

How well do we know our economy?

Do economic data mislead us?

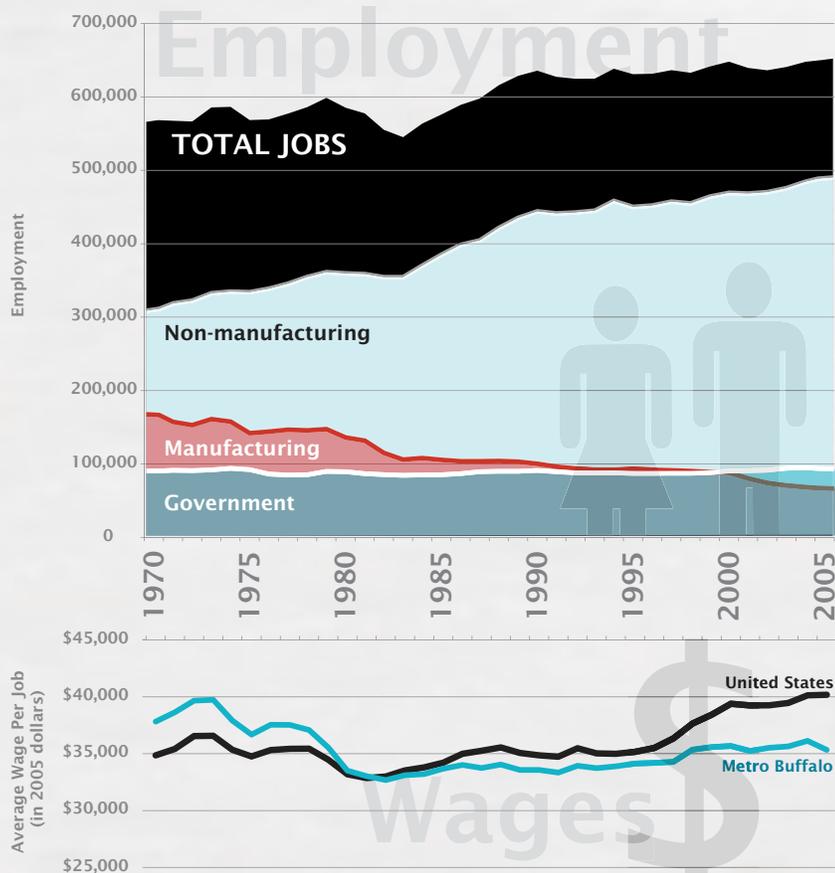
Can better data create jobs?

Grasping the **New Economy**

Understanding regional economies in the 21st century requires more than the data typically used to assess economic conditions. New metropolitan GDP data add useful depth to our knowledge of the Buffalo Niagara economy by putting output—rather than employment—into the spotlight. Through leveraging a broader range of information, including elusive data on business clusters, the region can pursue more efficient and effective development strategies.

How well do we **know** our economy?

Employment and Wages in Metro Buffalo, 1970-2005

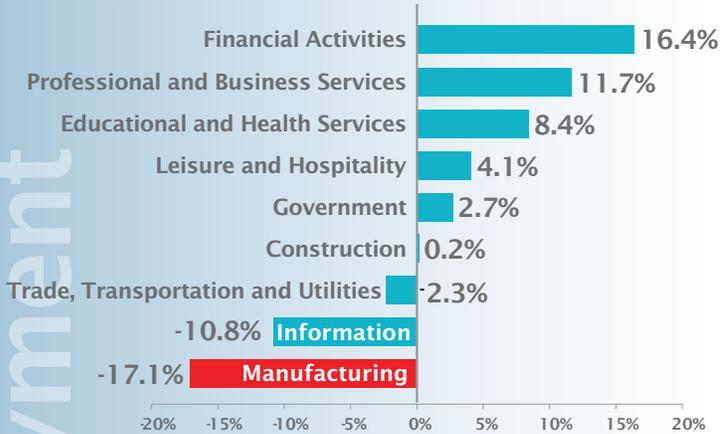


With the U.S. economy very near—and possibly in—a recession, Buffalo Niagara and other regions will try to gauge whether their economies will follow suit. As is often the case, job and income numbers will serve as primary measures of regional economic conditions. Over the long run, these data provide a fairly accurate and recognizable picture of where our economy has been, where it is now and where it might be going.

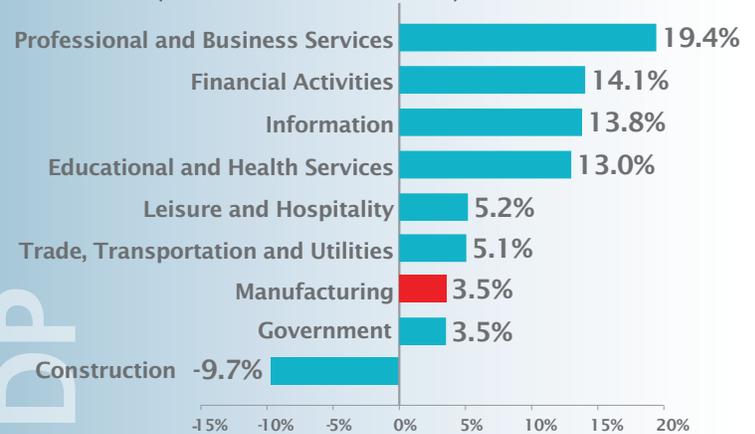
Employment data, for example, reflect the tumultuous changes to metro Buffalo's economy (Erie and Niagara Counties) since 1970, with a 61% decline in manufacturing jobs through 2005 paralleled by a 60% increase in private sector non-manufacturing jobs. Wage data add to the picture, revealing the impact of manufacturing's slide on regional incomes, which declined steeply—and fell below national levels—during the spate of factory closings in the late 1970s and early 1980s.

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System. Data include full- and part-time jobs, farm employment and the self-employed. Government jobs have been subtracted from non-manufacturing.

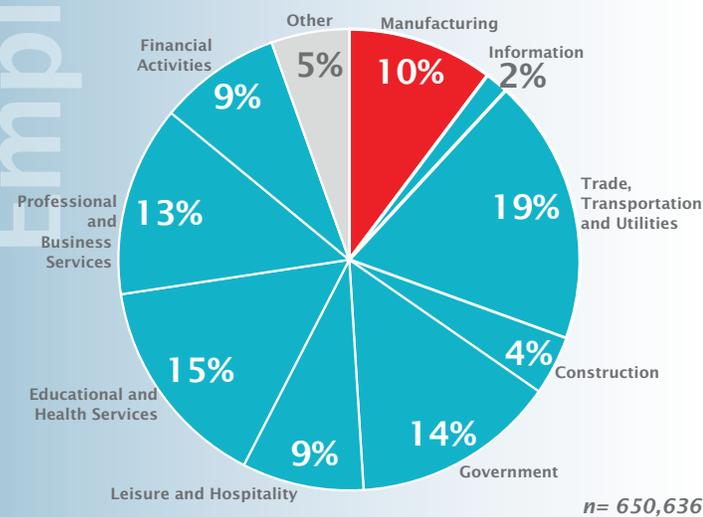
Employment Growth by Sector in Metro Buffalo, 2001-2005



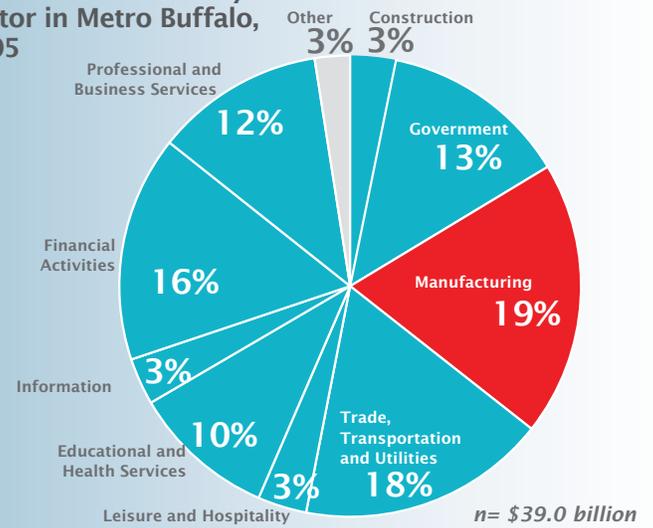
GDP Growth by Sector in Metro Buffalo, 2001-2005 (controlled for inflation)



Distribution of Total Jobs by Sector in Metro Buffalo, 2005



Distribution of GDP by Sector in Metro Buffalo, 2005



Sources: U.S. Bureau of Economic Analysis, Regional Economic Information System (employment data) and Gross Domestic Product by Metropolitan Area.

Do economic data **mislead** us?

Although jobs are frequently used as the main barometer of regional economies, employment numbers alone are an incomplete measure of economic activity. This is increasingly true at a time when technology and global trade are constantly altering the nature of the work required to produce goods and services. In 2007, the U.S. Bureau of Economic Analysis provided an important supplement to employment data by releasing gross domestic product (GDP) estimates for metropolitan areas, showing the market value of all goods and services produced within them.

When examined side-by-side, employment and GDP numbers for metro Buffalo tell a much more complex story about the region's economy than do job numbers alone. For example, despite shedding 17% of its jobs between 2001 and 2005, the region's manufacturing sector actually expanded its total output by 3.5% when adjusted for inflation. And while the sector represented only one-tenth of the region's job pool in 2005, it comprised one-fifth of total output.

Data for the information sector (media, communications and data processing) show a similar pattern, with an 11% loss of jobs standing in stark contrast to a 14% rise in GDP. In the cases of both manufacturing and information, it appears that rising productivity is allowing local firms to produce more with fewer workers, a trend facilitated

largely by technological advancements that, while clearly negative for displaced workers, are generally positive for companies and their customers.

A different story emerges for some of the region's fastest rising sectors. Jobs in the financial activities sector (banks, insurance and real estate firms) grew by 16% between 2001 and 2005, while the sector's output also expanded by double digits, due to the region's growing importance as an administrative and back-office hub for banks. And, like manufacturing, the financial activities sector had a significantly larger influence on the region's total output (16%) than it did on total employment (9%) in 2005.

The professional and business services sector also expanded both employment and output rapidly during the period,

as did educational and health services. Both sectors, unlike the financial activities sector, had larger shares of regional employment than output in 2005. The same was true for the leisure and hospitality sector, which represented 9% of all jobs but only 3% of total output, due in part to the sector's relatively low wages.

More and more, regional economies are being studied and described as collections of business networks or clusters, each with a web of individuals and organizations—companies, universities, governments, financiers—that combine to make a location advantageous for a particular form of economic activity. Standard economic data have a hard time capturing the range and depth of these networks, which include sector-crossing mixtures of producers, marketers,

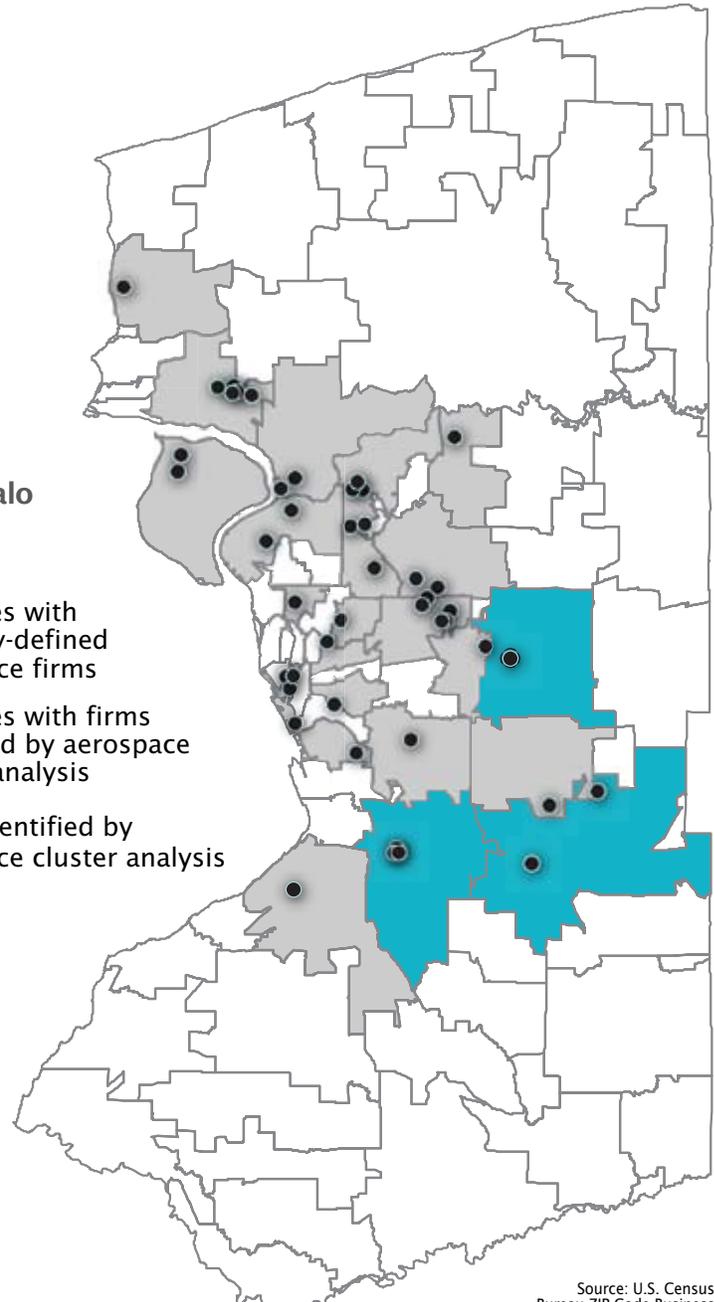
Over 50 companies in metro Buffalo earn at least 10% of their revenues from the aerospace sector

investors, researchers, transporters and other areas of expertise, depending on the product or service. In many cases, these clusters go completely undetected by standard sector-based economic data.

In metro Buffalo, the aerospace industry provides a case in point. For decades, companies such as Curtiss-Wright and Bell Aerospace employed tens of thousands in the region, making the industry a regional heavyweight alongside steel, automotive parts and petrochemicals. Through mergers, buyouts and the geographic shift of the industry toward the southwestern U.S., these very visible companies gradually left the region's economic radar screen. Based on the federal classification of aerospace firms—a sub-component of the manufacturing sector—there were only three aerospace firms in all of metro Buffalo in 2005, employing just short of 800 workers.

Aerospace Industry in Metro Buffalo

- ZIP codes with federally-defined aerospace firms
- ZIP codes with firms identified by aerospace cluster analysis
- Firms identified by aerospace cluster analysis



Source: U.S. Census Bureau ZIP Code Business Patterns (federally-defined aerospace firms); Regional Institute analysis of data from preliminary aerospace cluster study by the University at Buffalo's Canada-United States Trade Center. Firms identified by cluster analysis earn at least 10% of revenues from the aerospace sector.

A closer look at aerospace in the region reveals a far different story. Preliminary findings from an aerospace cluster analysis by the University at Buffalo's Canada-United States Trade Center shows that over 50 companies in metro Buffalo earn at least 10% of their revenues from the aerospace sector—firms that provide instruments, sensors, machine tools, simulation tools, climate-control systems, investment capital and a wide range of other components and

services to the global aerospace industry. The degree to which these firms interact with each other is unknown and requires further study—but together, they represent a substantial level of engagement with an industry that is not recognized by traditional economic data as a regional strength.



Can better data create jobs?

Having data that provide a more complete picture of the region's economy can produce better strategies—for the companies that learn more about their place in the regional economy and for public sector agencies that learn how to more effectively and efficiently facilitate job creation. Better knowledge of regional clusters, like aerospace, has the potential to shift regional economic development models away from the subsidization of individual firms and toward more targeted investments in collective assets—such as human capital, physical infrastructure and collaborative regional processes—that strengthen existing and emerging clusters.

Better data on regional economies start with the federal government, which should continue its new program of estimating metropolitan GDP. These data, released as prototypes in 2007, are important complements to employment and population data when it comes to determining regional economic conditions and comparing regions. As demonstrated by metro Buffalo's economy, employment data are crucial but only tell part of the overall story.

At the same time, state and local agencies, along with private-sector business coalitions, should lead the way in building a better understanding of regional business clusters. This requires a time-intensive process of examining business relationships that cross numerous sectors, studying regional and industry-wide supply chains, and understanding the gamut of occupations and skills that clusters draw upon. As part of its revitalized mission to improve the upstate economy, Empire State Development should consider devoting sustained resources toward efforts to identify and understand regional clusters, efforts that will require partnerships between the public and private sectors. By identifying and promoting promising local clusters, such as life sciences and logistics, local economic development agencies, IDAs, the Buffalo Niagara Enterprise and others have already jump-started this process.

Given the global reach of many clusters, it is important to pay close attention to clusters that operate across the U.S.-Canada border and offer opportunities for cultivating a higher level of economic integration between Western New York and Southern Ontario. With better data at their fingertips, governments at all levels, on both sides of the border, will need to partner in making the smart investments that attract and retain businesses in the new economy.

For More Information

U.S. Bureau of Economic Analysis, Gross Domestic Product by Metropolitan Area data, online at <http://www.bea.gov/regional/gdpmetro/>

New York State Industry Clusters List, online at http://www.empire.state.ny.us/NYS_Home_To_Business/Industry_Clusters/default.asp

The Global Cluster Initiative Survey (GCIS) and *The Cluster Initiative Greenbook*, online at <http://www.cluster-research.org/>

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