University of Strathclyde Glasgow

Fraser of Allander Institute

Glasgow Economic and Climate Review 2025

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The Fraser of Allander Institute

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Disclaimer

The analysis in this report has been conducted by the Fraser of Allander Institute (FAI) at the University of Strathclyde. The FAI is a leading academic research centre focused on the Scottish economy.

The report was produced in 2025 as part of the Glasgow Environmental Monitoring of Indoor and Outdoor Air (GEMINOA) project, which is funded by ICLEI - a global network of local and regional governments committed to sustainable urban development.

The analysis was undertaken independently by the FAI. The FAI is committed to informing and encouraging public debate through the provision of the highest quality analytical advice and analysis. We are therefore happy to respond to requests for technical advice and analysis. Any technical errors or omissions are those of the FAI.

Foreword

As cities across the world move to address the climate crisis, drive economic growth, and improve the health and daily lives of their citizens, local data has become increasingly important for the development of effective policy.

The Glasgow Economic and Climate Review 2025 offers a timely and rigorous snapshot of Scotland's largest city, designed to support economic and environmental policy decisions.

Produced by the Fraser of Allander Institute at the University of Strathclyde as part of the Glasgow Environmental Monitoring of Indoor and Outdoor Air (GEMINOA) project, this publication brings together indicators across emissions, air quality, energy, transport, economy, health and inequality.

The result is a snapshot of the city's short- and long-term trends, and position relative to other local authorities across Scotland. It also establishes a baseline of data that can be built upon and tracked in the years ahead.

The Review highlights Glasgow as a city of contrasts - showing clear progress in areas such as emissions reduction, renewable energy infrastructure, and health outcomes, while continuing to face significant challenges in transport, public satisfaction, and long-term health inequalities.

By presenting this overview, we hope this inaugural Review serves as a valuable tool not only for policymakers, businesses, and residents, but also for other cities looking to learn from Glasgow's experience.

The data sources used in this Review are detailed in the Glasgow Data Catalogue 2025, which brings together key environmental, economic, and social datasets to support policy analysis. Developed through the GEMINOA project, it provides metadata on coverage, timeliness, and availability.

Legend

- Positive - Glasgow is showing clear improvement or is performing comparitively well
- Mixed - None to very slight change (1% or less). Also used to indicate mixed performance over multiple dimesions such as total vs per capita values.
- Poor - Glasgow is showing clear challenges with improvement or is performing relatively poorly.
- No comparable data - insufficient data to compare over time or across regions during the period in question

Emissions

	Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
City-wide CO_2 Emissions	2,323 ktCO2e (2022)				Glasgow has the second-highest total CO_2 emissions of any Scottish local authority, which closely reflects its status as the most populous. However, on a per capita basis, it ranks sixth lowest. Emissions fell by 7% between 2021 - 2022 and are down 46% since 2005 - driven mainly by the decarbonisation of the GB electricity grid.
Consumption/ Footprint GHG Emissions	7,315 ktCO2e (2021)				Glasgow is responsible for the highest total greenhouse gas consumption emissions of any local authority in Scotland; however, it ranks in the bottom half on a per capita basis. In 2021, total greenhouse gas consumption emissions rose by 27% from 2020, likely due to a COVID-19 'bounce-back' - a pattern also seen, though less sharply, across Scotland and the UK. The recent spike has partially reversed earlier progress; however, the longer-term trend still shows a 5% reduction compared to 2001.

Air Quality

		Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
Annual mean PM10 (µg/m³) monitoring site results (2023)	Glasgow Kerbside	12	●	●	●	In 2023, no site exceeded the annual mean objective of 18 µg/m³. PM10 levels improved at all but two sites, with increases recorded at Nithsdale Road and Waulkmillglen compared to 2022. Waulkmillglen is the only site without long-term PM10 improvement, with levels rising since the 2020 low of 6.9 µg/m³.
	Glasgow Townhead	9	●	●	●	
	Glasgow High Street	9.6	●	●	●	
	Glasgow Anderston	10.4	●	●	●	
	Glasgow Byres Rd	10.8	●	●	●	
	Glasgow Dumbarton Rd	11.5	●	●	●	
	Glasgow Nithsdale	11	●	●	●	
	Glasgow Waulkmillglen	8.8	●	●	●	
	Glasgow Broomhill	10.2	●	●	●	
	Glasgow Burgher Street	10	●	●	●	
Annual mean PM2.5 (µg/m³) monitoring site results (2023)	Glasgow Kerbside	6.5	●	●	●	All sites remained consistently below the annual 10 µg/m³ objective in 2023. Since 2019, PM2.5 levels have declined at nearly all sites in Glasgow. However, annualised data is unavailable for the Kerbside site in 2019 and for Burgher Street before 2023. At the Glasgow Kerbside site, levels increased slightly in the most recent data compared to early 2020, but have shown consistent declines since 2021.
	Glasgow Townhead	4.5	●	●	●	
	Glasgow High Street	5.1	●	●	●	
	Glasgow Anderston	5.8	●	●	●	
	Glasgow Byres Rd	6	●	●	●	
	Glasgow Dumbarton Rd	5.5	●	●	●	
	Glasgow Nithsdale	6.2	●	●	●	
	Glasgow Waulkmillglen	4.7	●	●	●	
	Glasgow Broomhill	5.8	●	●	●	
	Glasgow Burgher Street	5.7	●	●	●	
Annual mean NO_2 (µg/m³) monitoring site results (2023)	Glasgow Kerbside	39	●	●	●	In 2023, no site exceeded the 40 µg/m³ annual mean objective. NO_2 levels fell at all sites between 2022 and 2023, though Burgher Street lacks comparable annualised data. Since 2019, NO_2 levels have dropped significantly, with decreases ranging from 20% at the Anderston site to 39% at Great Western Road.
	Glasgow Townhead	15.6	●	●	●	
	Glasgow High Street	18.2	●	●	●	
	Glasgow Anderston	18.4	●	●	●	
	Glasgow Byres Rd	20.5	●	●	●	
	Glasgow Dumbarton Rd	21.4	●	●	●	
	Glasgow Nithsdale	20.2	●	●	●	
	Glasgow Waulkmillglen	21.2	●	●	●	
	Glasgow Broomhill	7	●	●	●	
	Glasgow Burgher Street	16.7	●	●	●	

Note: Annual concentration guidelines for particulate matter with a diameter of 10 micrometres or less (PM10), particulate matter with a diameter of 2.5 micrometres or less (PM2.5), and nitrogen dioxide (NO_2) have been set by Glasgow City Council and the Scottish Government. These pollutants have been shown to have health implications in particular with sensitive groups. To learn more about this topic see Air Pollution and Inequality in Scotland.

Energy

	Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
Domestic Electricity Consumption Per Meter	2572 kWh (2023)				Average electricity consumption per meter in Glasgow rose slightly by 0.6% between 2022 and 2023 but has fallen by 36% since 2005. While Glasgow records the highest total domestic electricity consumption of any Scottish local authority, it also has the second-lowest level of domestic electricity consumption per meter.
Domestic Gas Consumption Per Meter	9673 kWh (2023)				Between 2022 and 2023, average gas consumption per meter in Glasgow rose modestly by 0.7%. Since 2005, however, the long-run trend shows a significant reduction of around 43%. In 2023, Glasgow continued to have the highest total domestic gas consumption across all meters, while also recording the lowest average gas consumption per meter among Scottish local authorities.
Domestic Solar Panel Installed capacity	12.1 MW (2024)				In the most recent data from December 2024, domestic solar panel installed capacity - the total amount of solar power that can be generated by households - remained unchanged at 12.1 MW, with no new installations recorded in the last three months of the year. At present, data on domestic solar panel deployment prior to September 2024 is not readily available at the local level. At the parliamentary constituency level, Glasgow's five constituencies fall within the bottom 20% for domestic solar deployment, together accounting for just 3% of Scotland's total domestic installed capacity.

Transport

	Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
Car and Taxi Vehicle Miles Driven	1,719 million miles (2023)				Between 2022 and 2023, miles driven in Glasgow by cars and taxis rose by 3%. After steadily increasing from 2005 to 2019, traffic dipped during the COVID-19 pandemic but in 2023 had nearly returned to pre-pandemic levels. Glasgow accounts for the largest share of miles driven among Scottish local authorities, partly due to its role as a major transport hub with several motorways running through the city. This has implications for transport emissions, as miles driven within Glasgow are counted locally - regardless of where journeys begin or end.
Road Transport Fuel Use	277 ktoe (2022)				Road fuel consumption in Glasgow rose by 5% between 2021 and 2022, reflecting a continued rebound from the COVID-19 dip - similar to trend seen above in vehicle miles driven. Despite this, fuel use in Glasgow has fallen by 6% since 2005, in contrast to a 2% increase across Scotland as a whole.
EV Charging Devices	681 devices (2025)				In January 2025, Glasgow had 281 more publicly available electric vehicle charging devices than the year before - a 178% increase. Since October 2019, the number of devices has grown by 486%. Glasgow now has the highest number of public EV chargers of any Scottish local authority, accounting for 11% of the national total, and ranks comfortably in the top half for chargers per 100,000 people.
Public Transport Satisfaction	70% (2023)				The percentage of Glasgow adults who rate their public transport as very or fairly satisfactory increased from 61% in 2022 to 70% in 2023 However, this share remains lower than the 80% recorded in 2013, the year the question was first included in the Scottish Household Survey. As of 2023, Glasgow ranks sixth among Scottish local authorities for the proportion of adults who are very or fairly satisfied with public transport.


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Glasgow

Economy

	Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
Gross Value Added	£29.3 billion (2023)				According to the latest data from the ONS, Glasgow City's GVA at current prices increased from £26.6 billion in 2022 to £29.3 billion in 2023 - a nominal growth of around 10%. When adjusted for inflation, GVA growth was below 1% between 2022 and 2023 and GVA has grown by approximately 26% since 2005. Glasgow has consistently been the second-largest ITL3 region by GVA, following Edinburgh.
Labour Productivity	£36.00 per hour worked (2022)				Between 2021 and 2022, current price GVA per hour worked - a commonly used proxy for labour productivity - increased slightly from £35.30 to £36.00 in the Glasgow City local authority. These figures include the effects of inflation, which was particularly high throughout 2022. Nominal GVA per hour worked has grown by 67% since 2005; however, this growth would be significantly lower once adjusted for inflation. In 2022, Glasgow ranked 21st out of Scotland's 32 local authorities for GVA per hour worked, positioning it just outside the bottom third of the distribution.
Employment Rate	72.1% (2022)				The working-age employment rate increased from 69.7% in 2021 to 72.1% in 2022. Estimates for 2023 have not been included in recent datasets due to confidence issues related to sample sizes within the Annual Population Survey - sub Scotland estimates should be treated with caution until the ONS methods adapt. Since 2004, the working-age employment rate has grown from 62.7%, despite notable declines in 2009 and 2012. According to the latest data, Glasgow is positioned in the bottom third of local authorities by working-age population employment rate.
Economic Inactivity Rate	25.4% (2022)				The economic inactivity rate for working-age individuals in Glasgow decreased by 2.1 percentage points, falling from 27.5% in 2021 to 25.4% in 2022. Since 2005, the rate has declined significantly from 32%. In 2022, Glasgow had the 8th highest rate of economic inactivity among Scotland's 32 local authorities, contrasting with Edinburgh, which recorded the 9th lowest rate.

Health & Inequality

	Latest value	How does Glasgow Compare?	Is Glasgow Improving in the short-term?	Is Glasgow improving in the long-term?	Analysis
Scottish Index of Multiple Deprivation	45% (2020)				The share of data zones in Glasgow ranked among the 20% most deprived areas in Scotland decreased from 48% in 2016 to 45% in 2020. This represents a slight improvement compared to 49% in 2012. Glasgow has consistently recorded the highest proportion of data zones in the most deprived 20% across all Scottish local authorities.
Asthma Patient Hospitalisations per 100,000 population	90.3 (2021/22) to (2023/24)				Glasgow has experienced an increase in the three-year rolling average of asthma patient hospitalisations in the latest data. During the period 2020/21 to 2022/23, the rate stood at 77.2 per 100,000, rising by 17% to 90.3 per 100,000 in 2021/22 to 2023/24. Despite this recent increase, the long-term trend still remains positive, with a 16% reduction in the latest period compared to 2003/04 to 2005/06. In the most recent data, Glasgow ranks as the 8th highest out of 32 Scottish local authorities for asthma-related hospitalisations, placing it in the top 25% of all local authorities in Scotland.
Life Expectancy in years	Males 73.59 (2021-2023)				Since the COVID-19 pandemic, male life expectancy in Glasgow has increased slightly, rising between 2017-2019 and 2021-2023, while female life expectancy has declined. For males, the recent growth rate has slowed compared to the faster gains seen between 2012-2014 and 2017-2019, however male life expectancy continues to trend updawds. For females, the decline in life expectancy has slowed slightly, but it still represents an overall decrease. Glasgow now has the lowest male and female life expectancy among all Scottish local authorities.
	Females 78.26 (2021-2023)				
Neighbourhood Rating	37% (2023)				In 2023, 37% of adults in Glasgow City rated their neighbourhood as a good place to live, a 1 percentage point decline from 2022. Around 2005/06, this figure stood at 33.6%, rising steadily over the following eight years to reach a peak of 47% in 2017. Since then, the rate has declined steadily over a four-year period. Of all local authorities, Glasgow has the lowest proportion of adults in Scotland who rate their neighbourhood as a good place to live.

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