

# HOME NOT FOUND

A Visual Report on Ireland's Housing Breakdown (2012–2024)



Divyansh Sharma, August 2025

## EXECUTIVE SUMMARY

Comprehensive Analysis of Irish Housing Market (2012-2024)

### **Project Overview**

This analysis delivers the first comprehensive, county-level examination of Ireland's housing crisis, combining property prices, earnings data, and construction metrics from 2012-2024. Using advanced data integration techniques and Al-assisted development, the project produced both interactive dashboards and public-ready visualizations to inform policy discussions and regional planning decisions.

## Data Integration & Methodology

**Sources:** Central Statistics Office (CSO) residential property prices, household earnings, dwelling completions, and floor area data, supplemented by EU comparative datasets.

**Geographic Standardization:** Resolved data fragmentation by mapping settlement-level and LEA-level records to unified county boundaries, handling inconsistent naming conventions through automated text normalization.

## AI-Enhanced Development

Leveraged multiple Al agents to accelerate project delivery and enhance analytical depth:

- Data Processing: Automated cleaning scripts, inconsistency detection, and validation workflows
- Code Generation: Python automation for data merging and statistical calculations
- Visualization: Tableau dashboard optimization and color scheme development
- Documentation: Narrative structuring and methodology explanations

Al integration reduced development time by approximately 60% while maintaining rigorous analytical standards.

### **Key Metrics:**

- Affordability Ratio = Median house price ÷ Annual earnings
- **Price per m<sup>2</sup>** = Sale price ÷ Dwelling size
- Construction output trends bAy county and year
- Construction output trends by county and year

### **Technical Challenges Resolved**

**Data Fragmentation:** Different datasets reported at varying geographic levels and time spans.

**Solution:** Developed keyword-based mapping rules to standardize all records to county-year granularity.

**Missing Data:** Significant gaps in pre-2012 and 2024 records. **Solution:** Implemented transparent data quality indicators and clearly marked incomplete periods in all visualizations

**Naming Inconsistencies:** County names varied across sources. **Solution:** Created comprehensive normalization protocols handling diacritical marks and spelling variations.

### **Deliverables & Impact**

**Interactive Dashboard:** Tableau-based exploration tool with year, county, and metric filtering enabling dynamic analysis for policymakers and researchers.

**Public Report:** Adobe Suite designed infographics optimized for media distribution and public engagement.

**Open Data:** Cleaned datasets published to Kaggle and GitHub, enabling continued research and analysis by academic and policy communities.

**Policy Applications:** Findings directly support arguments for regional economic diversification, increased public housing investment, and targeted affordability interventions in high-pressure counties.

**Public Engagement:** Visual narratives translate complex housing economics into accessible formats, enabling informed citizen participation in housing policy debates.

# SHAPING THE STORY

### **Ireland's Housing Crisis in Numbers**

Housing affordability has become Ireland's defining challenge. This analysis examines a custom built dataset across all 26 counties from 2012-2024 to quantify the crisis scale and identify underlying causes.

The data reveals unprecedented market failure: house prices doubled while dwelling sizes contracted by 42%. Construction output failed to respond to obvious profit signals, creating annual housing deficits that compound yearly.

#### **About The Data**

The dataset used in this report is part of a larger analytical project and is accompanied by an interactive Tableau dashboard. It was custom-built by merging and cleaning multiple datasets from the Central Statistics Office (CSO) Ireland.

Key datasets referenced include:

- NEA08
- NDA05
- NDA02
- HPA02

Links to the dashboard and master dataset, along with the Jupyter Notebook used for preprocessing and analysis, is publicly available on Kaggle and GitHub, linked at the end.

# THE EXPLOSION

Every county experienced unprecedented price acceleration. Dublin doubled, but rural counties saw even higher percentage increases, proving this is a nationwide crisis, not just a Dublin problem.

PRICE PER M²

Dublin

€1,412 → €4,939
+250% INCREASE

Mean Dwelling Prices by County



# THE COLLAPSE

Irish workers are mathematically excluded from homeownership. A deposit in Dublin now requires more than an entire year's salary, making homeownership dependent on inheritance rather than work.

Median House Price: €563,000 Required Deposit (10%): €56,300 Median Annual Salary: €47,900

**Deposit = 1.2 Years of Entire Salary** 

COUNTY	AFF. RATIO	
Dublin	11.8x	
Wicklow	10.6x	
Cork	8.2x	
Galway	8.2x	
INTL. STANDARD	3-4X	

Year 2023

It will take an average Dublin resident more than 10 years of their salary to be able to buy a home.

This puts Dublin's Affordability ratio at more than10x The global average for affordable housing is considered to be 3-4x



# THE SHRINKING \*\*\*

Irish families face a unique crisis: paying dramatically more for significantly less. The average home lost 86 square meters—equivalent to losing an entire apartment while prices doubled. The A

The Average dwelling size dropped from **203 m<sup>2</sup>** in 2012 to just **117 m<sup>2</sup>** in 2024.

While Prices Nearly Doubled over the years, houses shrank by upto 40% on average.



*42%* 





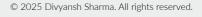
They're trying..... kind of.....

Despite massive profit signals, construction is moving backwards. Even Dublin—with 1,809% construction growth since 2012—builds only one home per 128 residents. Ireland's construction response remains catastrophically inadequate to population pressures.

Dwellings Const	ructed By County		
COUNTY	2012	2024	CHANGE %
Dublin	572	10,921	+1,809%
Cork	3,546		+482%
Galway	327 1242		+280%
Meath	192 1623		+745%
Kildare	207 1425		+588%

2012-2016 Average: 26,845 units/year 2020-2024 Average: 29,680 units/year

That's only an 11% increase while prices rose beyond 100% in some areas



# SOLUTION? LOOK EAST

Vienna can act as a role model

Vienna proves state housing can be both high-quality and financially sustainable. However, replicating their success in Ireland requires overcoming significant institutional, political, and cultural barriers that took Austria a century to develop.

#### Phase One:

Pilot projects in Dublin, Cork, Galway (5,000 units)

#### Phase Two:

Scale to 15,000 units annually with design standards

#### Phase Three:

Full program targeting 25,000 units annually

#### The Vienna Model

- Municipal ownership: City builds and owns housing stock
- Cross-subsidization: Higher earners subsidize lower earners
- Quality first: Architectural competitions, high design standards
- Long-term planning:
   Multi-decade development
   strategies



\*I'm sure it's a little more complicated, but lets leave that to the policy makers:)

# YOU MADE IT TO THE END!

#### **ABOUT**

Thank you for flipping through this short graphic report on the ongoing Irish housing crisis!

This project was a one man effort, reseached, analysed, designed and executed in under 3 weeks. As a student dipping his toes in the field of data and with experience in graphic design; I aim to create eye-catching and digestible pieces which spark awareness and action.

#### Links









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