

ECONOMIC VIEWPOINT

Diagnosing the Data Quality Crisis

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HIGHLIGHTS

- ▶ The unexpected decline in Q1 2026 real GDP in Canada has led to a lot of soul searching among economists. How did so many forecasters get it so wrong?
- ▶ The primary reason is that forecasters rely on monthly real GDP by industry to forecast quarterly GDP. But monthly GDP has become much less reliable as an economic indicator since the end of the pandemic. It is now much more heavily revised than it was prior to 2020. And at the individual industry level, large sectors like wholesale trade and manufacturing see some of the most substantial revisions.
- ▶ But the concerns don't end there. Series that had been useful for forecasting monthly industry output aren't any longer. The most egregious example is the retail trade component of monthly real GDP, which has become completely uncorrelated with monthly retail sales volumes since the end of the pandemic.
- ▶ The causes of this problem are wide-ranging. Increased challenges in data collection, greater swings in underlying population data, fewer resources available to collect and compile the information and a resulting reliance on imputed data are all to blame. Some of these challenges can be overcome with more funding. But others, like concern related to trust in public institutions, may be a more intractable problem.
- ▶ All parties using official data, whether in the public or private sector, should collectively make the case for high-quality information to support evidence-based decision making. Without good data, we're all lost.

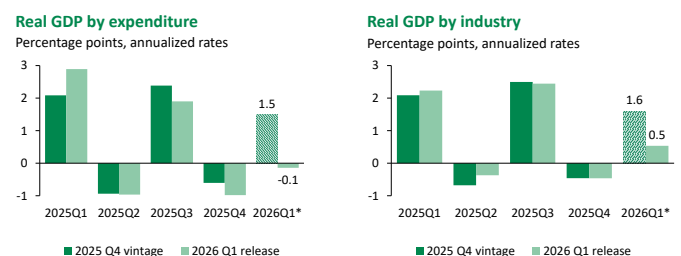
On the final Friday of May 2026, Canadians started their day with news from Statistics Canada that quarterly real GDP had contracted for the second consecutive quarter. This came as a surprise to economists, who had collectively predicted a firm increase in real GDP in the first quarter of 2026. The [Bank of Canada's](#) Q1 forecast suffered the same fate, which led to tough questions about forecast confidence in the press conference that followed the subsequent monetary policy decision. So how did so many economists get it so wrong?

Monthly GDP Is No Longer a Reliable Indicator

The clearest reason for the forecast miss by economists in Q1 2026 is the heavy reliance on monthly GDP. Statistics Canada's first estimate of Q1 growth in real GDP by industry was in the range of 1.5% to 2% annualized—in line with the forecasts of private sector economists and the Bank of Canada. However, when the final numbers were released for Q1, real GDP

by industry had advanced by 0.5% and real GDP by expenditure had contracted by 0.1%—a far cry from the healthy pace of growth suggested by Statistics Canada's early estimate (graph 1).

Graph 1
Q1 2026 Saw Notable Revisions and Conflicting Signals from Real GDP

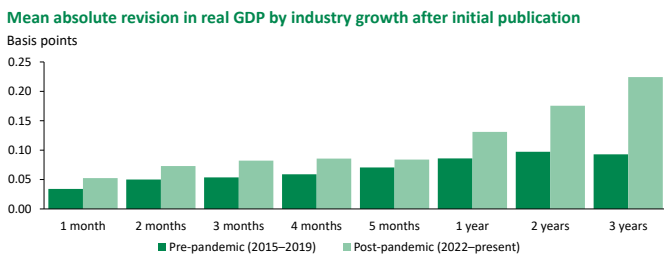


* The shaded green bar refers to the median of the Bloomberg consensus of private sector forecasters. Bloomberg, Statistics Canada and Desjardins Economic Studies

What changed is that monthly real GDP data were heavily revised between the release of the February and March numbers. Some might reasonably ask the question: but aren't data typically revised? The answer is undeniably yes. However, revisions to monthly real GDP data have become larger and more unpredictable in recent years.

Digging into available Statistics Canada vintages of real GDP by industry dating back to March 2015, we looked at how a monthly growth estimate may change one to five months and one to three years after initial publication. During the pre-pandemic period (2015–2019), the mean absolute revision (MAR)—which provides information on the average size of revisions, regardless of whether they're increases or decreases—had been relatively small for the first revision after the initial release. But as time passed, the size of the revision gradually increased. This pattern reflects the fact that, over time, Statistics Canada receives additional information and updates its real GDP by industry estimates. This finding is also consistent with research from the Bank of Canada (Rizzetto, 2018). That said, MARs have been larger in the post-pandemic period (2022–present), especially the more time that has passed since the initial publication (graph 2). These results were further verified using the standard deviations of the revisions.

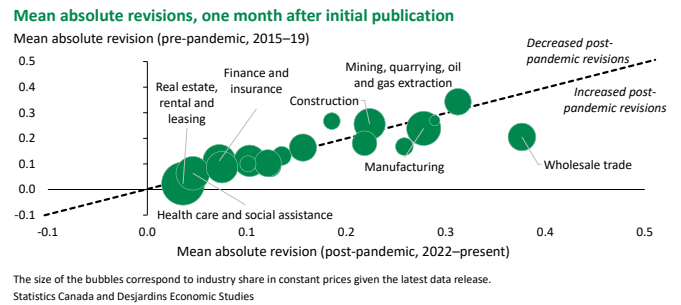
Graph 2
Revisions Have Been Getting Larger in the Post-Pandemic Period



Statistics Canada and Desjardins Economic Studies

Looking at some key sectors of real GDP by industry, wholesale trade is the most heavily revised and has seen the greatest increase in revision size since the pandemic (graph 3). This is a worrying trend given that wholesale trade is a key service-providing sector, making up about 5% of total real GDP by industry. Manufacturing, another large sector of the Canadian economy, has also seen its already large real GDP revisions increase from pre-pandemic levels. That said, not every sector has experienced greater month-to-month revisions since the pandemic. For instance, mining, quarrying, oil and gas extraction; real estate, rental and leasing; health care and social assistance; and finance and insurance services have seen smaller revisions since the pandemic than before it.

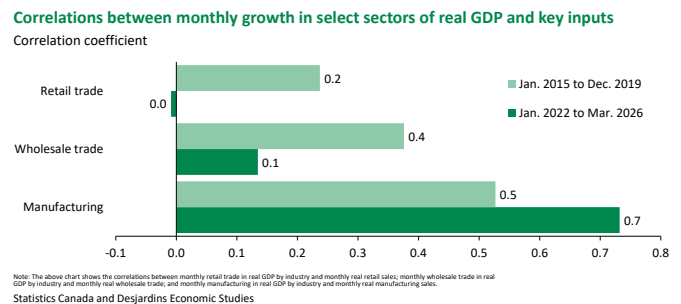
Graph 3
Wholesale Trade Is Increasingly Revised at First Monthly Revision



Forecasting Challenges in an Era of Declining Data Reliability

Even after the data are revised, much of the underlying inputs once used for short-term real GDP forecasting have become less reliable. Consider the releases, other than GDP and CPI, that tend to get noticed most by markets: retail sales, wholesale trade, manufacturing shipments, housing starts, existing home sales, merchandise trade and employment. These should help to predict some key categories of monthly GDP. However, the correlations between growth in the monthly GDP categories and their predictors are in many cases weaker than pre-2020 (graph 4). For example, real output in both retail and wholesale trade have seen the correlation with their underlying predictors become less than half of what it was in the five years preceding the pandemic. In the case of real retail trade specifically, the monthly sales data now provide no insight into the direction of the underlying monthly real GDP category. And while the correlation has strengthened between manufacturing output and shipments since the pandemic, it's broadly unchanged from its pre-pandemic level if the large and volatile monthly swings in 2025 and 2026 are excluded.

Graph 4
Historical Data Correlations Have Broadly, but Not Universally, Declined



Note: The above chart shows the correlations between monthly retail trade in real GDP by industry and monthly real retail sales; monthly wholesale trade in real GDP by industry and monthly real wholesale trade; and monthly manufacturing in real GDP by industry and monthly real manufacturing sales.

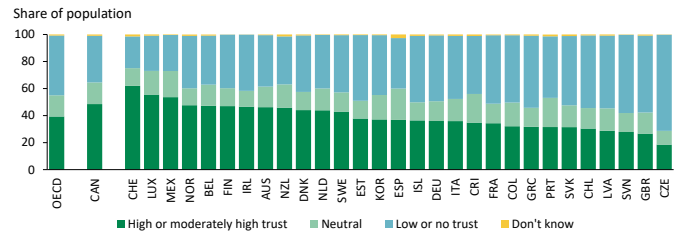
Statistics Canada and Desjardins Economic Studies

Why Have Official Data Become Less Reliable?

In a world awash with information and an ever-increasing number of analytical tools like artificial intelligence, it may seem counterintuitive that data quality concerns are on the rise. But Canada isn't the only country where data have become less reliable. In fact, it may be among the countries that have seen the least deterioration in data quality since the pandemic. And since Canadian economists rely on international data too, especially for the US economy, this is having knock-on implications for forecasters here.

One reason often cited for large data revisions and falling data quality is low and falling survey response rates. Some have speculated that this could reflect the ongoing use of survey methods that don't reflect modern approaches to engagement and communications. For instance, while Pew Research found that national public pollsters in the US have changed their methodologies considerably since 2000, live phone calls remain popular (graph 5). Another reason for a lack of survey participation could be declining trust in institutions, particularly the federal government, possibly leading people to avoid engaging with surveyors ([Brookings Institute \(2026\)](#); [UK Office of National Statistics \(2026\)](#)). However, this doesn't appear to be a leading issue in Canada, which has one of the highest levels of trust in national government among OECD countries (graph 6). Trust in the national government also increased among Canadians between 2021 and 2023, when the last OECD survey was conducted.

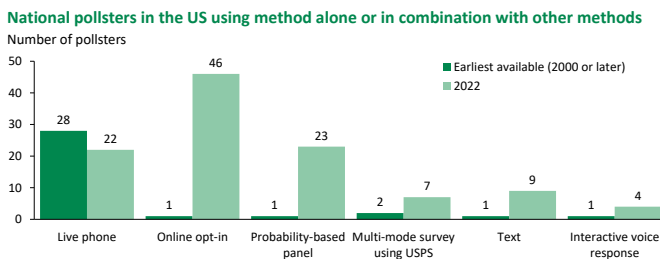
Graph 6
Trust in National Government Is Higher in Canada than in Most Other OECD Countries
People who indicate different levels of trust in their national government, 2023



Organisation for Economic Co-operation and Development (OECD) and Desjardins Economic Studies

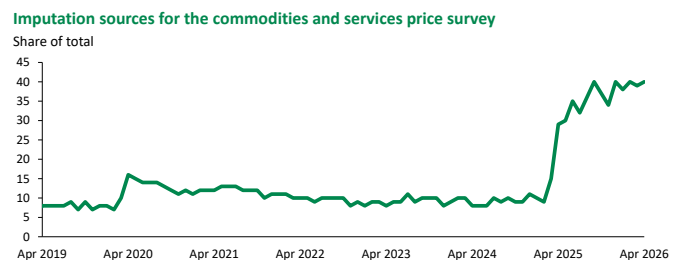
Regardless of the cause of falling survey participation, statistical agencies have been increasingly forced to impute data that are missing. This generally means employing a variety of statistical techniques to fill in any data gaps. The US Consumer Price Index is a frequently cited example of this, with nearly half of the series now imputed at any given time, up from 10% or less prior to 2025 (graph 7). The greater use of imputed data also means that initial estimates may be more substantially revised than in the past as information from other surveys or administrative data, such as tax filings, becomes available. This is in part what led to the significant revision to Canadian real GDP by industry in Q1 2026. The relevant quarterly surveys for the quarter were published after the release of real GDP by industry data for January, February and, on a preliminary basis, March 2026.

Graph 5
Polling Methods Have Changed Considerably over Time



USPS: United States Postal Service
Pew Research Center and Desjardins Economic Studies

Graph 7
Nearly Half of US Consumer Price Index Series Are Imputed



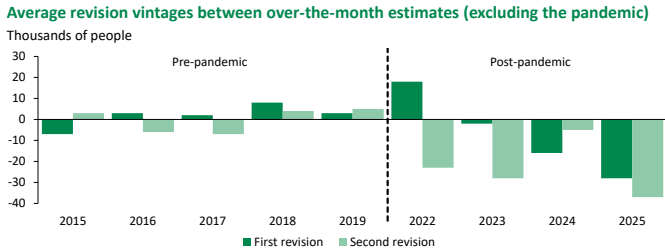
Bureau of Labor Statistics and Desjardins Economic Studies

Shifting demographics and immigration are also playing a role in data revisions and quality, particularly for labour market indicators. For example, US payroll revisions have been particularly pronounced because of subsequent re-estimates of the underlying population numbers due to reduced immigration

(graph 8). This is playing out to some extent in Canada as well. However, since jobs numbers from the Labour Force Survey aren't revised for changes in population, they tend to reflect shifts in the actual headcount with a delay (graph 9). And during periods of large swings in immigration such as the current one, this makes a big difference in terms of data accuracy.

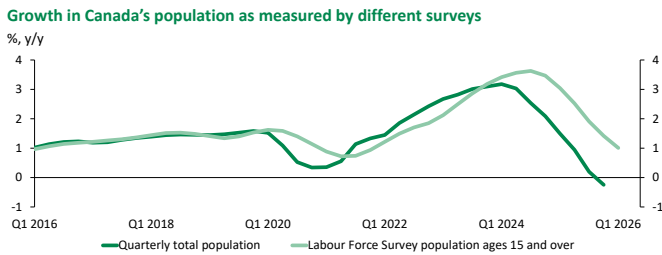
methods to reduce costs while continuing to deliver relevant and high-quality data for Canadians. For example, the frequency of data collection will be reduced where the requirements can be met through statistical modelling or other modern methods. In addition, adjustments will be made to the frequency and level of detail collected for data sets which demonstrate less relevance to Canadians."

Graph 8
As Population Swings Have Increased, So Have the Size of US Payroll Revisions



Bureau of Labor Statistics and Desjardins Economic Studies

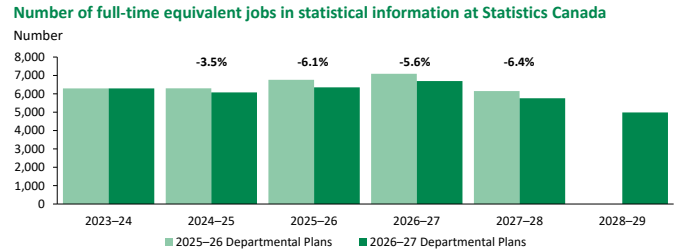
Graph 9
Canada's Labour Force Survey Is Overestimating Population Growth



Statistics Canada and Desjardins Economic Studies

Workforce adjustment in the federal government may be taking a toll on data collection and analysis as well, whether due to cuts by the Department of Government Efficiency in the US or the Comprehensive Expenditure Review in Canada. For instance, Statistics Canada is expected to find \$338.9M in cumulative savings in the four fiscal years starting in 2026–27, with over \$100M in ongoing savings every year thereafter. In support of reaching those savings targets, Statistics Canada has scaled back its planned future staffing levels. Indeed, the latest departmental plan for the statistical agency shows the number of full-time equivalents to be about 6% lower over the coming three years on average than previously planned (graph 10). The federal government also expects Statistics Canada to reduce data collection while relying more heavily on imputed data than in the past. According to the Government of Canada's [Budget 2025](#), "To meet up to 15 per cent in savings targets over three years, Statistics Canada (StatsCan) will increase the efficiency of its statistical programs by adopting new tools and

Graph 10
Jobs in Statistical Information at Statistics Canada Are Expected to Be at Least 6% Lower



Note: Numbers in bold represent the decline in forecasted full-time equivalents between the 2025–26 Departmental Plans and 2026–27 Departmental Plans.
Government of Canada and Desjardins Economic Studies

Conclusion

All told, declining quality and more substantial revisions of data in Canada and other countries have become a clear problem. It appears to be a combination of increased challenges in data collection, greater swings in underlying population data, fewer resources available to collect and compile the information and a resulting reliance on imputed data. Some of these constraints can be relatively easily solved through increased funding, albeit preferably tied to improved efficiency. Of course, that doesn't come without a fiscal cost. Other challenges will be more difficult to address, particularly if people are less likely to complete any type of survey than in the past. This may be further compounded by concerns related to trust in institutions. In the US, the new chair of the [Federal Reserve](#), Kevin Warsh, has responded to data quality concerns by setting up a task force dedicated to modernizing data sourcing and economic metrics.

All parties using official data, whether in the public or private sector, should collectively make the case for high-quality information to support evidence-based decision making. Without good data, we're all lost.