In order to consider, the ordinal nature of the income data, as well as the possibility of a non-normal distribution, non-parametric alternatives were also developed as illustrated in Table 3. The Spearman's rho was ρ = -0.032 (p = 0.321), and the Kendall's tau-b coefficient was τ = -0.028 (p = 0.322), both suggesting a negligible negative correlation between the variables. Like the Pearson outcome, none of the non-parametric correlations reached statistical significance.

Table 3. *Non-parametric correlation analysis on monthly net income and affordable housing by using Kendall's tau-b and Spearman's rho*

			Demand for affordable housing
Kendall's tau_b	Monthly net income of the household	Correlation Coefficient	-.028
		Sig. (2-tailed)	.322
		N of valid cases	961
Spearman's rho	Monthly net income of the household	Correlation Coefficient	-.032
		Sig. (2-tailed)	.321
		N of valid cases	961

In linear regression, the ANOVA (Analysis of Variance) in Table 4 assesses whether the overall regression model significantly predicts the dependent variable. The null hypothesis asserts that the model does not account for more variance in the outcome than what would occur by random chance. This is equal to the regression line not providing a superior fit to the data compared to a horizontal line at the mean of the dependent variable. The analysis of variance (ANOVA) reveals an F-statistic of 2.384, with degrees of freedom (df) of one for the regression model and 959 for the residual (error term). This causes a p-value of 0.123. For the calculation of the F-statistic, divide

the explained variance (mean square regression) by the unexplained variance (mean square residual). The capability of the model to explain a substantial portion of the variance in the dependent variable is indicated by a higher F-value. As a result, the F-value is comparatively low in this instance, implying that the model fails to significantly improve prediction over chance.

Table 4. *Analysis of variance for monthly net income and affordable housing by using ANOVA[a]*

Model		Sum of Squares	df	Mean Square	F	Sig.*
1	Regression	.827	1	.827	2.384	.123b
	Residual	332.509	959	.347		
	Total	333.336	960			

a. Dependent Variable: Demand for affordable housing
b. Predictors: (Constant), Monthly net income of the household
df: degree of freedom
F: f-value
* Significant at 0.05 probability level

Table 5. *Coefficients[a] for monthly net income and affordable housing*

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.784	.037		47.772	<.001
	Monthly net income of the household	-.020	.013	-.050	-1.544	.123

a. Dependent Variable: Demand for affordable housing
B: unstandardised regression coefficient
Std. Error: standard error
t: t-value

The regression output as shown in Table 5, not only assesses the model's overall significance but also presents specific coefficients for each predictor variable, such as monthly net household income, which reveal the direction, magnitude, and statistical significance of its individual impact on the outcome variable: encouragement of the development of affordable housing. The unstandardised regression coefficient (B) for income is -0.020. This value signifies the anticipated alteration in the dependent variable (support score) for a one-unit change in the income variable, while maintaining all other variables constant. The income variable, measured on a coded ordinal scale (from lower to higher income brackets), indicates that transitioning to the next higher income category correlates with a 0.020-point reduction in the support score for affordable housing on the outcome scale. The negative sign indicates an inverse correlation: as income rises, there is modest decrease in support for affordable housing.

Nonetheless, this reduction is negligible in practical terms. The value of 0.020 is well below what would be deemed a substantial effect in research. The statistical significance of this coefficient is assessed by its associated p-value, which is $p = 0.123$. The value surpasses the conventional threshold of $\alpha = 0.05$, rendering the result statistically insignificant. The observed correlation between income and support may be attributable to chance, and there is little evidence to indicate that income systematically influences public support for affordable housing within the sampled population. The standardised regression coefficient (Beta) offers an extra dimension of understanding. In this instance, $\beta = -0.050$, indicating the impact of income in standardised (z-score) units, facilitating direct comparisons among variables assessed on disparate scales. A Beta of -0.050 is regarded as a negligible effect, significantly lower than the established benchmarks for small ($\beta = 0.10$-0,29), medium ($\beta = 0.30$-0,49), or large ($\beta = 0.50$ or >) effects in the behavioural sciences (Cohen, 2013).

The findings of the regression analysis broadly align with those of the Chi-square test and correlation analyses, all of which demonstrate that the monthly net income of households is not significantly linked with support for the expansion of affordable housing. All statistical methods identified a small, negative, and statistically insignificant correlation between income and support. The results offer no empirical evidence for H.1, which predicted that persons with lower incomes are more likely to support affordable housing projects. Despite the observable negative trend indicating a potential minor decrease in support with rising income, this pattern lacks statistical strength and reliability. It is essential to recognise that although the hypothesis is theoretically viable, especially from a socio-economic or equity-focused viewpoint, the findings indicate that income alone is not a reliable indicator of attitudes towards affordable housing policy in the respondents. The absence of importance indicates that alternative factors, such as political ideology, regional housing market pressures, personal housing experiences, or value orientations, may exert a more substantial influence on public opinion in this domain.

3.2 Hypothesis test – H.2

H.2 posits that individuals with elevated levels of education will have a more favourable disposition towards affordable housing efforts. To assess this hypothesis, a series of statistical studies were conducted to examine the association between respondents' highest level of education and their views on the need for increasing affordable housing programs.

To evaluate the link between respondents' educational attainment and their endorsement of the extension and promotion of affordable housing, three correlation

analyses were performed: Pearson's r, Kendall's tau-b, and Spearman's rho. These methods offer contrasting perspectives by assessing relationships based on varying statistical assumptions. Pearson's correlation coefficient is a parametric test that quantifies the strength and direction of a linear association between two continuous variables. Pearson's r was computed = 0.008 with a p-value of 0.807 (N = 956) in this investigation. This coefficient is nearly zero, signifying an almost absent linear correlation between education level and attitudes towards the expansion of affordable housing. Additionally, the p-value exceeds the traditional significance level of 0.05, so affirming that this finding lacks statistical significance. Consequently, there is no indication of a significant linear correlation between the two variables.

Considering that the variables are ordinal or may not satisfy the normality assumptions necessary for Pearson's correlation, two non-parametric tests were performed: Kendall's tau-b and Spearman's rho. These tests are more suitable for ranked or ordinal data. Kendall's tau-b assesses the extent of coherence and divergence between pairs of observations, in contrast to Pearson's r, which implies linear and interval data. It is typically cautionary and less vulnerable to abnormal values, finding it appropriate for small or unbalanced samples. The value of Kendall's tau-b in the current research was $\tau = 0.030$ ($p = 0.286$). This coefficient indicates a not significant positive correlation; but the unimportant p-value suggests that the correlation lacks statistical significance. The probability of seeing such a correlation by chance is significant, so no dependable conclusion can be drawn regarding the association. Spearman's rho is a rank-based non-parametric test that determines correlation by utilising Pearson's formula on rank-transformed data. It quantifies the strength and direction of a linear link, keeping it responsive to any persistent upward or downward trend, regardless of linearity. In this scenario, Spearman's rho was $\rho = 0.035$ ($p = 0.285$). Similar to Kendall's tau-b, this likewise indicates a not significant positive association that lacks statistical significance. The resemblance of Spearman's rho to Kendall's tau-b further substantiates the validity of this conclusion across many non-parametric methodologies. Both coefficients are minimal, indicating weak positive correlations. Consistent with Pearson's r, neither of these findings is statistically significant. The p-values for both tests exceed 0.05, indicating that the observed relationships are probably attributable to chance. The correlation studies collectively indicate a lack of statistically meaningful association between the level of educational and support for the development of affordable housing. All three correlation coefficients, irrespective of the employed approach, are approximately zero and statistically non-significant. The results indicate that, in this sample, increasing education levels do not correlate with increased support for the extension and promotion of affordable housing.

To further assess the predictive ability of educational attainment on attitudes toward affordable housing expansion, an Analysis of Variance (ANOVA) was conducted as part of the linear regression model. The regression sum of squares is 0.021, while the residual sum of squares is 332.024, and the total sum of squares is 332.045. The total variance in the dependent variable (support for affordable housing) is overwhelmingly accounted for by residual error rather than the predictor variable (education level), as evidenced by the small proportion of regression sum of squares relative to total sum of squares.

The F-ratio, determined by dividing the mean square for regression by the mean square for the residuals = 0.060. The exceedingly low F-value indicates that the variation accounted for by the regression model is minimal relative to the unexplained variance. The p-value of 0.807 significantly exceeds the standard alpha criteria of 0.05, indicating that the model lacks statistical significance. Based on the results of the ANOVA test, it appears that the regression model lacks a statistically significant improvement in predicting whether individuals support the expansion and promotion of affordable housing when education level is included.

The regression coefficients table provides information on both the magnitude and statistical significance of the predictor variable within the model. The unstandardised regression coefficient (B) for education level is 0.003, with a standard error of 0.013 and a p-value of 0.807. The direct alteration in the dependent variable that corresponds to each one-unit increase in the independent variable is represented by this coefficient. Essentially, this means that the designated measurement scale shows a mere 0.003-point increase in support for affordable housing for each incremental increase in educational level (e.g., from high school graduation to a college degree or from a bachelor's degree to a doctoral). The extent of this effect is minimal and virtually irrelevant. Given the size of the dependent variable, a fluctuation of 0.003 is insignificant and unlikely to indicate any meaningful change in opinion or attitude. The standardised coefficient (β) for level of education is 0.008, enabling direct comparisons among variables by aligning all coefficients on a consistent standardised scale. A Beta of 0.008 signifies that a one standard deviation increases in education results in only a 0.008 standard deviation increase in support for affordable housing, indicating an almost minimal effect. The t-test evaluates whether the coefficient for the predictor is substantially distinct from zero. A p-value significantly exceeding the standard $\alpha = 0.05$. The observed correlation between education level and support for affordable housing lacks statistical significance and likely resulted from random variation within the sample. The regression results clearly confirm the findings from the correlation analyses. There is no meaningful or statistically significant relationship between the educational level and

support for affordable housing. The effect is virtually zero, and the model has no predictive power.

The results demonstrate that the level of education is neither a statistically significant nor a substantively useful predictor of support for the expansion and promotion of affordable housing in this group of individuals. The correlations were virtually non-existent, the regression model demonstrated minimal explanatory power, and the effect size of education was insignificant. As a result, the data does not support H.2. The hypothesis that individuals with a higher level of education exhibit increased social awareness by demonstrating stronger support for affordable housing expansion is not experimentally substantiated in this sample. Additional factors such as personal experience, political ideology, or regional housing pressures may serve as more pertinent determinants of attitude.

3.3 Hypothesis test – H.3

A correlation study was performed to assess the association between respondents' age and their opinions towards the expansion of affordable housing in *H.3*, employing three distinct statistical methods: Pearson's r, Spearman's rho, and Kendall's tau-b. Each approach fulfils a distinct analytical function and is suitable under varying assumptions regarding the data, therefore strengthening the validity of the results.

The Pearson correlation coefficient quantifies the linear association between two continuous, normally distributed variables; age and attitude towards housing expansion. A positive correlation coefficient of $r = 0.106$ signifies a minor positive linear relationship as age increases, respondents exhibit a modest tendency to show increased support for the expansion of affordable housing. The p-value <0.001 indicates that this link is statistically significant at the 0.01 level, signifying that the probability of this correlation arising by chance is less than 0.1%. A non-parametric metric for rank-order correlation, Spearman's rho is particularly suitable for ordinal variables, non-normally distributed data, or non-linear still linear relationships. The computed value of $\rho = 0.110$ indicates a weak but statistically significant positive correlation between age and support for affordable housing initiatives. This result shows that older people are more likely than younger people to support the expansion of affordable housing. The weak correlation, nevertheless, the statistical significance ($p < .001$) indicates that the observed pattern is unlikely to have arisen by random chance alone. The computed Kendall's tau-b value of $\tau = 0.088$ signifies a modest yet statistically significant positive association between age and support for affordable housing. Kendall's tau-b usually gives coefficients that are a little lower than Spearman's rho. However, the positive direction and statistical significance ($p < 0.001$) are in line with the results of the other

two correlation measures. All three methodologies consistently indicate that older respondents exhibit a marginally more positive perspective on the expansion of publicly subsidised housing in comparison to their younger counterparts. Although it is only feeble in strength, the statistical significance of the relationship indicates that it cannot be attributed to random chance.

In general, it may be said that support for affordable housing goes up a little as people get older. This could be because they are more conscious of social issues, have more life experience, or feel more responsible for their community as they get older. The relationship between age and support for the expansion of affordable housing was explored through the calculation of descriptive statistics across three levels of support: opposed ("no"), undecided ("maybe"), and supportive ("yes") as shown in Table 6. The respondents who expressed opposition to the proposed expansion (N = 73) had a mean age of M = 36.70 (SD = 9.52), with a 95% confidence interval ranging from 34.48 to 38.92. The participants who had not yet decided (n = 109) were marginally younger, with a mean age of M = 35.67 (SD = 11.02) and 95% confidence interval for mean from 33.58 to 37.76. In contrast, respondents who expressed support for the expansion (N = 779) constituted the oldest group, with a mean age of M = 39.90 (SD = 12.71) and a 95% confidence interval ranging from 39.00 to 40.79. The overall sample (N = 961) had a mean age of M = 39.18 (SD = 12.39). The results of the study indicate that respondents who expressed support for the expansion of affordable housing tended to be older than those who opposed it or were uncertain.

An investigation into the homogeneity of variances is hereby proposed in Table 7. In order to evaluate the assumption of equal variances, Levene's test for homogeneity of variances was conducted. The outcomes were statistically significant across all test variations. The mean value of the variable is the F-statistic for this data with 8.698, and the p-value is <0.001. The median is the midpoint of a dataset. The values to the left of the median are lower than the median, and those to the right of the median are higher than the median. The F-statistic for this data is 7.521, and the p-value is <0.001. The mean value was calculated using trimmed means. The F-statistic for this data is 8.751, and the p-value is <0.001. These findings indicate that the variances between the groups are not homogeneous, thus violating a fundamental assumption of the one-way ANOVA. However, given the considerable sample size and relative balance thereof, the ANOVA is considered to be robust against such deviations.

Table 6. *Descriptive statistics on user age and affordable housing*

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	Upper Bound	Minimum	Maximum	Between-Component Variance
no		73	36.70	9.519	1.114	34.48	38.92	19	72	
maybe		109	35.67	11.022	1.056	33.58	37.76	18	69	
yes		779	39.90	12.707	.455	39.00	40.79	18	77	
Total		961	39.18	12.394	.400	38.39	39.96	18	77	
Model	Fixed Effects			12.314	.397	38.40	39.96			
	Random Effects				2.064	30.30	48.06			6.070

In order to examine *H.3*, a one-way analysis of variance (ANOVA) was conducted as shown in Table 8. The employment of this inferential statistical test is appropriate when the means of a continuous variable (age) across three or more independent groups (levels of support: no, maybe, yes) are to be compared. The objective of the one-way analysis of variance (ANOVA) is to test the null hypothesis (H0), which posits the equality of the group means, against the alternative hypothesis (H1), which assumes that at least one group mean is different. The between-group sum of squares indicates the extent to which variations in age can be attributed to differences in support for housing expansion. The within-group sum of squares is indicative of residual variation that has not been explained by group membership. The F-statistic is calculated as the ratio of between-group variance to within-group variance, which in this case is 7.237. The result is statistically significant, with $F(2, 958) = 7.237$, $p < 0.001$.

Table 7. *Test of homogeneity of variances on user age and affordable housing*

		Levene Statistic	df1	df2	Sig.
User age	Based on Mean	8.698	2	958	<.001
	Based on Median	7.521	2	958	<.001
	Based on Median and with adjusted df	7.521	2	944.312	<.001
	Based on trimmed mean	8.751	2	958	<.001

df: degree of freedom

Table 8. *One-way analysis of variance (ANOVA) on user age and affordable housing*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2194.812	2	1097.406	7.237	<.001
Within Groups	145262.468	958	151.631		
Total	147457.280	960			

df: degree of freedom

The means plot displayed in Table 9 offers a visual representation of the average age of respondents across three distinct groups, categorised based on their stance regarding the expansion of affordable housing. Each data point on the graph is indicative of the mean age of respondents within a specific group, with the vertical bars denoting the 95% confidence intervals for these means.

The plot demonstrates an explicit ascending trend from left to right. The respondents who expressed opposition to the provision of affordable housing (Group: “No”) were, on average, younger. Those who have not yet decided (Group: “Maybe”) have a mean age that is marginally lower. A comparative analysis reveals that those who advocate for expansion (Group: “Yes”) are, on average, of a more advanced age. This progression suggests a positive relationship between age and support as age increases, so does support for the expansion of affordable housing. The vertical bars in the plot are indicative of the confidence intervals (typically at the 95% level). These reflect the precision of the estimated group means that narrower intervals (as seen in the “yes” group) are indicative of larger sample sizes (N = 779), which in turn produce more precise estimates. The wider intervals observed in the "no" and "maybe" groups are attributable to the reduced sample sizes, which in turn engender an elevated degree of uncertainty in the estimate of the group mean. Of particular significance is the fact that the intervals do not overlap fully, especially between the “yes” and “maybe” groups. This finding lends further support to the conclusion of the ANOVA, which demonstrated that these age differences are statistically significant.

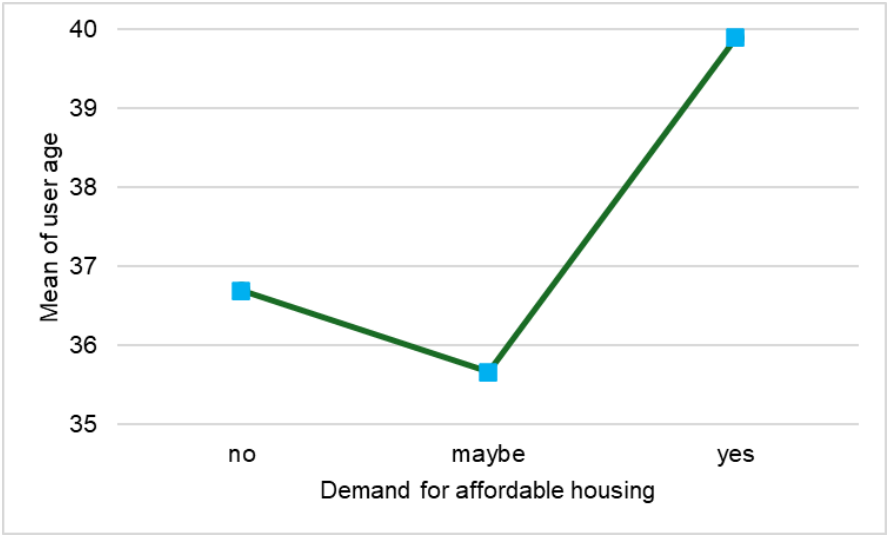


Table 9. *Means plot on user age and support for affordable housing*

The results indicate that older individuals tend to support the expansion of affordable housing more frequently than younger ones. While this relationship is statistically significant, its practical relevance is only minor. Thus, the hypothesis that awareness of affordable housing increases with age is supported but only to a limited extent.

3.4 Hypothesis test – H.4

In order to evaluate *H.4* that public acceptance of affordable housing rises when it is represented positively in the media, applying phrasing such as "affordable housing" instead of "social housing", descriptive statistics were calculated for essential variables. To explore the possible impact of language framing, respondents were asked to rate the terms "affordable housing" and "social housing". The answers were measured on a Likert scale ranging from 1 (very negative) to 5 (very positive) and these ratings were correlated with their assessment of whether further expansion is needed. The results reveal clear differences as illustrated in Table 12. The term "affordable housing" is evaluated more positively on average (M = 3.38; SD = 1.006) than the term "social housing" (M = 2.74; SD = 1.113). The difference indicates that "affordable housing" generally generates positive associations among the general population, reinforcing the notion that the terminology used to characterise publicly financed housing programs may affect the general public's opinion.

The urgent need to strengthen and promote for the development of affordable housing was the principal measure of widespread acceptance for an expansion of housing policy. Responses were documented using a Likert scale. The average value for this variable was M = 1.73 (SD = 0.589), indicating a strong general agreement among respondents about the expansion of affordable housing construction. The mean value indicates that most participants favour expanded investment and promotion in this policy domain, as lower values imply higher agreement.

Table 10. *Descriptive statistics on promotion and framing of affordable housing*

	Mean	Std. Deviation	N of valid cases
Is there a need to expand and promote affordable housing construction?	1.73	.589	961
How do you feel about and assess the term "affordable housing"?	3.38	1.006	1000
How do you feel about and assess the term "social housing"?	2.74	1.133	1000

To further evaluate *H.4*, correlation analyses were used to investigate the relationship between the perceived positivity of framing housing-related expressions

and the promotion of affordable housing expansion. In order to guarantee the reliability of the results across a variety of assumptions regarding Likert scale level and distribution, Pearson's correlation coefficients were determined, in addition to non-parametric alternatives such as Spearman's rho and Kendall's tau-b. The analysis showed that how people feel about the expression "affordable housing" is strongly and positively linked to how much they think more affordable housing should be built ($r = 0.331$, $p < 0.001$). This association is moderately strong and indicates that persons who have a more favourable attitude towards the term "affordable housing" are more likely to support for its development. The non-parametric correlation coefficients correspond this finding. Spearman's rho was $\rho = 0.318$ ($p < 0.001$), and Kendall's tau-b was $\tau = 0.289$ ($p < 0.001$). These consistent results demonstrate that the relationship remains regardless of assumptions concerning linearity or data distribution. In contrast, the term "social housing" additionally showed a statistically significant but substantially reduced correlation with support for expansion. The Pearson correlation coefficient was $r = 0.189$ ($p < 0.001$), while the non-parametric values were $\rho = 0.172$ and $\tau = 0.153$ (both $p < 0.001$). Although still positive, these reduced coefficients suggest that the term "social housing" generates a less favourable response to the engagement of support for the expansion of affordable housing policy. These findings indicate that the language framing of publicly subsidised housing concepts significantly influences public support for their development. The more favourable the initial impression of an expression, the greater possibility of public support for the increasing number of such housing forms. This effect is especially evident for expressions such as "affordable housing," but the term "social housing" may cause greater concerns or negative connotations. H.4 is clearly supported by the data. Public support for the expansion of affordable housing is improved by positive language framing, which involves the use of more neutral or contemporary terms, such as "affordable housing". This emphasises the substantial influence that media and political communication strategies can have on the social acceptance of proposals for social policy in the affordable housing industry.

A multiple linear regression was undertaken to further evaluate *H.4*. The dependent variable was support for the expansion of affordable housing, whereas the variables that predicted it were the respondents' opinions of the concepts of affordable housing and social housing. The model produced a multiple correlation coefficient of $R = 0.333$ and a $R^2 = 0.111$, indicating that around 11.1% of the variance in the dependent variable was explained by the model. The adjusted $R^2 = 0.109$ indicates that this explanatory ability is not increased by overfitting. The ANOVA table (Table 13) confirms the regression model is highly statistically significant, $F(2, 958) = 59.581$, p

<0.001. Demonstrating that the two predictors collectively accounted for variance in support for the expansion of affordable housing.

Table 11. *Analysis of variance for promotion and framing of affordable housing by using ANOVA*[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.876	2	18.438	59.581	<.001b
	Residual	296.460	958	.309		
	Total	333.336	960			

a. Dependent Variable: Is there a need to expand and promote affordable housing construction?
b. Predictors: (Constant), How do you feel about and assess the term "social housing"?, How do you feel about and assess the term "affordable housing"?
df: degree of freedom
F: F-value

The regression analysis confirms and clarifies on the findings gathered from the correlation data. The phrase "affordable housing" significantly influences public support for affordable housing development, whereas "social housing" does not have a considerable additional effect when both terms are analysed concurrently. This proves H.4 and emphasises the significance of supportive language framing in public discourse regarding housing policy. The findings indicate that older, more stigmatised terminology like "social housing" may be less effective in gaining support.

3.5 Hypothesis test – H.5

The hypothesis stated in *H.5* is that the perception that affordable housing leads to higher crime rates has a negative effect on public acceptance of such projects and development plans. This means the study is exploring whether people's fear of increased crime (linked to the construction of affordable housing) influences their attitudes toward the development of such housing projects. The analysis employed a fear index, a tool designed to assess concerns regarding affordable housing, in terms of two distinct facets: perception of stability and security, and subjective evaluations of affordable housing itself. In addition to these objective considerations, the index also drew upon psychological factors, namely emotional connection, and social engagement, to provide a more comprehensive evaluation of the subject. The analysis reveals significant differences in the fear index among respondents based on their attitudes toward the expansion of affordable housing.

The descriptive statistics of the normalised fear index in Table 14, clearly illustrate a correlation between the participant fear levels and their subjective opinions towards affordable housing. The individuals opposing the expansion of affordable

housing, designated as the "no" group, indicated the highest mean score on the fear measure (M = 0.7057, SD = 0.20477), with scores ranging from 0.19 to 1.00. The 95% confidence interval for the mean was between 0.6566 and 0.7548. This finding suggests that they regard the construction of such housing as a major source of concern, potentially attributable to anxieties surrounding increased crime or reduced stability. This is in contrast to those who support the expansion of social housing ("yes" group), whose mean value is the lowest (M = 0.5677, SD = 0.21217), with scores ranging from 0.00 to 1.00, indicating relatively low levels of concern. The 95% confidence interval for the mean was between 0.5526 and 0.5828. The respondents who were undecided, i.e. those who selected the "maybe" option, indicated an intermediate value (M = 0.6194, SD = 0.22090), suggesting moderate concerns regarding the potential risks associated with affordable housing. The 95% confidence interval for the mean was between 0.5758 and 0.6630. This pattern indicates that attitudes towards affordable housing, whether favourable, unfavourable, or undecided, are not simply neutral but are significantly influenced by fears or concerns regarding its potential impact on crime rates. The highest levels of fear are found among those who oppose affordable housing, while the lowest levels are found among those who support it.

Table 12. *Descriptive statistics on a fear index and support for affordable housing*

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
no		71	.7057	.20744	.02462	.6566	.7548	.19	1.00	
maybe		101	.6194	.22090	.02198	.5758	.6630	.05	1.00	
yes		762	.5677	.21217	.00769	.5526	.5828	.00	1.00	
Total		934	.5838	.21599	.00707	.5699	.5977	.00	1.00	
Model	Fixed Effects			.21277	.00696	.5701	.5975			
	Random Effects				.05499	.3472	.8204			.00436

Prior to executing the one-way analysis of variance (ANOVA), Levene's Test was administered to evaluate the assumption of homogeneity of variances, essential for the validity of ANOVA outcomes (see Table 15). Levene's Test assesses the equality of variations of the normalised fear index among the three groups: opponents, uncertain individuals, and supporters of affordable housing development. Levene's Test results demonstrated that the premise of homogeneity of variances was upheld. The Levene's statistic was 0.129, with degrees of freedom df1 = 2 and df2 = 931, and the p-value was 0.879. As the p-value above the conventional significance threshold of 0.05, the null hypothesis stating equal variances among the groups was not rejected. This indicates

that the variation in the normalised fear index is uniform across the groups, thus fulfilling the assumption of equal variances. The data substantiate the validity of the ensuing ANOVA, as the assumption of homogeneity of variances is an essential requirement for the appropriate implementation of this test. The one-way analysis of variance (ANOVA) indicated significant differences in the normalised fear index among the three groups: opponents of affordable housing growth, the undecided, and supporters. The F-statistic was 15.243, with F = 2, 931, and the p-value was <0.001, signifying that the observed differences across the groups were statistically significant and improbable to have occurred by chance as shown in Table 16.

Table 13. *Test of homogeneity of variances on a fear index and affordable housing*

		Levene Statistic	df1	df2	Sig.
Fear index	Based on Mean	.129	2	931	.879
	Based on Median	.055	2	931	.946
	Based on Median and with adjusted df	.055	2	925.055	.946
	Based on trimmed mean	.110	2	931	.896

df: degree of freedom

Table 14. *One-way analysis of variance (ANOVA) on a fear index and affordable housing*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.380	2	.690	15.243	<.001
Within Groups	42.147	931	.045		
Total	43.528	933			

df: degree of freedom

A means plot was created to visually illustrate the variations in the normalised fear index across the three groups according to their positions on the development of affordable housing, illustrated in Table 17. The graphic illustrates the mean values of the normalised fear index for each group: opponents (no), undecided individuals (maybe), and supporters (yes) of affordable housing growth. The means plot demonstrates a distinct variation in perceived fear among the groups. The faction opposing the extension of affordable housing reveals the highest mean value for the normalised fear index (M = 0.7057), signifying the greatest degree of anxiety or imagined risk. The indecisive group follows, exhibiting a mean value of M = 0.6194, indicative of a modest level of concern. The faction advocating for the extension of affordable housing exhibits the lowest mean value (M = 0.5677), indicating a substantially lower level of anxiety or imagined risk. The plot visually confirms the idea that persons who showed heightened anxiety regarding the potential adverse effects of affordable housing, such as crime, are more likely to oppose its growth. In contrast,

individuals with reduced concern or an awareness of reduced risks are more likely to encourage its progress.

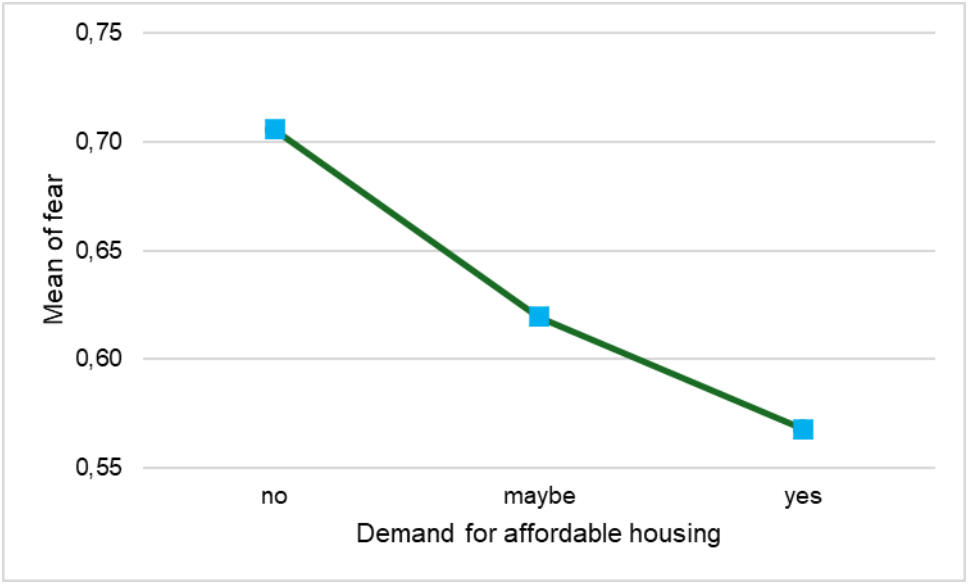


Table 15. *Means plot on a fear index and support for affordable housing*

The present study investigated the factors that influence public support for affordable housing in Germany. Contrary to predictions, income and education exhibited no statistically significant influence, while age demonstrated only a marginal positive effect. The most significant result was obtained from the analysis of language framing: The concept of "affordable housing" was found to be more appealing than that of "social housing" across the majority of federal states. Concerns regarding safety, stability, and neighbourhood change were found to be pivotal in this regard, with those expressing fewer such concerns demonstrating a significantly higher level of support. In general, socio-demographic factors are found to be explicable only to a limited extent; communication, risk perception and emotions are found to be significantly more important. This prompts the question of whether housing debates are more concerned with words, trust, and fears than with hard data.

4. CONCLUSION

The results collectively suggest the general acceptance of affordable housing in Germany is influenced more by opinions, beliefs, and language framing than by ordinary socio-economic status indices. The research indicates that public support for

affordable housing in Germany is influenced more by attitudes, framing, and contextual elements than by socio-economic status. Household income and educational level showed no significant effects across statistical models, rejecting the assumptions that economic self-interest or civic awareness shape attitudes. Housing shortage is collectively constructed, surpassing income-based distinctions. The sole socio-demographic predictor of importance was age: older respondents shown marginally more acceptance, potentially attributable to stable housing circumstances, values orientated towards solidarity, or familiarity with effective public housing initiatives.

The impact of linguistic framing was significant. The phrase "affordable housing" garnered greater acceptance than "social housing," which in Germany is associated with historical implications of welfare dependency, poverty, and crime. The framing effect exhibited regional variation, demonstrating a more pronounced influence in high-pressure settings. Perceptions associating affordable housing with crime consistently diminished support, affirming the endurance of stigmatisation and fear-based narratives. The policy implications are evident, acceptance cannot be presumed based on socio-economic factors, and engagement programs must encompass all demographics. Communication must prioritise inclusivity and communal advantage, steering clear of stigmatising language. Clear planning, showcasing exemplary initiatives, and proactive dispelling of myths are essential for countering opposition. Senior citizens can function as supporting stakeholders, whereas the discontent of younger generations necessitates ways to transform unhappiness into productive involvement.

Future research needs to examine causality in framing effects through experimental methodologies, monitor longitudinal changes in acceptance, and perform cross-national analyses. The findings emphasise that effective housing policy relies more on strategic communication, contextual flexibility and perception control than on socio-economic factors.

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