

The 18-county Port Authority Region is one of the most complex and interesting regions in the world. The Monthly Economic Indicators Newsletter (MEI) seeks to illuminate this complex region by investigating trends and data relevant to the Port Authority's core mission of keeping the region's commuters, travelers and global shippers moving. This year the MEI has focused on traffic trends, employment trends and greater economic trends.

Employment trends in 2014 proved to be particularly interesting. After [reviewing employment data revisions](#) from the prior year, we looked at the [destinations of earnings from jobs in central business districts](#) and discussed [the shares of wages in each Port Authority county earned by commuters versus residents](#). Additionally, [although Manhattan has seen high-wage jobs bounce back](#) after the recession, [manufacturing jobs in the city have continued their precipitous decline](#) and finance jobs have yet to mount a comeback. On the other hand, sectors such as [information services have seen dramatic growth in parts of Manhattan](#) despite the [shrinking national labor force aged 25-54](#).

In the national and regional economy, we looked at some of the [headwinds facing housing markets](#) and noted how the [struggling housing market has coincided with new trends in household formation](#). We also investigated [how drought conditions in the US, falling business turnover](#) and the [emerging sharing economy](#) have influenced the regional and national economy.

The Port Authority's core mission revolves around transportation, and as such, we tracked regional transportation activity by looking at [the PA Pulse](#). We also looked at the growth [of transit ridership and contrasted this with the decline in personal auto trips](#) by looking at how [passenger trips per transit mode have changed since 2006](#). We looked further at transit trends by observing both the [growing population of foreign-born residents](#), residents who are less likely to drive, as well as the [evolving payment methods utilized by transit operators](#). Precipitous [declines in truck traffic](#) continue to be an intriguing issue and we highlighted the Port Authority's work on a [regional goods movement plan](#) aimed at making the region more efficient. Additionally our analysis of aviation trends have indicated that [LaGuardia has served a record number of passengers fueled by larger and fuller planes](#), a phenomenon bolstered by [lower ticket prices at the region's airports](#).

Over the course of the year, the MEI has reported on a host of interesting data points and trends. The Port Authority Region is as diverse and complicated as they come and we have enjoyed investigating many interesting topics illuminating the diversity and complexity of the region. As we look forward to 2015, we are excited to invite you to join us as we follow these trends for another year as well as uncover a new, interesting data points.

PRODUCTION TEAM

Alexander Heil, Ph.D.

Chief Economist: ahheil@panynj.gov

Graciela Ramirez

Input-Output Modeling & Regional Economics

Mark Seaman

Forecasting, Cost-Benefit Analysis, World Economy

Andrew Liebowitz

Forecasting, Cost-Benefit Analysis, Economics Media

Brad Egbert

Forecasting, Data Science

Xiao Wang, Ph.D.

Cost-Benefit Analysis, Data Science

Huajing Shi, Ph.D.

Transportation Modeling, Transportation Indicators

Other Contributors:

Lisa Dewey-Mattia, Principal Transportation Planner

Joe Garrant, Economics Intern

Christine Orthmeyer, Leadership Fellow

Contact Us

Port Authority of New York and New Jersey
Planning & Regional Development Department
233 Park Avenue South, 11th Floor
New York, NY 10003

New and Archived Newsletters and Podcasts
<http://www.panynj.gov/about/newsletters.html>

The views expressed herein reflect solely the authors' views and do not reflect the official positions of the Port Authority of New York and New Jersey or its leadership.

TABLE OF CONTENTS

January.....3
 Special Focus *Housing: Critical to Growth in 2014*
 Transportation Focus *Regional Crossings and an Aging Labor Force*

February.....5
 Special Focus *Another Year, Another Drought, but No Crisis ... Yet*
 Transportation Focus *Demographic Change and Transportation Behavior*

March.....7
 Special Focus *Improved Employment Conditions in 2013*
 Transportation Focus *Checking in on the PA Pulse*

April.....9
 Special Focus *The Need for a Regional Goods Movement Program*
 Transportation Focus *Growth in Seats per Plane at LaGuardia*

May.....11
 Special Focus *Deflating the Housing Bubble*
 Transportation Focus *A Region of Commuters*

June.....13
 Special Focus *Transportation in a Sharing Economy*
 Transportation Focus *Non-Resident Commuter Earnings at the National Level*

July.....15
 Special Focus *Emerging Diversification among Manhattan’s White-Collar Jobs*
 Transportation Focus *A Closer Look at Information Services*

August.....17
 Special Focus *Why Fewer Trucks?*
 Transportation Focus *Regional Employment Loss in Manufacturing*

September.....19
 Special Focus *Lower Ticket Prices and Bigger Planes: The Change of the New York Premium*
 Transportation Focus *Load Factors at LaGuardia*

October.....21
 Special Focus *Transit and the Evolving Payment Landscape*
 Transportation Focus *Changes in Person-Trips in the Trans-Hudson Region*

November.....23
 Special Focus *Business Dynamism Nationally and Regionally*
 Transportation Focus *The Share of Regional Travelers by Mode*

December.....25
 Transportation Focus *Millennials: NY-NJ Was There First*

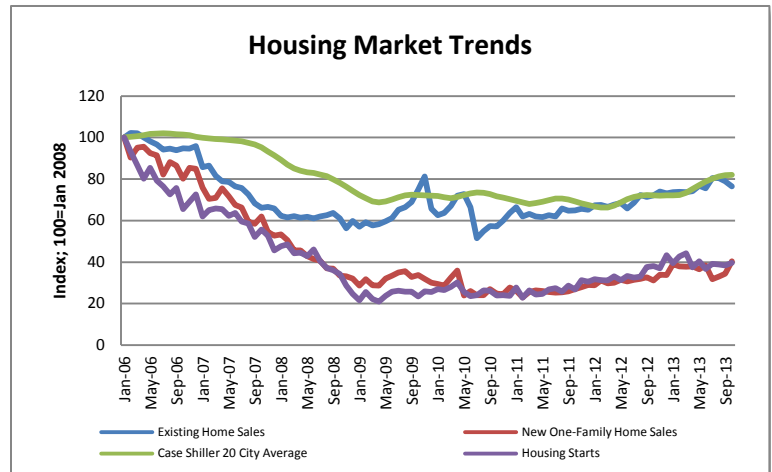
JANUARY SPECIAL FOCUS Housing: Critical to Growth in 2014

At the beginning of 2014, the consensus among economists is that the current economic expansion will pick up speed this year. In particular, the consumer sector has been resilient and is expected to further drive economic growth in the near term. However, there are several emerging risks that may provide constraints and barriers for the macroeconomy. One of these concerns is a possible slowdown in the housing sector.

Home prices have been recovering significantly since the collapse of the market before and during the financial crisis. This has erased much of the negative equity and has created an improved wealth position for consumers hit hard by the recession. But analysts suggest that the price appreciation is largely due to a lack of inventory and strong demand, in particular by investor purchases of homes. As can be seen in the graph below, several indicators of housing activity have passed their respective troughs and started to move upwards. Existing home sales stand at roughly 80 percent of their pre-crisis levels [though it may be unrealistic to assume that the market will go back to pre-crisis conditions] but new home construction has been much slower to recover. Housing starts are still hovering at roughly 40 percent of their 2006 levels. As a result, the inventory of newly constructed homes is essentially at a 50-year low, according to the National Association of Realtors.

Home sales are expected to grow in 2014; NAHB is forecasting nearly 25 % gain in total housing starts, with a 32% pickup in single-family construction. However, demand for housing is expected to outpace these additions to the housing stock resulting in continuing tight inventory levels even despite relative tight lending standards at most financial institutions. The New York City Building Congress has identified a related issue: the cost effectiveness of home construction. Whereas \$5.9 billion spending in 2008 resulted in 33,000 additional units, a similar volume of spending only created 11,000 units in 2012. The bottom line is that nationally and regionally home prices and rents will keep on rising in 2014.

The Federal Reserve holds the key to continue mortgage affordability but if rates start creeping up, as they did in the spring and summer of last year, more and more borrowers will be pushed out of the market. This may slow down price appreciation in many regional markets and provide additional pressures for households that are already reeling under slow or non-existing income growth over the last few years.

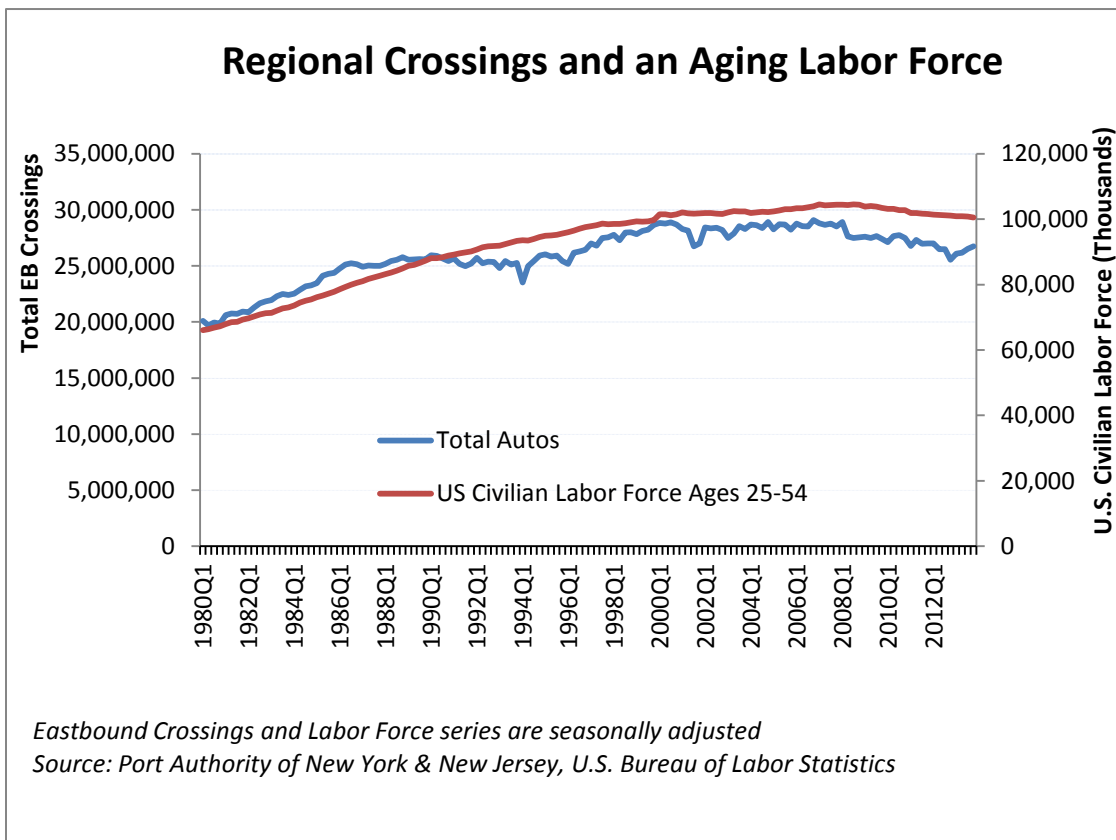


Key Points

- The inventory of newly constructed homes is essentially at a 50-year low according to the National Association of Realtors.
- Demand for housing is expected to outpace additions to the housing stock, resulting in continuing tight inventory levels despite relatively tight lending standards at most financial institutions.

JANUARY TRANSPORTATION FOCUS Regional Crossings and an Aging Labor Force

As members of the civilian labor force exit their peak working years, typically considered ages 25-54, their propensity to drive also falls as they have less need to commute and likely less money to spend on recreational activities. The aging of the national labor force, reflected in the shrinking of the 25-54 cohort, exhibits a strong relationship with the number of auto crossings at Port Authority facilities. Though the aging of the labor force is only one of a multitude of factors that affect travel trends, its relationship to regional crossings is worth following as the Baby Boom generation heads toward retirement.



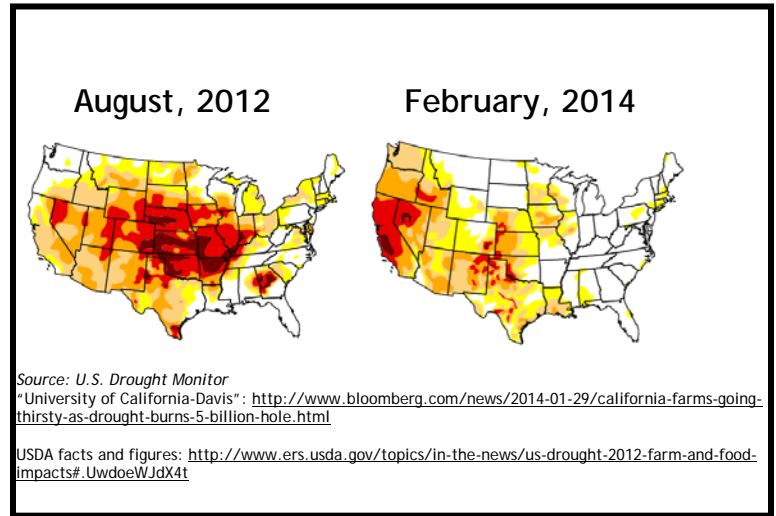
FEBRUARY SPECIAL FOCUS Another Year, Another Drought, but No Crisis ... Yet

While regional residents endure Arctic blasts and dig out from under mountains of snow, California has been suffering a severe drought that ranks among the worst the state has ever endured. In August 2012, Monthly Economic Indicators discussed the limited expected impact on retail food prices of a drought that scorched corn and soybean producers in the Midwest. The extreme dryness in California is affecting a wider variety of crops than similar conditions that affected the Midwest in 2012, but the impact to food prices will likely also be limited at local grocery stores.

California's drought—now in its third year—has grabbed headlines because the state is the United State's largest producer of fruits and vegetables, and a major meat producer as well. The drought's estimated economic impact is also sizeable. The California Farm Water Coalition, an industry interest group, has pegged the estimated impact of the drought at \$5 billion in direct costs to the local economy and indirect effects through the region's economy, or roughly 20 percent of the total value of estimated agricultural output. Well-known "row crops" such as tomatoes, broccoli, lettuce, cantaloupes, and lucrative orchard-style produce, like olives and almonds, have been hardest hit by the arid conditions. For example, according to a former University of California-Davis water management specialist, David Goldhamer, nut crops may see yields fall by as much as 25 percent this year.

While the headlines appear dire, the current bout of dry weather will likely not soak up money from shoppers' wallets in the form of rising food prices. The limited impact of the extreme drought that hit the Midwest in 2012 illuminates the limited connection between farm prices and retail food prices.

The current drought in California is expected to have a similar, small effect on consumer food prices in 2014. According to the USDA, food prices are largely expected to rise at the long-term average rate of only 2.5 – 3.5 percent. The more powerful impacts of the drought are reflected in the severe water restrictions being placed on local households and businesses combined with water pricing schemes that will over time reflect the increasing scarcity of this resource. The resulting impact on quality of life and the sustainability of current land use and settlement trends in Western states will be real and measurable by current and future generations.



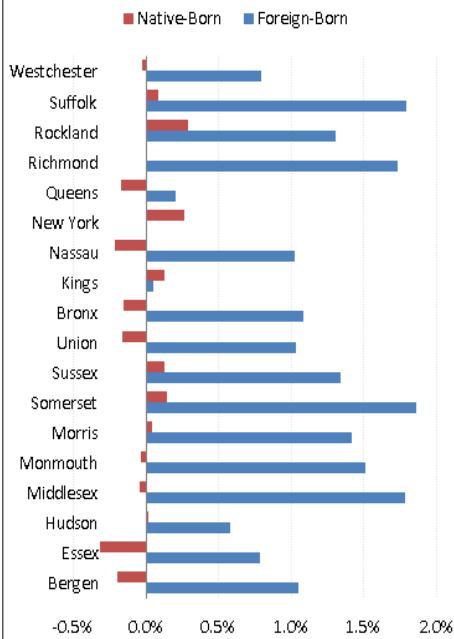
Key Points

- While the headlines appear dire, the current bout of dry weather will likely not soak up money from shoppers' wallets in the form of rising food prices.
- The more powerful impacts of the drought are reflected in the severe water restrictions being placed on local households and businesses combined with water pricing schemes that will over time reflect the increasing scarcity of this resource.

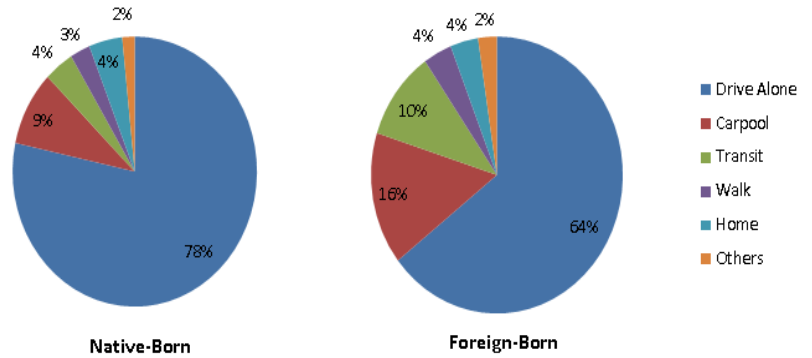
FEBRUARY TRANSPORTATION FOCUS Demographic Change and Transportation Behavior

Demographic Change and Transportation Behavior

PA Population Average Annual Growth Rates (1995-2012)



Means of Commuting



Source: Census, American Community Survey

Based on the most recent American Community Survey, the foreign-born population of the U.S. tends to use public transportation more and drive alone to work less than the native-born population. The Port Authority region has experienced a significant increase in foreign-born residents over the last two decades, especially in New Jersey. The influx of immigrants to the region may be associated with increasing use of public transit and declining traffic volume at regional crossings in recent years, but more data is needed before any causal relationship between these observations can be inferred.

MARCH SPECIAL FOCUS Improved Employment Conditions in 2013

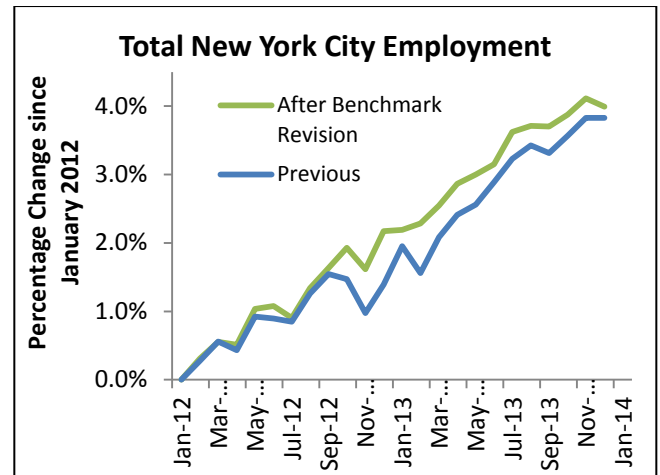
Earlier this month the Bureau of Labor Statistics (BLS) released its 2013 benchmark revisions. In these revisions, labor market data for the last year is corrected by comparing the initial survey based estimates with data from unemployment insurance records. At this point, other commentators have provided more comprehensive analysis of the benchmark revisions but we want to call out several interesting observations:

In summary, the benchmarked data now support the story of national and regional labor markets that were expanding at a slightly more positive rate than initially thought in 2013. In both New York and New Jersey state employment counts were revised upwards. These revisions also meant that employment growth in the Port Authority 18-county region was ahead of what initial estimates had been. Regardless, the narrative of declining and expanding industrial sectors remained the same. Whereas sectors such as trade, transportation & utilities, construction and government remained flat or showed declines, industries such as retail, professional business services, healthcare and leisure & hospitality experienced gains across the entire region and both states. The gap between employment as measured by the location of the job and the place of residence also narrowed after having been quite significant throughout 2013. healthcare, region and both states.

The benchmarked data also yield interesting observations about the aftermath of Superstorm Sandy. In fact, the much-described negative employment impact following the hurricane was much more modest than initially thought. An analysis by economist Barbara Denham, also reported by Crains and illustrated by the graph below, concludes that the job losses in the months following the storm were roughly half of what the initial estimates had been. Employment then bounced back quickly in early 2013 and reverted back to its longer term growth trend. While the storm impacts certainly were devastating for families and businesses involved, they did not result in lasting employment effects in New York City.

Lastly, the trend in the unemployment rate in New Jersey throughout 2013 was much smoother than what was reported at the time in the monthly estimates. The monthly unemployment series for NJ initially showed an up-and-down pattern with an unemployment rate starting at 9.5 percent in January 2013, falling by roughly 1 full percentage point by May, staying constant for five months, and then plummeting to 7.3 percent over just a few months by year end. The benchmarked unemployment rate experienced a much smoother decline from 8.9 to 7.2 percent over the course of 12 months. Among the reasons for the decline in unemployment were the relatively strong employment growth in the state and the decline in the labor force participation rate.

The one lesson learned is clearly that one needs to be cautious when interpreting monthly employment data. Variations can be quite large and there is ample room for monthly estimates to be revised when more reliable data are considered. However, the monthly, survey-based estimates provide a valuable analysis tool in our understanding and analysis of national and regional labor market trends.

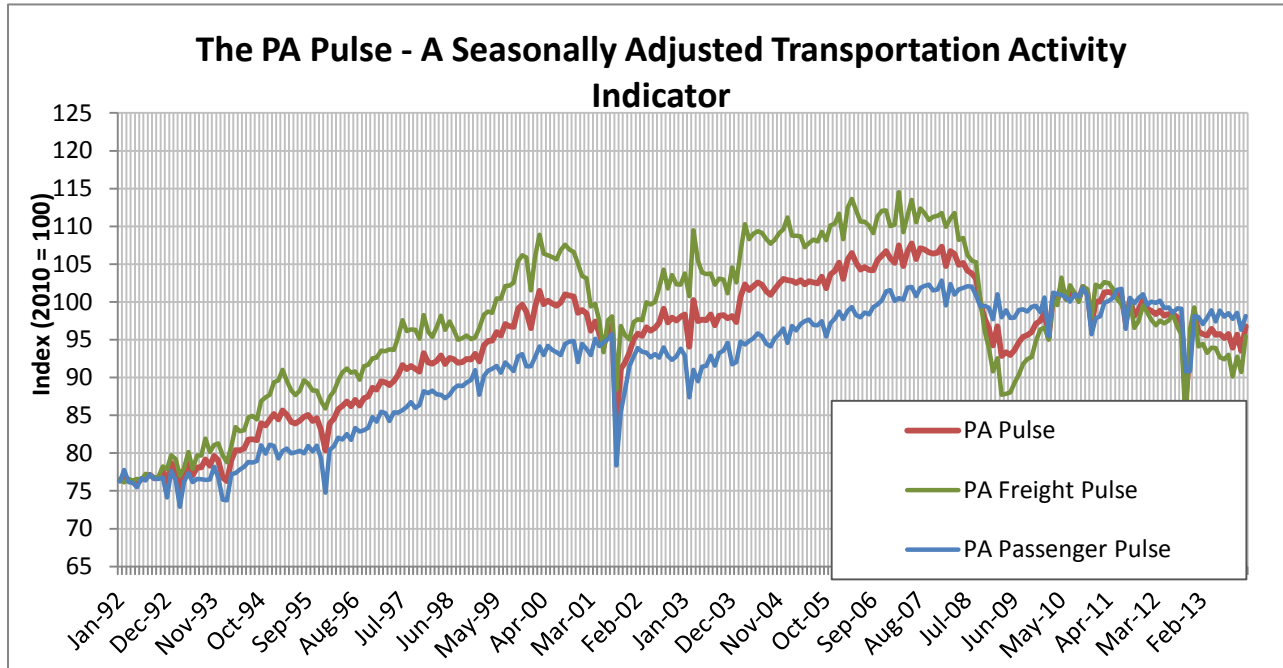


Key Points

- The benchmarked data now support the story of national and regional labor markets that were expanding at a slightly more positive rate than initially thought in 2013.
- New Jersey's benchmarked unemployment rate experienced a much smoother decline from 8.9 to 7.2 percent over the course of 12 months. Among the reasons for the decline in unemployment were the relatively strong employment growth in the state and the decline in the labor force participation rate.

MARCH TRANSPORTATION SPECIAL FOCUS Checking in on the PA Pulse

2013 ended with the PA Pulse recording a twelve-month high Freight Pulse value of 95.5, driven in part by strong air cargo performance, and a near-twelve month high Passenger Pulse value of 98.1, driven by a strong increase in air passengers. However, freight and passenger values are all still considerably lower than their all-time highs reached in 2007 and 2008, respectively. The underlying reasons for the modest growth in activity since the recession are complex, but are strongly associated with the changing demographics and occupations of the regional workforce as well as innovation in the loading, routing, and delivery of freight.



APRIL SPECIAL FOCUS The Need for a Regional Goods Movement Program

The New York-New Jersey metropolitan region supports a population of 18.1 million individuals, all of whom rely on the region's goods movement system to fulfill their daily needs. From food to furniture and fuel to phones, more than 1 billion tons of goods are moved each year throughout the region, utilizing the regional networks of highways, airports, railways, and marine ports. The distribution of these goods generate vital economic benefits as they move within and through region, and require an immense support system of ports, warehouses, and transportation infrastructure. In northern New Jersey alone, there is more than 800 million square feet of warehousing and distribution center space. Moving goods quickly, reliably, and economically, is a complex task further complicated by the region's congestion, aging infrastructure, and jurisdictional boundaries.

In a 54-county region spanning parts of New York, New Jersey, Connecticut and Pennsylvania, approximately 909 million tons (90.4%) of surface tonnage is moved by truck, 80 million tons (8.0%) by carload rail, and 17 million tons (1.6%) by intermodal rail. The New York-New Jersey region has the highest total annual costs of congestion in the U.S, valued at \$12 billion. In 2012, congestion added \$2.5 billion to the cost of delivering goods to consumers and businesses. In addition to the high volume of freight traveling through the region, the network capacity of transportation systems is shared with 8 million daily commuters on both roads and rail.

Similarly, congestion at the port facility itself has become increasingly problematic as the volume of freight has increased; in 2012, approximately 80,000 metric tons of cargo moved throughout the Ports of New York and New Jersey. The volume of marine system freight moving within and through the bi-state region has been increasing rapidly, and is expected to grow 44 percent by 2040. In light of this growth, the adoption of integrated technologies and use of real-time data to better manage available capacity is critical to remaining competitive.

Similar to many metro-regions, the New York-New Jersey region is contending with aging infrastructure, which poses significant costs in maintenance and repair and requires investment in new capital projects. The Port Authority's vehicular crossings—the Holland Tunnel, Lincoln Tunnel, George Washington Bridge, and Staten Island Bridges—were all completed prior to 1940 and designed for smaller, lighter vehicles. As approximately 86% of freight within the region travels by truck, the impact of freight on the roadway network is significant physically and financially. Major capital investments to modernize infrastructure—such as raising the Bayonne Bridge to allow larger ships to access Port Newark and Elizabeth—will continue to be vital for agencies across the region.

In addition to congestion and aging infrastructure, the historical development of the New York-New Jersey region created many public agencies tasked with providing transportation services and infrastructure. Over a dozen public agencies oversee passenger and freight travel throughout the region. This adds to the complexity of logistics and potential inconsistencies in regulations, restrictions, and information provided to the freight industry.

In recognition of these challenges, the New Jersey Department of Transportation, the New York State Department of Transportation, and the Port Authority have partnered to create a comprehensive regional freight plan, the Goods Movement Action Program (G-MAP). These Partner Agencies have the greatest accountability for managing freight movement in the region, in recognition that a safe, efficient, and sustainable goods movement system is a shared challenge that transcends jurisdictional boundaries and affects the entire region. G-MAP aims to support and enhance the metropolitan region's position as a global center—a hub of commerce, culture, finance, and trade—through strategic goods movement initiatives. We look forward to discussing the G-MAP planning processes and key initiatives in a future MEI newsletter.

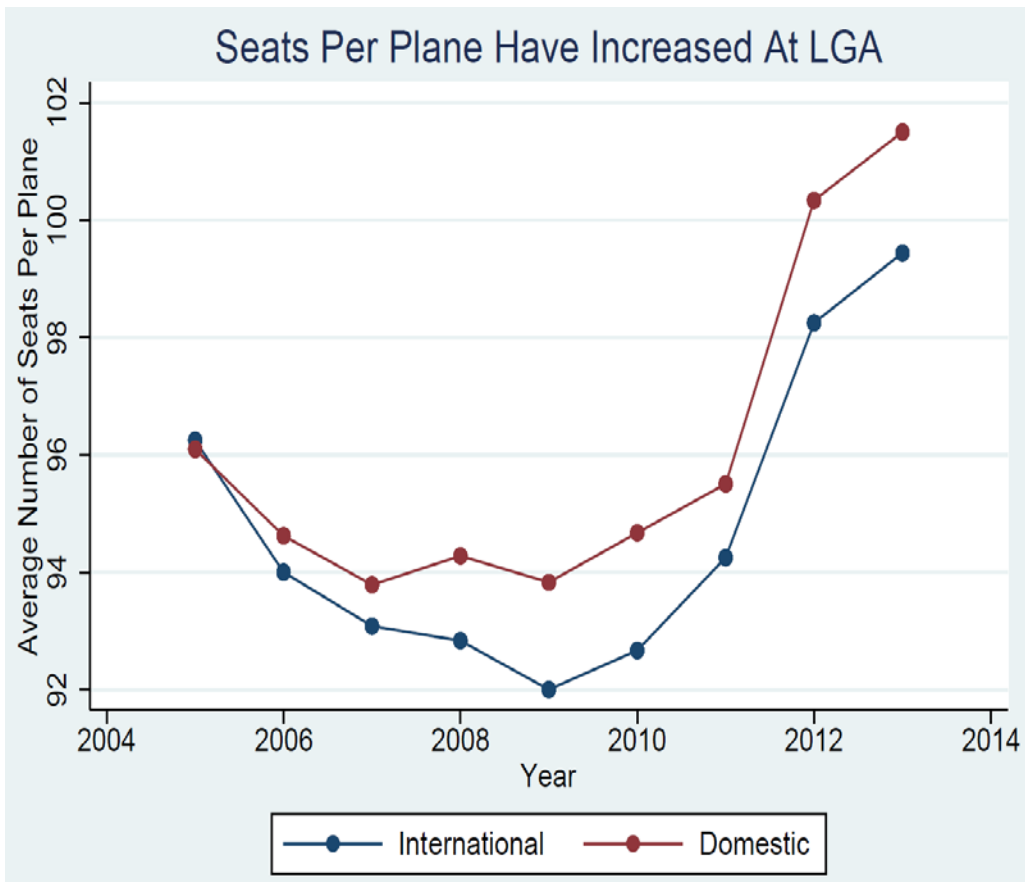
Key Points

- The New York-New Jersey region has the highest total annual costs of congestion in the U.S, valued at \$12 billion.
- In a 54-county region spanning parts of New York, New Jersey, Connecticut and Pennsylvania, approximately 909 million tons (90.4%) of surface tonnage is moved by truck, 80 million tons (8.0%) by carload rail, and 17 million tons (1.6%) by intermodal rail.

APRIL TRANSPORTATION FOCUS Growth in Seats per Plane at LaGuardia

LaGuardia, JFK, and Newark Liberty airports are slot controlled, meaning that the number of slots for takeoff and landings are controlled by the FAA to manage congestion. As demand for air travel to and from the region has soared over the last few years, the limits on landings and takeoffs have remained steady. These restrictions can potentially limit the number of passengers that an airport can serve if carriers utilize a disproportion number of lower gauge aircrafts (aircrafts with 50-seats or less). However, the growth in throughput at LaGuardia since 2012 shows that carriers’ strategic business decisions can have a significant impact on airport throughput, even with the current slot controls in place.

In 2012, the dominant carrier at LaGuardia changed from US Airways to Delta after the two carriers exchanged a number slots. Prior to this transition, the average number of seats per plane at LaGuardia hovered in the mid to low 90’s because US Airways used large numbers of small aircrafts to serve communities in upstate New York and other smaller cities. By the end of 2013, the average number of seats per plane rose to more than 100 as Delta introduced larger planes to serve larger cities and transformed LaGuardia into a mini-hub. This transformation partly explains how LaGuardia has been able to service record numbers of passengers despite significant slot controls that restrict the number of flights at the airport.



MAY SPECIAL FOCUS Deflating the Housing Bubble

In the aftermath of the Great Recession, the housing sector, which typically leads the way out of recessions, has been a laggard. A combination of supply and demand factors explain this weakness: over-building during the bubble left an excess of supply on the market while the weak economy has cut demand for housing.

During the housing bubble of 2000-2007, homebuilding ran well above the demand for new homes. Analysis by the Federal Reserve Bank of New York suggests that by 2007, the US had developed a surplus of about 3.4 million housing units above the typical rate at which new households were forming. These homes sat empty waiting to be sold, rented, or were taken off the market as owners waited for the economy to improve.

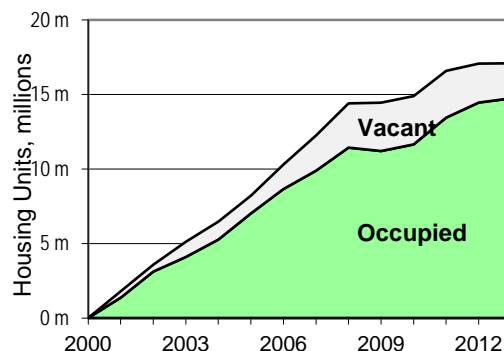
On the other side of the ledger, demand for new housing appears to have slowed with the onset of the recession in 2007. Normally, US population growth translates into about 1.2 million new households every year as young adults move out on their own or start families. However, the weak job market caused by the financial crisis made it impossible for many young adults graduating from high school or college to afford their own homes, so they moved back in with their parents. The stock market and housing crashes deflated families' nest eggs, so parents could no longer afford to help their kids with down payments or rent. Banks tightened credit requirements, making it more difficult for new families to buy a first home. Hard times also led a large number of unrelated families to cohabitate.

Increased crowding within households can be inferred from national data. Between 2003 and 2009, the US Department of Housing and Urban Development found that the number of households containing unrelated families between 2003 and 2009 had tripled and that the number of young adults moving back in with their parents grew significantly. The rate of homeownership also plummeted among adults ages 18-44 years old: between 2007 and 2012, the rate fell from 53 to 45 percent for this group.

Regional data are harder to come by, but a 2011 survey by New York City found that crowding in rental apartments had increased to levels not seen since 1960 and that the number of "doubled-up" homes – homes that house multiple families or unrelated individuals – had jumped 10 percent since the previous survey in 2008.

The housing sector has stalled in part due to the over-building of housing during the boom years and the economic crunch for new households. Facing an excess supply, homebuilders have cut their activity by more than 70 percent compared with the peak of the boom: the 930,000 housing starts last year were below any level seen in the half-century before the recession. Yet the number of vacant homes remains unusually high. Analysis of housing trends, shown in the figure below, suggests that the surplus housing stock has fallen since 2007 but is still between 2 and 2.5 million units. Until young adults begin moving out of their parents' homes, and doubled-up households find the wherewithal to strike out on their own, the housing sector is likely to remain depressed.

Cumulative Growth in Housing Stock Since 2000



Key Points

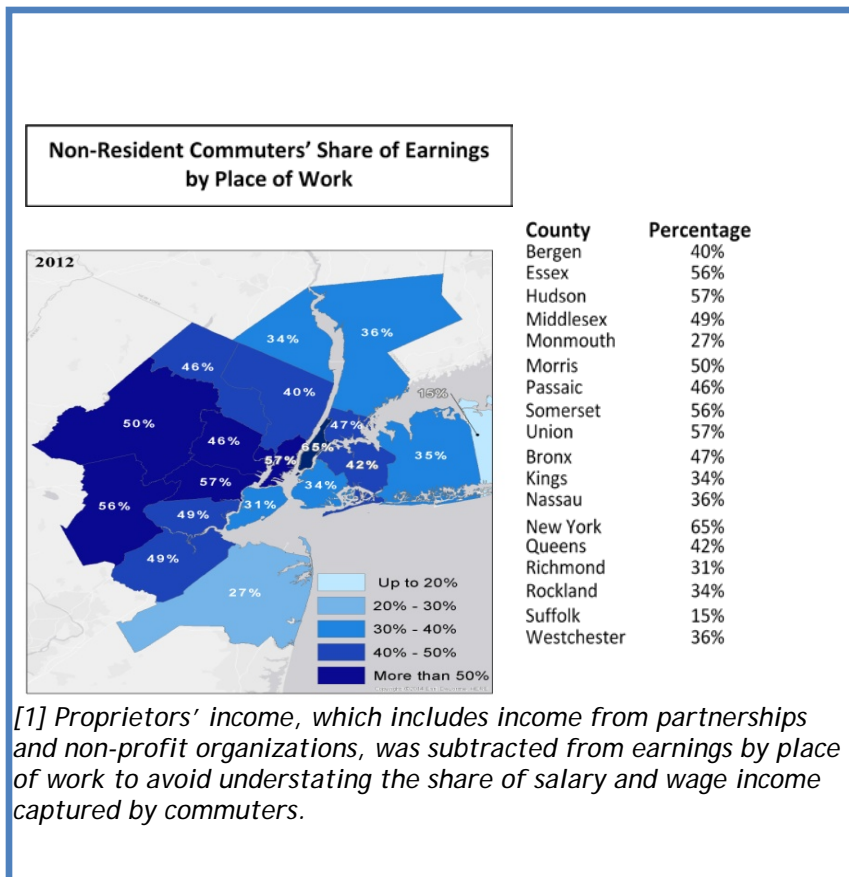
- The stock market and housing crashes deflated families' nest eggs, so parents could no longer afford to help their kids with down payments or rent. Banks tightened credit requirements, making it more difficult for new families to buy a first home. Hard times also led a large number of unrelated families to cohabitate.
- Facing an excess supply, homebuilders have cut their activity by more than 70 percent compared with the peak of the boom: the 930,000 housing starts last year were below any level seen in the half-century before the recession.

MAY TRANSPORTATION FOCUS A Region of Commuters

It’s no secret that workers who commute across county lines to their jobs play an important role in the regional economy. Using U.S. Bureau of Economic Analysis’s gross outflow of earnings data, we can see just how important the contributions of these residents are. Gross outflow of earnings is the amount of wages and salaries earned by workers who reside in a different county from their places of work. The map presented here reflects 2012 gross outflow of earnings as a share of total earnings by place of work for each of the region’s 18 counties.¹

In most counties in the region, commuters from other counties take home at least one-third of the income earned in that county. The counties with the highest share of income earned by commuters include New York (Manhattan), Hudson, Union, Essex, and Somerset. The reasons why these counties attract large numbers of commuters are complex, but there are two readily identifiable features of these counties that make them stand out. First, the counties’ access to multiple transportation options makes them attractive as locations for businesses. Second, the large number of high-income industries within the counties, ranging from finance to healthcare, draw upon a diverse pool of specialized talent from across the region to meet their staffing needs.

Gross outflow of earnings data do not identify whether commuters are arriving from New York, New Jersey, or outside the region, nor do the data identify travel mode. However, these data highlight the importance of commuters to the regional economy and offer insight to how the availability of transportation options and the density of jobs and industries affect commuting behavior throughout the region.



JUNE SPECIAL FOCUS Transportation in a Sharing Economy

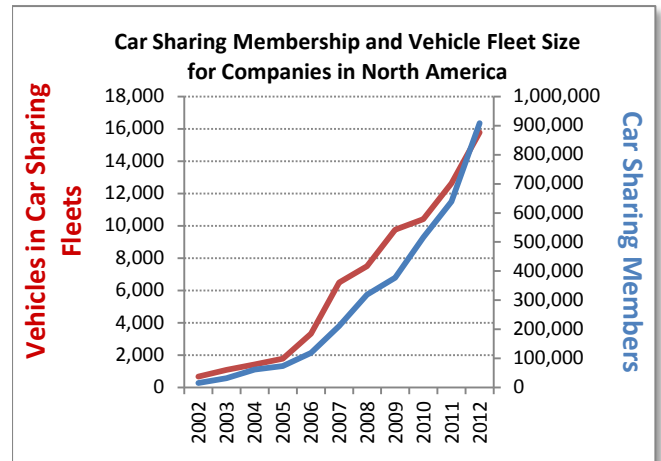
There are fast becoming new ways to drive around in cities besides hailing a cab or hopping on a bus. The last decade has seen a steady rise in sharing services such as bike and car sharing. Technological advances and the growth of mobile applications have helped fuel this trend, as they have provided the means for sharing vehicles and bikes among large groups of users. More Americans living in large cities are transitioning to a car-free lifestyle as tough economic times have made car ownership more of a cost burden. This trend appears to be part of a larger transition into a “sharing economy” in which technological and social forces are enabling more intensive use of physical assets.

Car sharing is perhaps the most notable innovation of this new sharing economy. Car sharing companies in North America topped one million members as of January 2013 and a total fleet size of over 15,600 vehicles. In the U.S., Zipcar is by far the leading car share service. The firm saw membership more than double from 2009 to 2013. Each of the vehicles in its fleet has a designated parking spot and can be reserved at any time by members. In Manhattan alone, there are over 200 Zipcar locations, with around 5-10 vehicles at each site. These services have changed the traditional car rental game by providing convenient access to vehicles within walking distance of home, work, and other destinations. Combined with internet-based applications, prearranged short-term rental options and competitive pricing models, car sharing makes it very convenient for consumers to get around without the responsibilities of owning, insuring, and maintaining a vehicle.

Another form of car sharing that captures the spirit of the sharing economy is known as peer-to-peer (P2P) car sharing. P2P car sharing separates itself from the traditional model by replacing the standard fleet with a virtual community of vehicles owned by the members of the service. P2P companies process transactions, approve drivers, and take a cut from each privately arranged ride. The leading P2P company, Uber, dominates this service, and has expanded not only to most major U.S. cities, but to 39 countries worldwide.

As car sharing services expand, cities face many challenges from setting aside parking for car sharing companies to regulating passenger safety, insurance, and the companies’ co-existence with standard taxi services. Uber and other P2P car sharing services have already faced strong opposition from city officials and taxi cab associations, most notably in Boston, San Francisco, New York, and in Europe, where public demonstrations have captured headlines.

Personal transportation is not the only sector affected by the new sharing economy. Parts of the traveler accommodations business have been transformed by companies like Airbnb, which allow members to list rooms or whole apartments on the internet for rent. As with P2P car sharing, which allows car owners to become part-time chauffeurs, the Airbnb innovation is allowing individuals to supplement their incomes by, in effect, becoming part-time hoteliers. Both car sharing and room rentals represent more intensive use of physical assets that would otherwise sit idle. The rise of a sharing economy may also create new dynamics in the balance of capital and labor; one can imagine car companies ramping down production as consumers steadily shift away from car ownership and chauffeured travel becomes more common. Although the young sharing economy may hit some regulatory road bumps as it expands, now that many consumers have learned how to get more value out of existing assets, they will likely look for more ways to share and profit.



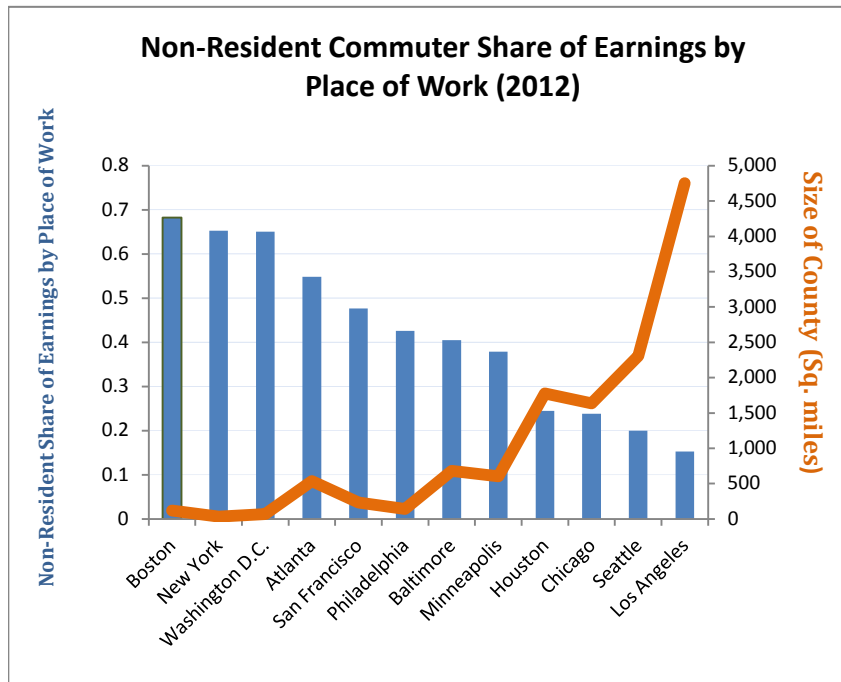
Key Points

- As car sharing services expand, cities face many challenges from setting aside parking for car sharing companies to regulating passenger safety, insurance, and the companies’ co-existence with standard taxi services.
- The rise of a sharing economy may also create new dynamics in the balance of capital and labor; one can imagine car companies ramping down production as consumers steadily shift away from car ownership and chauffeured travel becomes more common.

JUNE TRANSPORTATION FOCUS Non-Resident Commuter Earnings at the National Level

Commuters have a large impact on income distribution in highly populated cities. Last week, we showed the outflow of earnings for the Port Authority region. We expanded that study to look at other major U.S. regions. As a reminder, gross outflow of earnings data come from the U.S. Bureau of Economic Analysis and represent the wages and salaries earned by workers residing in a different county from which they work. The graph shows this statistic for several selected counties that contain a major U.S. city and the size of that county.

Cities located in small counties with high population densities, such as Boston and New York, represent the largest percentages of earnings by non-resident commuters. As one might expect, as the size of a county increases, it becomes less likely that commuters to the county’s major city will live beyond the county’s borders. Yet not all small counties’ earnings flows are alike. San Francisco County is only slightly larger than New York, but differences in geography and the structure of transit systems contribute to San Francisco having a smaller share of earnings from non-resident commuters than New York.



JULY SPECIAL FOCUS Emerging Diversification among Manhattan’s White-Collar Jobs

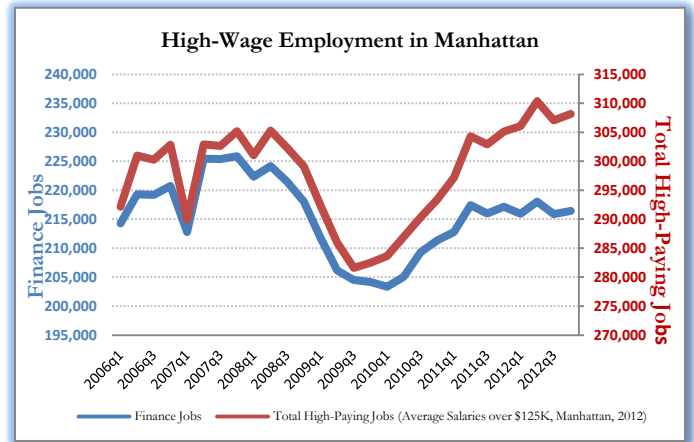
Job growth in Manhattan’s finance industry has stalled after failing to fully recover from the Great Recession. Although it may be premature to declare that sluggish job growth on Wall Street poses a threat to regional economic growth (the sector still contributes around 20 percent of wages earned in Manhattan), fewer finance jobs in Gotham means less tax revenue for the city and fewer benefits for regional businesses from the income generated by the securities industry. At the same time, a broad swath of Manhattan’s lucrative jobs in sectors other than finance (the highest earning 15 percent of jobs that pay at least \$125,000 on average) have fully recovered from the recession and exhibited robust growth. The moderate decline of Wall Street employment and growth of other white-collar jobs highlights the impact of the Great Recession on financial firms’ balance sheets and business models and the rising demand for skilled workers in other fields.

Only half of the more than 20,000 finance jobs that Manhattan shed during the Great Recession have been recovered to date. A combination of post-recession layoffs and firm relocations have caused job growth to stagnate in Manhattan’s finance sector. Big banks began layoffs after the recession and cuts are still ongoing. While trading floors contract, major banks are relocating offices outside of New York City, where cheaper rents, lower taxes and lower employee compensation all present cost saving opportunities. Financial employment has expanded significantly in areas like Phoenix, San Antonio, Houston and Nashville, and northern New Jersey, all areas where companies can take advantage of the aforementioned incentives. Telecommunications technology, which allows employees to network easily and work remotely, has also enabled financial firms to have more flexibility in their office location decisions.

In contrast to the financial sector, jobs in technology and information services are on the rise in Manhattan. Data from the BLS Quarterly Census of Employment and Wages suggests that a large portion of the growth can be attributed to this tech-related sector, which includes computer and software development occupations. Since the recession ended, employment in the information services sector has grown an impressive 33%, adding over 4,500 jobs to Manhattan’s economy. Another major contributor to the white-collar jobs recovery is management, adding nearly 2,500 jobs since the end of the Great Recession. These two sectors combined contributed close to 65% of the post-recession growth among white-collar sectors.

While growth in white-collar jobs outside of finance benefits the region, the compensation of these jobs falls short of the stratospheric salaries and bonuses paid to employees of global financial firms located in Manhattan. For example, average salaries in the technology and information services sector fail to reach even half of the more than \$350,000 earned by employees in the securities industry on average. The lower relative salaries are partly attributable to the fact that many technology-related companies are relatively young start-ups living on tight budgets. But if tech firms continue to be drawn to Manhattan, the demand for talent may increase, driving wages higher.

Jobs in white-collar industries like technology may not challenge the financial industry in its level of employment or wages any time soon, but greater diversification of Manhattan’s employment base could help create a more resilient regional economy going forward.



Key Points

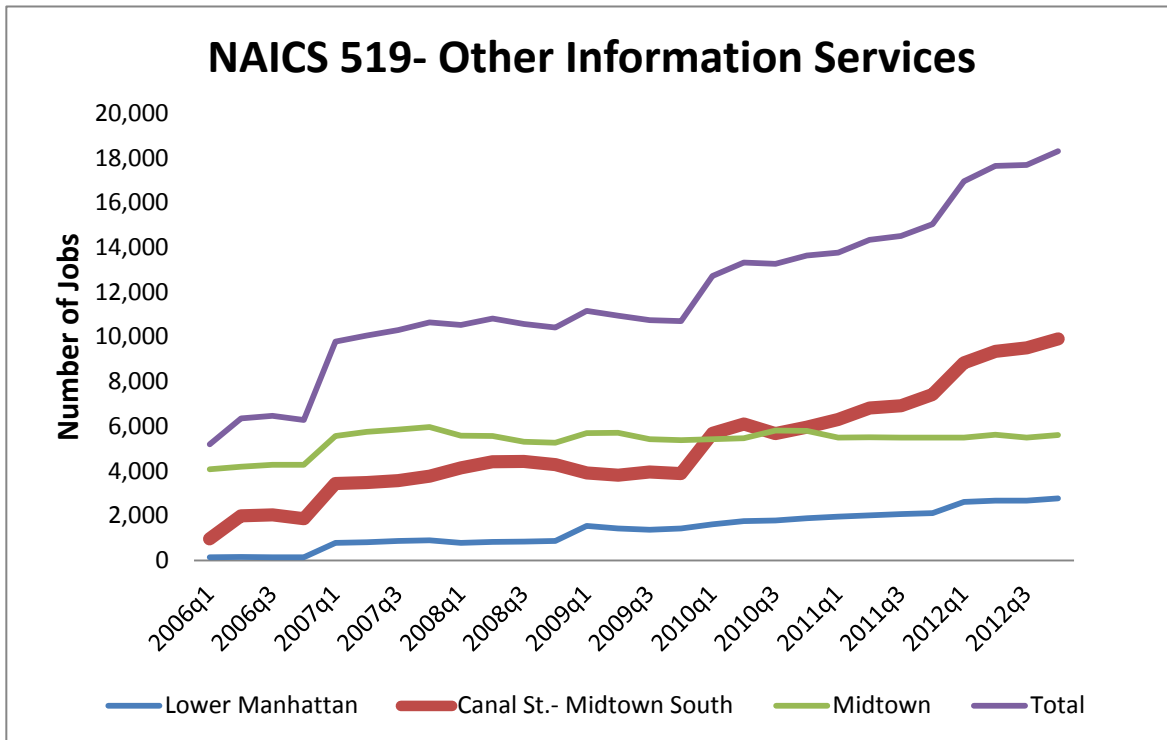
- While trading floors contract, major banks are relocating offices outside of New York City, where cheaper rents, lower taxes and lower employee compensation all present cost saving opportunities.
- Since the recession ended, employment in the information services sector has grown an impressive 33%, adding over 4,500 jobs to Manhattan’s economy. Another major contributor to the white-collar jobs recovery is management, adding nearly 2,500 jobs since the end of the Great Recession.

JULY TRANSPORTATION FOCUS A Closer Look at Information Services

While there is no perfect definition for the jobs included in the technology sector, there are clear signs that sectors with tech-related occupations are expanding in Manhattan. Computer occupations and software development are just a few of the many jobs that contribute to the tech sector, but the growth of these jobs points to the overall employment trend in Manhattan’s tech sector.

Since 2006, the sector defined by the North American Industry Classification System as Other Information Services, which includes computer occupations and software development, has grown over 250%: from 5,000 jobs to over 18,000 jobs in Manhattan alone. While tech and information services related occupations jumped slightly in Lower Manhattan, the areas between Canal Street and Midtown South have seen massive growth in the sector, adding nearly 9,000 jobs since 2006. This is in part due to the availability of older Class A office space that is priced attractively and located in neighborhoods replete with shops and amenities that are desirable to start-up employees.

As an influx of new tech businesses soaks up office space in Midtown South, it will be interesting to see whether tech firms expand their office footprints to other boroughs and localities within the region.



AUGUST SPECIAL FOCUS Why Fewer Trucks?

Over the past five years, the Port Authority has witnessed a continuous decline in truck volumes on its trans-Hudson crossings, even as the key sectors that generate truck trips—wholesale, construction, and retail trade—have gradually recovered from the Great Recession. There are numerous causes for the decline in truck activity. In October 2013, we pointed out that operational efficiency improvements and supply chain optimization are two potential reasons accounting for the lower truck traffic. In this article, we discuss some additional business and economic factors that likely have contributed to the decline in truck traffic across Port Authority facilities.

As a matter of fact, truck activity at Port Authority facilities has been roughly flat since the 1980s despite significant economic and population growth. Reduced manufacturing activity in the region over the past 30 years may explain some of the decline. In the 1970s, manufacturers started moving their production facilities out of the New York-New Jersey region. The chart on the second page shows that manufacturing jobs in New York City and Long Island dropped dramatically over the past several decades. From 2007 to 2013, manufacturing output in the region fell by an estimated 15 percent to \$49 billion (in 2005 dollars) and has remained roughly flat since 2009. Since the transport of materials, intermediate goods, and outputs of the manufacturing sector accounts for a large percentage of truck traffic, this drop in manufacturing activity could explain part of the recent decline in trans-Hudson truck volumes.

Another factor that could be contributing to the decline in truck traffic is the rising average size and weight of the truck fleet in the region. According to Port Authority estimates using the Federal Highway Administration's (FHWA) Freight Analysis Framework, the average weight carried by eastbound trans-Hudson trucks grew 21 percent between 2007 and 2012, compared to an average increase of just 4 percent for the entire US. In addition, since the Federal government stopped requiring permits for trucks with 53-foot trailers in 1982, the number of 53-foot trailers also kept increasing in the region, even though New York City only allows these trucks on some of the highways. Because of this increase in size and weight, shippers can send the same amount of freight with fewer trucks.

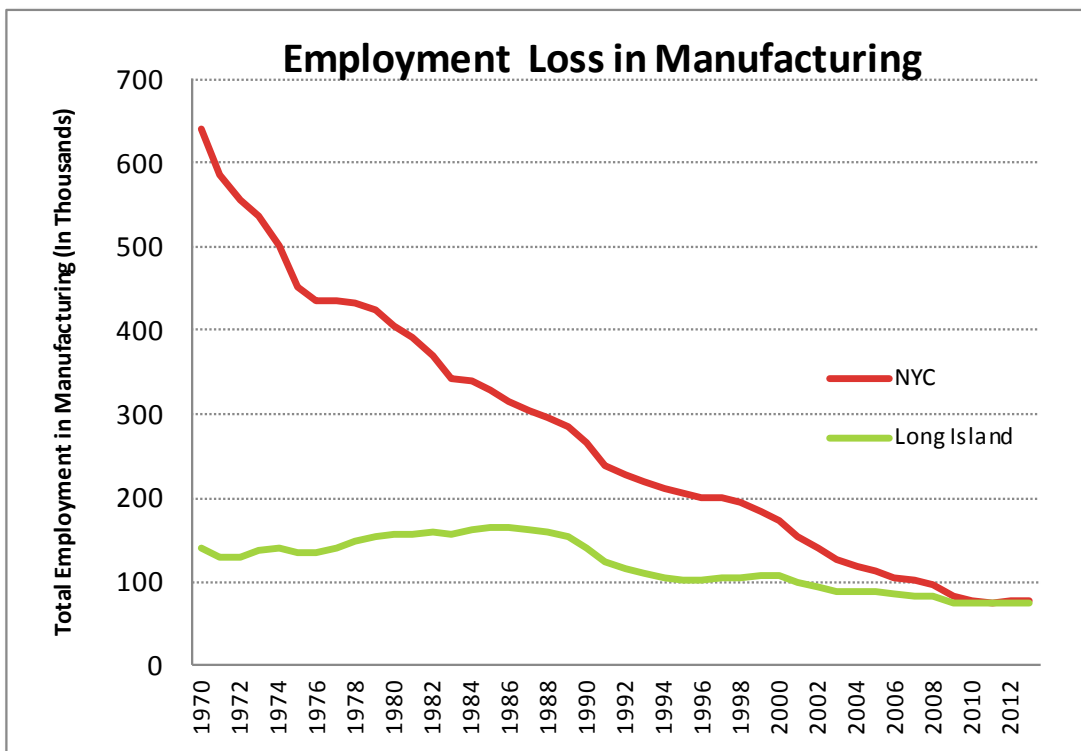
The Port Authority's toll increases in recent years and the high level of investment in trans-Hudson road networks north of the George Washington Bridge may also be contributing to the decline in truck activity at Port Authority facilities. On the one hand, higher tolls might discourage operators driving between the states; on the other hand, since there are few alternatives for operators, the toll increases might have driven efficiency improvements in loading, leading shippers or carriers to transport more goods per crossing. However, the level of impact from these changes is debatable and difficult to tease out from available data in light of the complex changes to the supply chain that have occurred in recent years. The region still strongly depends on trucks for commercial and retail goods movement, but economic changes and supply chain innovations have reduced truck volume in the region—at least for now.

Key Points

- From 2007 to 2013, manufacturing output in the region fell by an estimated 15 percent to \$49 billion (in 2005 dollars) and has remained roughly flat since 2009.
- On the one hand, higher tolls might discourage operators driving between the states; on the other hand, since there are few alternatives for operators, the toll increases might have driven efficiency improvements in loading, leading shippers or carriers to transport more goods per crossing. However, the level of impact from these changes is debatable and difficult to tease out from available data in light of the complex changes to the supply chain that have occurred in recent years.

AUGUST TRANSPORTATION FOCUS Regional Employment Loss in Manufacturing

Over the past four decades, New York City and Long Island have lost most of their manufacturing jobs. In New York City, manufacturing employment fell from 639,000 in 1970 to just 76,000 in 2013, a drop of 88 percent, or an average annual decline of 5 percent. By contrast, manufacturing jobs in the U.S. as a whole fell just 33 percent over the same period. In 1970, manufacturing jobs accounted for 17 percent of total non-farm employment in New York City and Long Island. Now their share has dropped to merely 3 percent. Since the 1970s, manufacturing has become more automated, so companies can produce more output with fewer workers. Stricter industrial and environmental regulations as well as increasing labor costs also forced manufacturers to move out of the city. Many jobs shifted to New Jersey, some jobs moved to other parts of the country, and some manufacturing moved overseas, in particular to Asia and South America, in order to lower labor and capital costs and new free trade agreements. The decline in manufacturing had a profound impact on the region’s economy, and services such as finance, information technology and healthcare have become the economy’s driving force.



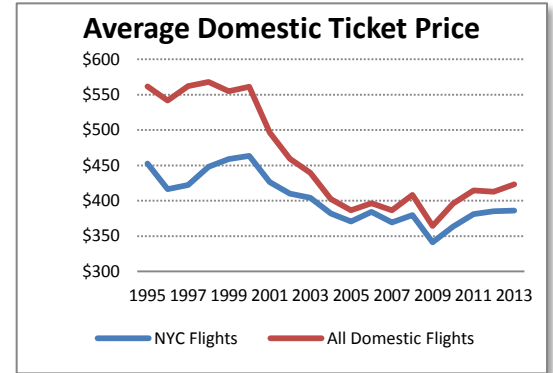
SEPTEMBER SPECIAL FOCUS Lower Ticket Prices and Bigger Planes:
The Change of the New York Premium

Since 2000, domestic airline carriers serving the New York region have seen substantial price and cost pressures. Data from the Bureau of Transportation Statistics show that in 2000, the average airfare in the New York region exceeded the average U.S. ticket price by \$95, a 21% surcharge. By 2004, New York ticket prices had dropped \$81 and the premium was only \$20, or less than 5%.

The drop in the premium came as discount carriers, notably Jet Blue, increased their presence in the region. Between 2000 and 2007, Jet Blue grew its domestic passenger volume at JFK Airport from 1.1 million to 12.8 million and became the airport’s largest carrier. Jet Blue’s growth may have put pressure on airfares not only at JFK but at LaGuardia and Newark, as the airline grew its network to compete with other carriers’ flights to more domestic destinations. Such competition makes it more difficult for airlines to raise fares even in the face of other outside cost pressures such as elevated fuel costs.

At the same time, airlines appear to have focused on ways to optimize their networks to lower costs, with LaGuardia presenting an interesting example. The Federal government restricts the number of takeoff and landing slots at the airport, and the airport itself limits flights to an area within a 1600-mile radius of the airport, to manage congestion. Prior to the disappearance of New York’s ticket premium, airlines used LaGuardia to service many small markets across the Northeast with multiple daily flights to each market. After the price drop, airlines limited service to smaller markets while expanding aircraft sizes to gain efficiencies from economies of scale.

The trend of using larger planes with a higher share of occupied seats is not unique to LaGuardia. But slot controls at LaGuardia heighten the effect. Consolidating passengers from two flights into one allows for another profit-generating flight to be added. This strategy allowed Delta, which took over a number of US Air’s slots in 2011, to use slots saved by more efficiently serving smaller Northeast markets to service other, presumably more profitable routes and to do so with larger planes. Delta employed this strategy to establish its hub at LaGuardia, replacing flights to small markets such as Syracuse with flights to airports inside the 1600-mile radius with better possible connections, such as Chicago. For the Port Authority, this has translated into strong passenger growth at LaGuardia since 2011.

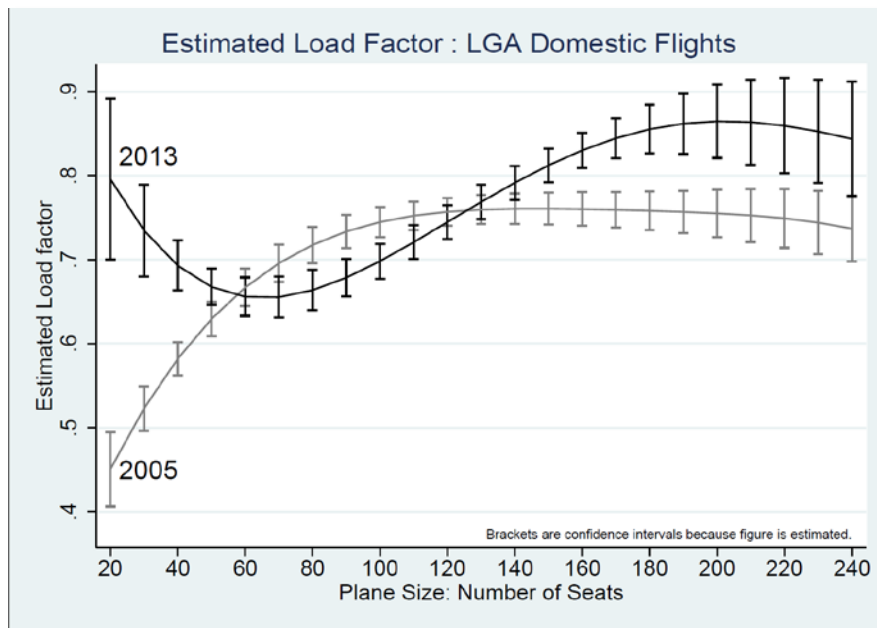


Key Points

- Prior to the disappearance of New York’s ticket premium, airlines used LaGuardia to service many small markets across the Northeast with multiple daily flights to each market. After the price drop, airlines limited service to smaller markets while expanding aircraft sizes to gain efficiencies from economies of scale.

SEPTEMBER TRANSPORTATION FOCUS Load Factors at LaGuardia

In 2011 after several years of negotiations and Federal review, Delta took over a significant number of US Airways slots at LaGuardia. When US Air held the slots, it was willing to fly many smaller planes to smaller markets even though they were typically not very full. Delta used its slots at LaGuardia differently. It still serviced smaller markets, but less often and if possible with larger planes. The remaining flights to small markets were significantly fuller as a result. The change in the network also enabled Delta to free up slots to service other markets and bring even more people to LaGuardia. Thus, even though the slot restrictions at LGA have not changed we have seen record-breaking numbers of passengers at the airport.



Today, users of the region's extensive public transit network often have to wait in line at multiple vending machines to buy unique tickets for different transit modes. It's a chore that costs commuters and visitors time and, sometimes, extra money. The creation of an open payment system, which promises riders the ability to use one card or mobile device to access multiple transit systems, could help transit riders spend less time in line selecting and purchasing different tickets. Transit agencies hope the system can improve customer satisfaction, attract new riders, and cut operating costs by consolidating or eliminating some fare collection functions. In 2010, the Port Authority, New Jersey Transit and New York's MTA tested contactless bankcard technology on transit during a regional open payments pilot program. Collaboration on open payments for transit continues to this day, but is not yet a reality region-wide. Successful implementation of an open payment system is a more complex undertaking than simply installing the right technology at transit ticket plazas across the region.

The implementation of an open payment system hinges on the adoption of standard device technology and broad acceptance and market saturation of mobile devices and contactless credit cards (replacing magnetic stripes with computer chips). For years, contactless payment technology has struggled to reach a tipping point in the US. The recent release of several Near Field Communication (NFC) enabled phones, such as the iPhone 6, and the imminent, large-scale transition of credit cards to a new standard with greater anti-fraud protections (known as EMV), are two game-changing developments. NFC-enabled phones allow people to use mobile payment applications on smartphones to pay for purchases securely using credit and debit card information. At the same time, contactless EMV cards, which users can tap against NFC-enabled scanners to issue payments, are expected to be more widely accepted by merchants in the near future. Credit card companies are requiring US retailers to accept EMV cards by October 1, 2015, or risk bearing the financial liability for fraudulent transactions.

Even with the adoption of NFC-enabled phones and the EMV standard, several technical challenges remain before the wide-scale adoption of an open payment network within transit systems. A transit environment has unique payment authentication, authorization and processing concerns that differ from a typical retail environment. Notably, transactions must occur more quickly at turnstiles than at typical retail locations, like restaurants, while the same, rigorous payment processing and anti-fraud procedures remain in place.

The payment industry appears undeterred by these technical challenges. The industry expects that the more that transit riders use a card or mobile device on transit, the more they will use the same systems at other merchants. This creates a powerful incentive for the payment industry to collaborate with the public sector to make open payment in transit a reality. Several transit agencies are actively developing, or recently launched, phased open payment programs, including New Jersey Transit, Pennsylvania's SEPTA, and Chicago's CTA. Lessons learned from these deployments, including customer satisfaction and system functionality successes and challenges, will further enable all transit agencies to work collectively toward an open payment system on a bigger scale.

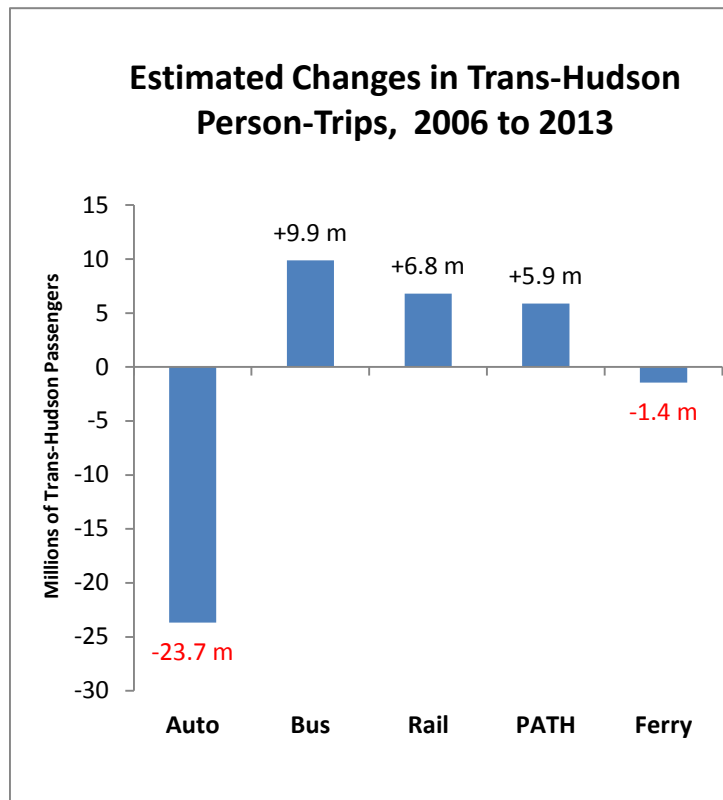
Whether you are a commuter regularly traversing the regional transit system or a traveler using transit to get downtown from an airport, the recent advances in the payment industry move you one step closer to tapping your way from one transit service to the next.

Key Points

- Even with the adoption of NFC-enabled phones and the EMV standard, several technical challenges remain before the wide-scale adoption of an open payment network within transit systems.
- Several transit agencies are actively developing, or recently launched, phased open payment programs, including New Jersey Transit, Pennsylvania's SEPTA, and Chicago's CTA.

OCTOBER TRANSPORTATION FOCUS Changes in Person-Trips in the Trans-Hudson Region

Since 2006, the number of eastbound automobiles crossing the Port Authority’s bridges and tunnels between New York and New Jersey has declined by 10 million, or 8.7 percent. A dip in traffic would normally be expected during a recession, but New York City employment has returned to and exceeded its pre-recession level, and the region’s population continues to grow. So what’s happened with the auto trips? Examination of data underlying the Port Authority’s Passenger Pulse shows that growth in transit trips since 2006 offsets nearly all of the losses in automobile trips. The decline in eastbound auto trips implies an estimated 23.7 million drop in annual passenger trips in both directions since 2006; during the same period, annual transit trips across the Hudson have grown by 21.1 million. This still suggests an overall decline of 2.6 million trips by all modes and doesn’t account for the growth one might expect would go along with a rising population. Other factors that could account for this decline are changes in the way people work and regional population dynamics. Nationally, a growing number of workers are working at home at least some of the time and commuting less. Metro areas across the country are also seeing population growth in their centers, which could imply fewer long-distance commutes. In line with that trend, our own metropolitan region has seen population growth since 2010 concentrated in New York City and Hudson County, possibly translating into lower growth in trans-Hudson trips – and auto trips in particular – to Manhattan workplaces.



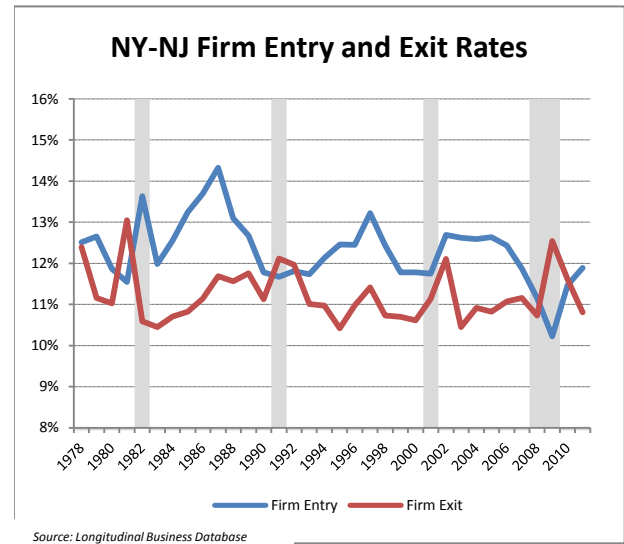
NOVEMBER SPECIAL FOCUS Business Dynamism Nationally and Regionally

Standard economic theory holds that the U.S. economy thrives on the rise and fall of businesses. This churn, known as “creative destruction” in economic jargon, is the engine of capitalism. When large numbers of new firms are competing in the global marketplace with innovative products and services, they typically create new jobs and consumer value. A decline in firm creation may signal economic stagnation. That’s why some economists have expressed concern about federal census data that shows a falling rate of firm creation at the national level since 1978. In contrast, the rate of firm entries in the New York – New Jersey metro area has been stable over the same period. While we cannot point to a single cause behind the different levels of business dynamism, we can highlight potential explanations for the difference.

First, a little more detail on the national picture. A recent Brookings Institute study, authored by Ian Hathaway and Robert Litan, drew attention to trends in firm entry and exit rates across all fifty states and over three-hundred-fifty metropolitan areas. They found that the firm entry rate has been declining since at least 1978, and fell precipitously over the past ten years in particular. Across the fifty states, new firms as a share of all firms fell from nearly 11 percent in 2006 to about 8 percent in 2011 (notably, the decline began before the onset of the Great Recession). To put that change in perspective, the authors estimate that the rate of business formation in 2011 was almost half of what it was in 1978. Nearly all business sectors experienced a decline in the number of firm entries over the thirty-three year study period.

Firm creation and dissolution data are generally not fine-grained enough to allow analysts to pick out specific economic or social changes associated with the decline in business dynamism. The growth of business regulations, tighter lending standards, immigration policies that make it difficult to attract and retain talented workers, and the consolidation of firms within certain sectors of the economy are among the more popular explanations for the decline of business dynamism at the national level. A more interesting question, perhaps, is why the New York—New Jersey metro area has *not* followed this national trend.

According to our reading of the data, the rate of firm entries in the New York – New Jersey metro region has remained relatively constant since 1978. In 1978 an estimated 12.5 percent of firms in the region were new entrants. By 2011 the rate had slipped just one-half percentage point to 12 percent. The reasons for the relative stability of the firm entry rate are manifold, but it is possible that the New York – New Jersey metro area’s high concentration of service-oriented businesses makes it unique. Service-oriented firms may have lower startup costs and contend with fewer regulations compared with manufacturing firms. The recent growth of tech sector firms in the region combined with the churn of consultants, media, marketing, and financial services firms may have helped keep the New York – New Jersey metro area’s firm entry rate stable over the past several decades.



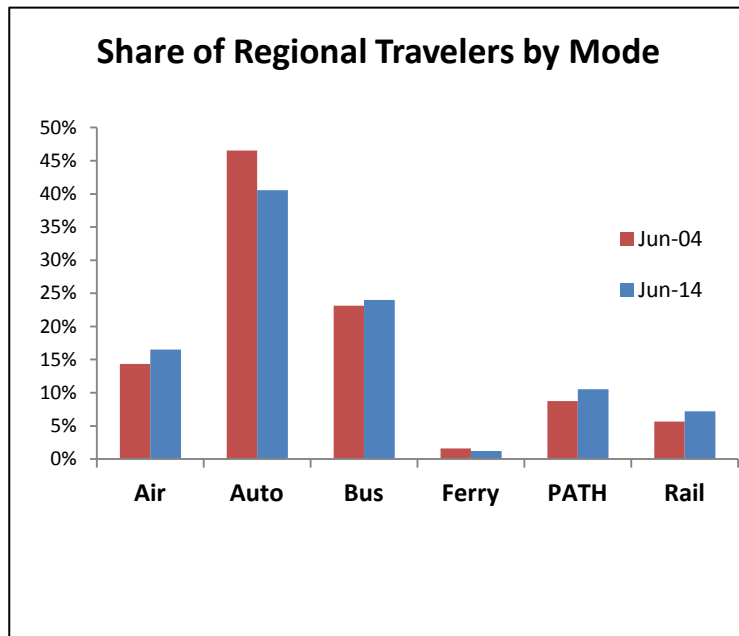
Key Points

- Across the fifty states, new firms as a share of all firms fell from nearly 11 percent in 2006 to about 8 percent in 2011 (notably, the decline began before the onset of the Great Recession).
- The reasons for the relative stability of the firm entry rate in the New York - New Jersey metro area are manifold, but it is possible that the area’s high concentration of service-oriented businesses makes it unique.

NOVEMBER TRANSPORTATION FOCUS Share of Regional Travelers by Mode

As we've discussed in earlier MEI newsletters, the Port Authority region has experienced declining levels of auto traffic on Port Authority facilities. At the same time, the region has experienced strong growth in transit ridership and growth in passengers at regional airports. The PA Pulse, about to enter its fourth year of service, summarizes the regional dynamics of both passenger and freight movement in the region. Here, we use data from the Pulse to chart the change in estimated shares of regional travelers that use Port Authority facilities by mode. The estimated share of auto passengers has declined by about 6 percentage points while bus, PATH, rail, and air passengers have all grown between 1 and 2 percentage points over the past ten years.

Transit growth has been driven in large part by the increased use of trains and buses among younger cohorts of the regional workforce and shifts in the job composition and commuting schedules of the regional workforce. Much of the passenger growth at the airports can be attributed to rising demand for international travel. Notably, the passenger mix at the airport includes both passengers destined for the region and connecting passengers. Ferry ridership has declined by about 1 percentage point since 2004 due to the Port Authority winding down some of the services offered after 9/11.



DECEMBER TRANSPORTATION FOCUS Millennials: NY-NJ Was There First

Much ink has been spilled on how the Millennial generation is spearheading broad changes in society. In the transportation realm, Millennials – Americans who have reached adulthood since 2000 – appear to be leading the shift away from motor vehicle travel. A number of factors have been cited, such as poor economic prospects, tougher driver licensing rules, digital technologies that make online shopping and telecommuting much easier, and Millennials’ greater preference for downtown living.

A quick look at Census data shows that the trend away from motor vehicle commutes by younger workers in the New York – New Jersey metropolitan region began before the Millennials hit the scene. Nationally, the decline in commuting by motor vehicles among younger workers is only noticeable in the last decade; but our region saw a significant decline in the 1990s, followed by a sharper drop in the last ten years. Since 1990, the share of younger workers who commute to work by motor vehicle has fallen from 86 percent to 85 percent nationally, while in the metro region the share fell from 60 percent to 50 percent. The shift appears to have begun even earlier in northern New Jersey, as counties such as Hudson and Bergen have seen declines in young-worker commutes by motor vehicle since the 1980s.

