

Research paper

## CONTEMPORARY HOUSING TRENDS IN NIŠ, SERBIA: AN ANALYSIS OF MARKET CONDITIONS AND REGULATORY COMPLIANCE

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### Abstract

*This study investigates contemporary housing trends in Niš, Serbia, focusing on urban planning, architectural practices, and socio-economic conditions influencing the local housing market. The primary objectives are to identify prevailing housing trends, assess their conformity with current regulatory frameworks, and propose improvements to planning policies. Employing a mixed-method approach, the research combines qualitative analysis of architectural developments, and regulatory compliance, supported by case studies of recent residential projects. The study highlights key market conditions affecting housing development, including limited purchasing power among potential tenants and increasing demand for affordable apartments. A noticeable preference for multi-family residential buildings has emerged, driven primarily by economic factors. Findings indicate partial alignment of these market-driven trends with existing regulatory constraints, pointing to specific limitations in current planning and regulatory practices. The research emphasizes the importance of revising regulatory frameworks to better address affordability issues, thus facilitating sustainable development and effectively responding to the housing needs of the population in Niš.*

**Key words:** *Housing, Market Conditions, Affordability, Regulatory Compliance*

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## 1. INTRODUCTION

In the post-socialist context of Southeast Europe, housing systems have been reshaped by market liberalization and limited public investment [1]. Serbia, like many countries in the region, has undergone a profound transformation in its housing sector. The retreat of the state from housing construction, coupled with constrained regulatory enforcement capacity, has contributed to the emergence of an investor-driven housing market [1, 2]. These developments raise concerns about both the spatial adequacy and affordability of newly produced housing units. "The economic and political situation in the last twenty years has caused a fall in overall standards, affecting the quality of newly built dwellings... The average floor area of post-2001 apartments (53.0 m<sup>2</sup>) reflects a decline to 18.1 m<sup>2</sup> per person" [2].

The city of Niš, Serbia's third-largest urban center, offers an instructive case for examining the relations between housing production, affordability, and regulatory compliance. In recent years, Niš has experienced accelerated residential construction driven by rising demand. Simultaneously, there has been a growing prevalence of compact apartments targeted at buyers with limited purchasing power, mirroring broader post-socialist regional trends in residential construction and affordability challenges [1, 3]. These trends bring renewed attention to whether newly constructed housing units adhere to the national minimum spatial standards established by the regulatory framework – namely, the Rulebook on Conditions and Norms for the Design of Residential Buildings and Apartments [4].

Affordability challenges are central to this analysis. Although Niš remains more affordable than Belgrade, rapid increases in housing prices have significantly outpaced income growth. In 2024, the average price of newly built apartments in central Niš reached €1,774 per m<sup>2</sup>, with average unit sizes around 57 m<sup>2</sup> [5]. By early 2025, real estate market data indicate that new apartments in prime areas of Niš exceeded €2,200/m<sup>2</sup>. In contrast, the average net annual salary in Serbia for 2023 was around RSD 1,141,116 (≈€9,760) [6]. At this rate, a 55 m<sup>2</sup> apartment (costing roughly ≈€97,500) equates to about ten years of the average household income. This data had shown severity of the affordability gap. This financial strain often compels developers to design smaller units that may approach or fall below the minimum legal thresholds for floor area, potentially compromising the functional and qualitative aspects of living space.

This paper investigates the extent to which newly designed multi-family housing projects in Niš comply with the national minimum apartment size standards, and explores the economic and spatial rationales for any observed non-compliance. The analysis is based on a systematic review of 31 residential projects, comprising 1,155 individual apartment units, submitted as part of architectural documentation for urbanistic projects in recent year. Through comparative and compliance-based analysis, the study identifies deviations from prescribed norms, and contextualizes these findings within broader patterns of urban development and housing demand.

The objectives of this research are twofold. First, to quantify the level of alignment between current housing development practices in Niš and the Serbian regulatory framework for minimum dwelling areas. Second, to interpret these empirical findings in light of socio-economic pressures, market dynamics, and institutional constraints. In doing so, the paper contributes to ongoing debates on housing standards, affordability, and spatial justice in transitional urban contexts, with Niš serving as a central case study.

## 2. REGULATORY FRAMEWORK

Apartment design in Serbia is governed by a detailed regulatory framework that specifies minimum net floor areas based on apartment typology. The key legal instrument is the Rulebook on Conditions and Norms for the Design of Residential Buildings and Apartments (Official Gazette RS, Nos. 58/2012, 74/2015, and 82/2015). This Rulebook defines binding minimum sizes for apartments according to their functional structure. The prescribed minimum net floor areas are as follows:

- Studio apartment (garsonjera):  $\geq 26.00 \text{ m}^2$
- One-room apartment:  $\geq 30.00 \text{ m}^2$
- One-and-a-half-room apartment:  $\geq 40.00 \text{ m}^2$
- Two-room apartment:  $\geq 48.00 \text{ m}^2$
- Two-and-a-half-room apartment:  $\geq 56.00 \text{ m}^2$
- Three-room apartment:  $\geq 64.00 \text{ m}^2$
- Three-and-a-half-room apartment:  $\geq 77.00 \text{ m}^2$
- Four-room apartment:  $\geq 86.00 \text{ m}^2$
- Four-and-a-half-room apartment:  $\geq 97.00 \text{ m}^2$

In addition to these dwelling-level standards, the regulation also prescribes minimum floor areas for individual rooms (e.g.,  $16.00 \text{ m}^2$  for a living room,  $11.00 \text{ m}^2$  for a double bedroom,  $7.00 \text{ m}^2$  for a single bedroom (“half-room”). These quantitative norms aim to ensure basic spatial functionality, hygiene, and habitability.

### 2.1. Comparative Regional Approaches

Regulatory approaches to minimum dwelling sizes vary across Southeast and Central Europe. For example, Croatia employs implicit size standards in its state-subsidized housing programs (assigning roughly  $40 \text{ m}^2$  for a one-person household and  $60\text{--}65 \text{ m}^2$  for a four-person household). Slovenia favors performance-based criteria rather than fixed apartment sizes, ensuring spatial quality through room proportions and functional criteria (e.g., minimum bedroom widths). Hungary sets minimum areas per room (e.g.,  $8 \text{ m}^2$  for a single-occupancy room,  $12 \text{ m}^2$  for a double room) but does not prescribe overall apartment sizes. Romania incorporates mandatory minimums in its urban planning codes (a two-room apartment must be at least  $52 \text{ m}^2$ , including an  $18 \text{ m}^2$  living room and  $12 \text{ m}^2$  bedroom; a one-room apartment must not be smaller than  $37 \text{ m}^2$ ). These examples reflect differing balances between prescriptive regulation and design flexibility.

Serbia's model remains highly formalized, with explicitly quantified norms at both the apartment and room levels. Serbia's regulatory framework, including the Rulebook on Conditions and Norms, establishes clear minimum spatial standards for housing. However, enforcement remains inconsistent due to institutional inertia, political leniency toward developers, and market pressures favoring affordability.

### 2.2. Challenges in Enforcement

Despite the clarity of Serbia's normative framework, effective implementation faces challenges. Local permitting authorities often have incentives to interpret size norms flexibly, especially in the context of development pressures. Post-construction legalization processes

(whereby apartments are registered and legalized after the fact) may overlook minor non-conformities. Economic pressures create additional incentives for minimizing unit sizes; in a market with strong demand for low-cost housing, developers may be tempted to design apartments just below regulatory thresholds. In Niš and similar cities, these factors combine to create a regulatory environment where formal requirements exist on paper, but effective control over their consistent application may be limited.

### **3. HOUSING MARKET CONTEXT IN NIŠ**

Niš, with a population of approximately 250,000, serves as the principal administrative, economic, and educational center of southern Serbia. Historically an industrial hub from socialist period, Niš has diversified its economy in recent years through foreign direct investment in manufacturing and information technology. The University of Niš reinforces the city's role as a regional knowledge center. Despite these advances, Niš continues to lag behind Serbia's northern urban centers in income and labor market indicators. Lower average wages and a persistent affordability gap make Niš's housing market particularly sensitive to price fluctuations. The city's modest income profile amplifies the impact of rising housing costs, influencing both demand and supply dynamics in the residential sector.

Statistical data from 2024 highlight Niš's income disparities. In April 2024, the average net monthly salary in Niš was around RSD 92,987, compared to the national average of RSD 96,614 (a gap of roughly 3.7%). In the capital Belgrade, the average net salary exceeded RSD 121,800 during the same period. On an annualized basis, net income in Niš is on the order of €9,500–10,000 (depending on exchange rate and inflation assumptions). Median wages are even lower, indicating that a substantial portion of the population earns significantly less than the average. These figures imply that many households in Niš have limited purchasing power for housing, reinforcing the demand for smaller, more affordable apartment units.

Niš's housing market has seen notable price increases in recent years. According to the Republic Geodetic Authority, the average price per square meter for new-build apartments in the last half of 2024 was €1,774 in Niš. In central municipalities like Medijana, prices reached above €2,000/m<sup>2</sup>. This represents a significant rise from previous years and reflects sustained demand amid constrained supply. By comparison, Belgrade's new apartment prices exceed €2,400/m<sup>2</sup>, making Niš more affordable in absolute terms. However, when measured against local incomes, housing remains expensive: the gap between prices and earning capacity continues to strain affordability in Niš.

When housing costs are measured against average incomes in Niš, the affordability gap becomes evident. For example, a newly constructed 55 m<sup>2</sup> apartment at €1,774/m<sup>2</sup> would cost about €97,500. With an average net annual income of roughly €9,800, this implies over ten years of gross income (assuming an extreme case of saving the entire salary, which is unrealistic given living expenses). Surveys suggest that more than half of young adults and families in Niš cannot afford homeownership without family assistance or subsidized mortgage programs. Renting is similarly burdensome: average monthly rents for one-bedroom apartments in 2024 were around €210–230, consuming a significant portion of household income.

These economic conditions have important implications for housing design. The demand structure in Niš is dominated by young professionals, students, and first-time buyers – groups that typically require affordable, small-scale units. Developers have responded by prioritizing compact apartments, particularly studios and one-bedroom units in the 30–45 m<sup>2</sup> range. While such a strategy increases marketability and allows lower absolute sale prices, it often results in units that approach the minimum regulatory thresholds for habitability. There is also evidence of “micro-apartments” entering the market, with areas as low as 21–25 m<sup>2</sup>. The increasing prevalence of undersized apartments in Niš reflects a structural tension between market responsiveness and regulatory compliance. In summary, although Serbian planning regulations prescribe minimum spatial standards, enforcement mechanisms are weak and demand-side pressures frequently incentivize borderline solutions. In Niš, the rise of undersized units is a clear manifestation of developers’ attempts to balance construction costs, saleability, and the city’s limited purchasing power – often at the expense of spatial adequacy and long-term housing quality.

#### 4. METHODOLOGY

This study employs a quantitative, document-based approach to evaluate compliance with spatial regulations. The analysis is based on technical specifications extracted from architectural project documentation for 31 multi-family residential projects in Niš, completed or designed between January 2024 and April 2025. Projects were selected to represent a broad range of developers, urban locations, and apartment typologies, subject to the availability of complete apartment specification tables.

The dataset comprises 1,155 apartments across these projects, representing a substantial and diverse sample of Niš’s recent housing production. Each apartment’s declared typology (e.g., studio, one-room, two-room, etc.) and its net usable floor area were recorded.

Each apartment’s net floor area was systematically compared against the minimum thresholds defined by the Rulebook. The key size standards used in the analysis include 26.00 m<sup>2</sup> for a studio, 30.00 m<sup>2</sup> for a one-room unit, 40.00 m<sup>2</sup> for a one-and-a-half-room unit, and so on up to 97.00 m<sup>2</sup> for a four-and-a-half-room unit. A unit was classified as compliant if its area met or exceeded the relevant threshold, and non-compliant otherwise.

The resulting data were tabulated and subjected to descriptive statistical analysis. This included calculating overall compliance rates, compliance by apartment typology, and compliance by project. The analysis also examined frequency distributions of apartment sizes relative to standards and identified patterns of deviation.

The study is limited to formal design documentation. It does not account for any informal modifications that may occur during construction or for post-occupancy changes. Additionally, the analysis relies on the declared typology of each apartment as reported by project architects; discrepancies between declared use and actual functional layouts could introduce classification errors. Despite these limitations, the dataset provides a robust basis for identifying systemic trends and regulatory tensions in contemporary residential development in Niš.

## 5. RESULTS AND ANALYSIS

Out of the 1,155 apartments analyzed, a total of 890 units meet the legal minimum area standards, while 265 units fall below the required thresholds. In percentage terms, 77.1% of apartments are compliant, and 22.9% are non-compliant with the Rulebook's minimum size norms. This indicates a substantial level of regulatory non-compliance in newly designed housing projects. It is notable that most of the analyzed projects were completed or planned in 2024–2025, meaning they should have been subject to the latest regulatory standards.

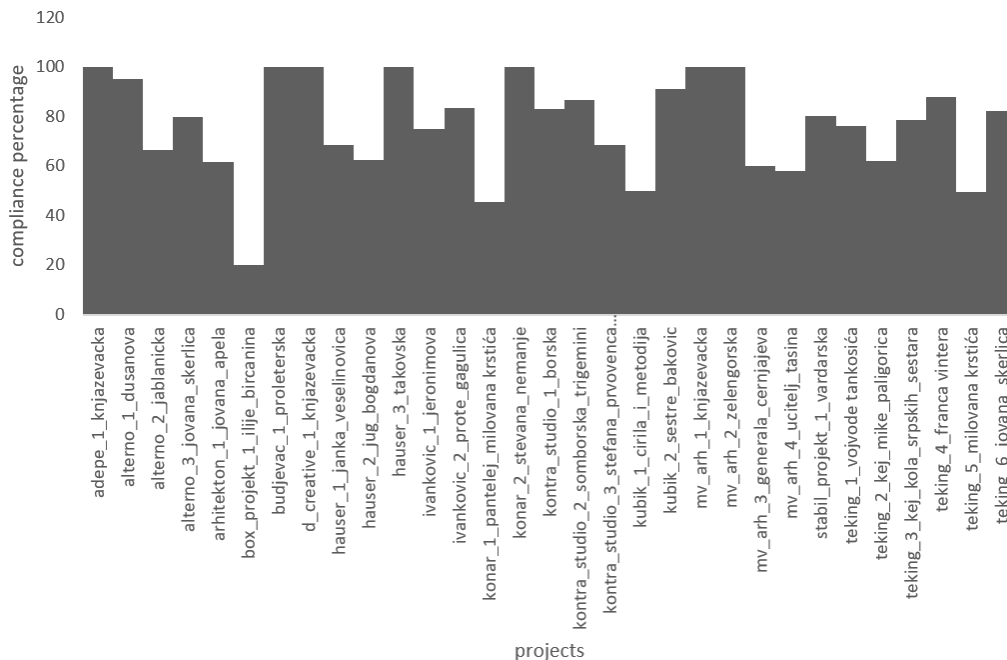


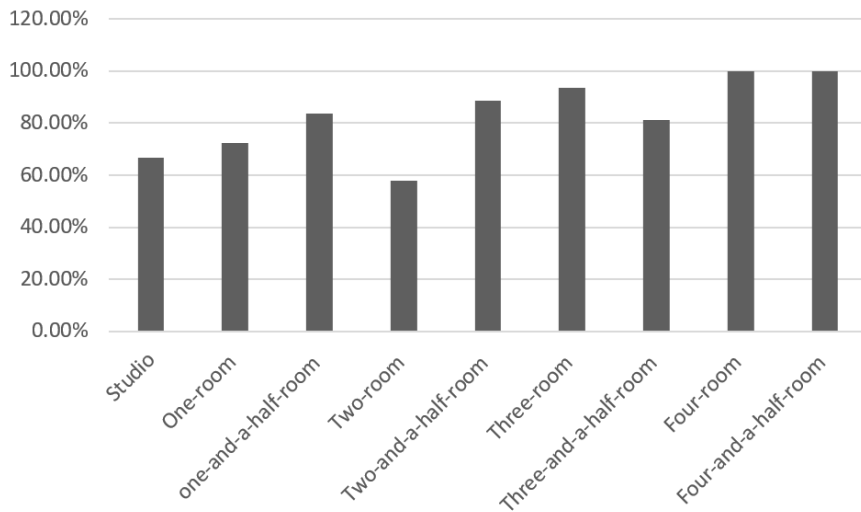
Figure 1. Compliance Rate by Projects

Compliance rates vary widely across the sample. Some developments exhibited full conformity (100% of units compliant), whereas others had non-compliance rates exceeding 50%. In general, projects targeting entry-level buyers or rental investors with smaller unit types tended to show higher rates of undersized apartments. In fact, among the 31 projects, seven achieved 100% compliance (i.e., all units met minimum sizes), while three projects had overall compliance below 50%. The lowest compliance was observed in a budget-oriented project with only 20% of its 5 units meeting standards, and two other projects with compliance around 45–49% (Figure 1).

When the data are disaggregated by apartment typology, clear patterns emerge. Smaller and more economical apartment types have significantly higher rates of non-compliance. Specifically, the typology-specific compliance rates are as follows:

- Studio apartments (garsonjera, min. 26.00 m<sup>2</sup>): 45 total units; 30 compliant (66.7%), 15 non-compliant (33.3%).
- One-room (one-bedroom) apartments (min. 30.00 m<sup>2</sup>): 40 units; 29 compliant (72.5%), 11 non-compliant (27.5%).
- One-and-a-half-room apartments (min. 40.00 m<sup>2</sup>): 141 units; 118 compliant (83.7%), 23 non-compliant (16.3%).

- Two-room (two-bedroom) apartments (min. 48.00 m<sup>2</sup>): 403 units; 233 compliant (57.8%), 170 non-compliant (42.2%).
- Two-and-a-half-room apartments (min. 56.00 m<sup>2</sup>): 223 units; 198 compliant (88.8%), 25 non-compliant (11.2%).
- Three-room apartments (min. 64.00 m<sup>2</sup>): 186 units; 174 compliant (93.5%), 12 non-compliant (6.5%).
- Three-and-a-half-room apartments (min. 77.00 m<sup>2</sup>): 48 units; 39 compliant (81.2%), 9 non-compliant (18.8%).
- Four-room apartments (min. 86.00 m<sup>2</sup>): 62 units; 62 compliant (100%), 0 non-compliant (0%).
- Four-and-a-half-room apartments (min. 97.00 m<sup>2</sup>): 7 units; 7 compliant (100%), 0 non-compliant (0%).



*Figure 1. Compliance Rate by Apartment Type*

The highest rates of non-compliance were observed in the smallest unit types (Figure 2). In particular:

- Two-room (two-bedroom) apartments had the lowest compliance: only 57.8% of such units met the minimum size, meaning 42.2% fell short of the 48 m<sup>2</sup> threshold;
- Studio apartments had 66.7% compliance (33.3% non-compliance) against the 26 m<sup>2</sup> minimum;
- One-room (one-bedroom) apartments had 72.5% compliance (27.5% non-compliance) relative to the 30 m<sup>2</sup> minimum.

Apartments of three rooms or larger showed much higher compliance. All four-room and four-and-a-half-room units fully complied with standards. Three-room apartments were 93.5% compliant. The remaining smaller categories – one-and-a-half-room and two-and-a-half-room – had compliance rates of 83.7% and 88.8%, respectively. The relatively higher non-compliance in two-room and studio typologies indicates that spatial deviations are concentrated in the most cost-sensitive market segments, supporting the view that deviations from norms are structurally linked to affordability constraints and developer strategies.

At the level of individual projects, compliance rates range from 100% down to as low as 20%. Budget- oriented projects or those with a high proportion of small units often saw the largest shortfalls. In several projects, specific categories of apartments were uniformly undersized: for instance, in one project all declared one-and-a-half-room units fell below the 40 m<sup>2</sup> minimum.

These project-level disparities reveal a systematic pattern in the design and classification of residential units. Developers operating in affordability-constrained markets often prioritize maximizing the number of units by reducing individual unit sizes to just below the legally prescribed thresholds. Despite these reductions, typological labels are frequently retained—for instance, a 36 m<sup>2</sup> unit may be designated as a “one-and-a-half-room” apartment, although the regulatory minimum for that category is 40 m<sup>2</sup>. This practice of typological mislabeling enables a circumvention of regulatory standards and undermines the intended function of minimum housing norms. Furthermore, it introduces a hidden dimension of spatial inadequacy: the actual occupancy of such units often exceeds their nominal design capacity. For example, two-room apartments—typically intended for two-person households—are commonly inhabited by families of three or four. This divergence between design standards and real-life usage implies that the effective performance of the housing stock is even lower than formal indicators suggest, exacerbating concerns about overcrowding, residential discomfort, and long-term housing quality.

The extreme cases at the project level highlight weaknesses in both the permitting process and enforcement. That some buildings achieved 100% compliance (often high-end projects with larger unit mixes) while others had compliance rates below 50% underscores inconsistent oversight. It suggests that formal regulatory norms are sometimes applied flexibly or not enforced rigorously, allowing significant deviations in lower-end developments.

Overall, the empirical analysis yields the following key findings:

- Overall compliance was 77.1% (890 of 1155 units), leaving 22.9% non-compliant.
- Non-compliance is strongly associated with small-unit typologies. Two-room, studio, and one- room apartments exhibit the highest violation rates. In contrast, all large units (four-room and above) are compliant.
- Systematic under-sizing is evident. Many non-compliant units were only marginally below the thresholds, indicating a deliberate strategy of “just enough reduction” to squeeze out additional units.
- Developer strategies reflect market demand. The data suggest that developers reduce unit sizes in order to meet price points for cost-sensitive buyers, prioritizing marketability over strict adherence to minimum area standards.
- Institutional enforcement appears limited. The prevalence of undersized units, especially in certain projects, implies that regulatory oversight is insufficient or unevenly applied.

These findings will inform the subsequent discussion on the policy and planning implications of the observed compliance gap.



## 6. DISCUSSION

The concentration of non-compliant units among smaller typologies underscores the vulnerability of spatial standards to affordability pressures. In Niš's market context – with relatively low average incomes – developers face strong incentives to cater to buyers who demand lower purchase prices. Small apartments, by virtue of their smaller floor areas, allow total sale prices to remain within reach of such buyers. As a result, design decisions are increasingly shaped by price ceilings rather than by considerations of habitability and spatial quality. Economic pressures were critical drivers for downsizing [7].

The proliferation of borderline-compliant studios and one-bedroom apartments reveals that formal minimum standards are frequently treated as aspirational rather than obligatory. Even though the legal norms aim to ensure adequate living space, the reality is that many of the most affordable units fall short of these norms. This aligns with wider regional trends in post-socialist cities, where housing standards are often compromised in practice. Studies from Croatia, Romania, and Hungary have similarly found that in rapidly growing markets, compact units dominate new construction to meet the needs of cost-constrained buyers (e.g., young professionals, students, first-time households). Serbia's case is notable because the legal norms are clearly defined on paper, yet enforcement appears weak. Thus, while the rulebook provides a strong formal baseline, the market and institutional context lead to a significant gap between official standards and realized housing stock.

Evidence from the data suggests a degree of regulatory ambiguity and gaps in the institutional framework. The practice of nominally classifying undersized units as larger typologies (e.g., labeling a unit just under the minimum as a higher-category apartment) indicates that the current typology classification system can be manipulated. This “typological flexibility” allows developers to effectively sidestep the rigid area thresholds. Such tactics point to weaknesses in how building permits are checked and in how building usage is later verified.

Moreover, the findings highlight that formal compliance is uneven across development types. High-end projects and those catering to wealthier segments have strong incentives to meet and even exceed standards, as these consumers may demand larger, higher-quality units. In contrast, projects aimed at the lower end of the market have little regulatory pressure (and higher market pressure) to comply strictly. The result is a *de facto* dual housing market, where regulatory oversight functions primarily in one segment but not in another.

The persistent shortfall in regulatory compliance among smaller housing units raises critical concerns regarding social equity and spatial justice. Minimum area standards are established to protect residents from substandard living conditions. However, when nearly one in four newly constructed apartments fails to meet these legal thresholds, the protective function of regulation is significantly undermined. Smaller and ostensibly more affordable units, which are typically targeted toward economically vulnerable populations, are most frequently undersized. As a result, the households with the fewest resources often inhabit the least adequate living spaces. Moreover, partial enforcement disproportionately affects higher-end developments, while low-income households are permitted to occupy substandard units—effectively reinforcing disparities in housing quality.

These findings suggest that the current approach to regulation may be misaligned with socioeconomic realities. While rigid enforcement may uphold formal compliance, it risks

pushing vulnerable populations out of the formal housing market altogether—particularly in the absence of alternative housing solutions. Conversely, tolerating widespread noncompliance erodes the normative legitimacy of planning frameworks. Policymakers are thus confronted with a deeper structural dilemma: rather than merely choosing between enforcement and flexibility, they may need to reconsider whether current standards remain appropriate. Given the widespread manipulation of typologies and systematic undersizing of units, it may be necessary to revise regulatory benchmarks to reflect actual patterns of demand and affordability—thereby ensuring that planning standards both protect minimum living conditions and remain realistically enforceable in evolving market contexts. In this regard “State subsidies should be targeted to meet two objectives: first, to ensure that housing is provided for low-income households and, second, to intervene to ensure that housing is both accessible and affordable” [1].

## 7. CONCLUSIONS AND RECOMMENDATIONS

This study examined the degree to which newly designed residential units in Niš, Serbia, comply with the country’s regulatory minimum size standards. An analysis of 31 multi-family housing projects (comprising 1,155 apartments) revealed that compliance with these standards is incomplete. Overall, 77.1% of the apartments met the minimum net floor area requirements, whereas 22.9% fell short. Non-compliance was most pronounced among smaller unit types: studio, one-bedroom, and two-bedroom apartments exhibited the highest rates of undersizing. These trends likely reflect affordability constraints and developer strategies in a market characterized by limited purchasing power among buyers. In contrast, larger units with three or more rooms generally met the standards. Taken together, these findings highlight a misalignment between the formal regulatory intent and actual housing design practices. Serbia’s national building regulations provide clear minimum area thresholds, yet nearly one-quarter of new apartments in Niš fall below these prescribed minima. This discrepancy is not marginal but systemic; it indicates that, as currently enforced, these spatial regulations do not guarantee adequate habitability across all market segments. Enforcement appears selective, with some developers resorting to typological labeling and minimal unit sizing to capture demand at the low end of the market. Indeed, Petković-Grozdanović et al. (2017) argue that it is important to “protect the lower limit of the quality” by specifying a “minimum limit which should not be crossed.” They further warn that the minimum standard of housing “should not be taken as the literal minimum,” but should instead serve as a safeguard against social problems affecting low-income tenants [2].

Based on the analysis, several recommendations emerge for policy and planning:

1. **Strengthen Regulatory Oversight:** Local authorities should enhance their capacity to verify compliance with minimum area standards during the permitting process. This could involve more rigorous review of floor plans and checks against the Rulebook thresholds. Special attention may be needed for the small-unit typologies most prone to non-compliance. Institutional inertia and lack of sufficient staffing and resources in local permitting authorities present significant challenges.

2. **Introduce Typology-Based Monitoring:** Regulators should develop clear, functional criteria accompanying formal typology classifications. For instance, requiring documentation of room functions and dimensions (not just the number of rooms) could reduce ambiguity. Such measures would limit misuse of labels like “one-and-a-half-room” for units that do not meet the functional intent of that category. Resistance from developers and additional administrative burdens on regulatory bodies are key challenges to this approach.
3. **Promote Affordable and Compliant Housing:** The government could establish incentives for developers who provide affordable housing that also meets spatial standards. Examples include expedited permitting, tax relief, or grants for projects that include a mix of unit sizes and incomes. This would help align market incentives with compliance goals. Securing sufficient funding and political commitment to effectively implement these incentives is a significant challenge.
4. **Integrate Affordability into Planning:** Urban planning should proactively address affordability. This might involve allocating land for public or cooperative housing projects that prioritize habitability and quality over minimal feasibility. By ensuring there is supply of legitimately affordable units, the pressure on private developers to undersize apartments could be alleviated. Land scarcity in desirable urban areas and potential resistance from private sector stakeholders pose substantial challenges.
5. **Enhance Transparency and Data Accessibility:** Creating publicly accessible databases of approved residential projects (including data on unit sizes and compliance status) would improve market transparency. Such a registry would allow citizens, researchers, and policymakers to monitor trends and hold developers and authorities accountable for adherence to standards. Technical capacity limitations for data collection, maintenance, and ensuring ongoing accuracy and public accessibility are notable implementation hurdles.

These recommendations underscore a dual-track approach: reinforcing compliance where possible, while addressing the economic drivers of undersizing. The goal is to ensure that Serbia’s housing sector can meet both functionality and equity objectives. By realigning regulatory enforcement with housing affordability policies, Serbia could begin to narrow the gap between aspirational design standards and the reality of housing production. Serbia’s regulatory framework must evolve to balance affordability with enforceable spatial norms—a necessity underscored by Niš’s compliance gaps [8].

The case of Niš illustrates that formal minimum area standards, no matter how well-defined, require active enforcement and supportive policies to be effective. As long as the market rewards smaller units and enforcement remains inconsistent, a significant portion of new apartments will continue to fall below the prescribed spatial norms. Policymakers must therefore tackle both sides of the equation – tightening oversight and expanding access to genuinely affordable housing – to ensure that minimum standards serve their intended protective role in practice.

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## REFERENCES

- [1] Petrović Mina: **Post-socialist Housing Policy Transformation in Yugoslavia and Belgrade**. *International Journal of Housing Policy*, 1:2, 2017, <http://dx.doi.org/10.1080/14616710110083434>
- [2] Petković-Groždanović Nataša, Stojiljković Branislava, Jovanović Goran, Mitković Petar, Keković Aleksandar: **The spatial comfort of social housing units in the post-socialist period in Serbia in relation to the applicable architectural norms**. *Cities*, 62, 2017, <http://dx.doi.org/10.1016/j.cities.2016.12.014>
- [3] Lux Martin: **Social Housing in the Czech Republic, Poland and Slovakia**. *European Journal of Housing Policy*, 1(2), 2001, <https://doi.org/10.1080/14616710110083425>
- [4] **Rulebook on Conditions and Norms for the Design of Residential Buildings and Apartments** (Official Gazette RS, Nos. 58/2012, 74/2015, and 82/2015)
- [5] Republic Geodetic Authority: **Report on the Real Estate Market Conditions in the Fourth Quarter of 2024**, Belgrade, 2024
- [6] <https://www.stat.gov.rs/sr-latn/oblasti/trziste-rada/zarade> (29.03.2025.)
- [7] Lehner Matthias, Richter Jessika Luth, Kreinin Halliki, Mamut Pia, Vadovics Edina, Hanman Josefine, Mont Oksana, Fuchs Doris: **Living smaller: acceptance, effects and structural factors in the EU..** *Buildings and Cities*, 5(1), 2024, <https://doi.org/10.5334/bc.438>
- [8] Petrović Vladana, Stojiljković Branislava, Petković Nataša, Krstić Hristina: **Spatial-Functional Organization of a Contemporary Apartment in Serbia**. *Journal of Mediterranean Cities*, Volume 3, Number 1, 2023, [https://doi.org/10.38027/mediterranean-cities\\_vol3no1\\_3](https://doi.org/10.38027/mediterranean-cities_vol3no1_3)