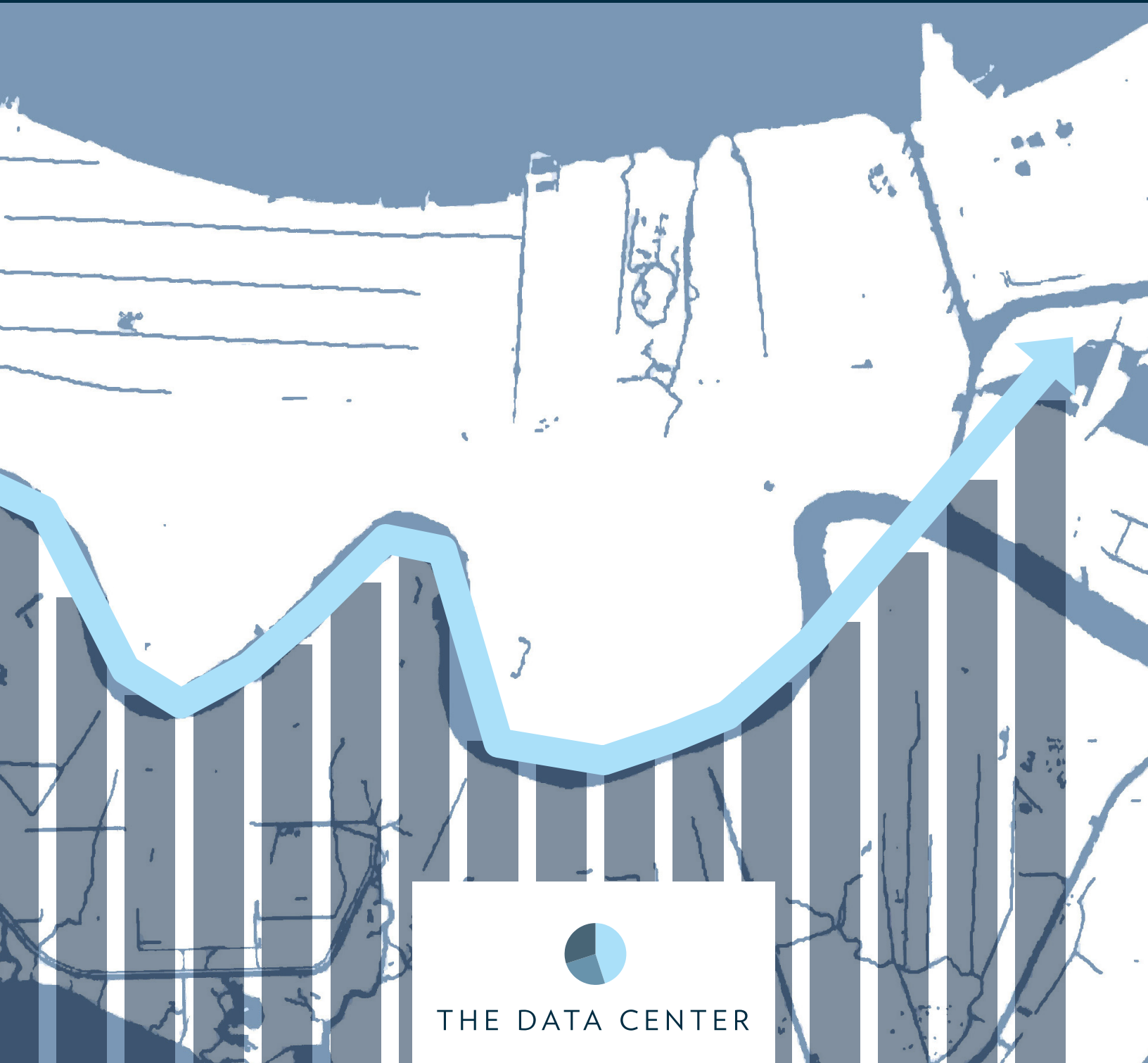


The New Orleans Index at Ten

Measuring Greater New Orleans' Progress toward Prosperity

— July 2015 —



THE DATA CENTER

This page intentionally left blank.

PRINCIPAL AUTHORS

Allison Plyer, Executive Director and Chief Demographer
Nihal Shrinath, Data Manager and Research Associate
Vicki Mack, Senior Research Fellow

DATA ASSEMBLY, EDITORIAL ASSISTANCE, AND LAYOUT

Jake Cowan, Caroline Heffernan, Elaine Ortiz, Rebecca Osakwe,
and Whitney Soenksen

DESIGN AND GRAPHICS

Southpaw Creative and True Story Design

ACKNOWLEDGMENTS

The Data Center wishes to thank blue moon fund, Foundation for Louisiana, Greater New Orleans Foundation, JPMorgan Chase Foundation, Walton Family Foundation, and Zemurray Foundation for their support of *The New Orleans Index at Ten*. Additional gratitude goes to United Way of Southeast Louisiana, RosaMary Foundation, Patrick F. Taylor Foundation, Methodist Health Systems Foundation, Institute for Mental Hygiene, GPOA Foundation, Entergy Corp., and Baptist Community Ministries for their support of the ongoing work of The Data Center.

The authors are also grateful to Walter Brooks and Dan Jatres, of the Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes, who provided special compilations of data on bike pathways. Additional thanks go to Ann Carpenter, Todd Greene, Karen Leone de Nie, and Stuart Andreason of the Federal Reserve Bank of Atlanta, who provided special compilations of historical crime data and editorial support. Special thanks to John and Wendy Lovelace at the Lower Mississippi-Gulf Water Sciences Center of the USGS for their assistance in providing data on groundwater salinity.

As an original partner, the Metropolitan Policy Program at the Brookings Institution remains influential in the construction of *The New Orleans Index*. Their work continues to serve as a model for accessible and effective research reports.

STEERING COMMITTEE

Many people served on the steering committee for *The New Orleans Index at Ten*, providing valuable advice and comments on the indicators selected and the report’s findings and implications. For their contributions, we wish to acknowledge:

Michael Cunningham	Richard Henault	Tommy Screen
Flozell Daniels	Tricia Jones	Ronnie Slone
Joan Davis	Walter Kimbrough	William Wainwright
Melissa Ehlinger	Pat LeBlanc	Tommy Warner
Martin Gutierrez	Erika McConduit-Diggs	Michael Williamson
Michael Hecht	Albert Ruesga	Victor Ukpolo
Carolina Hernandez	Petrice Sams-Abiodun	

About The New Orleans Index at Ten

Following Hurricane Katrina and the levee failures, the Brookings Institution Metropolitan Policy Program began publishing *The Katrina Index* in December 2005 to track the recovery of metro New Orleans with indicators measuring population, economy, housing, and infrastructure. In 2007, the Greater New Orleans Community Data Center began to co-publish *The Index* with the Brookings Institution with an expanded number of indicators. Together, The Data Center and Brookings renamed the report *The New Orleans Index*. *The Index's* value as a regularly updated, one-stop shop of Katrina recovery indicators made it the go-to resource for national and local media, decisionmakers across all levels of government, researchers, and leaders in the private sector and non-profit community.

The New Orleans Index at Five, published for the occasion of the fifth anniversary of Katrina in August 2010, moved past disaster recovery to assess the remaking of a great American city and region. This report relied on 20 indicators to examine progress toward metropolitan prosperity organized by economy, inclusion, quality of life, and sustainability. In addition, *The New Orleans Index at Five* initiative systematically documented major post-Katrina reforms with the inclusion of seven essays contributed by leading local scholars. The intention was to initiate an ongoing series of reports that measure progress and prosperity in the greater New Orleans area with indicators and essays that change over time depending on new data availability, relevance, and the needs of the community.

The New Orleans Index at Ten provides the most up-to-date data on New Orleans' transition from recovery to transformation. This report includes more than 30 indicators to examine progress toward prosperity and greater resilience. In addition, *The New Orleans Index at Ten* is accompanied by a collection of essays contributed by more than a dozen leading local scholars. These essays provide comprehensive updates on the status of major post-Katrina reforms for the occasion of the 10th anniversary of Katrina, and recommendations for furthering progress and increasing resilience going forward.

The New Orleans Index at Ten examines trends in the federally defined 8-parish New Orleans metropolitan statistical area. (See Reference Maps on pages 12-13). For several indicators of inclusion and quality of life, *The Index* examines trends for the city of New Orleans as compared to the rest of the metro area to assess the historical and recent contrast between the city of New Orleans and the more suburban surrounding parishes. For the vast majority of indicators, we compare metro New Orleans to the United States. For many economic indicators, metro New Orleans is also compared to a group of aspirational metros and a group of "weak city" metros to provide two different benchmarks of New Orleans' progress toward prosperity. The 57 "weak city" metros were selected from a 2007 Brookings Institution report entitled "Restoring Prosperity: The State Role in Revitalizing America's Older Industrial Cities." In this report, Brookings identifies New Orleans among a group of older industrial cities that experienced slow or negative economic growth from 1990 to 2000. The aspirational metros are Southern metros with populations of greater than 1,000,000 that have experienced better than 10 percent job growth from 2000 to 2012. These metros were selected to align with post-Katrina expectations for a stronger and more resilient New Orleans area economy.

Table of Contents

6	Executive Summary	42	Quality of Life
12	Reference Maps: Geographies of Analysis and Comparison Metros	43	Arts and Culture
14	Economic Growth	44	Public Education
15	Job Growth	46	High School Cohort Graduation Rates
16	Drivers of the Economy	47	Youth Investment
19	Local-Serving Clusters	48	Public Safety
20	Wages	50	Public Corruption
21	Productivity	52	Housing Affordability
22	Airport Traffic	54	Sustainability
23	Entrepreneurship	55	Bike Pathways
24	Venture Capital	56	Commuting by Public Transit
25	Educated Workforce	57	Air Quality
26	State Funding for Higher Education	58	Groundwater Salinity
27	Job Sprawl	60	Coastal Wetlands
28	Inclusion	62	Notes
29	Median Household Income by Race and Ethnicity	62	Technical Notes on Data
30	Educational Attainment by Race/Ethnicity and Sex	69	Endnotes
32	Employment Rates by Race/Ethnicity and Sex	72	About the Authors (Back Cover)
34	Jail Incarceration Rates		
35	Size of City's Middle Class		
36	Size of City's Middle Class by Race and Ethnicity		
38	Income Inequality		
40	Suburbanization of Poverty		

Executive Summary

When Hurricane Katrina struck and the levees protecting metro New Orleans failed, the western world witnessed an unprecedented catastrophe. More than 1,000 people died, more than a million were displaced, and total damage to the region was estimated at \$151 billion.¹ But since August 2005, the world has experienced multiple large-scale disasters including the 2010 earthquakes that devastated Haiti, the 2011 Great East Japan earthquake and tsunami that killed over 15,000 people, and Hurricane Sandy in 2012, which caused over 100 deaths and \$67 billion in damage along the East Coast.²

Southeast Louisiana alone has experienced multiple shocks since 2005. Hurricane Katrina was followed quickly by Hurricane Rita. In subsequent years, Hurricanes Ike, Gustav, and Isaac all caused extensive flooding and wind damage across the region. And in 2010, the Deepwater Horizon explosion gushed millions of barrels of oil into the gulf, fouling miles of Louisiana's delicate coastal wetlands—New Orleans' first line of defense against storm surge.

Given the multiple shocks this region has suffered since 2005, the tenth anniversary of Katrina is an appropriate time to assess how the region has recovered from Katrina, and whether the city and metro area are fortifying the capacities necessary to be resilient in the face of any shock. Indeed since 2005, the prevalence of large scale disasters worldwide has drawn the attention of decisionmakers at every level. The lessons learned from New Orleans' recovery experience can inform how the world not only responds to future disasters, but also how it builds the resiliency capacities needed to withstand any shock. Our indicators suggest that while the New Orleans economy is rebounding, and in some ways better than before, several social and environmental trends may test New Orleans' resilience capacity in the future.

Defining Resilience

Regional resilience is composed of two related components; they are: (1) *resilience performance*, how well a region rebounds after a disaster and (2) *resilience capacity*, the region's ability to respond to any shock.

Scholars studying disasters spanning more than a century concluded that disasters tend to accelerate pre-existing trends.³ This did not bode well for metro New Orleans which had very weak population and job growth and high poverty levels pre-Katrina.⁴ However, in a few case studies, a region was able to break from historic trajectories, bouncing back better than before. The ability to rebound to pre-stress or better than pre-stress trend lines is influenced by a region's resilience capacity.

A review of resilience literature points to several characteristics that support a region's resiliency capacity. Certainly, strong infrastructure is an important factor.⁵ But beyond infrastructure, a number of economic and social factors impact the ability of a metro area to respond to, bounce back from, and adapt positively to any negative shock. These resiliency factors include: a strong and diverse economy; a relatively small gap between the incomes of high and low-income residents; large shares of skilled and educated workers; wealth (whether government, private, philanthropic, or individual) that can provide adaptive cushion; strong attachment to place; social cohesion between groups; community competence and problem-solving ability; strong leadership; and trust in government.⁶

The New Orleans Index at Ten analyzes over 30 indicators reaching back to 1980 to assess whether New Orleans has broken from its historic trajectories. As such, it assesses resilience performance. It also provides crucial information for assessing the region's resilience capacity. It reveals areas of strength and weakness across many of the factors contributing to resilience capacity, organized by economic growth, inclusive growth, quality of life, and sustainability. *The Index* provides critical insights for strengthening resilience in the years ahead. Our findings reveal:

Economic Growth

THE METRO NEW ORLEANS ECONOMY IS TAKING FIRST STEPS TOWARDS A NEW TRAJECTORY—WITH SUSTAINED JOB GROWTH, AN INCREASINGLY DIVERSE SET OF INDUSTRY CLUSTERS, AND HIGH RATES OF ENTREPRENEURSHIP.

- * From 2008 to 2010, metro New Orleans lost only 1 percent of jobs compared to 5 percent lost nationwide. By 2014, metro New Orleans had recouped these losses and reached 5 percent above its 2008 level, while the nation reached only 1 percent above its 2008 level.
- * Jobs in knowledge-based clusters have grown substantially since 2010 including in construction products & services (an essential part of the water management cluster), video production, and electric power generation, which have grown 14 percent, 90 percent, and 22 percent respectively.
- * Job centers have shifted across the region. Parishes upriver and on the north shore are now home to 24 percent of all the metro's jobs.
- * By 2014, passenger enplanements in Louis Armstrong International airport surpassed 2008 levels by 22 percent—while national air traffic had recovered to only 5 percent above pre-recession numbers. In fact, by 2014, New Orleans passenger enplanements had surpassed their 2004 pre-Katrina high mark—indicating that the New Orleans airport is providing expanded connectivity for Southeast Louisiana visitors, residents, and businesses.
- * The metro New Orleans entrepreneurship rate—at 471 startups per 100,000 adults during the three year period from 2011-13—is 64 percent higher than the national average, and 40 percent higher than other fast-growing Southern metros.
- * Venture capital funding, which is critical to innovation and economic cluster development, has doubled in metro New Orleans from \$16 per capita in 2010 to \$32 per capita in 2014. But this is only a fraction of the venture capital going to startups in competitive metro Austin, where funding has consistently been over \$100 per capita since 2006.
- * Metro New Orleans lags the nation in producing and attracting workers with a bachelor's degree. By 2013, only 27 percent of adults in the metro had at least a 4-year degree compared to 30 percent nationwide, and the gap between metro New Orleans and the nation has been widening since 1990.

IN THE FORTHCOMING NEW ORLEANS INDEX AT TEN ESSAY ENTITLED “CURRENT AND FUTURE FLOOD RISK IN GREATER NEW ORLEANS” DAVID JOHNSON AND COLLEAGUES SYSTEMATICALLY ASSESS THE STRENGTH OF THE IMPROVED LEVEE SYSTEM AND REPORT THAT THE METRO IS NOW SUBSTANTIALLY MORE PROTECTED THAN IT WAS IN 2005.

- * States have historically been the primary force behind funding public higher education, with the aim of supplying industry with in-demand, high-quality labor. In 2003, Louisiana's appropriations per full time enrollment—at nearly \$8,886 (in 2014 dollars)—were 14 percent below the national average. By 2014, Louisiana's funding had fallen to \$5,127—22 percent below the nation.

Inclusive Growth

IN METRO NEW ORLEANS, EMPLOYMENT AND INCOME DISPARITIES BETWEEN AFRICAN AMERICANS AND WHITES ARE STARKER THAN NATIONAL DISPARITIES, AND POVERTY IS INCREASING IN SURROUNDING PARISHES—UNDERMINING SOCIAL COHESION AND RESILIENCE CAPACITY ACROSS THE REGION.

- * The median income for white households in metro New Orleans is on par with white households nationwide, but the median income for black households in metro New Orleans is 20 percent lower than black households nationally. Thus, in 2013, the disparity in incomes between black and white households was 54 percent, compared to 40 percent nationally.
- * Employment rates for white men in metro New Orleans, at 77 percent, are on par with fast-growing Southern metros. In contrast, with just 57 percent employed as of 2013, black men in metro New Orleans have employment rates that are significantly lower than fast-growing Southern metros, where 62 percent of black men are employed.
- * Jail incarceration rates in New Orleans have fallen from five times the national rate in 2004 to roughly three times the national rate in 2013. Excluding state prisoners, the Orleans Parish incarceration rate was still more than twice that of the nation as of 2013.
- * The share of New Orleans' white households in the top national income quintile expanded from 25 percent in 1999, such that by 2013, 30 percent of white households earned more than \$105,910. In contrast, black households experienced no growth in the top earning tier. Instead, black households experienced growth only in the lowest national income tier. In 1999, 42 percent of New Orleans' black households earned in the lowest national income quintile. By 2013, 44 percent of black households earned in the lowest tier (less than \$20,900).
- * The share of the metro's poor that live outside the city continues to expand—growing from 46 percent in 1999 to 58 percent by 2013.

Quality of Life

NEW ORLEANS HAS SEEN A SURGE IN YOUTH INVESTMENTS, INCREASED CONVICTIONS OF PUBLIC CORRUPTION, AND MUCH NEEDED REDUCTIONS IN CRIME AND IMPROVEMENTS IN SCHOOLS—ALL OF WHICH MAY YIELD INCREASED COMMUNITY COMPETENCE AND PROBLEM-SOLVING CAPACITY IN THE YEARS AHEAD.

- * Per capita revenues to arts and culture nonprofits doubled from \$213 in 2004 to \$428 in 2014, and revenues to youth development nonprofits nearly tripled from \$35 per capita in 2004 to \$85 in 2014.
- * In 2004, only 30 percent of students in New Orleans attended schools that passed state standards. Ten years later, 88 percent of students attend satisfactory schools in New Orleans. However, a more refined analysis reveals that only 39 percent of New Orleans students are in schools rated "A" or "B." In Jefferson Parish, only 46 percent of students are in "A" or "B" schools.

- * Although the quality of public schools are increasing, graduation rates across the metro remain low, indicating that more needs to be done to improve youth outcomes. Public schools in six of eight metro parishes have graduation rates consistently below 80 percent.
- * In 2004, violent crime rates in New Orleans were almost twice the national average. By 2013, both local and national violent crime rates had fallen by 17 and 21 percent respectively.
- * Even before Katrina in 2004, federal corruption convictions picked up pace in the New Orleans area. From 2004 to 2013, there were an average of 26 corruption convictions per year, well above the 18 conviction annual average from 1998 to 2003—indicating a stepped up effort to enforce corruption laws in the region.

Sustainability

EXPANDING BIKE LANES POINT TO GREATER APPRECIATION FOR SUSTAINABILITY. BUT DISAPPEARING WETLANDS AND ENCROACHING SALINITY PUT A SPOTLIGHT ON THE IMPORTANCE OF COASTAL RESTORATION AND URBAN WATER MANAGEMENT.

- * Bike lanes and pathways have increased more than eightfold in New Orleans from 11 miles in 2004 to 92 miles in 2014.
- * The share of commuters using public transit in New Orleans is only 7 percent in 2013, down from 13 percent in 2000, and in the rest of the metro, the share has remained flat at barely 1 percent since 2000.
- * Not only has the metro lost 29 percent of the coastal wetlands that protect it from storm surge since 1932, but measurements within the levee walls since 1951 demonstrate that saltwater is encroaching, with eight of nine groundwater sample sites registering increasing salinity.

Conclusion

Ten years after Katrina, the regional economy is embarking on a new path, benefitting from new infrastructure investments, a more diverse set of industry clusters, and an entrepreneurship boom. The region has solidified its commitment to culture with revenues to arts nonprofits now four times the national average. Similarly revenues to youth development nonprofits have doubled, and public school improvements are measurable. Importantly incarceration rates have dropped by nearly half as the city has dedicated itself to reforming its criminal justice system. New Orleanians have worked hard to not only rebuild, but to transform and better their institutions.⁷ By many accounts, New Orleanians' love of their home, high levels of citizen engagement, and dedication to improving their community have been key strengths that have fueled the region's resilience.⁸

Despite economic and reform-driven progress, however, the poverty rate in New Orleans has risen to pre-Katrina rates and is now a crushingly high 27 percent. In the surrounding parishes, the poverty rate has grown to 16 percent. While white males have seen increasing employment rates, black males have not, and by 2013, black households earned 54 percent less than white households in metro New Orleans. On these and other indicators of inclusion, metro New Orleans is performing worse than the nation and other fast-growing Southern metros. But the most existential issue that New Orleans faces is coastal erosion and sea level rise. Since 1932, the New Orleans region has lost nearly 30 percent of the land that forms its protective buffer from hurricane storm surge, and saltwater is increasingly infiltrating groundwater within the levee walls.

New Orleans has a unique opportunity this August to both celebrate hard-earned successes and continue to confront systemic challenges. There is great momentum behind reforming public education, land use, housing, and criminal justice systems. These efforts should be built upon to address unfinished business. Greater access to data is needed to enhance transparency, build trust in government, and inform improvements. To address entrenched disparities, greater connection to opportunity is needed. Networks of businesses and education institutions can work together to develop a long-term plan to increase adult educational attainment and reverse declining investments in higher education. And regional connectivity will be essential to increasing economic mobility as jobs expand in outlying parishes.

On the eve of this 10th anniversary of Katrina, a historic settlement offer from BP for the 2010 Deepwater Horizon oil spill promises to bring billions more dollars to Louisiana—the majority of it already committed to coastal restoration and protection. Starting next year, BP will begin paying off the largest environmental settlement with a single entity in American history. Louisiana is slated to receive anywhere from \$6.5 to \$8.7 billion, with at least \$5 billion required to be spent in Southeast Louisiana, where the most environmental damage occurred. At the urban level, New Orleans is investing in its water management assets and green infrastructure, with billions of federal and local dollars to be spent by the Sewerage and Water Board in the next decade to improve pumps, canals, and drains.

Significant cultural shifts toward accountability, especially given the influx of settlement money and continued investments in infrastructure, will be required to truly set New Orleans on an aspirational path. By dedicating sustained effort to building civic momentum, increasing skilled workforce, and accelerating innovation investments, leaders can leverage the state's 50 year, \$50 billion coastal master plan and the award-winning Greater New Orleans Urban Water Plan to create a self-sustaining economic cluster. Done well, this funding could have multiple positive impacts. Water management could not only fortify the regions' defenses against hurricanes, but also boost economic diversification, and provide employment for a diversity of workers. With the right innovation ecosystem and a well-trained and well-educated workforce, New Orleans could lead the way in managing and living with water, challenging Dutch dominance in this field, just as sea level rise threatens coastal economies around the globe.

As New Orleans prepares for its tricentennial in 2018, leaders and residents must harness the unique diversity and love of home for which their city is known, to model openness and interaction across groups that is manifested in more inclusive economic prosperity. At the end of the day, to ensure resiliency, New Orleanians must simultaneously restore their coast while growing prosperity that benefits broader segments of the population. If successful, New Orleans' efforts will serve as a global demonstration of deliberate adaptation to the challenges that many cities will face in the century ahead.

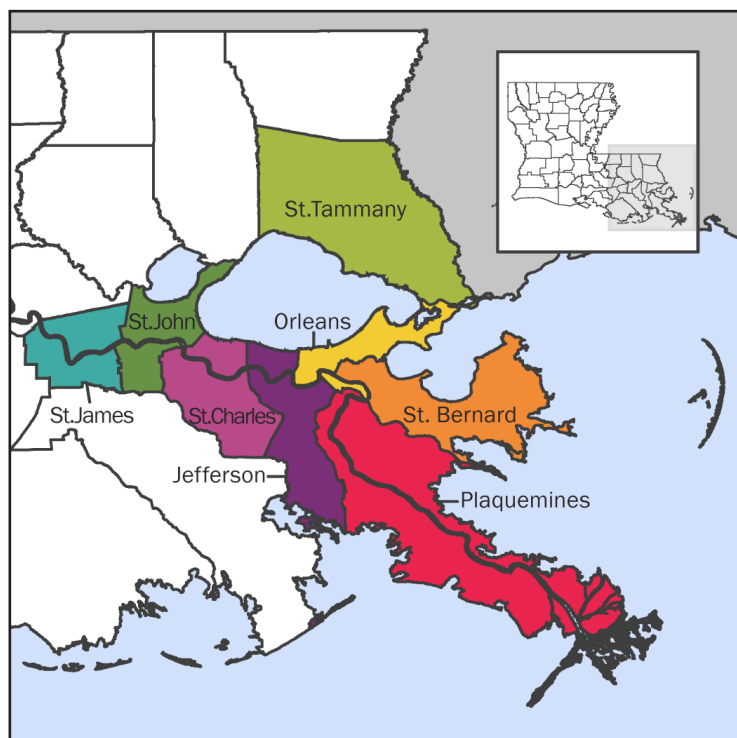
“Our indicators suggest that while the New Orleans economy is rebounding and in some ways better than before, several social and environmental trends may test New Orleans’ resilience capacity in the future.”

—Allison Plyer, Nihal Shrinath, and Vicki Mack



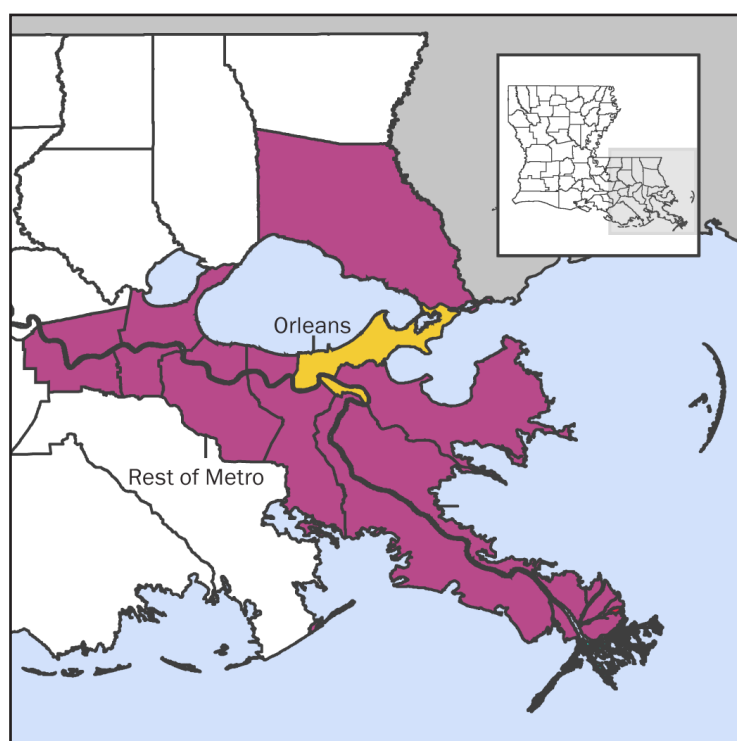
Reference Maps

Geographies of Analysis



Metro New Orleans

Metro New Orleans refers to the 8-parish New Orleans-Metairie, LA Metropolitan Statistical Area (MSA) as defined by the U.S. Office of Management and Budget. An MSA is an area that includes an urban core with a population over 50,000 and adjacent counties/parishes with a high degree of social and economic integration with that core.



New Orleans and the rest of metro New Orleans

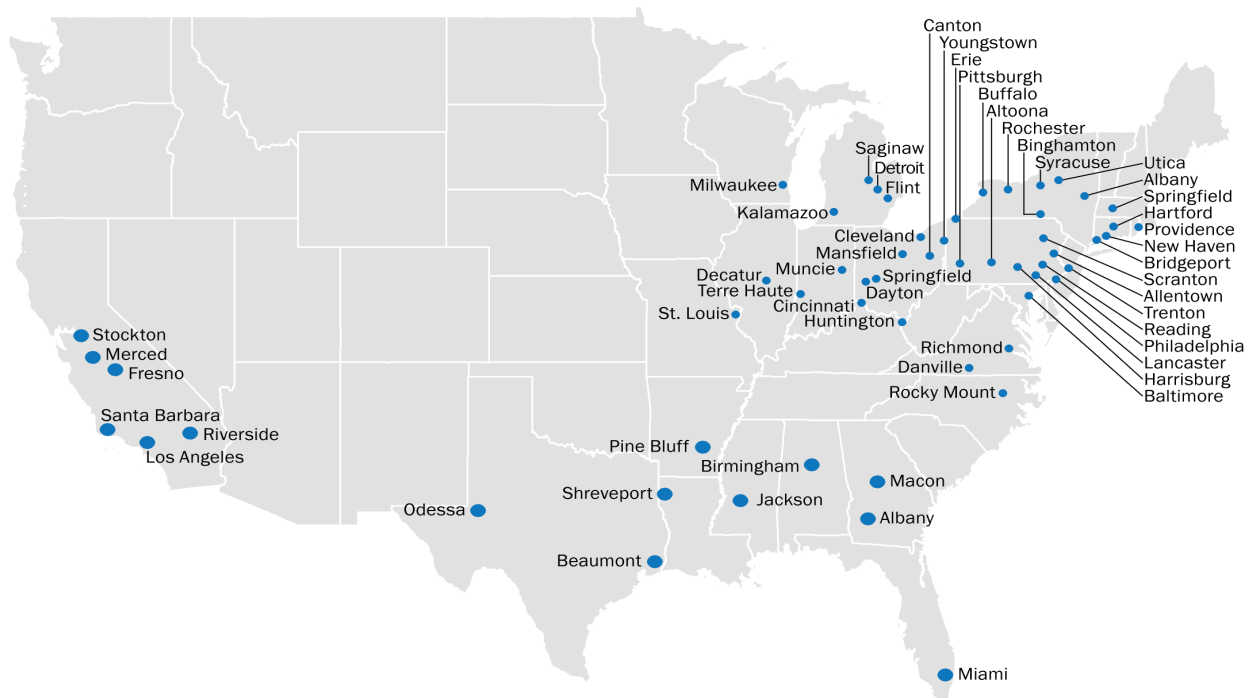
For some indicators in this report (including poverty rates and estimates, crime rates, jail incarceration rates, commuting by public transit, and households paying unaffordable housing costs), data for Orleans Parish is compared to the rest of metro New Orleans to assess the historical and recent contrast between the city of New Orleans and the more suburban surrounding parishes.

What is Orleans Parish?

Orleans Parish is the city of New Orleans. New Orleans and Orleans Parish are interchangeable. Their boundaries are the same and they contain the same population.

“Weak city” metros

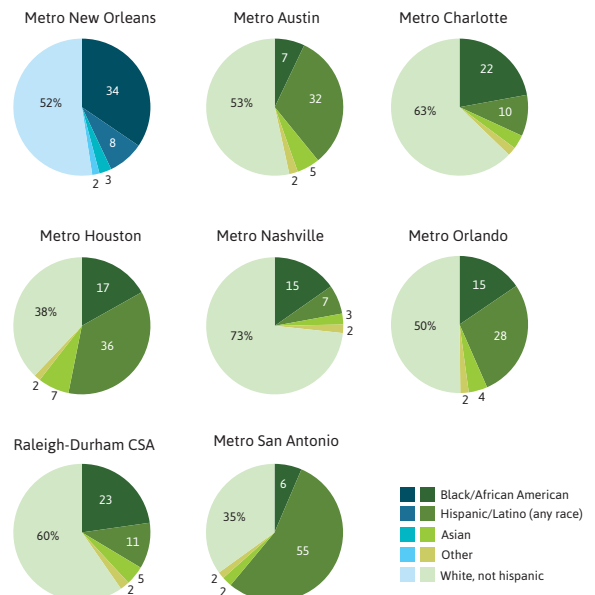
For some indicators, metro New Orleans is compared to a group of 57 “weak city” metros. These metros are from a 2007 Brookings Institution report in which New Orleans is identified among a group of 65 older industrial cities that experienced slow or negative economic growth from 1990 to 2000 as well as poorer residential well-being as measured by 2000 per capita income, median household income, poverty rate, unemployment rate, and labor force participation rate.¹



Aspirational metros

For some indicators, metro New Orleans is compared to a group of seven aspirational metros. The aspirational metros are Southern metros with populations greater than 1,000,000 that experienced better than 10 percent job growth from 2000-12. The racial/ethnic makeup of the total population of these aspirational metros is provided below as context for the indicators that appear in the “Inclusion” section of this report.

SHARE OF TOTAL POPULATION BY RACE/ETHNICITY, 2014



Economic Growth

Job Growth

WHY IS THIS IMPORTANT?

Job growth is commonly used to assess the pace of economic growth in a metro area. The Bureau of Labor Statistics measures nonfarm jobs, which is the number of full-time and part-time positions on company payrolls, including civilian government agencies.² This definition excludes self-employed, unpaid, and household workers.³ Job growth is important in order to raise living standards, provide opportunities for an expanding labor force, and increase the tax base.

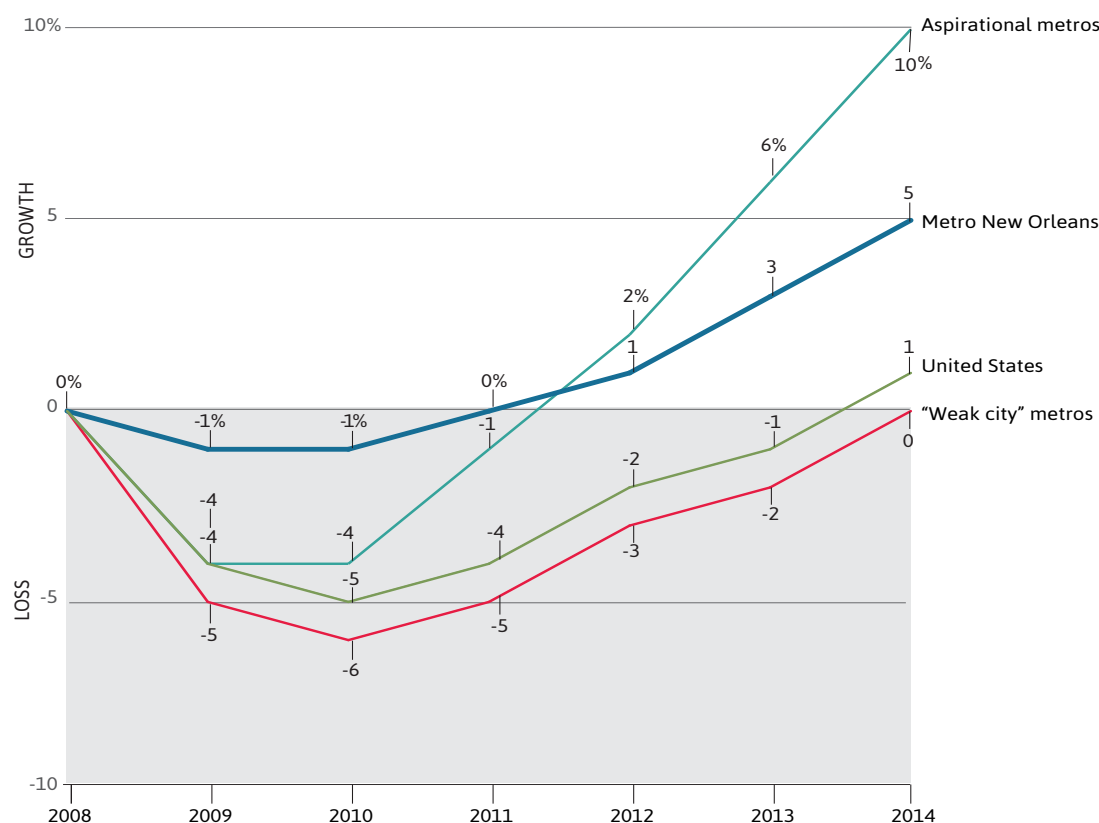
HOW IS METRO NEW ORLEANS DOING?

Metro New Orleans has weathered the Great Recession very well, with job recovery rates substantially higher than the national average. Metro New Orleans is now 5 percent above its 2008 job level, while the aspirational metros are 10 percent above their 2008 job level. The metro New Orleans' economy underperformed the nation from the oil bust of the 1980s until Katrina struck. Starting in 2006, the metro was rapidly recovering jobs and reached a peak level in 2008 when the Great Recession stalled the post-Katrina recovery. From 2008 to 2010, jobs declined by 1 percent in metro New Orleans, a good performance by almost any comparison. "Weak city" metros, the nation, and aspirational metros had job losses of 6 percent, 5 percent, and 4 percent, respectively. In the last three years, metro New Orleans has climbed from 1 percent above its 2008 job level in 2012 to 5 percent above its 2008 job level in 2014.



For job data going back to 1990, be sure to check out the downloadable excel tables accompanying this report at datacenterresearch.org.

JOB LOSS AND RECOVERY SINCE THE ONSET OF THE GREAT RECESSION PERCENT CHANGE IN JOBS RELATIVE TO 2008



Source: U.S. Bureau of Labor Statistics.

See page 13 for reference maps of the aspirational metros and "weak city" metros.

See source notes on page 62 for technical details.

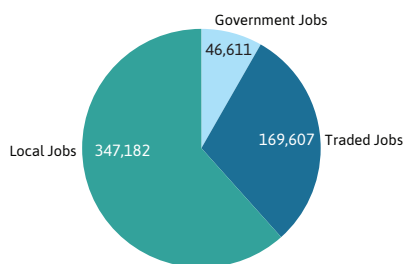
Drivers of the Economy

ABOUT TRADED JOBS

In metro New Orleans, one-third of jobs are traded—serving customers outside the region—and two-thirds of jobs serve local customers. Thus, each traded industry job supports on average two local jobs. In addition, traded industries pay higher average wages than local industries.

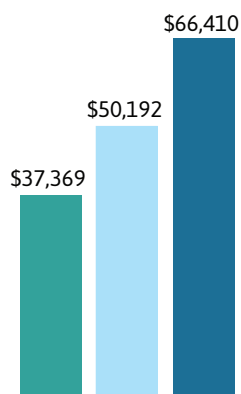
JOBS

Metro New Orleans, 2014



AVERAGE ANNUAL WAGES

Metro New Orleans, 2014



To learn more about the water management cluster and its potential as a driver of growth, see The Coastal Index 2015 at datacenterresearch.org.

WHY IS THIS IMPORTANT?

The trading, or “export,” of products and services to other regions is the chief driver of regional growth and development. The sale of goods and services for local consumption is, on the other hand, more a consequence of the region’s overall development than a driver of it.⁴ Economists generally agree that an increase (or decrease) in the number of traded jobs actually causes an increase (or decrease) in the number of local-serving jobs. Every regional economy has a number of traded jobs.⁵ However, the degree to which regional economies specialize in different traded industries varies greatly. We define specializations as traded clusters (defined by the U.S. Cluster Mapping Project) with a high concentration of total jobs relative to the United States. Quantifying and tracking these clusters over time requires a more sophisticated analysis than is typically available in regional economic reports, but doing so allows for a clearer understanding of the strengths and vulnerabilities of the New Orleans area economy.

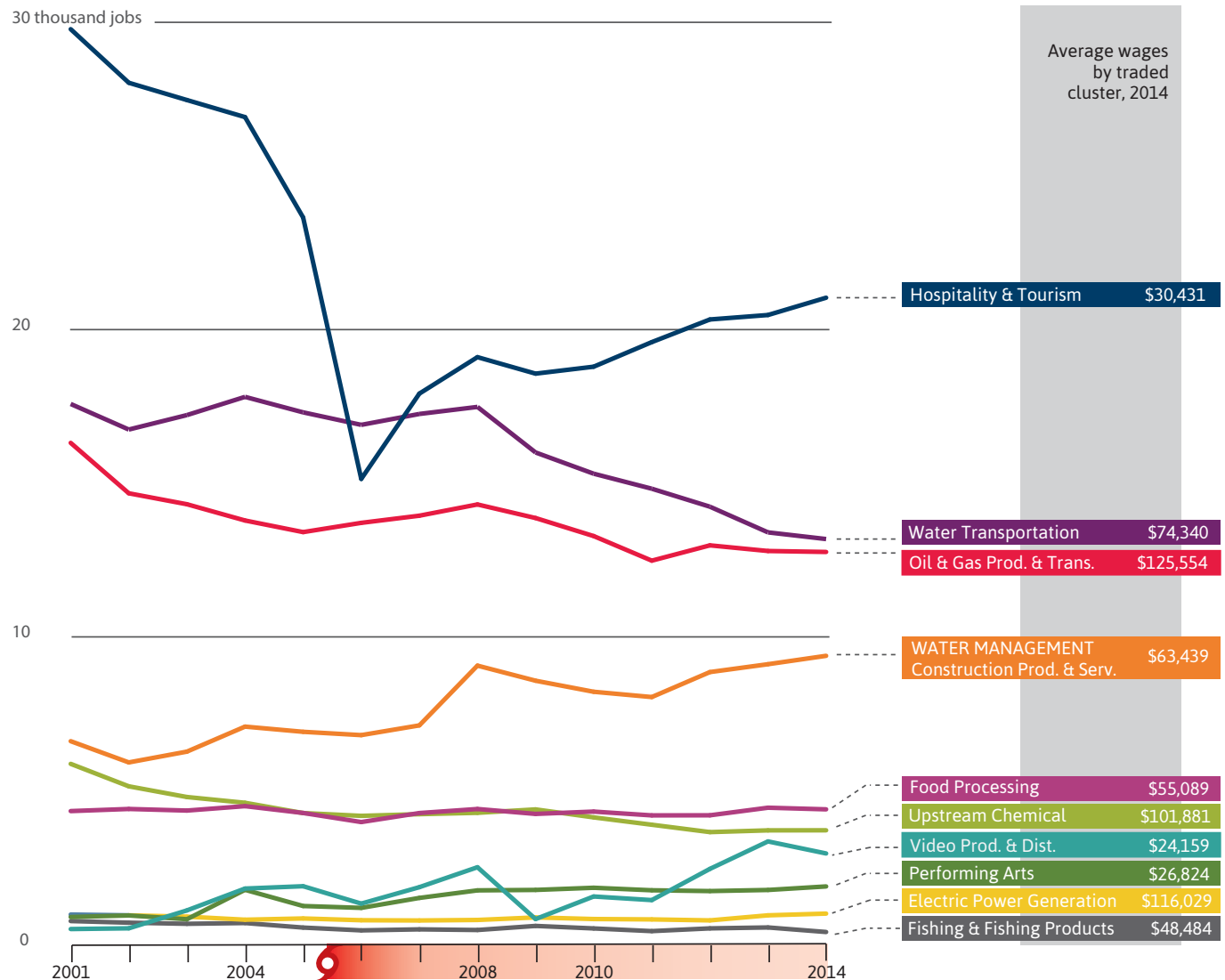
HOW IS METRO NEW ORLEANS DOING?

In the new millennium, metro New Orleans has experienced growth in nationally competitive knowledge-based clusters such as water management and video production. During the same time period, the metro experienced continued and steady job losses in water transportation, oil & gas, and petrochem—legacy industries that have been declining since the oil bust in the early 1980s.

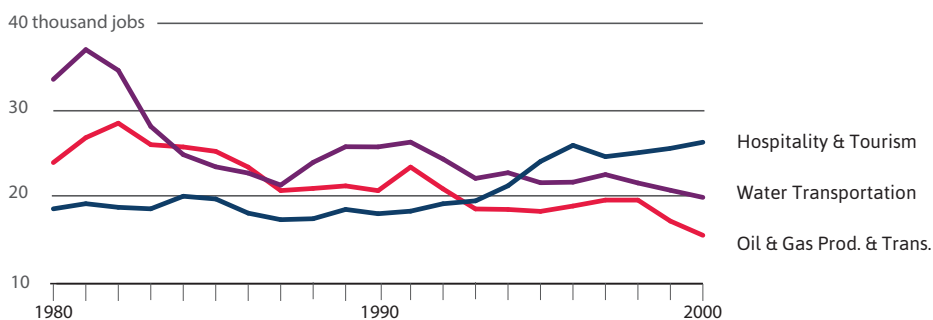
Tourism remains the largest traded cluster in the metro, although it took a large jobs hit after Katrina. In metro New Orleans, tourism wages, at just \$30,431, pale in comparison to most other traded clusters. The next largest traded industry is water transportation, which has shed over 4,000 jobs since 2008, despite the continued importance of both the Port of South Louisiana and the Port of New Orleans to the national economy.⁶ But with a location quotient greater than 11, metro New Orleans still has a real competitive advantage in water transportation. Oil & gas was an industry in decline pre-Katrina, and continues to be post-Katrina. All told, the cluster has lost greater than 3,000 jobs since 2001.

A number of emerging industries are now significant drivers of the New Orleans economy. The construction products & services cluster—a key component of water management—has grown nearly 3,000 jobs since 2001. Jobs in this cluster are likely to increase as work in water management expands, funded in part by forthcoming oil spill penalty dollars. Video production & distribution has also risen as a regional specialization, totaling nearly 3,000 jobs in 2014, up from fewer than 500 in 2001. However, video production jobs pay the lowest of any traded cluster, at just \$24,159 on average. Still, the cluster offers the potential for increased wages; the national average wage for video production & distribution is \$96,362.⁷

JOB BY TRADED CLUSTER FOR THE 10 STRONGEST SPECIALIZATIONS, METRO NEW ORLEANS



JOB BY HISTORIC INDUSTRY SPECIALIZATIONS METRO NEW ORLEANS



Source: EMSI, The U.S. Cluster Mapping Project, and Moody's Analytics.

Note: 1980-2000 cluster definitions are based on 4-digit NAICS codes, whereas 2001-2014 cluster definitions are based on 6-digit NAICS codes. Therefore data on a cluster in 2000 will not match up perfectly to data on that cluster in 2001.

See source notes on page 62 for technical details.

Local-serving Clusters

WHY IS THIS IMPORTANT?

Local-serving clusters, such as health services, retail, and government, generally follow the ebbs and flows of the overall traded economy. If the traded economy is booming, population will grow and local clusters will boom.⁸ In other words, growth in local clusters is a product of economic growth, not a driver of it. Although they are not engines of economic growth, they are important simply because of the number of people they employ and the services they provide. Local-serving clusters make up about two-thirds of the jobs in any regional economy. For this reason, local clusters are targets for workforce development efforts. However, many local clusters pay less than traded clusters.

HOW IS METRO NEW ORLEANS DOING?

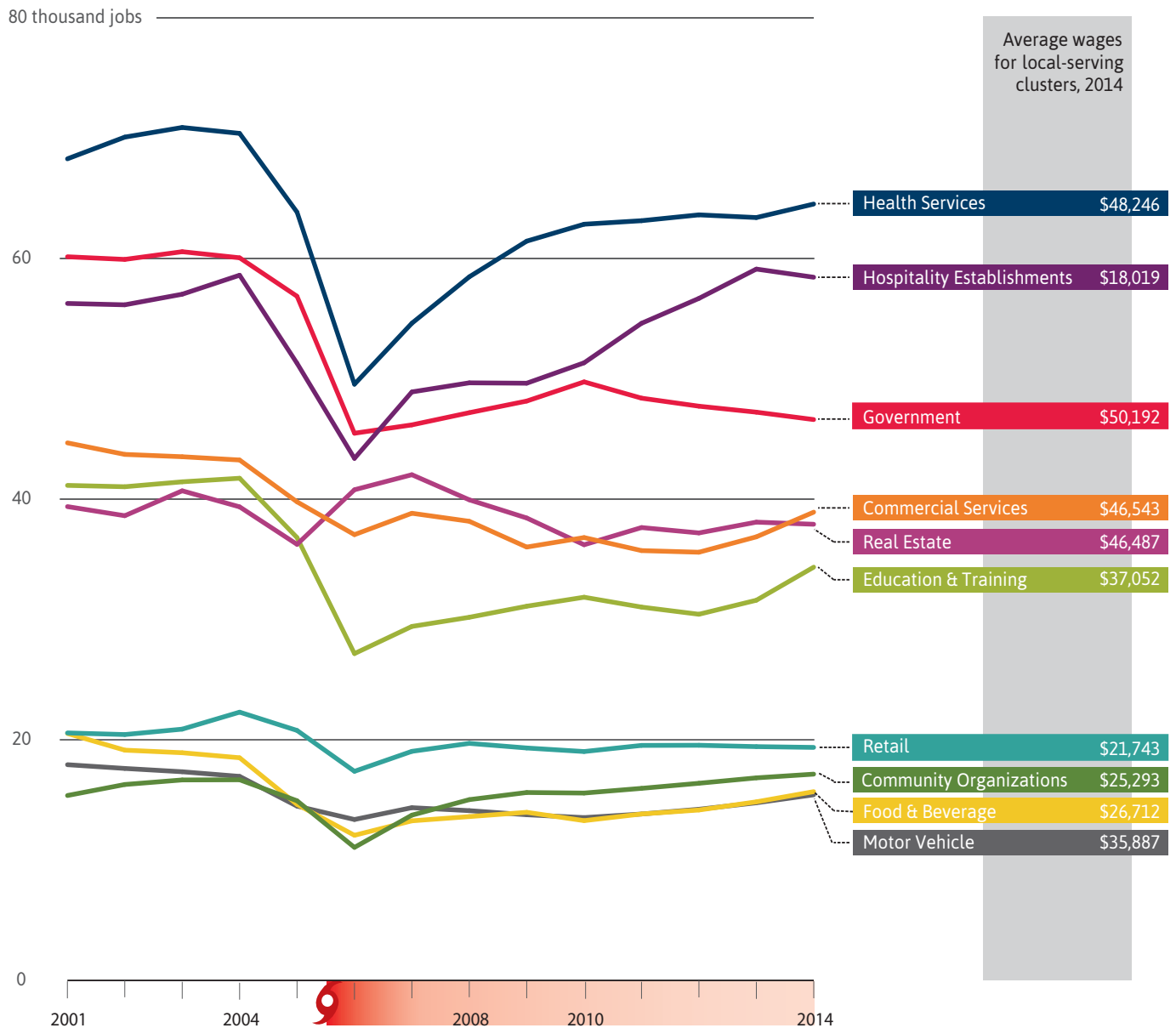
Local-serving clusters have mirrored metro New Orleans overall population trends over the last decade, with most taking a major dip when the population evacuated in 2005, but recovering along with population recovery since then. The health services cluster was decimated during Katrina, dropping over 14,000 jobs, but has largely recovered, employing over 64,000 people by 2014. Health services jobs pay significantly better than the average local-serving cluster job; average wages are \$48,246 compared to \$37,369 for all local-serving cluster jobs. Hospitality establishments, which include restaurants, took a major hit after Katrina, but since 2008 have seen job growth that has outpaced population recovery, growing over 8,000 jobs. However, hospitality is the worst-paying of all clusters, traded or local, with average wages at just \$18,019.

Two local-serving clusters have not seen a rebound since Katrina coincident with population recovery—real estate and government. Real estate actually grew over 5,000 jobs between 2005 and 2007 because of rebuilding efforts. Since then, real estate dropped back to pre-Katrina levels. Government jobs, which pay well at \$50,192, have shrunk by over 13,000 since Katrina. Unlike other local-serving clusters, the government sector shed jobs post-Katrina that have not been recouped.

“THE SALE OF GOODS AND SERVICES FOR LOCAL CONSUMPTION IS MORE A CONSEQUENCE OF THE REGION’S OVERALL DEVELOPMENT THAN A DRIVER OF IT.”

The New Orleans Index at Ten

JOBS BY LOCAL-SERVING CLUSTER FOR THE 10 LARGEST CLUSTERS, METRO NEW ORLEANS



Source: EMSI and the U.S. Cluster Mapping Project.

See source notes on page 62 for technical details.

Wages

WHY IS THIS IMPORTANT?

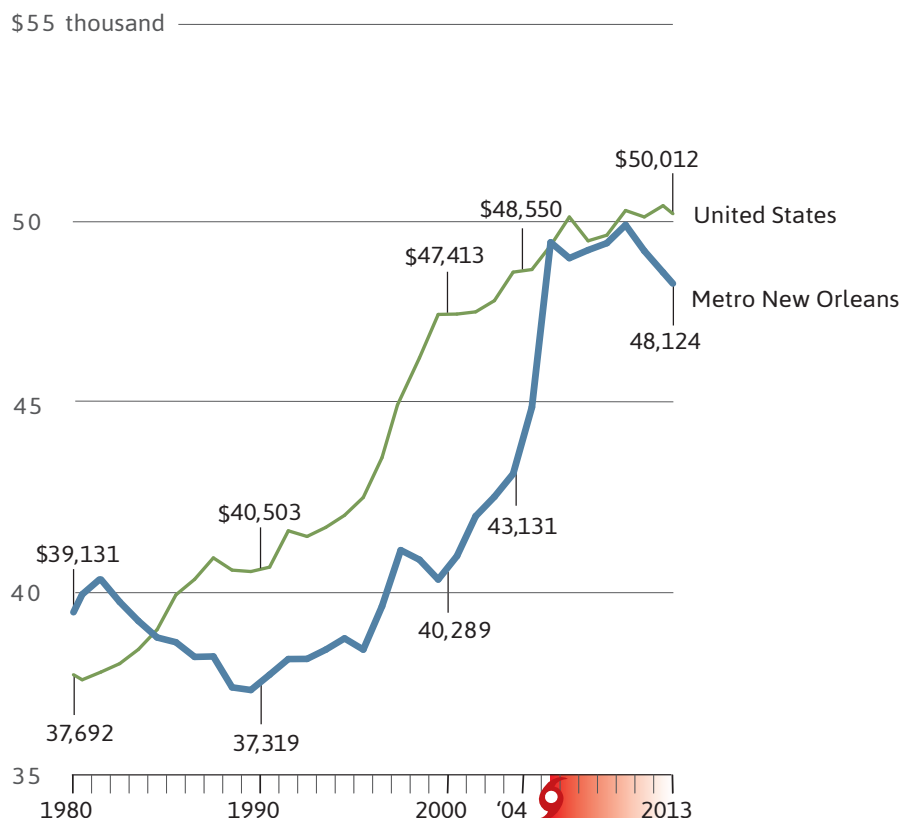
Wage levels and wage growth are important, because they measure the ability of a metro economy to secure a high and rising standard of living for its residents.

HOW IS METRO NEW ORLEANS DOING?

Following Katrina, average wages in metro New Orleans rose to meet the national average for the first time since 1985, but have since slipped to 4 percent below the national average. In 2013, the annual average wage in metro New Orleans is at its lowest post-Katrina level at \$48,124.

Metro New Orleans' wages fell so far behind the U.S. during the 1980s and 1990s that metro New Orleans is still playing catch up. Between 1980 and 2000, wages increased only 3 percent in metro New Orleans compared to 26 percent in the U.S. Then from 2000 to 2006, wages in metro New Orleans grew by 22 percent (compared to 4 percent nationally), as knowledge-based industries began to grow in metro New Orleans. To some extent, that average wage gain reflects job losses in low-wage industries such as tourism, rather than higher wages in new or existing jobs. Since 2006, wages have declined by 2 percent in metro New Orleans while increasing by the same percentage in the U.S. As a result, the average wage for metro New Orleans, at \$48,124, was 4 percent lower than that of the U.S. in 2013.

AVERAGE ANNUAL WAGES 2013 INFLATION-ADJUSTED DOLLARS



Source: Regional Economic Information System, Bureau of Economic Analysis.

See source notes on page 62 for technical details.

Productivity

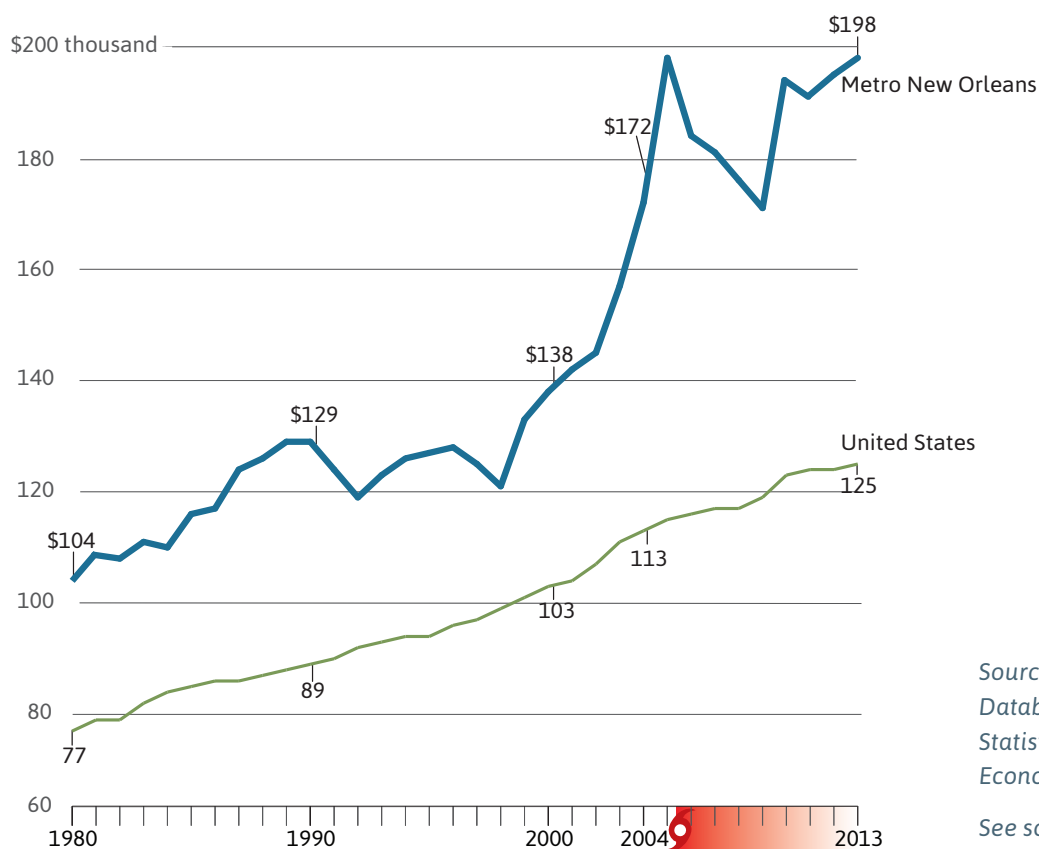
WHY IS THIS IMPORTANT?

Growth in productivity, or the total value of goods and services per worker in a region, is fundamental to the long-term improvement of living standards for a community's workers and businesses. Growth in productivity can be spurred by local ingenuity, where communities "take resources and rearrange them in ways that are more valuable."⁹ Gross metro product (GMP) per job is an indicator of productivity that measures the average value of goods and services produced by each job in the region.

HOW IS METRO NEW ORLEANS DOING?

Productivity in metro New Orleans has been consistently higher than in the U.S., and it grew even higher post-Katrina. In 2013, GMP per job in metro New Orleans was 58 percent higher than the national average. In 1980, GMP per job in metro New Orleans was \$104,108, or 35 percent greater than the U.S. Despite the oil bust in the 1980s and the weak economy in the 1990s, productivity in metro New Orleans remained at least 30 percent above the national average throughout the 1980s, and more than 20 percent above the national average through the 90s. From 2006 through 2013 the level of productivity in metro New Orleans has remained roughly 50 percent higher than the national rate. Moreover, since early 2010, metro New Orleans' productivity has grown an average of 4 percent per year while the national Gross Domestic Product (GDP) per job has grown only 1 percent annually on average.

GROSS METRO PRODUCT (GMP) PER JOB 2013 INFLATION-ADJUSTED DOLLARS



Source: Moody's Economy.com Database (U.S. Bureau of Labor Statistics: CES, QCEW; U.S. Bureau of Economic Analysis).

See source notes on page 62 for technical details.

Airport Traffic



For enplanement data going back to 2000, be sure to check out the downloadable excel tables accompanying this report at datacenterresearch.org.

See source notes on page 62 for technical details.

Source: Air Carrier Statistics Database, Office of Airline Information, Research and Innovative Technology Administration, Bureau of Transportation Statistics.

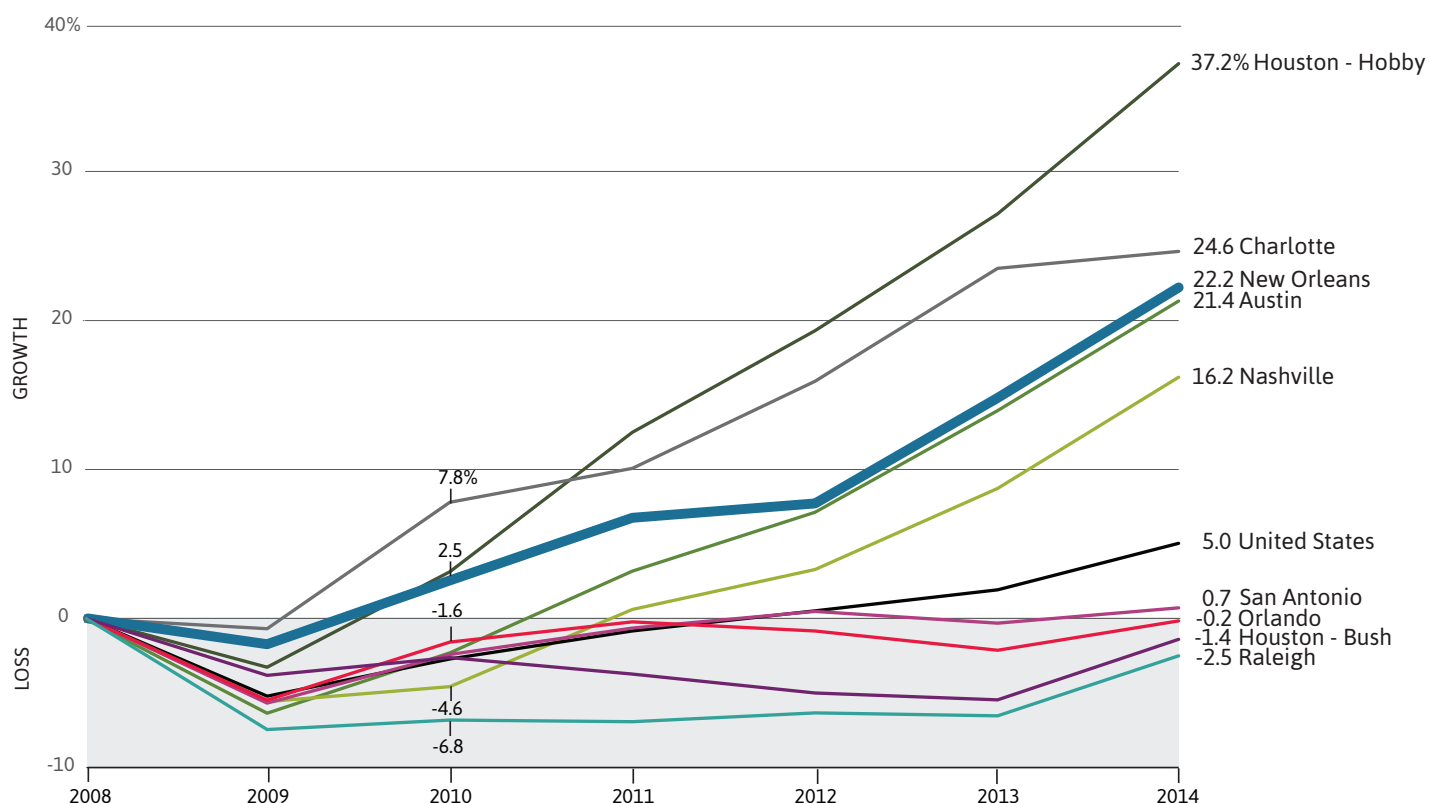
WHY IS THIS IMPORTANT?

Airports are important infrastructure assets and key anchors in strong regional economies. They support the movement of people, goods, and services to and from the regional market, as well as produce local economic outcomes including employment and investments in construction and capital projects.¹⁰ The Louis Armstrong New Orleans International Airport supplies transportation for millions of tourists who visit New Orleans each year and much needed connectivity for Southeast Louisiana businesses that serve national and international markets.

HOW IS METRO NEW ORLEANS DOING?

New Orleans airport traffic rebounded well from the Great Recession and has since grown to 22 percent above its 2008 level, while national airport traffic has reached only 5 percent above its 2008 level. The Great Recession dramatically impacted airport traffic nationwide. In 2009, national passenger enplanements were 70 million below their pre-recession peak and did not fully recover until 2012. In New Orleans, airport traffic peaked post-Katrina in 2008 and then fell only 1.7 percent in 2009. Passenger enplanements at Louis Armstrong New Orleans International Airport have increased each year since 2009 and are now 22 percent above their 2008 level, well above the national growth rate and most of the aspirational metros.

GROWTH IN PASSENGER ENPLANEMENTS SINCE THE ONSET OF THE GREAT RECESSION PERCENT CHANGE IN ENPLANEMENTS RELATIVE TO 2008



Entrepreneurship

WHY IS THIS IMPORTANT?

Entrepreneurship is a critical source of innovation and productivity in a regional and global economy. Entrepreneurship is also important for creating jobs and boosting incomes and wealth for individuals and their families, especially for immigrants and African Americans. While entrepreneurship includes cycles of business startups and failures, the ability of a region's entrepreneurs to identify market needs and gaps is a strong indicator of the creativity needed in today's innovation economy. This indicator measures adults starting businesses in the New Orleans region.

HOW IS METRO NEW ORLEANS DOING?

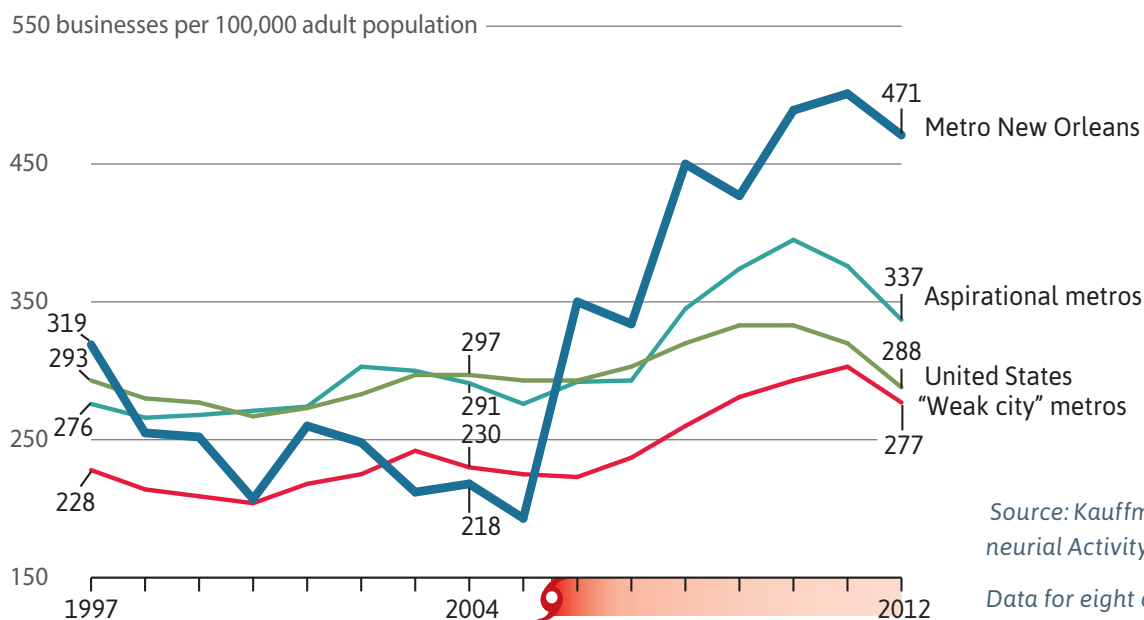
Metro New Orleans' rate of business startups is 64 percent higher than the national average and 40 percent higher than the aspirational metros. Pre-Katrina, entrepreneurship in metro New Orleans lagged the nation just as it did in "weak city" metros in general. Post-Katrina, however, the rate of entrepreneurship spiked in metro New Orleans and has outpaced the nation ever since. During the three-year period from 2011-13, about 471 out of every 100,000 adults started up businesses annually in metro New Orleans, compared to 337 in the aspirational metros. Of late, entrepreneurship has declined nationwide, and most metros saw dips in entrepreneurship rates from 2010-12 to 2011-13. Indeed, in metro New Orleans, entrepreneurship rates fell from 501 to 471, which is still nearly double the pre-Katrina rate.

"FIRM SURVIVAL RATES ACROSS TIME ARE REMARKABLY STABLE. IN THE FIRST TWO YEARS, ROUGHLY A THIRD OF THESE COMPANIES WILL FAIL AND, IN FIVE YEARS, JUST UNDER HALF (48 PERCENT) WILL REMAIN."

– Dane Stangler

High growth firms and the future of the American economy

INDIVIDUALS STARTING UP BUSINESSES PER 100,000 ADULT POPULATION (THREE-YEAR AVERAGES)



Source: Kauffman Index of Entrepreneurial Activity.

Data for eight of the 57 "weak city" metros defined on page 13 were not available.

See page 13 for reference maps of the aspirational metros and "weak city" metros. See source notes on page 63 for technical details.

Venture Capital

WHY IS THIS IMPORTANT?

Research has shown that venture capital is vital for the formation of new industries. Many metro area leaders believe they have the potential to become major commercial hubs just based on the presence of a large research institution or corporation. But investment dollars are a necessary piece of the puzzle. Venture capital works in conjunction with these place-based assets—within a culture of risk—to produce an ecosystem where new technologies and spin-offs can emerge from local companies and satellite offices alike. Places with low stocks of venture capital are unlikely to be the sites of new innovation and healthy economic cluster development.^{11,12} Local venture capital funds are important, as it has been empirically shown that venture capital is more likely to invest in close proximity, even if the investment firms themselves are national in scope.¹³

HOW IS METRO NEW ORLEANS DOING?

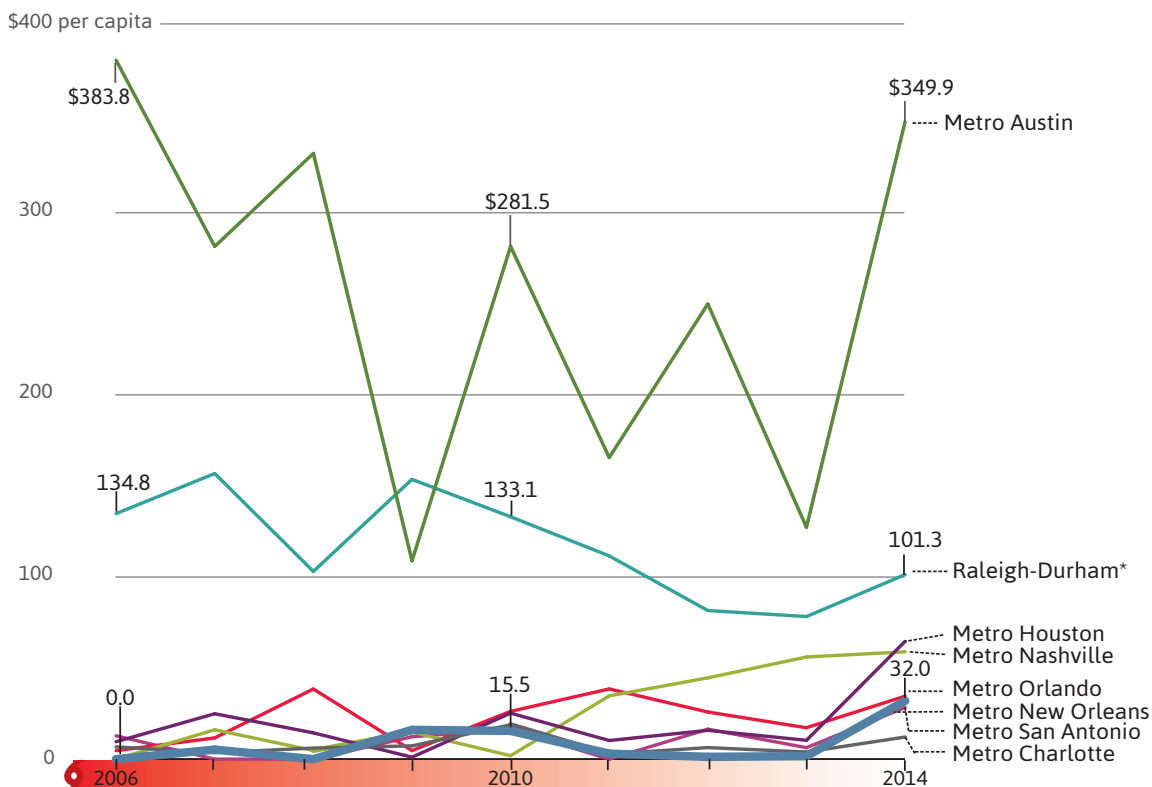
In 2014, venture capital to companies in metro New Orleans totaled just \$31.95 per capita, above two aspirational metros, but well below Austin and Raleigh-Durham, metros with established startup scenes and venture ecosystems. Venture funding in New Orleans was essentially nonexistent right after Katrina, but rose to \$15.51 per capita by 2010. Since 2010, it has more than doubled. However, at \$349.95 per capita, Austin remains the standout of the aspirational metros. And while venture funding has fluctuated in Austin, it has stayed above \$100 per capita. In order for emerging industries to grow in metro New Orleans, venture capital will have to continue to expand, either from outside sources or from local wealth.

*Raleigh-Durham is the combined statistical area including the Raleigh and Durham-Chapel Hill metros.

Source: Mattermark, the U.S. Census Bureau, Decennial Census & Population Estimates 2001-2009, 2011-2014.

See source notes on page 63 for technical details.

VENTURE CAPITAL FUNDING TO COMPANIES IN METRO NEW ORLEANS PER CAPITA, 2014 INFLATION-ADJUSTED DOLLARS



Educated Workforce

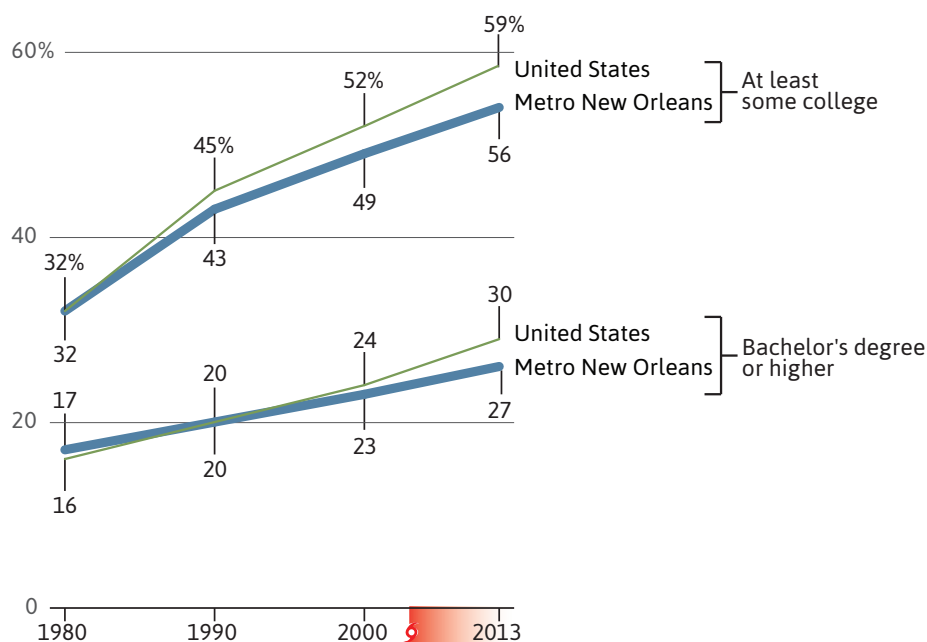
WHY IS THIS IMPORTANT?

There are many reasons why an educated workforce is critical to the long-term economic success of a city and metro area. First, educated cities add jobs and population faster than comparable ones with lower education levels.¹⁴ Second, the quality of the region's labor force predicts job growth and overall economic health better than any other factor. Firms looking to relocate or expand routinely put workforce skills at the top of their location criteria. High-skill industries with high potential for growth especially require regions with highly educated workforces. Third, wages increase for workers for each additional year of education they accumulate, and that wage premium is widening over time.¹⁵ Between 1973 and 2011, national wages for workers with a college degree rose, while wages for less educated workers stagnated or dropped.¹⁶ Finally, skilled cities are more resilient to economic shocks because they have the skills and capacity to adapt to change.¹⁷ The prevalence of adults with a college degree is the most meaningful indicator of an educated workforce.

HOW IS METRO NEW ORLEANS DOING?

There is a widening gap between metro New Orleans and the nation in the share of adults 25 years old or older with a bachelor's degree or higher. In 2013, adults age 25 and older with a bachelor's degree or higher increased to 30 percent nationwide, up from 24 percent in 2000. Over that same time period, metro New Orleans increased at a slower rate from 23 percent in 2000 to 27 percent in 2013. The three percentage point gap between the nation and metro New Orleans was statistically significant in 2013. In metro New Orleans the percent of adults 25 years old or older with at least some college increased from 49 percent in 2000 to 56 percent in 2013, whereas the national percent of adults with at least some college reached 59 percent by 2013.

EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OLDER



Source: U.S. Census Bureau,
Decennial Census & American
Community Survey 2013.

See source notes on page 63 for
technical details.

State Funding for Higher Education

WHY IS THIS IMPORTANT?

Human capital is the best predictor of regional economic growth, and in the United States, states have historically been the primary force behind funding public higher education.¹⁸ Research has shown that labor flockes to places that have high-quality labor and educated cities grow faster, oftentimes despite lack of amenities.¹⁹ State funding for public higher education allows major universities to maintain low tuition or offer financial assistance to low-income students, supporting the presence of high-quality labor in a state's metro areas.

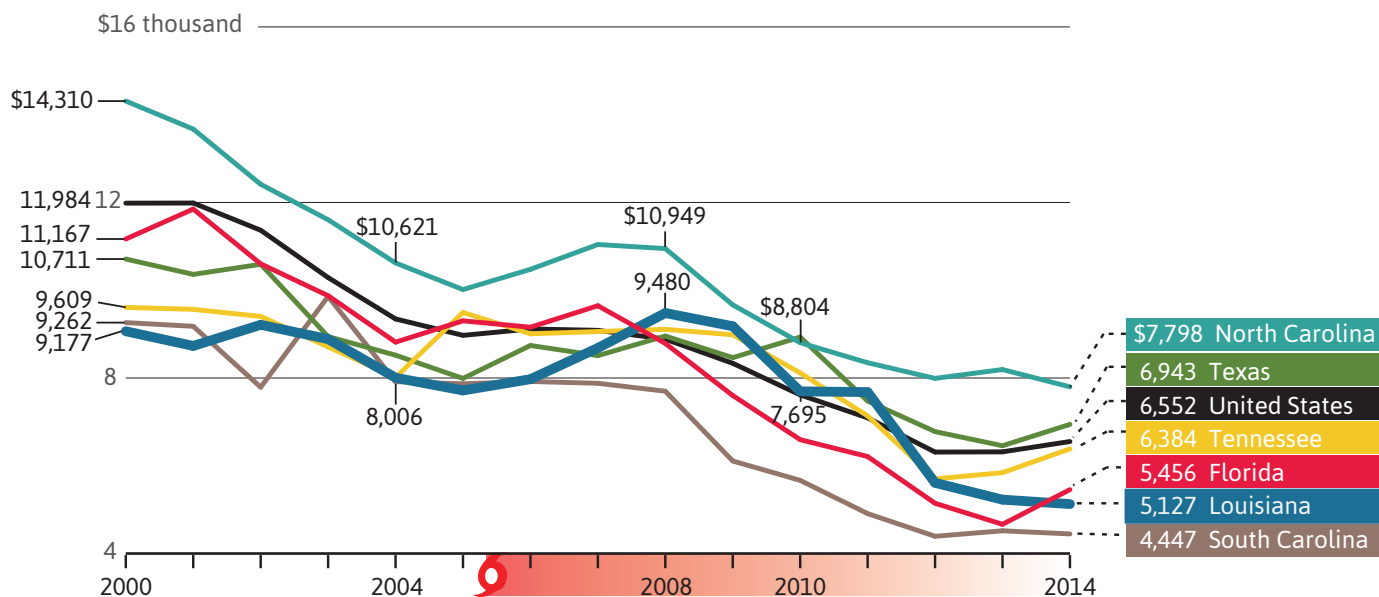
HOW IS LOUISIANA DOING?

Between 2008 and 2014, state funding for higher education per full-time enrollment dropped 46 percent in Louisiana. Since 2000, the national trend in state funding for higher education has been a steady decline. However, this decline is particularly pronounced in Louisiana. Pre-Katrina, Louisiana hovered below the national average. But in 2008, Louisiana jumped above the national average, passing Texas, Tennessee, Florida, and South Carolina along the way. As funding fell between 2008 and 2011, Louisiana remained above the national average while many states cut higher education. However, Louisiana dipped well below the national average in 2012 and remains there today. In 2014, Louisiana funding for higher education stood at just \$5,127 per full-time enrollment. This was well below the rates for every state that included an aspirational Southern metro, except for South Carolina. State funding for higher education in Louisiana remains 22 percent below the national average in 2014.

Source: State Higher Education Executive Officers' Association's State Higher Education Finance: FY 2014 Report.

See source notes on page 63 for technical details.

STATE HIGHER EDUCATION APPROPRIATIONS PER FULL-TIME ENROLLMENT 2014 INFLATION-ADJUSTED DOLLARS



Job Sprawl

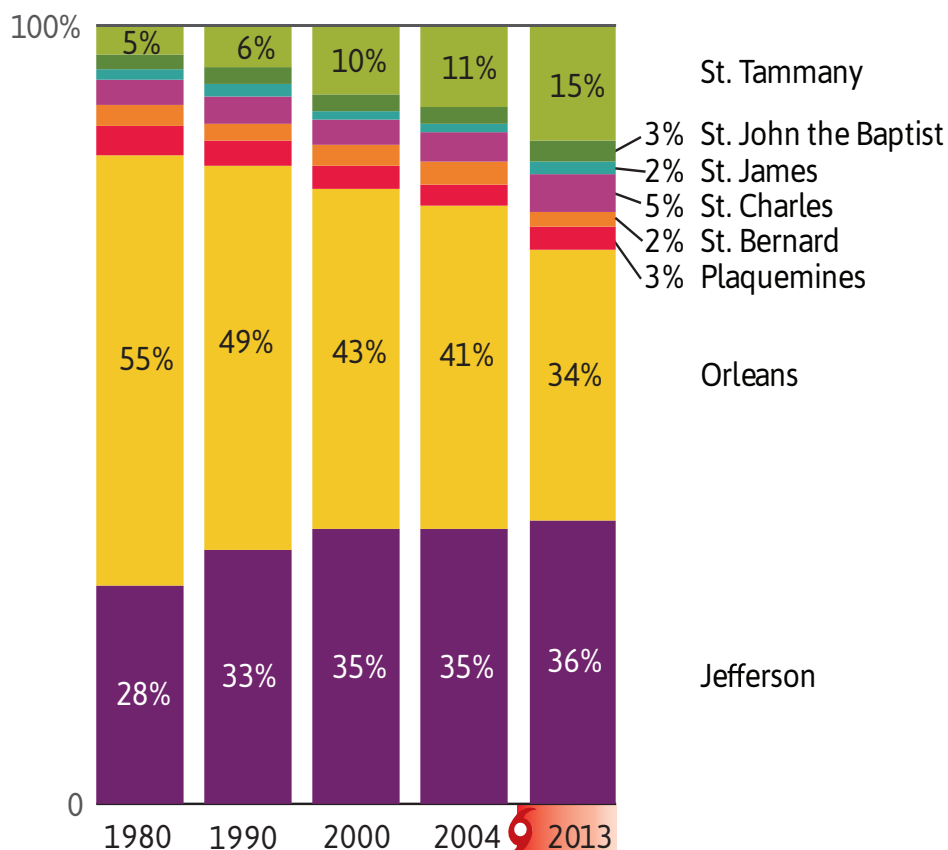
WHY IS THIS IMPORTANT?

The geographic distribution of jobs in a metro area is important because it influences productivity, sustainability, and inclusion. In short, the literature shows that low-density economic development, away from the urban core, can undermine worker productivity due to increased commute times, and hurt overall productivity that comes from the innovation created by the close clustering of like firms and workers. The share of jobs by parish measures job sprawl over time from the urban core to suburban parishes.

HOW IS METRO NEW ORLEANS DOING?

The parishes most heavily affected by Hurricane Katrina and the levee failures have experienced net job losses since 2004, while parishes upriver and north of the lake have experienced job gains and now are home to nearly one quarter of all the metro's jobs. In 1980, the majority of metro area jobs—55 percent—were in Orleans Parish (New Orleans). By 2004, New Orleans had lost tens of thousands of jobs such that the share of jobs in New Orleans fell to 41 percent, while Jefferson, St. Bernard, St. Charles, St. John the Baptist, and St. Tammany parishes all gained jobs. By 2013, the share of the metro's jobs in New Orleans fell to 34 percent, while the share of jobs in Jefferson Parish remained relatively stable at 36 percent. Meanwhile, jobs have continued to sprawl to the upriver and north shore parishes, which now contain 24 percent of all the jobs in the metro area.

SHARE OF JOBS BY PARISH METRO NEW ORLEANS



Source: Moody's Analytics (U.S. Bureau of Labor Statistics: CES, QCEW).

See source notes on page 63 for technical details.

Inclusion

Median Household Income by Race and Ethnicity

WHY IS THIS IMPORTANT?

Household income growth is key to driving overall economic growth, boosting tax bases, and supporting local businesses. Household income by race and ethnicity is important in demonstrating the extent to which income gains and economic growth are broadly shared and becomes more critical to long-term economic prosperity as a region becomes “majority minority.”

HOW IS METRO NEW ORLEANS DOING?

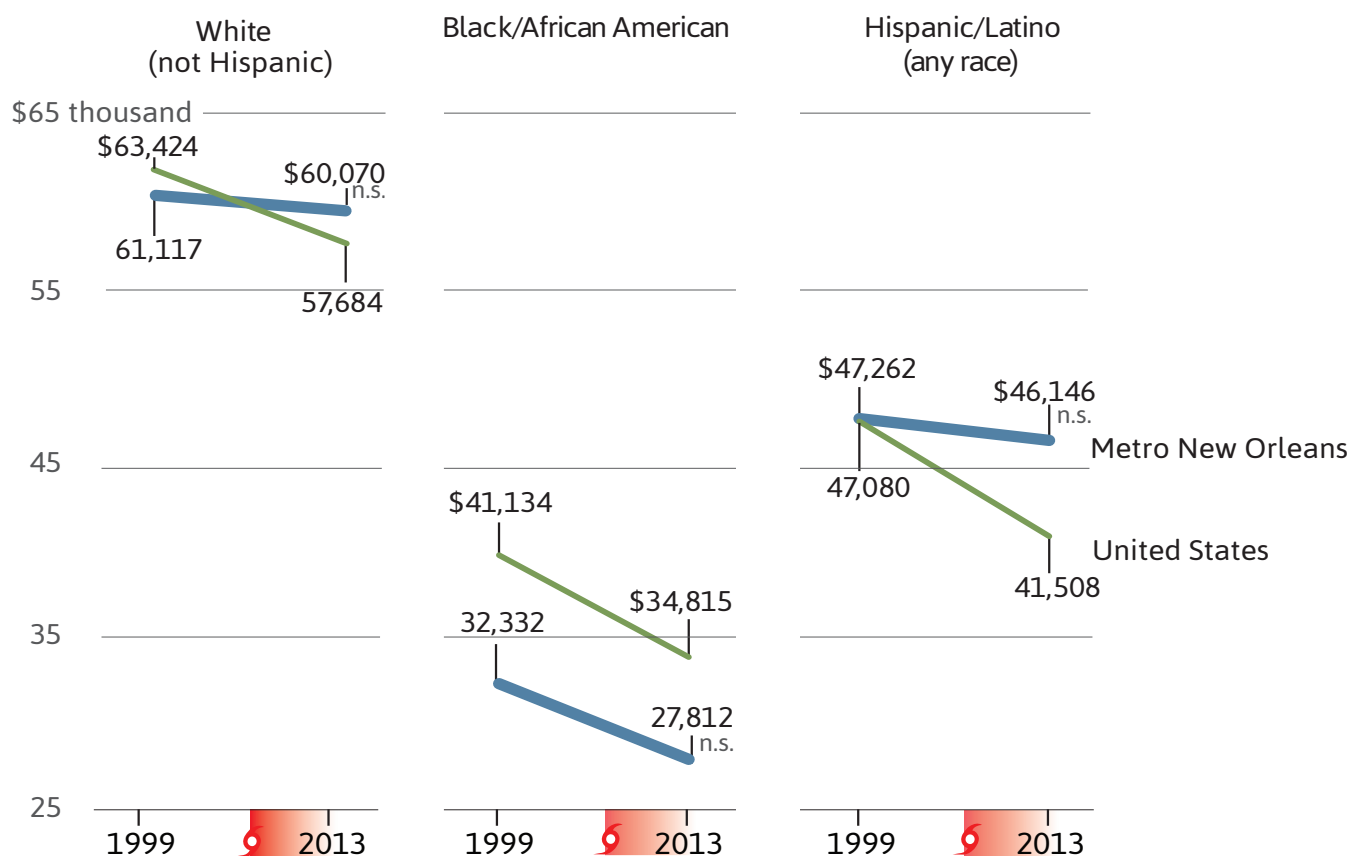
In 2013, the median household income for African Americans in metro New Orleans was 54 percent lower than for metro area whites, and 20 percent lower than for African Americans nationally, this despite declining incomes for African Americans nationally. For Hispanics in metro New Orleans, the median household income is 23 percent lower than for white households. Median household income in metro New Orleans was not statistically different from 1999 to 2013 for any race/ethnicity, while incomes declined nationally at a statistically significant level for all races/ethnicities. This mirrors overall trends in median household income.

n.s. = Differences between 1999 and 2013 in metro New Orleans are “not” statistically significant for all races/ethnicities. For 2013, differences between metro New Orleans and the U.S. are not statistically significant for “White, not Hispanic” and “Hispanic/Latino (any race).”

Sources: U.S. Census Bureau, Decennial Census & American Community Survey 2013.

See source notes on page 64 for technical details.

MEDIAN HOUSEHOLD INCOME BY RACE AND ETHNICITY 2013 INFLATION-ADJUSTED DOLLARS



Educational Attainment by Race/Ethnicity and Sex

WHY IS THIS IMPORTANT?

As summarized earlier, educational attainment is critical to a region's economic success. Educated cities add jobs and population faster than comparable ones with lower education levels, and firms looking to relocate or expand routinely put workforce skills at the top of their location criteria. Importantly, skilled cities are more resilient to economic shocks because they have the skills and capacity to adapt to change. However, overall educational attainment hides how different segments of the community are faring. Economic success is dependent upon the ability of all racial and ethnic groups to be performing at their utmost potential and participating fully in the economy.

HOW IS METRO NEW ORLEANS DOING?

Metro New Orleans is lagging aspirational metros in the share of adults with a bachelor's degree among white men and women as well as black men and women. The lag is particularly pronounced among black men in metro New Orleans who have experienced no statistically significant increase since 2000 for those with a bachelor's degree.

Black men in metro New Orleans also have a lower share of adults with a bachelor's degree or higher at 12 percent, when compared with white men at 35 percent and Hispanic men at 19 percent. The percent of black women 25 years and older with a bachelor's degree or higher is also higher at 19 percent.

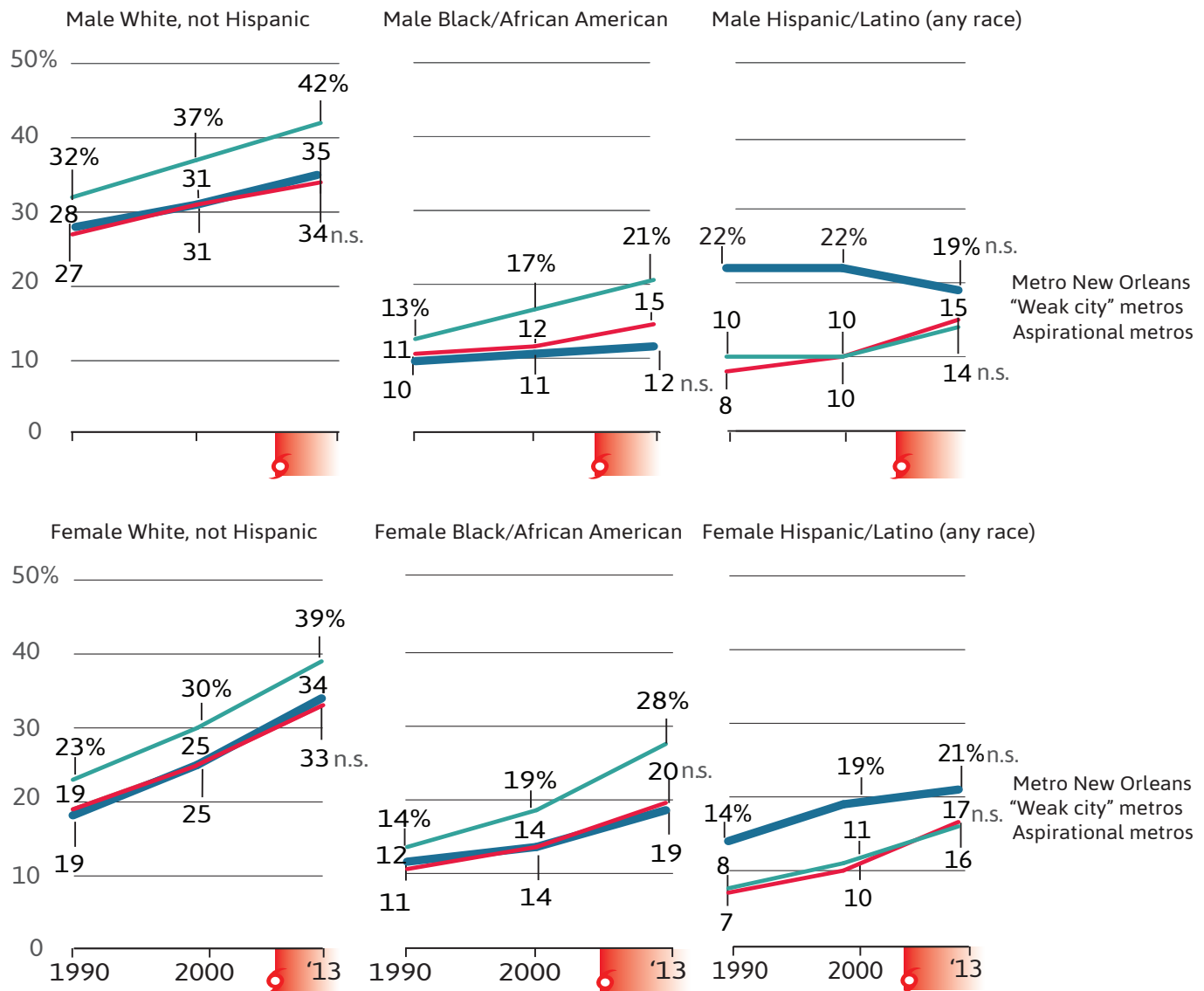
The share of metro New Orleans Hispanics with a bachelor's degree is higher both for men (at 19 percent) and women (at 21 percent) than in aspirational metros. However, these rates are statistically unchanged from 2000 to 2013, while educational attainment increased for white men and women in metro New Orleans over that same time period.

“BY 2030, THE NEW ORLEANS METRO WILL BE ‘MAJORITY MINORITY’ WITH FULLY 52 PERCENT OF WORKING AGE ADULTS BEING PEOPLE OF COLOR”

– Susan Sellers, et. al.

Building an Inclusive, High-skilled Workforce for New Orleans' Next Economy

BACHELOR'S DEGREE OR MORE BY RACE/ETHNICITY AND SEX FOR THE POPULATION 25 YEARS AND OLDER



Sources: U.S. Census Bureau,
Decennial Census & American
Community Survey 2013.

See page 13 for reference maps of
the aspirational metros and "weak
city" metros.

See source notes on page 64 for
technical details.

Employment Rates by Race/Ethnicity and Sex

WHY IS THIS IMPORTANT?

Employment rates indicate the percent of the working age population that has employment. Employment rates are a more comprehensive measure of labor market conditions than official “unemployment” rates, because they not only reveal the share of the population that are unemployed but also those who are no longer in the labor force at all—many of whom are “discouraged workers.”²⁰ Employment rates by race and gender suggest the extent to which structural economic changes have benefited different groups.

HOW IS METRO NEW ORLEANS DOING?

Employment for white males in metro New Orleans is on par with aspirational metros at 77 percent, while black male employment, at 57 percent, is on par with “weak city” metros and has not significantly increased since 2000. As the national economy has shed jobs in male-dominated industries such as manufacturing over the last several decades, and grown jobs in female-dominated industries such as health care and education, employment rates for men have fallen while employment rates for women have increased nationwide since 1980.²¹

In metro New Orleans, the share of working age African American men with a job declined during the oil bust, from 64 percent in 1980 to 55 percent in 1990. Poor labor market conditions for men persisted into the 1990s and 2000s, and employment rates among African American men remained low at 57 percent in 2013. This 57 percent is statistically unchanged from 2000 and not different from “weak city” metros, but it is much lower than in aspirational metros where employment among working age African American men is 62 percent. Employment rates for Hispanic men in metro New Orleans jumped from 71 percent in 2000 to 81 percent in 2013.

Women experienced increasing employment rates across all racial and ethnic groups from 1980 to 2000, but this universal growth has not continued from 2000 to 2013. Employment rates for white, black, and Hispanic women are statistically unchanged from 2000 to 2013 in metro New Orleans.



For employment rate data for the United States, be sure to check out the downloadable excel tables accompanying this report at datacenterresearch.org.

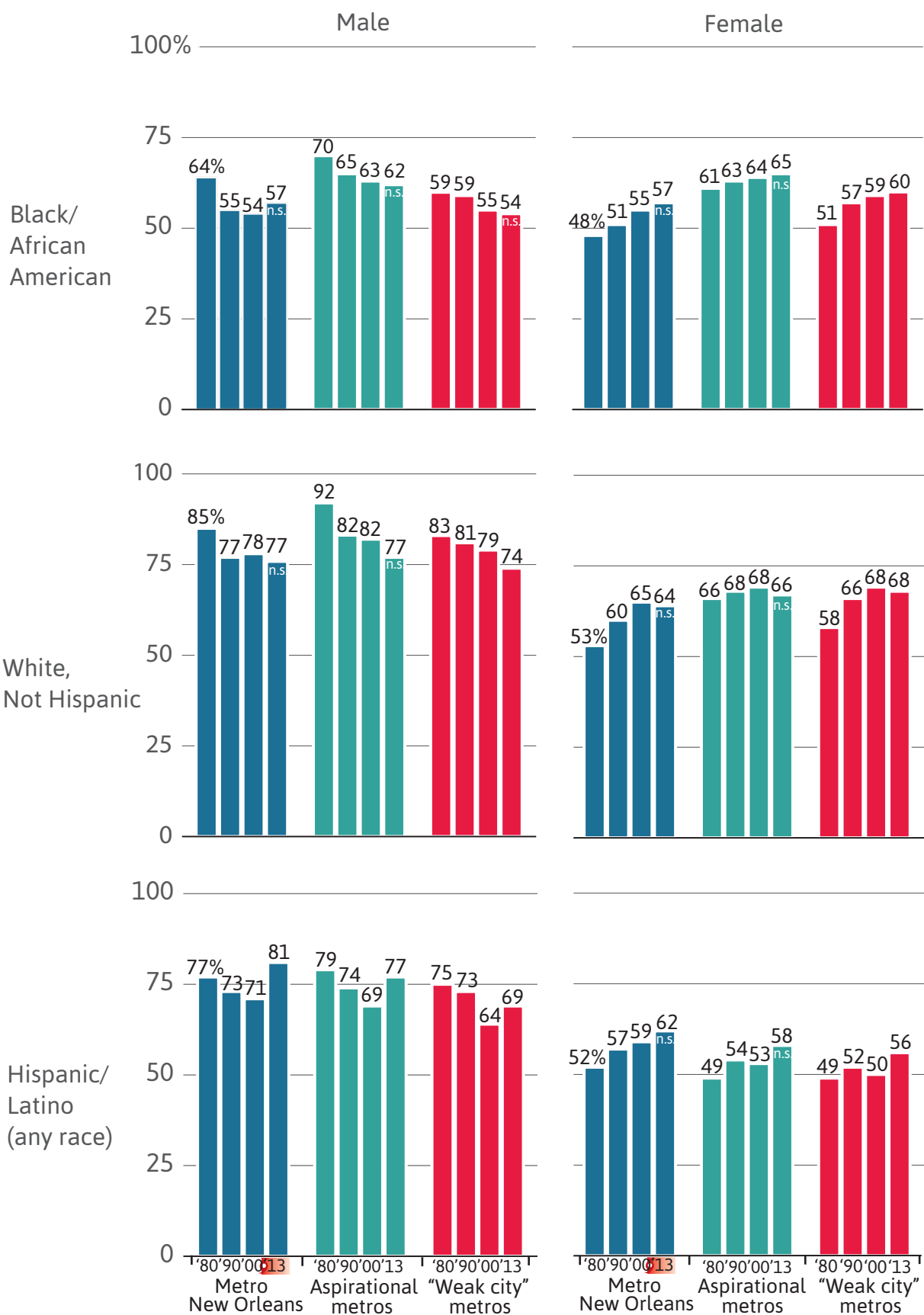
NEXT PAGE

Source: U.S. Census Bureau, Decennial Census & American Community Survey 2013.

See page 13 for reference maps of the aspirational metros and “weak city” metros.

See source notes on page 64 for technical details.

**EMPLOYMENT RATES BY RACE/ETHNICITY AND SEX
FOR THE POPULATION 16-64 YEARS OLD**



Jail Incarceration Rates

WHY IS THIS IMPORTANT?

In an era of constrained public finances, incarceration represents an expensive response to arrest.²² Moreover, incarcerating people who pose little to no threat can result in making them a greater risk to public safety after release.²³ In addition, incarceration has enduring economic effects by stifling employment and suppressing labor force participation.²⁴ Many employers will not hire job candidates who have an arrest record—regardless of whether they were ultimately convicted of a crime.²⁵ Finally, research has shown that the economic effects, in turn, introduce instability within families that often harms the developmental outcomes of children.³⁶

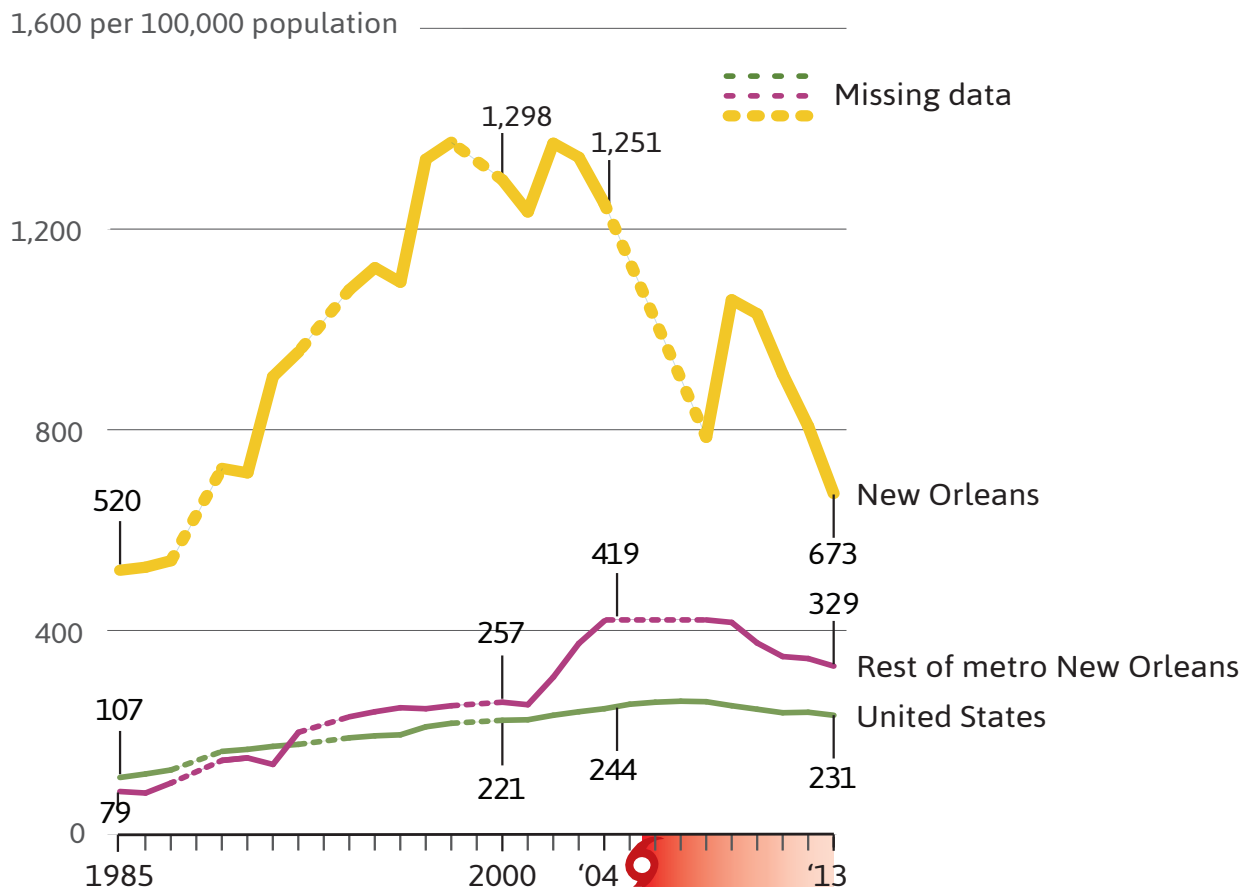
HOW IS METRO NEW ORLEANS DOING?

In 1985, the jail incarceration rate in New Orleans, at 520 per 100,000 population, was nearly five times the national rate. Then the jail incarceration rate more than doubled, to 1,251 in 2004. Since 2004, the jail incarceration rate in New Orleans has decreased by almost half, but it remains nearly three times the national rate. Approximately 20 percent of those incarcerated in New Orleans were state prisoners in 2013.²⁷ If these prisoners were excluded from this measure, the jail incarceration rate in New Orleans would still be more than twice the national rate.

Source: Bureau of Justice Statistics: Annual Survey of Jails; Prisoners Series; U.S. Census Bureau: Population Estimates Program.

See source notes on page 65 for technical details.

PERSONS HELD IN JAIL PER 100,000 POPULATION



Size of the City's Middle Class

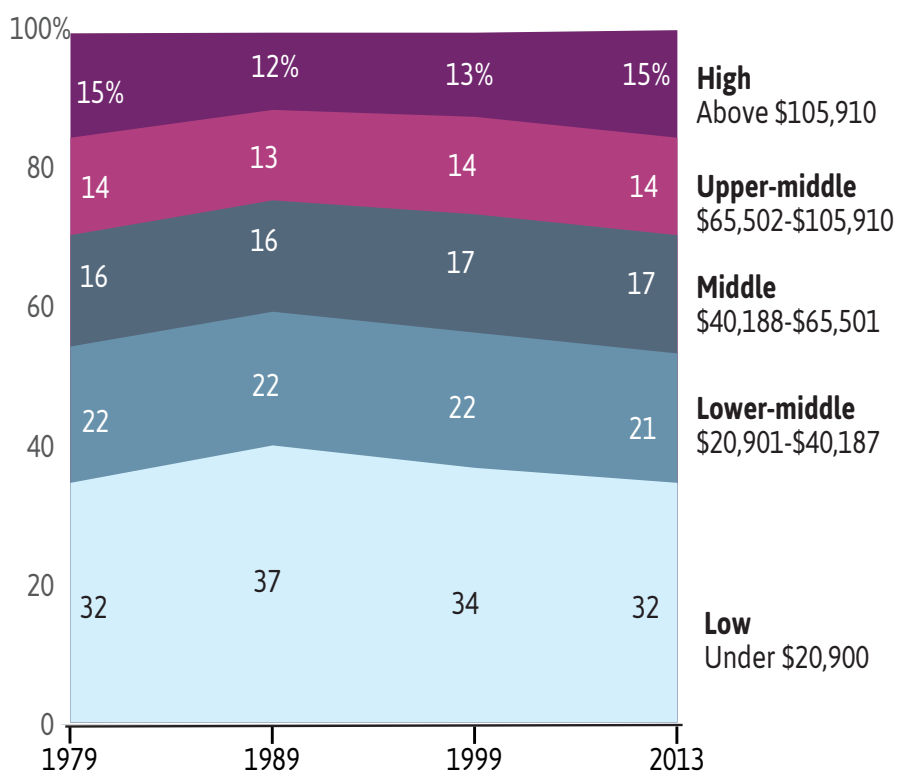
WHY IS THIS IMPORTANT?

Poverty within U.S. cities grew substantially in the last half of the 20th century.²⁸ Increasing the size of a city's middle class can increase the local tax base, decrease the fiscal costs associated with poverty, and fuel the local economy through the growth of consumers with greater purchasing power.²⁹ Moreover, research has shown that income increases in the urban core actually benefit the entire metro.³⁰ A sophisticated analysis is needed to examine the balance of households across the national income spectrum (divided into five equal categories, or "quintiles"). This allows for a specific focus on the size of the middle class and whether it represents a growing share of total households.³¹ Differences in the distribution of white and nonwhite households across the income spectrum may reveal disparities that can hamper community cohesiveness and prevent all residents from contributing to regional prosperity.

HOW IS NEW ORLEANS DOING?

In 1979, 54 percent of New Orleans households had income in the bottom income brackets, occupied by only 40 percent of national households. After the oil bust, the situation worsened, and the share in the two lowest income brackets grew to 59 percent by 1989. Since then, the share of New Orleans households with income in the two lowest national quintiles has slowly decreased to 53 percent, the same as it had been in 1979, prior to the oil bust. Indeed, the overall distribution of household incomes in New Orleans in 2013 was nearly identical to what it was in 1979 with 15 percent in the highest income quintile (earning more than \$105,910), and 32 percent in the lowest income quintile (earning less than \$20,900 annually).

PROPORTIONS OF HOUSEHOLDS BY NATIONAL INCOME QUINTILES NEW ORLEANS



Source: U.S. Census Bureau, Decennial Census and American Community Survey 2013; U.S. Census Bureau Historical Income Tables: Households; and HUD Fair Market Rents.

See source notes on page 65 for technical details.

Size of the City's Middle Class by Race and Ethnicity

HOW IS NEW ORLEANS DOING?

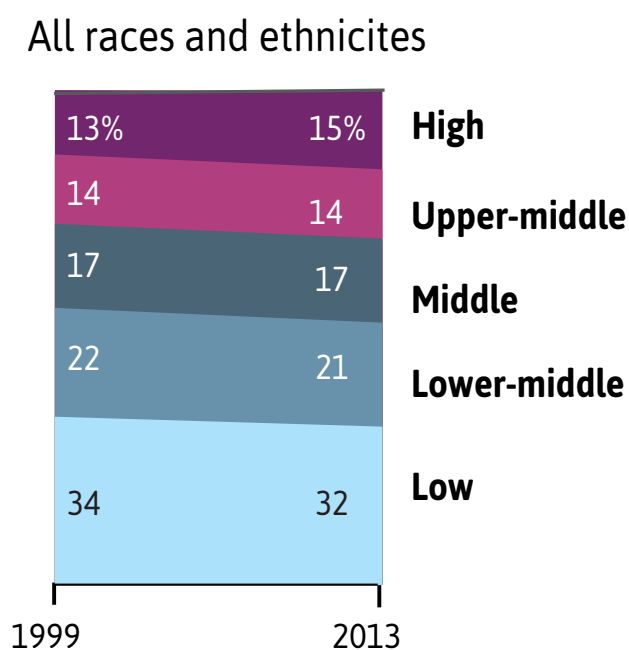
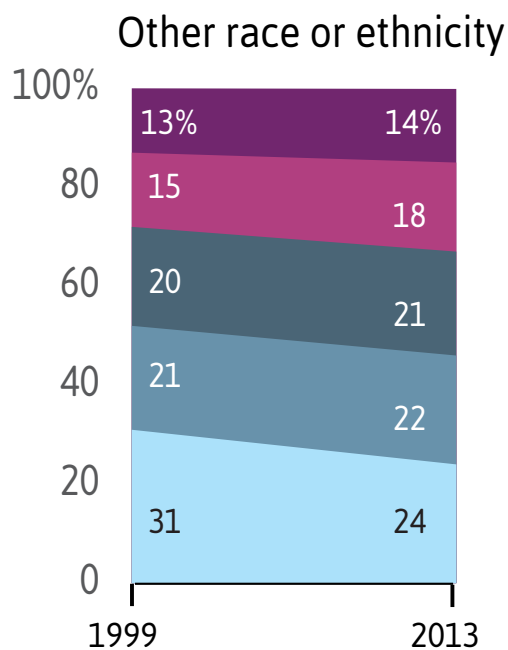
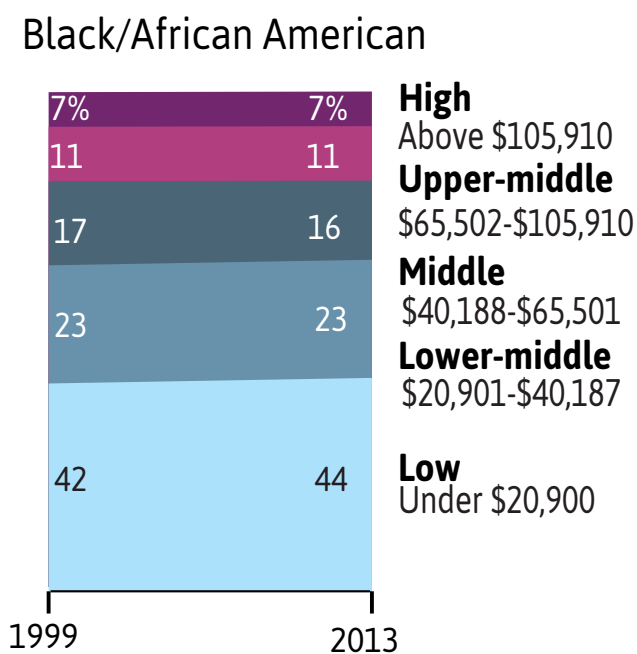
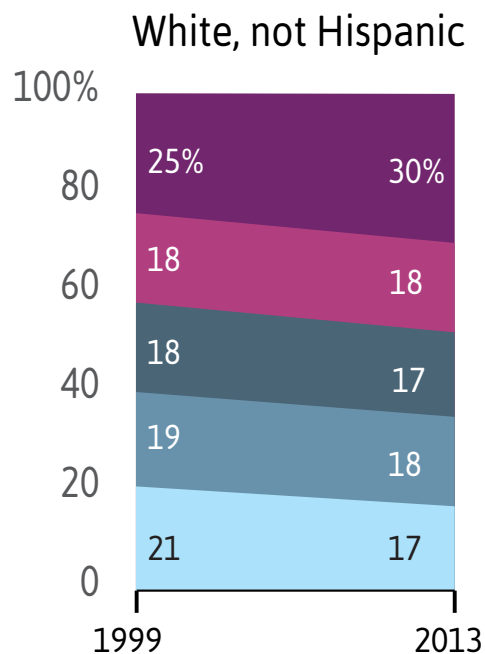
Since 1999, the share of the city's white households who are middle and upper class has jumped from 61 to 65 percent. In contrast, the share of black households that are middle and upper class has shrunk while the share of black households that are lower income has grown from 65 to 67 percent.

In 1999, 61 percent of white households in New Orleans were in the top three income quintiles. But white households have experienced income gains such that today, 30 percent of New Orleans' white households earn more than \$105,910, another 18 percent earn roughly between \$65,000 and \$106,000, and another 17 percent earn roughly between \$40,000 and \$65,000.

In contrast, African American households have lost ground with only 34 percent now in the top three income quintiles. Fully 44 percent of African American households in New Orleans earn less than \$20,900 and another 23 percent earn between roughly \$21,000 and \$40,000.

Put another way, in 2013, while 30 percent of New Orleans' white households earned over \$105,910, only 7 percent of black households earned that much. On the lower end of the spectrum, fully 44 percent of black households, but only 17 percent of white households, earned less than \$20,900 in New Orleans in 2013.

**PROPORTION OF HOUSEHOLDS BY NATIONAL INCOME QUINTILES
BY RACE/ETHNICITY, NEW ORLEANS**



Source: U.S. Census Bureau, Decennial Census and American Community Survey 2013; U.S. Census Bureau Historical Income Tables: Households; and HUD Fair Market Rents.

See source notes on page 65 for technical details.

Income Inequality

WHY IS THIS IMPORTANT?

Income inequality can have many adverse effects on a city. Income inequality encourages out-migration of the middle class, because an unequal real estate market may fail to produce housing accessible to middle-class families, and those who move up or down the income ladder must move out. Income inequality may have an adverse effect on a city's economy by limiting its ability to support industries that require middle-skill labor.³² Unequal cities tend to neglect essential services because of a narrow tax base insufficient for sustainably raising needed revenues.³³ Notably, economic growth can be accompanied by growing income inequality if policies and practices are not in place to ensure broad access to emerging opportunities.³⁴ This indicator measures the income of households at the 95th percentile (5 percent earn more, 95 percent earn less) and the 20th percentile (80 percent earn more, 20 percent earn less). It then measures the gap between the two, or the 95/20 ratio.

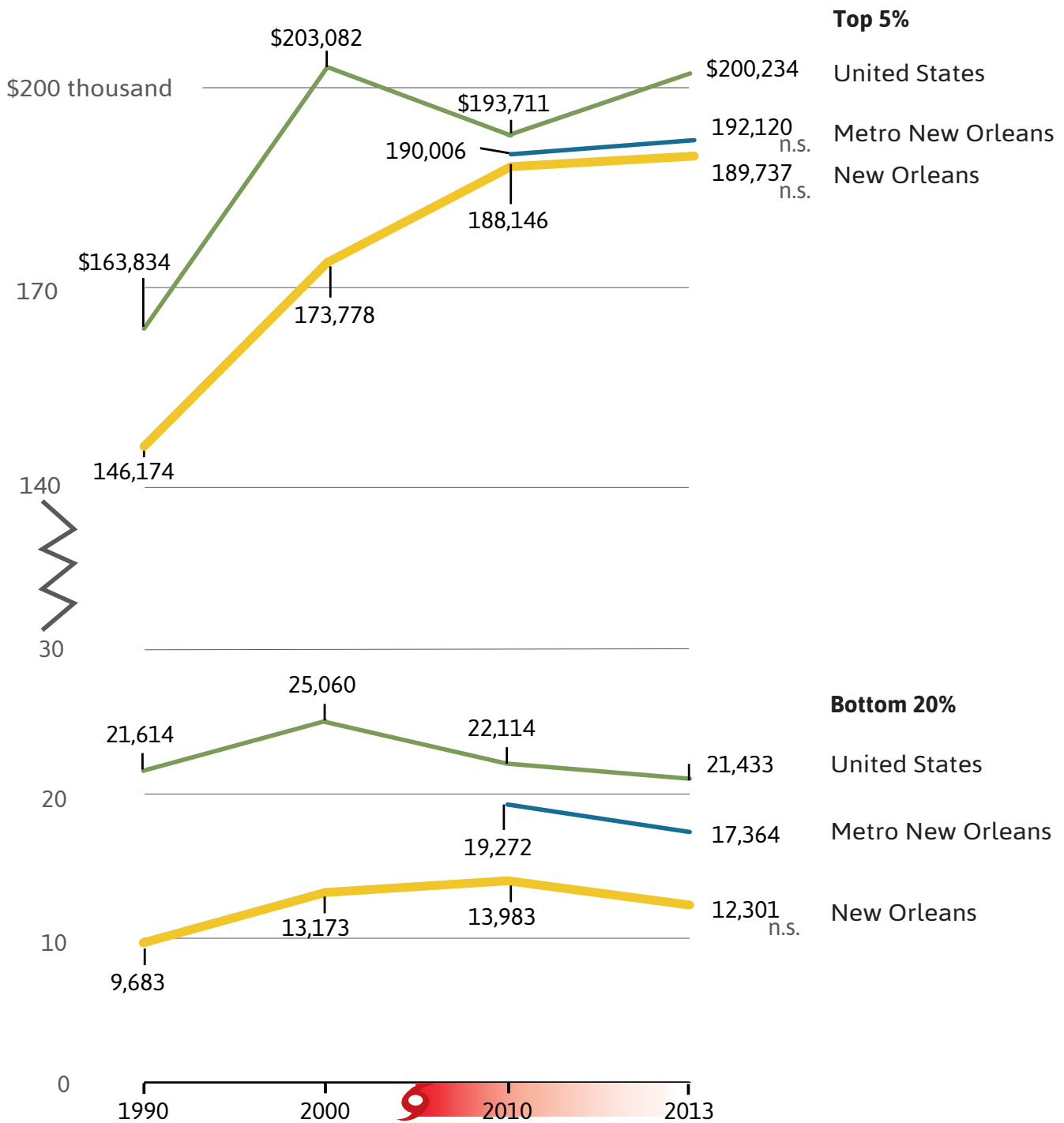
HOW IS NEW ORLEANS DOING?

New Orleans is more unequal in 2013 than the nation. The ratio of the income of the top 5 percent of households to the bottom 20 percent is 15:1 in New Orleans compared to 9:1 nationwide. In New Orleans, those households that earn more than 95 percent of all other households earn at least \$189,737, while the bottom 20 percent make less than \$12,301 a year—significantly less than \$21,433, which is the national threshold for the bottom 20 percent of households. From 2000 to 2013, the inequality ratio widened in New Orleans even more than the the nation's. While nationally, incomes at the top and the bottom declined due to the Great Recession from 2000 to 2013, in New Orleans, incomes at the top grew from \$173,778 to \$189,737, while incomes at the bottom did not increase. The stagnant post-Katrina income for the poorest New Orleanians suggests that many are not benefiting from the New Orleans economic recovery.

“CRIME RATES ARE HIGHER IN MORE UNEQUAL CITIES; PEOPLE IN UNEQUAL CITIES ARE MORE LIKELY TO SAY THEY ARE UNHAPPY. THERE IS A NEGATIVE ASSOCIATION BETWEEN LOCAL INEQUALITY AND THE GROWTH OF CITY-LEVEL INCOME AND POPULATION.”

– Edward Glaeser
Inequality in Cities

**INCOME AT 95TH PERCENTILE AND 20TH PERCENTILE
2013 INFLATION-ADJUSTED DOLLARS**



Source: U.S. Census Bureau,
Decennial Census and American
Community Survey 2010 and 2013.

See source notes on page 65 for
technical details.

Suburbanization of Poverty

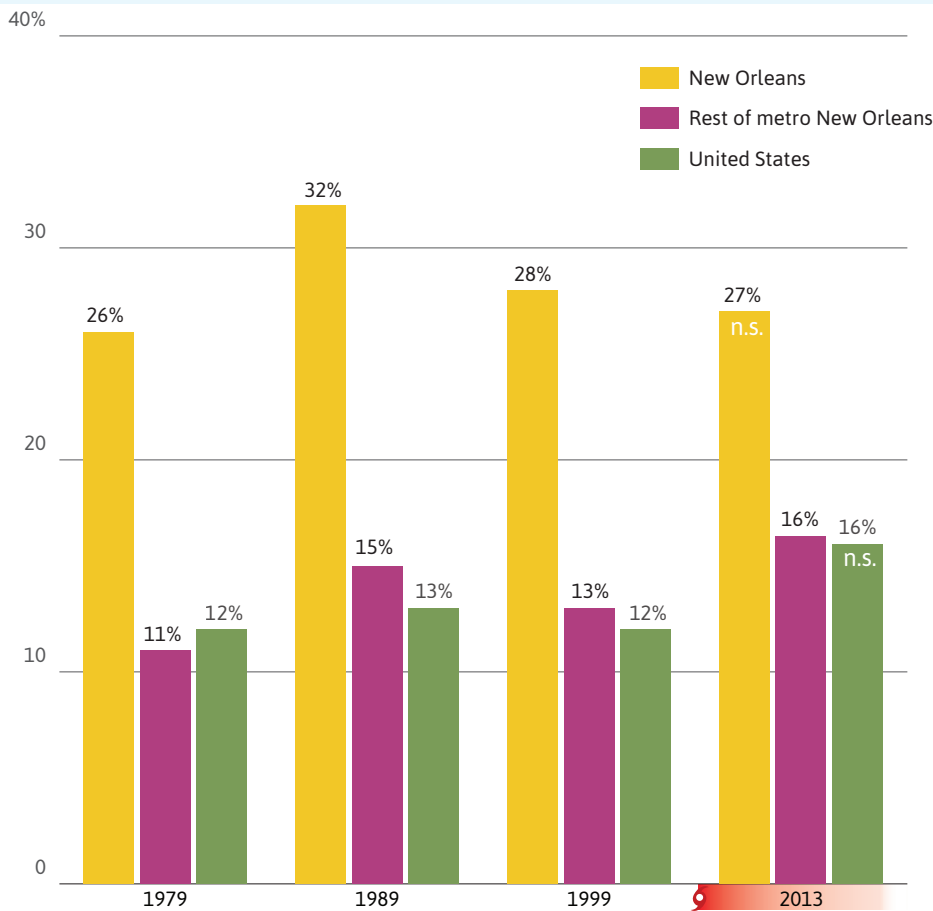
WHY IS THIS IMPORTANT?

Changes in the poverty rate not only indicate the overall strength of a region's economy but also show whether economic prosperity is benefiting those on the lowest rungs of the economic ladder. The geography of poverty is important because regional policy-makers and social service providers need to provide social safety nets, transportation options, and job opportunities where they are most needed. This indicator defines poverty based on household income, composition, and size.

HOW IS METRO NEW ORLEANS DOING?

Poverty is not just a problem for the city. Poverty rates are growing rapidly in the rest of metro New Orleans, increasing from 13 to 16 percent from 1999 to 2013. They are also increasing nationally, but in that same time period, the poverty rate in New Orleans was statistically unchanged. In 2013, there were more people living in poverty in the rest of metro New Orleans (137,918) than there were people living in poverty in New Orleans (97,970). In 1999 and prior this was not the case—the overall number of people in poverty had been greater in New Orleans compared to the rest of metro New Orleans. Hurricane Katrina, along with economic hardship since the Great Recession, accelerated the suburbanization of poverty. While it is important to recognize the significant growth in poverty in the rest of metro New Orleans, it also remains true that poverty rates in New Orleans have historically been much higher than in the rest of metro New Orleans and the nation—and still are. In 2013, the poverty rate in New Orleans was 27 percent, compared with 16 percent for the rest of metro New Orleans.

POVERTY RATE FOR POPULATION FOR WHOM POVERTY STATUS IS DETERMINED

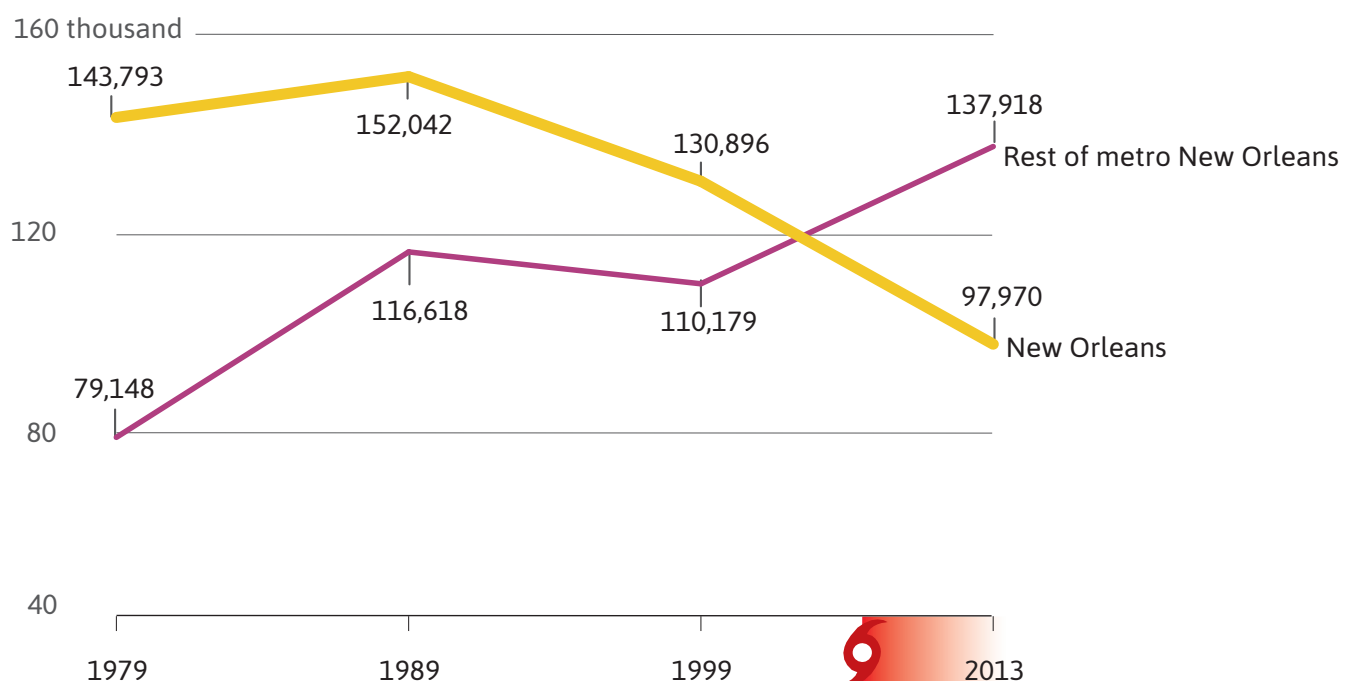


n.s. = Changes in the poverty rate in New Orleans between 1999 and 2013 are not statistically significant. There is no statistically significant difference in 2013 in the poverty rate between the U.S. and the rest of metro New Orleans.

Sources: U.S. Census Bureau, Decennial Census & American Community Survey, 2013.

See source notes on page 65 for technical details.

POPULATION LIVING IN POVERTY FOR POPULATION FOR WHOM POVERTY STATUS IS DETERMINED



Quality of Life

Arts and Culture

WHY IS THIS IMPORTANT?

For New Orleanians, arts and culture are among the city's most important assets and critical to the quality of life enjoyed here. Indeed, the culture of New Orleans is so vibrant, it is the basis for an entire "cultural economy" that attracts millions of visitors each year. Arts and culture is difficult to measure, but one valuable source of information often used is arts and culture data from nonprofits filing form 990s with the IRS. This source includes excellent measures about the health of arts and culture nonprofits, including annual revenues.

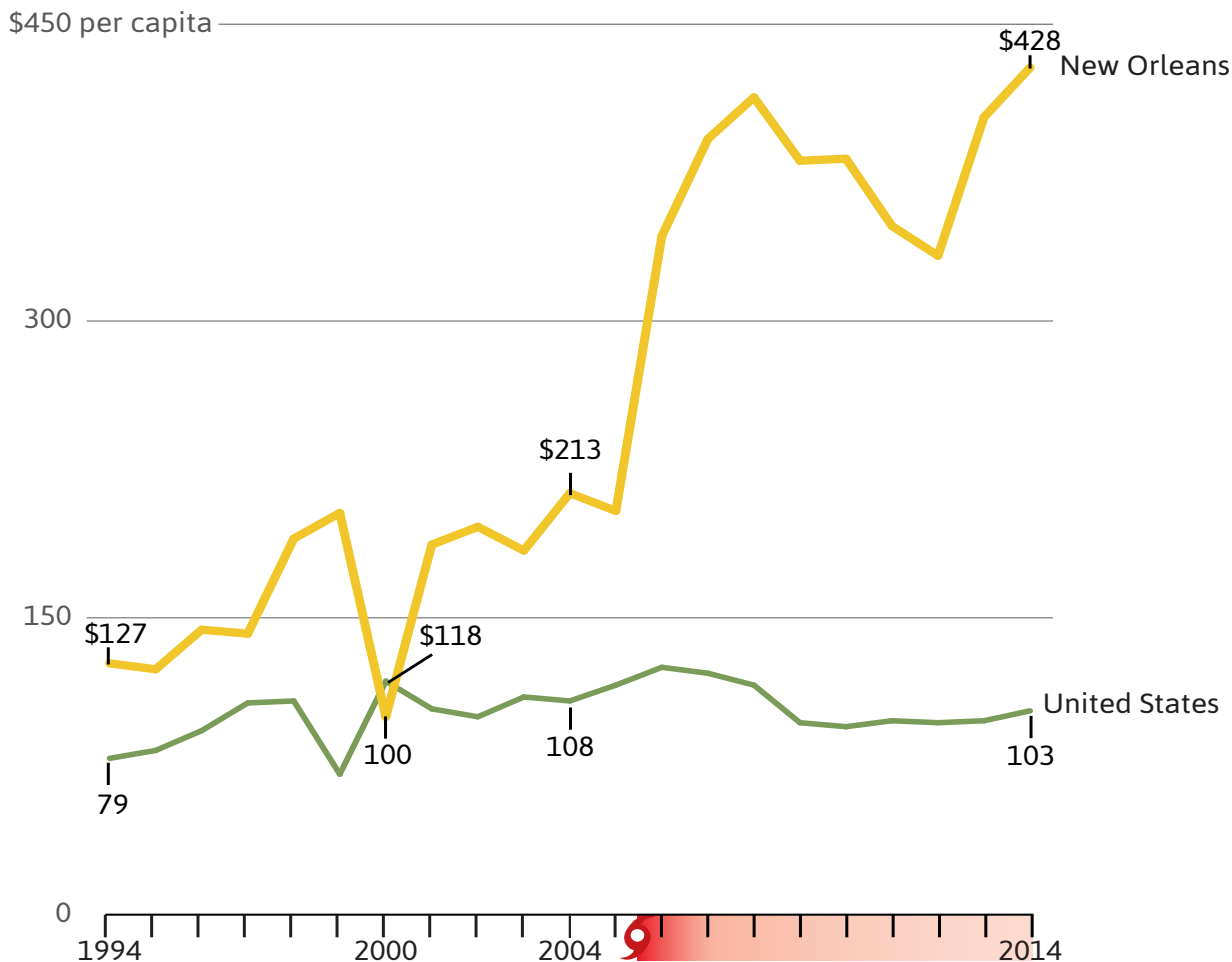
HOW IS NEW ORLEANS DOING?

The revenue for arts and culture nonprofits has surged to \$428 per capita—roughly four times greater than revenues for arts and culture nonprofits nationally. The initial jump in per capita revenues from 2005-06, from \$204 to \$343, was influenced by the post-Katrina loss in population. However, as the population of New Orleans recovers, these gains in per capita revenues have been sustained and accelerated.

Source: National Center for Charitable Statistics and U.S. Census Bureau Population Estimates Program.

See source notes on page 66 for technical details.

REVENUE TO ARTS AND CULTURE NONPROFITS PER CAPITA, 2014 INFLATION-ADJUSTED DOLLARS



Public Education

“WHILE PROGRESS HAS BEEN MADE IN COLLECTING AND REPORTING MORE ACCURATE GRADUATION RATE DATA AND SETTING TARGETS FOR PROGRESS, KINKS IN CALCULATION METHODS AND THE UNDERLYING DEFINITIONS MUST BE ADDRESSED TO ENSURE BETTER MEASUREMENT AND REAL ACCOUNTABILITY.”

- Robert Balfanz, John M. Bridgeland, Mary Bruce, and Joanna Hornig Fox

Building a grad nation: Progress and challenge in ending the high school dropout epidemic

WHY IS THIS IMPORTANT?

Quality K-12 public education is important to workforce development. Access to quality public education is also a key factor for firms and families in choosing to locate to, or stay in, a particular community. In 2002, the Louisiana Department of Education began assessing the quality of public schools based on test scores, attendance, and dropout rates. These data can be used to measure the percentage of students attending schools that meet or fail to meet state standards, thus providing a snapshot of the supply of quality schools in each parish. Currently, school performance scores are based on student achievement, academic indicators, and measures of career and college readiness, including ACT scores and high school graduation rates.³⁵ In 2010, the Louisiana Department of Education also began to assign letter grades to schools based on school performance scores. School performance scores are Louisiana’s primary accountability measure and are used to make high-stakes decisions, such as whether or not a school will be closed.

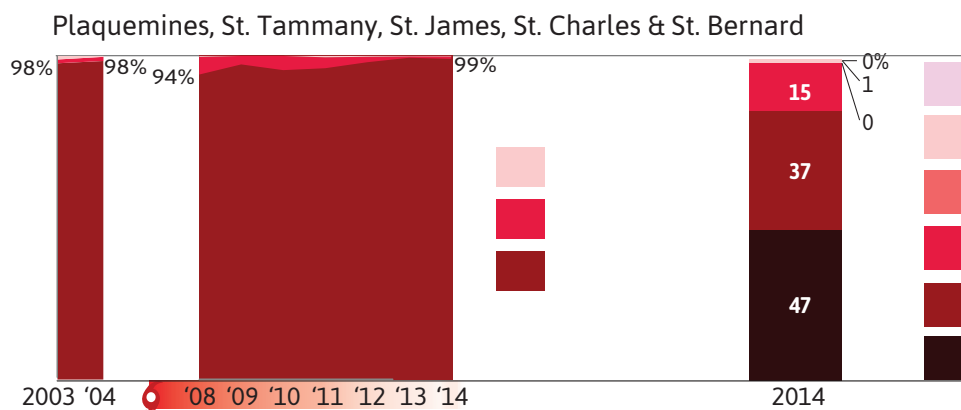
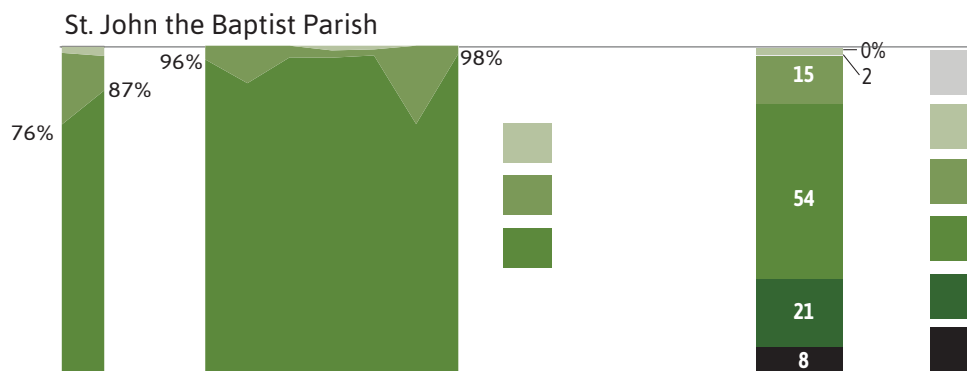
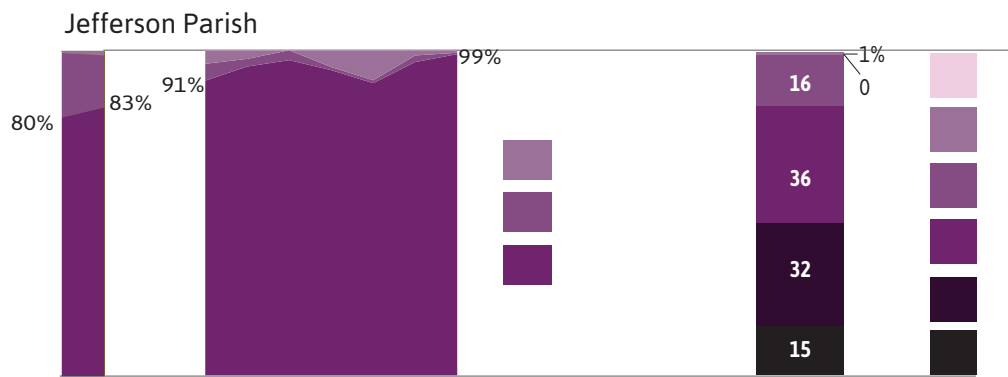
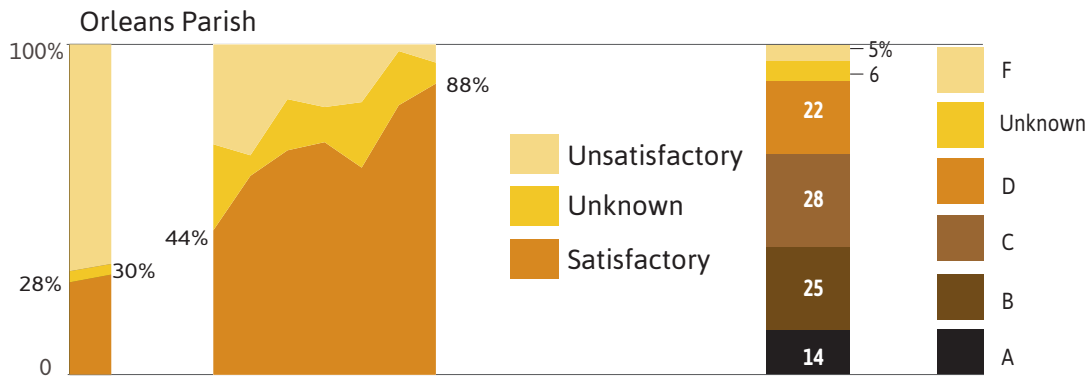
HOW IS METRO NEW ORLEANS DOING?

The share of public school students who attend “academically satisfactory” schools has increased post-Katrina. In the fall of 2014, 99 percent of Jefferson Parish students were enrolled in an “academically satisfactory” school that met state standards of quality, an increase from about 83 percent of students pre-Katrina. However, during 2013-14, 17 percent of Jefferson Parish students attended schools that earned a “D” or “F” and another 36 percent attended a “C” school. In 2014, 88 percent of Orleans Parish public students were enrolled in a school that met state standards—a major improvement compared to 30 percent of students pre-Katrina. During the most recent 2013-14 school year, 27 percent of Orleans Parish students attended a “D” or “F” school and 28 percent attended a “C” school. Thus, 39 percent of all students were enrolled in high quality schools that earned an “A” or “B” based on school performance scores. In Plaquemines, St. Bernard, St. Charles, St. James, and St. Tammany, 99 percent of students attended schools that met state standards in 2014—nearly the same share as pre-Katrina. Furthermore, 84 percent of students were in schools that earned an “A” or “B.” In St. John the Baptist, 98 percent of students attended “academically satisfactory” schools in 2014, a significant improvement compared to only 76 percent in 2003. However, only 29 percent of St. John students attended an “A” or “B” school.

“IN THIS NEW INFORMATION AGE, DRIVEN BY SCIENCE AND TECHNOLOGY AND AN INCREASINGLY COMPETITIVE GLOBAL ECOOMY, THE FUTURE OF OUR CHILDREN WILL DEPEND, IN LARGE PART, ON THE QUALITY OF EDUCATION THEY RECEIVE IN THE CLASSROOM.”

—U.S. Department of Education: Office for Civil Rights

ENROLLMENT BY SCHOOL PERFORMANCE BY PARISH, AS OF FALL OF EACH YEAR



Source: Louisiana
Department of
Education.

See source notes on
page 66 for technical
details.

High School Cohort Graduation Rates

WHY IS THIS IMPORTANT?

Obtaining a high school diploma is an important milestone marking a successful transition into adulthood. High school graduates tend to be healthier, earn higher incomes, vote more, and face fewer obstacles as they enter adulthood. High school graduation rates are also an important indicator of school performance for parents, policymakers, and concerned community members. As a result, graduation rates must be a cornerstone of high school accountability and used in decisionmaking about the targeting of resources and interventions to low-performing schools.³⁶ The Louisiana Department of Education (LDE) includes high school cohort graduation rates in the calculation of high school performance scores as a means to hold schools accountable for graduating their students on-time.³⁷

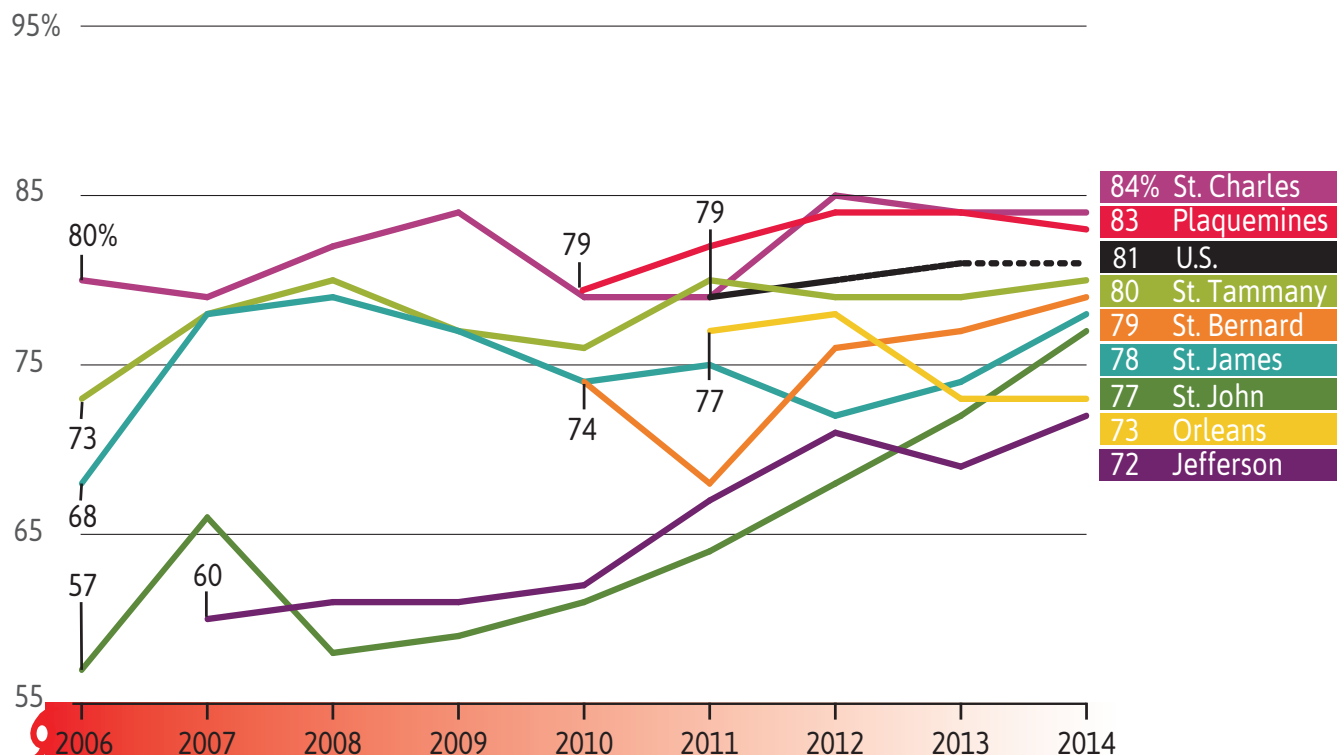
HOW IS METRO NEW ORLEANS DOING?

Public schools in six of eight metro parishes have graduation rates lower than the national average of 81 percent, suggesting that too many students are leaving school before finishing high school. Graduation rates have been trending upward across the metro in recent years, in line with national graduation rates, which were just 79 percent in 2011. Only St. Charles and Plaquemines public schools have had graduation rates generally better than the national average, while graduation rates in all other parishes have tended to fall below the national average. Graduation rates have generally increased since 2011 for all of the parishes in the metro, except for Orleans.

Sources: Louisiana Department of Education 2015 and National Center for Education Statistics.

See source notes on page 66 for technical details.

HIGH SCHOOL 4-YEAR COHORT GRADUATION RATES AS OF SPRING OF YEAR FOUR



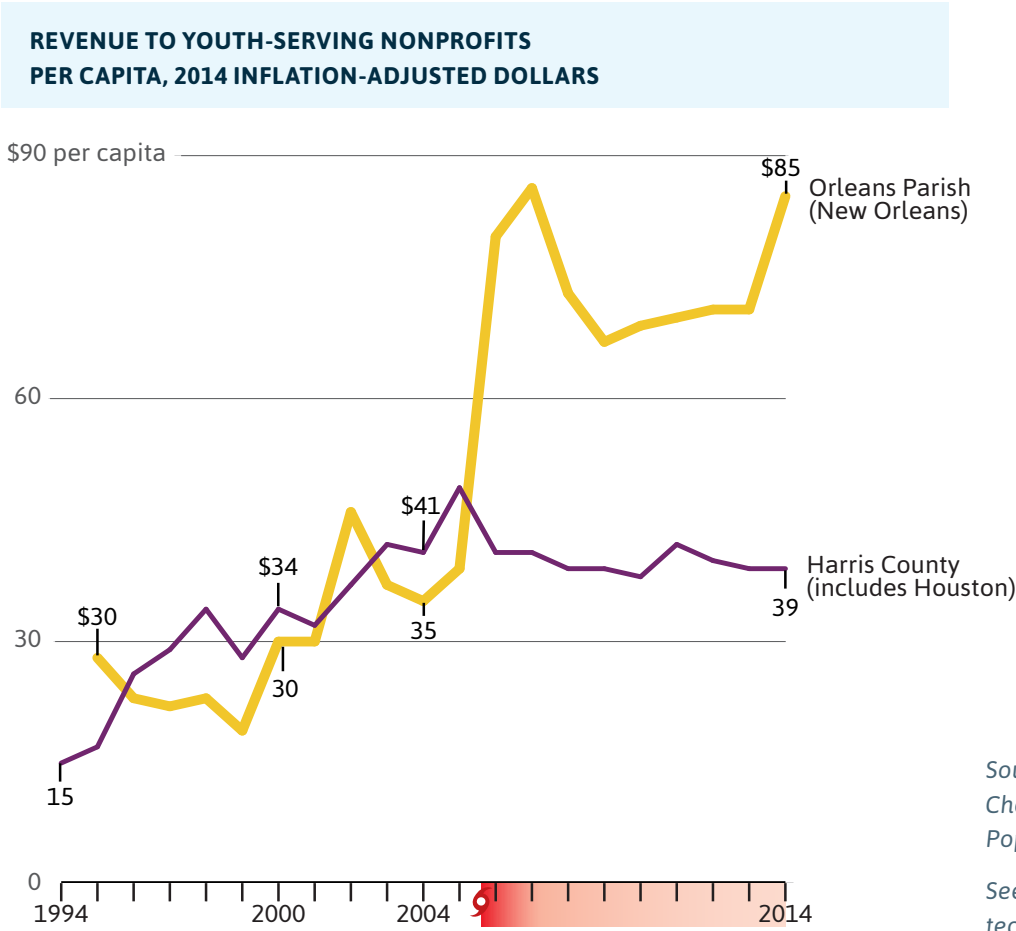
Youth Investment

WHY IS THIS IMPORTANT?

High-quality youth development programs can reduce juvenile delinquency, improve children’s educational performance, lessen health care costs related to childhood obesity, and increase the economic productivity of young people when they become adults.³⁹ In New Orleans, where the percentage of youth “disconnected” from school and employment is high, out-of-school programming is critical for providing youth with access to adult mentoring and skill building opportunities.⁴⁰ Community-based, positive youth development agencies are mentoring, training, educating, coaching, supporting, and guiding children and youth. They tend to be an under-leveraged resource that deserves to be a strategic partner with educators to ensure that every child is ready for college, work, and life.⁴¹ This indicator measures revenues received by youth-serving nonprofits and does not include funding going directly to schools and charter schools.⁴²

HOW IS NEW ORLEANS DOING?

In 2014, youth-serving nonprofits in Orleans Parish received \$85 per capita—much more than youth-serving nonprofits in Harris County (which includes Houston), who received \$39 per capita. Funding for youth-serving programs (such as mentoring programs, youth centers and youth clubs, educational services and remedial reading, parenting agencies and family agencies, youth violence prevention, child welfare services, and other youth development programs) has increased in the aftermath of Hurricane Katrina and the levee failures, exceeding 2004 funding by 139 percent.



Source: National Center for Charitable Statistics and U.S. Census Population Estimates Program.
See source notes on page 67 for technical details.

Public Safety

WHY IS THIS IMPORTANT?

Safe communities encourage private sector investments and support a higher overall quality of life in the form of stable, healthier neighborhoods. In contrast, the presence of crime undermines a community's sense of security and decreases quality of life. In general, property crime tends to be more commonplace, whereas violent crime tends to directly affect a smaller population. The FBI's rate of violent and property crimes is the standard indicator of how safe a community is from crime and allows for comparison to the nation as a whole.

HOW IS METRO NEW ORLEANS DOING?

Violent and property crime rates in New Orleans have dropped by roughly one quarter since 2004, but national crime rates fell in parallel over the same time period. Since the 1990s, crime rates have dropped across the United States, and they have dropped even more dramatically in metro New Orleans. As compared to 1990, national violent crime rates have fallen by 50 percent, and property crime rates have fallen by 46 percent. In the rest of metro New Orleans, violent crime rates have fallen by 60 percent, and property crime rates have fallen by 55 percent. In New Orleans, the property crime rate has fallen by 62 percent and the violent crime rate by 65 percent as compared to 1990. While crime rates have fallen dramatically in New Orleans since their peak in 1990, and even as compared with pre-Katrina levels, the violent crime rate in New Orleans was still roughly double the national rate by 2013.

“WHILE THE CHAOS WROUGHT BY THE STORM PROVIDED A UNIQUE OPPORTUNITY TO REINVENT A TROUBLED CRIMINAL JUSTICE SYSTEM, DOING SO WOULD REQUIRE A MAJOR CHANGE IN THE PROFESSIONAL CULTURE IN WHICH NEW ORLEANS’ CRIMINAL JUSTICE AGENCIES OPERATED.”

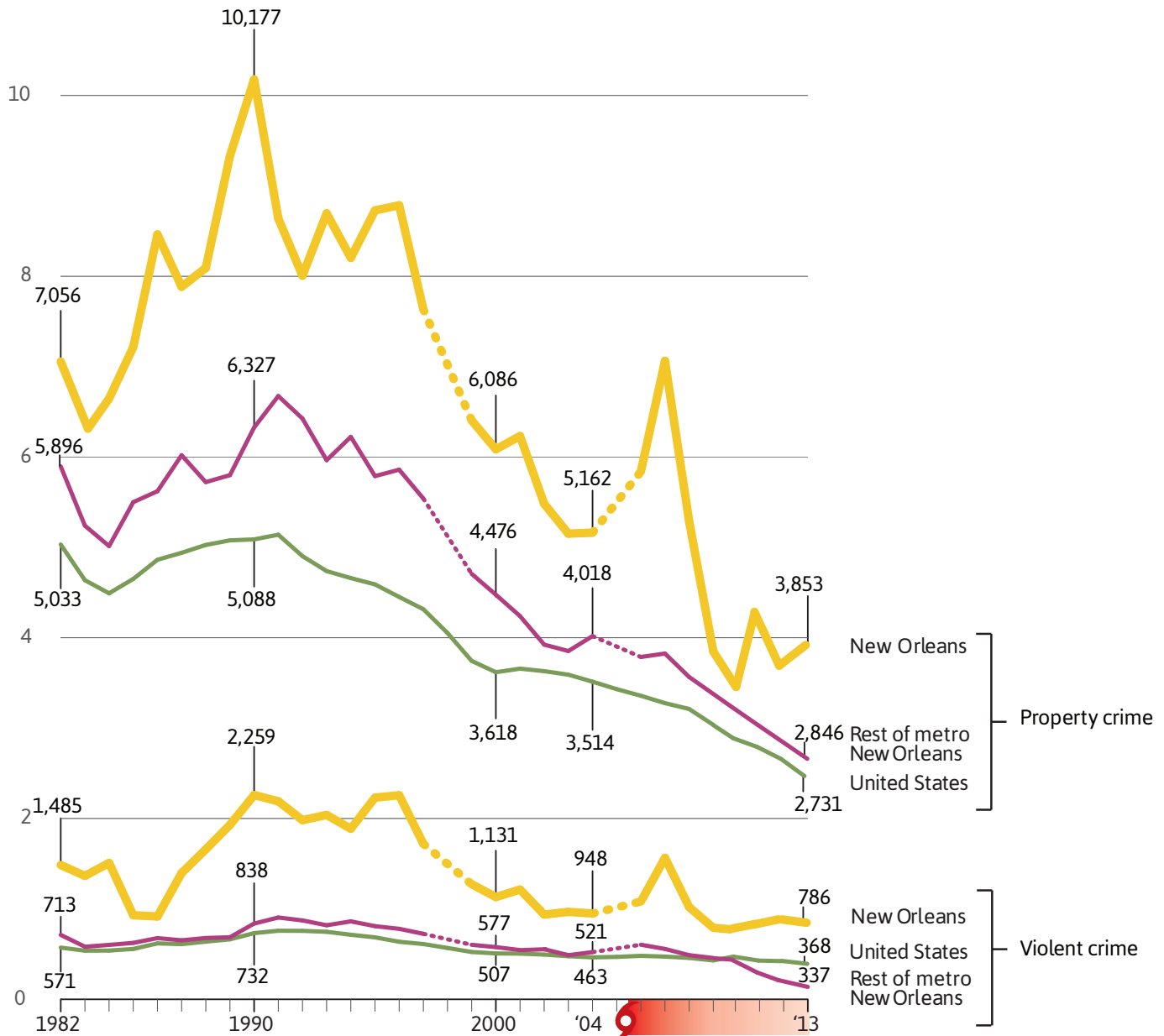
– Nadiene Van Dyke, Jon Wool, Lucia Ledoux

Resilience and Opportunity: Lessons from the U.S. Gulf Coast after Katrina and Rita

VIOLENT AND PROPERTY CRIME RATES PER 100,000 POPULATION

12 thousand per 100,000 population

Missing data



Source: Federal Bureau of Investigation, *Crime in the United States*; and Federal Reserve Bank of Atlanta analysis of data from FBI Criminal Justice Information Services.

See source notes on page 67 for technical details.

Public Corruption

WHY IS THIS IMPORTANT?

Public corruption erodes trust in government.⁴³ Trust in government is an essential element of a community's quality of life. Businesses that do not trust the government to fairly regulate and support their growth will choose other cities and regions to invest in. Citizens that do not trust government to follow the law will be skeptical to participate in, and support, public projects and initiatives. Corruption generates apathy and limits the aspirational growth and development that communities desire.

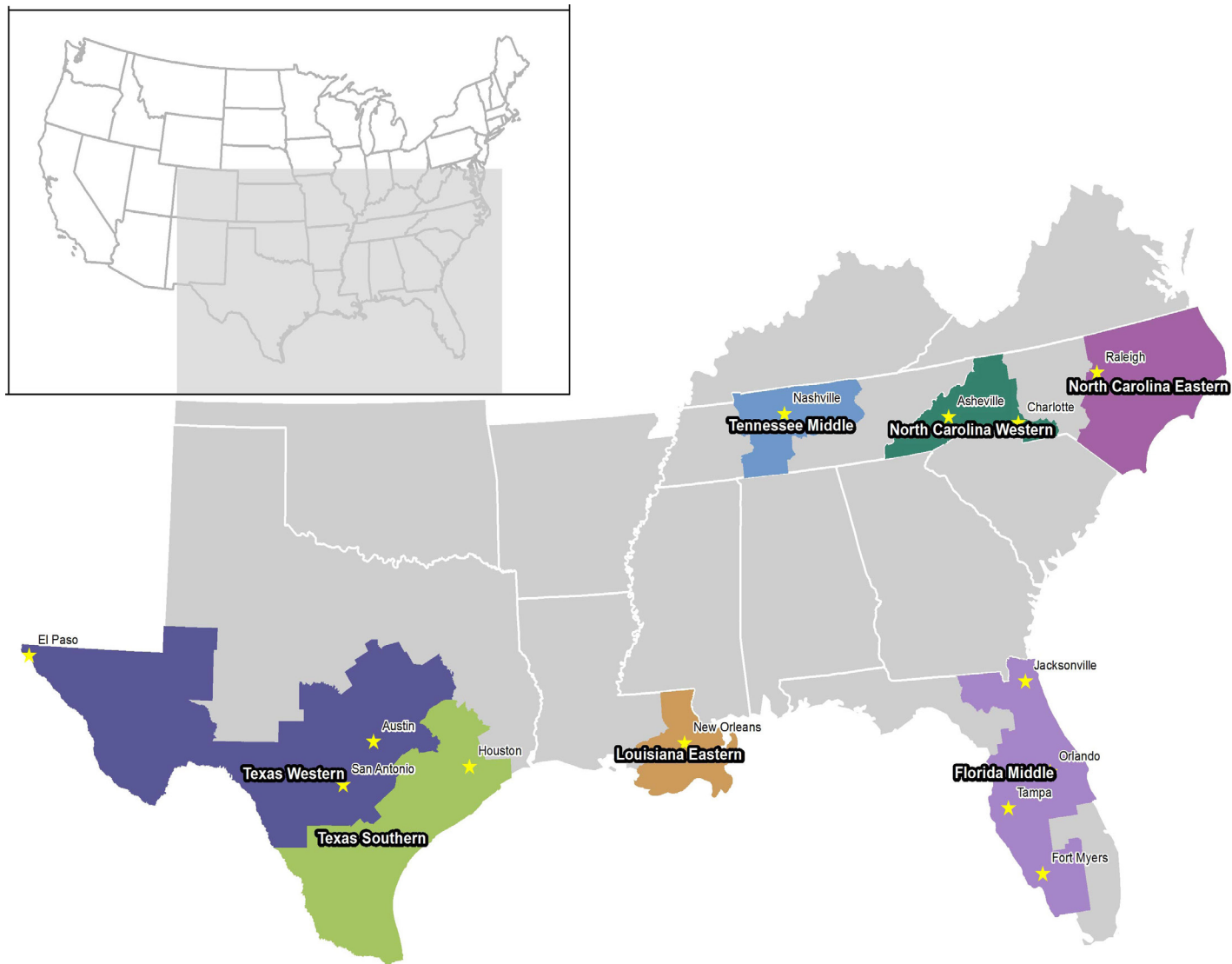
HOW IS METRO NEW ORLEANS DOING?

In 2004, federal corruption convictions in the New Orleans area picked up pace. Convictions for violations of federal corruption laws in the Eastern District of Louisiana have stayed at or above 26 convictions annually with only two exceptions in the 10-year period from 2004 to 2013. Prior to 2004, there were 20 or fewer convictions annually.⁴⁴ Jim Letten served as the U.S. Attorney for the Eastern District of Louisiana from 2001-2012 when much of this growth in convictions occurred. On a per capita basis, in 2013, the number of convictions in the New Orleans area, at 12.1 per million residents, exceeded that of all the comparison areas. The next closest were 9.1 convictions per million residents in the Houston area, and 7.9 per million residents in the Austin, San Antonio, El Paso area.

CONVICTIONS FOR VIOLATIONS OF FEDERAL CORRUPTION LAWS PER 1,000,000 RESIDENTS

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Eastern District of Louisiana	10.6	11.7	11.0	9.8	16.6	14.8	18.2	19.5	17.0	12.8	16.4	17.9	17.8	12.1
Western District of Texas	1.0	2.9	3.9	3.0	4.9	3.0	1.6	1.9	2.5	4.3	4.3	3.7	7.1	7.9
Southern District of Texas	4.2	4.2	1.4	2.3	1.5	3.3	2.7	4.2	7.8	3.1	2.7	4.9	2.9	9.1
Middle District of Tennessee	0.0	0.0	2.1	3.0	4.0	2.4	4.3	2.8	0.5	1.8	1.3	0.4	3.9	1.7
Middle District of Florida	3.2	0.9	1.0	1.5	1.0	1.3	3.8	2.7	4.8	2.8	1.7	2.2	2.3	1.8
Eastern District of North Carolina	0.0	2.2	1.2	2.8	5.4	0.6	5.8	5.1	1.1	1.1	2.4	2.6	1.0	2.6
Western District of North Carolina	2.0	0.4	1.2	1.9	2.6	2.9	0.7	1.0	4.1	0.7	0.7	0.7	0.0	2.3
National	3.3	3.2	3.5	3.0	3.5	3.5	3.5	3.4	3.7	3.5	3.4	3.6	3.4	3.3

REFERENCE MAP OF GEOGRAPHIES COVERED BY U.S. ATTORNEY'S OFFICES



See source notes on page 67 for technical details.

Source: U.S. Department of Justice, Public Integrity Section.

Housing Affordability

WHY IS THIS IMPORTANT?

Housing is a large monthly expense for nearly every American household, and the ability to afford stable housing can significantly impact a family's well-being. A common measure of affordability communitywide is the percent of households paying more than 30 percent of their pre-tax income on all housing costs. Many households spend more than 30 percent of their income on housing, and experts have argued that the commonly accepted threshold of 30 percent should be increased. This indicator looks at households paying unaffordable housing costs of 35 percent or more of their pre-tax income.

HOW IS METRO NEW ORLEANS DOING?

Fully 51 percent of renters in New Orleans paid unaffordable housing costs in 2013, significantly higher than the 42 percent of renters nationally. City renters have historically struggled to afford housing costs compared to their national peers. As incomes declined during the oil bust of the 1980s, the share of renters paying at least 35 percent of their household income on housing—a threshold considered unaffordable—increased. As incomes increased during the 1990s, that share declined. Since then, higher rents, compounded by lower household incomes, have contributed to an increase in the share of city renters paying unaffordable housing costs.⁴⁵

New Orleans' homeowners also struggle more than their national peers to afford housing costs. In the city, 27 percent of homeowners spend more than 35 percent of pre-tax household income on their mortgage, taxes, utilities, and insurance compared to only 19 percent of homeowners nationwide.

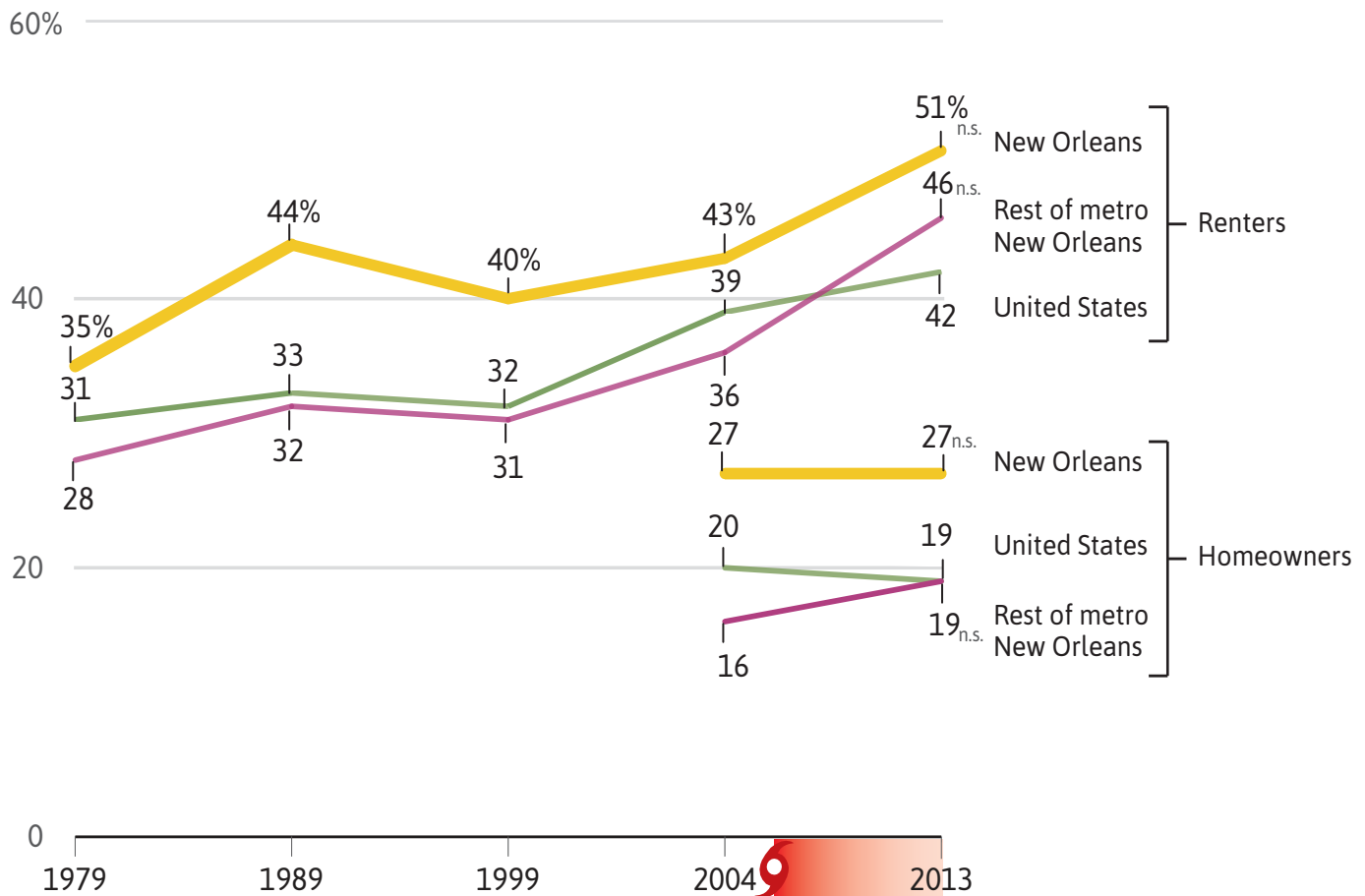
Although the percent of New Orleans' households paying unaffordable housing costs is higher than the national average, there has not been a statistically significant increase in the percentage of either renter or homeowner households paying unaffordable housing costs in New Orleans from 2004 to 2013.

“THE HOUSING VOUCHER PROGRAM MUST BE USED TO ITS FULLEST POTENTIAL—ASSISTING THE NEXT GENERATION OF NEW ORLEANS CHILDREN TO OVERCOME THE LIFE-ALTERING EFFECTS OF POVERTY.”

– Stacy Seicshnaydre and Ryan Albright

The New Orleans Index at Ten Collection: Expanding Choice and Opportunity in the Housing Choice Voucher Program

HOUSEHOLDS PAYING UNAFFORDABLE HOUSING COSTS 35% OR MORE OF PRE-TAX INCOME ON HOUSING



n.s. = For renters and for homeowners, changes between 2004 and 2013 were not statistically significant for New Orleans or the rest of metro New Orleans. For renters and homeowners in 2013, differences between the United States and the rest of metro New Orleans are not statistically significant. Differences between New Orleans and the rest of metro New Orleans are also not significant for renters in 2013.

Sources: U.S. Census Bureau, Decennial Census & American Community Survey 2004 and 2013.

See source notes on page 68 for technical details.

Sustainability

Bike Pathways

WHY IS THIS IMPORTANT?

Nearly half of all trips in the United States are less than 3 miles in length, for which bicycling can provide an affordable, healthy, and environmentally friendly transportation option.⁴⁶ Bicycle use has surged in communities that have invested in bicycle infrastructure, largely because improved bicycle infrastructure helps improve safety conditions and outcomes for cyclists.^{47,48}

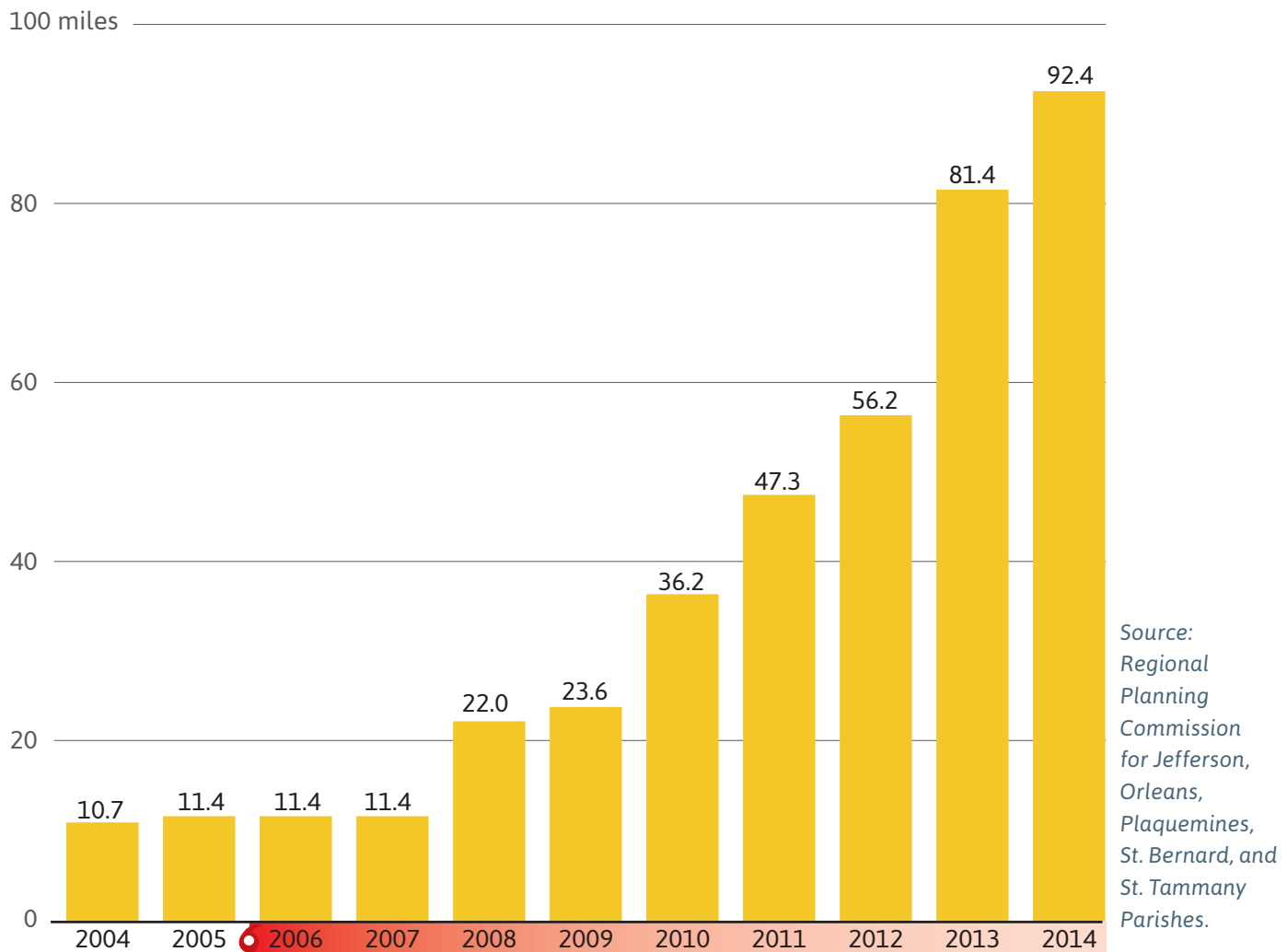
HOW IS NEW ORLEANS DOING?

Bike lanes and pathways have increased more than eightfold in New Orleans since pre-Katrina, such that today the city has nearly 100 miles of bikeways. Miles of bikeways have increased substantially every year since 2007. Roughly 10 miles a year were added from 2009 to 2012 when the city had 56.2 miles of bikeways. Bikeway miles jumped to 81.4 in 2013, and to 92.4 by 2014.

"BICYCLING AND WALKING ARE LOW COST, HEALTHY ALTERNATIVES TO DRIVING AND ARE AN INTEGRAL PART OF DEVELOPING A SUSTAINABLE, MULTIMODAL TRANSPORTATION NETWORK IN NEW ORLEANS."

– Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes and the Louisiana Department of Transportation and Development.

MILES OF BIKEWAYS NEW ORLEANS



Commuting by Public Transit

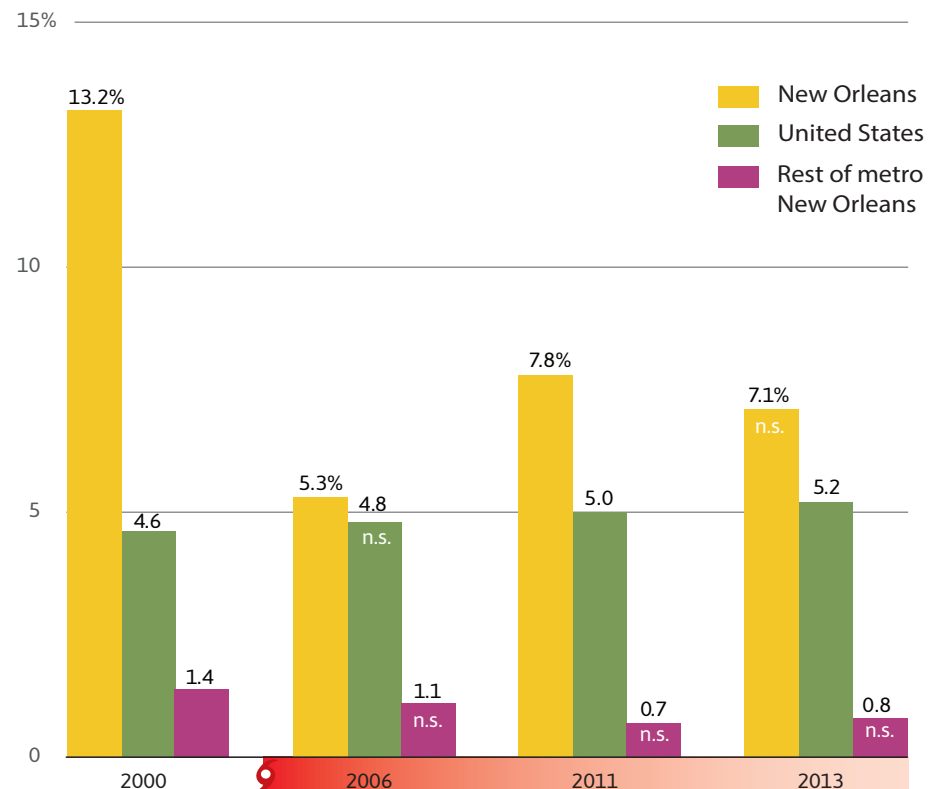
WHY IS THIS IMPORTANT?

The use of public transportation to get to work reduces congestion and harmful emissions, and in many cases saves workers money relative to commuting via car. Moreover, a high-quality public transit network can increase labor market flexibility across a metro area and support the clustering of businesses, which in turn enhances innovation and ultimately, productivity. But as metro regions expand and jobs move into the suburbs, public transit authorities are faced with the challenge of providing service to multiple job centers.⁴⁹ Although a growing percentage of workers commuting via public transit may have multiple benefits for a region, it is important to recognize that many factors influence personal transportation choices, including access to vehicles, congestion, and availability of alternative modes of transit.⁵⁰

HOW IS METRO NEW ORLEANS DOING?

The share of New Orleans commuters using public transit rose from 5.3 in 2006 to 7.8 in 2011, but has remained flat through 2013 at well below pre-Katrina levels. In 2000, the share of workers in New Orleans who commuted by public transit was 13.2 percent—significantly higher than the 1.4 percent rate for the rest of metro New Orleans. Before Katrina, the city had 367 buses. Many of these were destroyed by the flood, and the share of workers commuting by transit dropped to 5.3 percent by 2006. As of 2012, the city had only 86 operating buses.⁵¹ Thus, the share of commuters using public transit in New Orleans has remained relatively low, at about 7 percent from 2011 through 2013.

SHARE OF COMMUTERS USING PUBLIC TRANSIT FOR WORKERS 16 YEARS AND OLDER



n.s. = For New Orleans, the difference between 2011 and 2013 is not statistically significant. The differences between all geographies are statistically significant except between New Orleans and the U.S. in 2006.

Source: US Census Bureau, Decennial Census & American Community Survey 2006, 2011, 2013.

See source notes on page 68 for technical details.

Air Quality

WHY IS THIS IMPORTANT?

Poor air quality can injure health, harm the environment, and cause property damage. In addition, noncompliance with federal air quality standards can reduce economic activity due to permitting restrictions. The U.S. Environmental Protection Agency's Air Quality Index (AQI) tracks the concentration of ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. Values higher than 100 are considered to be unhealthy, first for certain sensitive groups of people, then for everyone, as AQI values get higher. Percent of days in a year that have "unhealthy" AQI values is a useful indicator of air quality for a region.

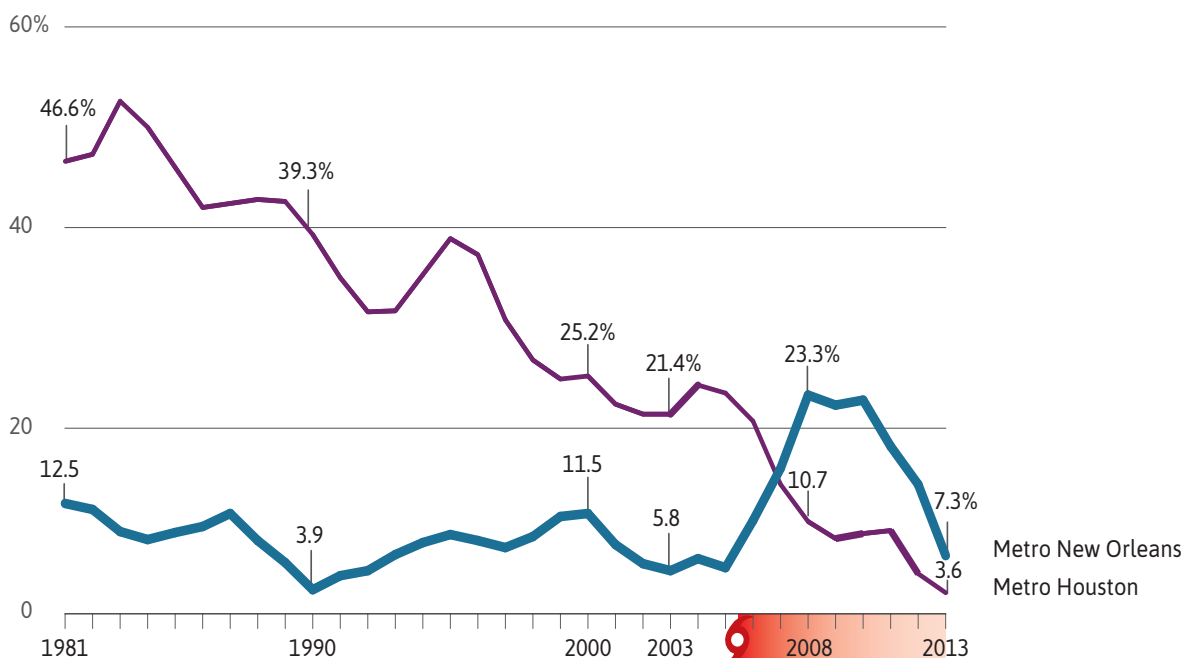
HOW IS METRO NEW ORLEANS DOING?

Post-Katrina, the number of "unhealthy" air quality days in metro New Orleans has begun to decline, though it is higher than in metro Houston, the latter of which has made substantial improvements in air quality. Using the most recent scientific standards, metro Houston had "unhealthy" air nearly 50 percent of the year during the early 1980s, but "unhealthy" days dropped to below 36 percent by 2010. In New Orleans, about 10 percent of days (or fewer) were "unhealthy" air days during the 1980s through early 2000s. The share of days registering as "unhealthy" doubled post-Katrina, to 23 percent for 2009-11, when new monitors installed in St. Bernard Parish after Katrina captured sulfur dioxide emissions. In an encouraging turn of events, in the latest three-year period, about 7 percent of days had "unhealthy" air. This improvement in air quality can be linked to recent efforts by the Louisiana Department of Environmental Quality (LDEQ), which has been putting pressure on companies that operate along the river between Baton Rouge and New Orleans to curb emissions, particularly CO₂ and SO₂ emissions, in order to comply with more stringent EPA air quality standards on ozone that were passed in 2008.

"LEADING INDUSTRIES BEGAN TO SEE IT WAS IN THEIR ECONOMIC BENEFIT TO NOT ONLY COMPLY [WITH AIR QUALITY STANDARDS] BUT TO GET AHEAD OF THE CURVE."

– Texas Commission on Environmental Quality

PERCENT OF DAYS WITH "UNHEALTHY" AIR QUALITY AQI GREATER THAN 100 (THREE-YEAR AVERAGES)



Source: U.S. Environmental Protection Agency Air Quality System Air Quality Index Report.

See source notes on page 68 for technical details.

Groundwater Salinity

WHY IS THIS IMPORTANT?

Salinity measures the chloride concentration in the groundwater. Freshwater becomes saltwater when the concentration of chloride is greater than 250 milligrams per liter.⁵³ Increasing groundwater salinity in Southern Louisiana is an indicator of subsiding soils, eroding coasts scored by man-made canals, and rising seas on the one side, and municipal drainage and a levee-restrained Mississippi River on the other.⁵⁴ The result is that saltwater is now intruding inland, both on the surface and under the surface, and increasingly overpowering the weak freshwater flow that, under natural circumstances, would have pushed it back.⁵⁵ Tracking groundwater salinity is important as a gauge of coastal land loss in the face of rising sea levels.⁵⁶ It is also important because, while most human activity in the parishes downriver from Baton Rouge and south of Lake Pontchartrain derives freshwater from the Mississippi River and its distributaries, some municipalities, industries, agriculture, and homeowners also rely on groundwater tapped via wells.⁵⁷

HOW IS METRO NEW ORLEANS DOING?

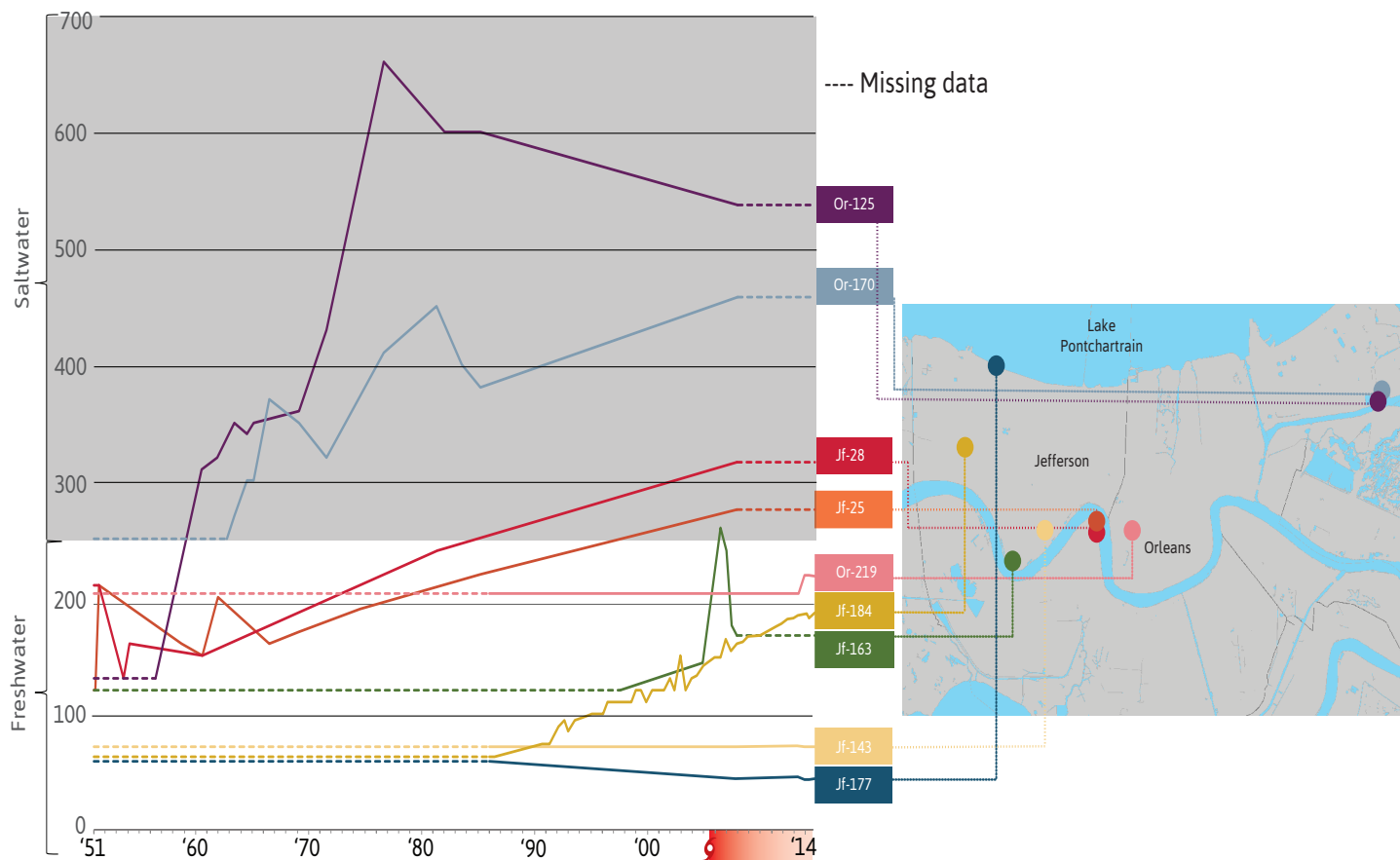
Freshwater across the New Orleans metro has been converting to saltwater for over half a century; measurements as far back as 1951 reveal the increasing salinity of aquifers in metro New Orleans. Scientists have detected considerable increases over time in the concentration of chloride in water sampled near wells used for drinking water and industry in metro New Orleans. Indeed, eight of the nine sample sites were freshwater when first sampled, with a chloride concentration under 250 milligrams per liter. As of sampling from 2015, four of these wells are now saltwater, while three of the remaining freshwater wells have experienced increases in chloride concentration. The increase in salinity has been most profound in western Jefferson Parish as well as near Bridge City in Jefferson Parish, indicating saltwater encroachment in these historically freshwater areas.⁵⁸

“THE FATE AND FORTUNE OF NEW ORLEANS AND THE COMMUNITIES AROUND IT IS TIED TO THAT OF THE COAST. THAT ASPECT OF DIRECT AND IMMEDIATE DEPENDENCE ON AN ECOSYSTEM SETS NEW ORLEANS APART FROM MOST OTHER PLACES, WHERE THE CONNECTIONS ARE LESS CLEAR OR AT LEAST LESS IMMEDIATE.”

– Mark Davis

Resilience and Opportunity: Lessons from the U.S. Gulf Coast after Katrina and Rita

SALINITY OF GROUNDWATER AT SELECT SAMPLING SITES CHLORIDE, DISSOLVED, IN MILLIGRAMS PER LITER



See source notes on page 68 for technical details.

Source: U.S. Geological Survey.

Coastal Wetlands

WHY IS THIS IMPORTANT?

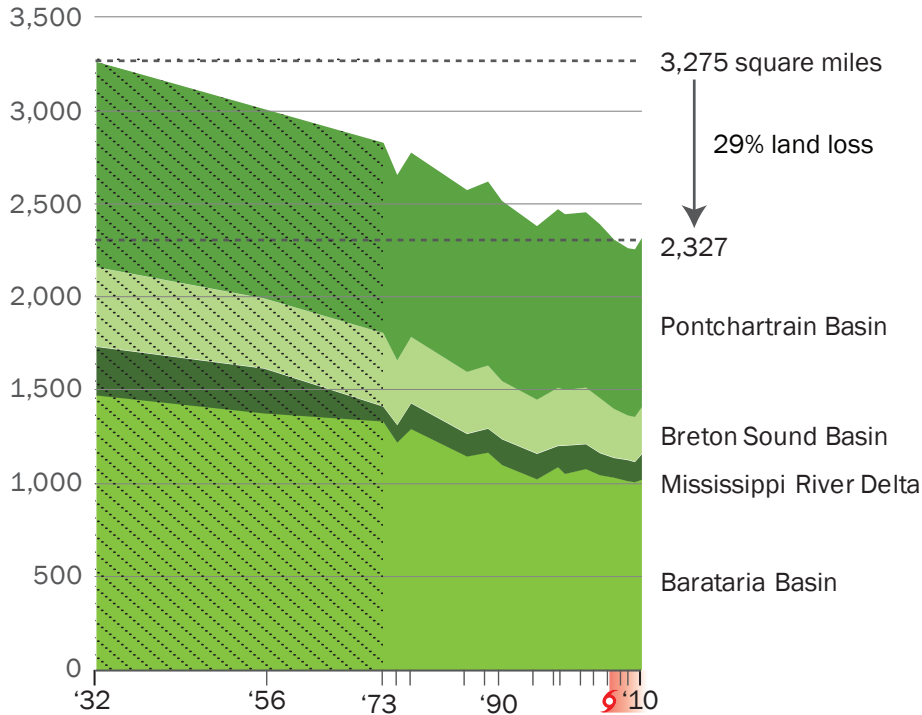
The vitality of the coastal landscape is tied directly to New Orleans' livelihood and economic survival. Wetlands provide essential ecological functions to the metro—buffering the region from hurricane flooding and serving as spawning, breeding, and foraging grounds for a wide diversity of fish and wildlife. Coastal wetlands absorb storm energy by reducing wave action and amplitude of storm surge. They are often cited as cities' primary line of defense against hurricanes. In fact, it is estimated that in total, coastal wetlands provide \$23 billion in storm protection services to the United States annually.⁵⁹

Man-made defenses such as levees and floodwalls are insufficient without the natural lines of defense provided by features such as healthy marshes, natural ridges, cypress swamps, and barrier islands. Additionally, the metro area's three largest economic drivers (tourism, water transportation, and oil & gas) and the fishing industry (especially in parishes outside the city) rely on a robust coastal landscape to protect their infrastructure, assets, and resources.

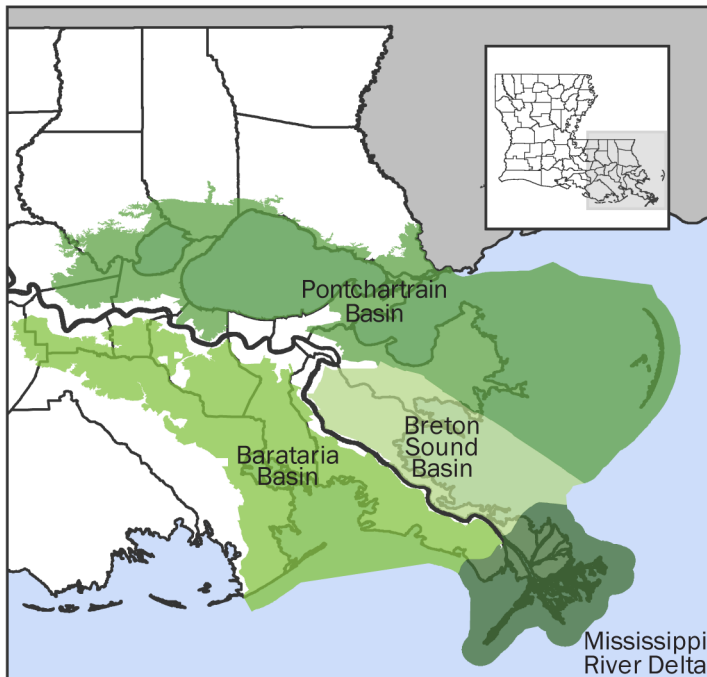
HOW IS THE REGION DOING?

Between 1932 and 2010, the New Orleans region lost 948 square miles of coastal wetlands, which is nearly 30 percent of the wetlands that protect the New Orleans area from hurricane storm surge. Coastal wetlands in the Breton Sound, Barataria Basin, Mississippi River Delta Basin, and Ponchartrain Basin are the primary line of defense against hurricanes for New Orleans area residents. However, 78 years of recorded measurements reveal that nearly 30 percent of these protective wetlands have been lost—due in part to flood control projects on the Mississippi River that have starved the wetlands of sediment deposits and fresh water, and in part to oil and gas related drilling and canaling that allowed saltwater to stream into valuable wetlands. Hurricanes have also damaged wetlands, as have man-made disasters, such as the 2010 oil spill. The slight increase in coastal wetlands from 2009 to 2010 may indicate recovery from recent hurricanes. However, it is too soon to determine if these gains are permanent or environmental variability. Looking forward, Louisiana is the only state in the U.S. that has a master plan for stemming the loss of coastal wetlands. The plan aims to invest \$50 billion to restore wetlands, utilizing new and emerging science and techniques.⁶⁰

78 YEARS OF LAND LOSS IN THE MISSISSIPPI DELTAIC PLAIN SQUARE MILES



REFERENCE MAP OF THE COASTAL BASINS PROTECTING METRO NEW ORLEANS



Note: 1932 and 1956 land area data are derived from a different source of imagery than later years. Thus, there are issues of comparability with these time frames.

See source notes on page 68 for technical details.

Source: Brady Couvillion, John Barras, Gregory Steyer, William Sleavin, Michelle Fischer, Holly Beck, Nadine Trahan, Brad Griffin, and David Heckman, "Land area change in coastal Louisiana from 1932 to 2010," U.S. Geological Survey Scientific Investigations Map 3164, (2011).

Technical Notes on Data Sources

Economic Growth

JOB GROWTH

The Bureau of Labor Statistics measures nonfarm jobs, which is the number of full-time and part-time positions on company payrolls, including civilian government agencies. This definition excludes self-employed, unpaid, and domestic workers. Commercial fishers are typically self-employed and their deckhands often include unpaid family members. Thus, though important to this coastal metro, many commercial fishing jobs are not included in official job estimates.

DRIVERS OF THE ECONOMY

Data on cluster jobs and wages comes from Economic Modeling Specialists Intl. (EMSI). EMSI is a private data provider that compiles high quality employment data by removing the suppressions that are characteristic of publicly available county-level datasets. In addition to relying on federal datasets, EMSI uses data from the Louisiana Workforce Commission to improve their measurement of local industries, occupations, wages, skills, education, and training. Data is based on an EMSI pull of LED and BLS data from Q1, 2015.

Clusters are comprised of 6-digit NAICS codes and are mutually exclusive. Definitions were developed by the U.S. Cluster Mapping Project, which assigned NAICS codes to clusters based on multiple linkages between NAICS codes across regions. Cluster definitions can be found in the downloadable excel tables. Wages refer to average wages, salaries, and proprietor earnings. They do not include benefits, supplements, or similar non-salary additions. The clusters shown include the top ten traded clusters by location quotient, a measure of share of jobs in a region compared to that share in the nation. For the “Hospitality and Tourism” cluster, wages exclude the 6-digit NAICS code 711211, “Sports Teams and Clubs.”

For historic specializations, cluster definitions from the U.S. Cluster Mapping Project were modified to fit 4-digit NAICS code data from Moody’s Analytics. 4-digit NAICS codes were assigned to clusters based on which cluster had the highest number of jobs within that 4-digit NAICS code in 2014. Therefore, historic specialization data, based on 4-digit NAICS codes and Moody’s data, does not match up perfectly to 2001-2014 data, based on 6-digit NAICS codes and EMSI data.

LOCAL-SERVING CLUSTERS

Data on cluster jobs and wages comes from Economic Modeling Specialists Intl. (EMSI). EMSI is a private data provider that compiles high quality employment data by removing the suppressions that are characteristic of publicly available county-level datasets. In addition to relying on federal datasets, EMSI uses data from the Louisiana Workforce Commission to improve their measurement of local industries, occupations, wages, skills, education, and training. Data is based on an EMSI pull of LED and BLS data from Q1, 2015.

Clusters are comprised of 6-digit NAICS codes and are mutually exclusive. Cluster definitions were developed by the U.S. Cluster Mapping Project, which assigned NAICS codes to clusters based on multiple linkages between NAICS codes across regions. Cluster definitions can be found in the downloadable excel tables. Wages refer to average wages, salaries, and proprietor earnings. They do not include benefits, supplements, or similar non-salary additions. The clusters shown include the top ten local-serving and government clusters by jobs in 2014.

WAGES

Wages are in 2013 inflation-adjusted dollars using the CPI-U-RS. Wage and salary disbursements consist of the monetary remuneration of employees, including the compensation of corporate officers; commissions, tips, and bonuses; and receipts in kind.

PRODUCTIVITY

Gross product is in 2013 inflation-adjusted dollars using the CPI-U-RS. Data from the U.S. Bureau of Labor Statistics measures nonfarm jobs.

AIRPORT TRAFFIC

Enplanements represent passengers boarding flights at the airport listed in the data, for domestic or international destinations, on domestic or foreign carriers, each calendar year. Any person on board a flight who is not a member of the flight or cabin crew is a pas-

senger. Each flight is treated as a unique event in the data. For example, a person flying from Chicago to New Orleans to Atlanta would appear in this data twice – once as an enplaned passenger in Chicago and again as an enplaned passenger in New Orleans. Airports listed are the aspirational metro airports with annual enplanements greater than 1,000,000 annually in 2013.

ENTREPRENEURSHIP

Data represents the percent of the adult population that starts a business each year. Entrepreneurs included are those who own incorporated or unincorporated businesses and who are employers or non-employers. The business must be the individual's main job with fifteen or more usual hours worked per week. Data for seven of 57 "weak city" metros was not available: Danville, VA; Mansfield, OH; Muncie, IN; Odessa, TX; Pine Bluff, AR; Rocky Mount, NC; and Terre Haute, IN.

VENTURE CAPITAL

Data from Mattermark comes from a number of third-party data providers including CrunchBase, Indiegogo, Techcrunch, Alexa Rank, and Angellist, as well as many more media sources. In addition, Mattermark uses customer-reported data from Google Analytics accounts of their clients, and information is taken from regulatory filings. In order to categorize the data into funding rounds, Mattermark uses a combination of cross-referencing with press releases and logical analysis. If there is an initial round of funding, this will either be categorized as Seed or Angel, depending on what it has been noted as in the press. Any second round after Seed or Angel will be categorized as Series A funding and subsequent rounds will be tagged as Series B, C, D, E, F, G. Funding is categorized as Debt or Private Equity if it has been mentioned as such in a public document.

In The Data Center analysis, venture capital data refers to series A-G rounds and any round labeled as "venture" in Mattermark. It does not include rounds labeled as "angel" or "seed." This data does not represent an all-encompassing picture of private investment in Southeast Louisiana. Some private deals were likely not captured by Mattermark's wide net of sources, and so the investment numbers may be underestimates. Nevertheless, there is no regional bias in the underestimates, allowing for regional comparison. For a thorough analysis of the Louisiana investment climate, including its growth year to year, see the Louisiana Venture and Angel Capital Report, released by Graffagnini Law. All funding is in 2014 inflation-adjusted dollars using the CPI-U-RS.

EDUCATED WORKFORCE

Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time. For metro New Orleans and the United States, changes in educational attainment between 2000 and 2013 are significant at the 95% confidence interval. For 2013, differences in educational attainment between the U.S. and metro New Orleans are also significant at the 95% confidence interval.

STATE FUNDING FOR HIGHER EDUCATION

Funding dollars are adjusted by the SHEEO Higher Education Cost Adjustment (HECA), which accounts for variation in student higher education costs year-by-year. All funding is in 2014 inflation-adjusted dollars using the CPI-U-RS. Educational appropriations are a measure of state and local support available for public higher education operating expenses, including ARRA funds, and exclude appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education. Full-time equivalent enrollment (FTE) equates student credit hours to full-time, academic year students, but excludes medical students.

JOB SPRAWL

Data from Moody's Analytics measures total payroll employment, which is defined as all employees covered by unemployment insurance, including government workers, plus farm, fishing, and U.S. Armed forces military employees, but it does not include the self-employed. State unemployment insurance programs have relatively comprehensive coverage in the United States labor force. Approximately 96% of the wage and salary civilian labor force and 98% of nonagricultural employment are covered by state unemployment insurance laws, and so are reflected in the data. Self-employment in the fishing industry, which is critical to the economies of Plaquemines and other coastal parishes, is heavily undercounted due to these limitations. One additional limitation of this dataset is that some jobs, in particular government-sector jobs, may be reported at a central administrative office rather than where the compensated activity actually occurs.

Inclusion

MEDIAN HOUSEHOLD INCOME BY RACE AND ETHNICITY

The 1999 Decennial Census data represents the calendar year. All income is in 2013 inflation-adjusted dollars using the CPI-U-RS. Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time. Data was not available for “Black or African American, not Hispanic”.

Changes between 1999 and 2013 are significant at the 95% confidence interval for all races/ethnicities in the United States. However, changes between 1999 and 2013 in metro New Orleans are “not” significant for all races/ethnicities. For 2013, differences between all races/ethnicities are significant at the 95% confidence interval for the United States and for metro New Orleans. For 2013, differences between the United States and metro New Orleans are significant at the 95% confidence interval for “Black/African Americans”, but not for “White, not Hispanic” and not for “Hispanic/Latino (any race)”.

EDUCATIONAL ATTAINMENT BY RACE/ETHNICITY AND SEX

Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time.

Data was not available for “Black/African American, not Hispanic”. 2013 data for “Black (alone)” was not available for the following metros: Altoona, PA; Danville, VA; Santa Barbara-Santa Maria-Goleta, CA; Scranton--Wilkes-Barre, PA. 2013 data for “White, not Hispanic” was not available for the following metros: Danville, VA; Santa Barbara-Santa Maria-Goleta, CA; Scranton--Wilkes-Barre, PA. 2013 data for “Hispanic (any race)” was not available for the following metros: Albany, GA; Altoona, PA; Danville, VA; Decatur, IL; Huntington-Ashland, WV-KY-OH; Macon GA; Milwaukee-Waukesha-West Allis, WI; Philadelphia-Camden-Wilmington, PA-NJ-DE-MD; Santa Barbara-Santa Maria-Goleta, CA; Scranton--Wilkes-Barre, PA.

Changes between 2000 and 2013 are significant at the 95% confidence interval for all races/ethnicities and sex in the aspirational metros and the “weak city” metros. Changes between 2000 and 2013 are significant at the 95% confidence interval for all races/ethnicities and sex in metro New Orleans except “Black/African American” males and “Hispanic/Latino (any race)” for both males and females.

For 2013, differences between all races/ethnicities for males are significant at the 95% confidence interval for the aspirational metros, the “weak city” metros, and for metro New Orleans. For 2013, differences between all races/ethnicities for females are significant at the 95% confidence interval for the aspirational metros, the “weak city” metros, and for metro New Orleans except between “Black/African American” and “Hispanic/Latino (any race)” for metro New Orleans.

For 2013, differences between the aspirational metros and metro New Orleans are significant at the 95% confidence interval for all races/ethnicities and for males and females. Differences between the “weak city” metros and metro New Orleans in 2013 are significant at the 95% confidence interval for “Black/African American” and “Hispanic/Latino (any race)” males, but not for females, and not for “White, not Hispanic” for males or females.

For 2013, differences between males and females are significant at the 95% confidence interval for the aspirational metros, the “weak city” metros, and for metro New Orleans, except for “White, not Hispanic”, and “Hispanic/Latino (any race)” for metro New Orleans.

EMPLOYMENT RATES BY RACE/ETHNICITY AND SEX

Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time. Data was not available for “Black/African American, not Hispanic”.

For females in metro New Orleans, changes between 2000 and 2013 are not significant at the 95% confidence interval for any race/ethnicity. For males in metro New Orleans, changes between 2000 and 2013 are significant at the 95% confidence interval for “Hispanic/Latino” but not for “White, not Hispanic” or “Black/African American”. For females in the aspirational metros, changes between 2000 and 2013 are significant at the 95% confidence interval for “Hispanic/Latino”, but not for “Black/African American” or “White, not Hispanic”. For females in “weak city” metros, changes between 2000 and 2013 are significant at the 95% confidence interval for all races/ethnicities. For males in the aspirational metros, changes between 2000 and 2013 are significant at the 95% confidence interval for all races/ethnicities except “Black/African American”. For males in the “weak city” metros, changes between 2000 and 2013 are significant for all races/ethnicities.

For males, differences between the U.S. and metro New Orleans are significant at the 95% confidence interval for “White, not Hispanic” and “Hispanic”, but not for “Black/African American”. For males, differences between aspirational metros and metro New Orleans are

significant at the 95% confidence interval for “Black/African American” and “Hispanic”, but not for “White, not Hispanic”. For males, differences between “weak city” metros and metro New Orleans are statistically significant at the 95% confidence interval for “White, not Hispanic” and “Hispanic”, but not for “Black/African American”. For females, differences between the U.S. and metro New Orleans are significant at the 95% confidence interval for “Black/African American” and “White, not Hispanic”, but not for “Hispanic”. For females, differences between aspirational metros and metro New Orleans are statistically significant at the 95% confidence interval for “Black/African American” and “White, not Hispanic”, but not for “Hispanic”. For females, differences between “weak city” metros and metro New Orleans are statistically significant at the 95% confidence interval for all races/ethnicities.

For males in metro New Orleans and in the “weak city” metros, differences between all races/ethnicities are significant at the 95% confidence interval. For males in the aspirational metros, differences between “Black/African American” and “White, not Hispanic” and between “Black/African American” and “Hispanic/Latino” are significant at the 95% confidence interval, but not between “White, not Hispanic” and “Hispanic/Latino”. For females in the aspirational metros and in the “weak city” metros, differences between all races/ethnicities are significant at the 95% confidence interval. For females in metro New Orleans, differences between “Black/African American” and “White, not Hispanic” are significant at the 95% confidence interval, but not between “Black/African American” and “Hispanic/Latino” or between “White, not Hispanic” and “Hispanic/Latino”.

The number of “weak city” metros included in the data varies across race/ethnicity. For the “Hispanic/Latino” population, there are 37 “weak city” metros. For the “White, not Hispanic” population, there are 54 “weak city” metros. For the “Black/African American” population, there are 48 “weak city” metros.

JAIL INCARCERATION RATES

Data is based on an annual survey of the local jail population and represents the average daily jail population. Persons in jail include individuals being temporarily held pending trial or other resolution of their case, locally sentenced inmates, as well as state inmates housed locally. Data from the Annual Survey of Jails for Louisiana only includes those held in local facilities. Prior to 1995, the inmate population includes both those that are confined to jail and those released under supervision. Nationally, in the 1994 survey, the total inmate population (490,442) included an estimated 3,968 persons under community supervision. For all parishes in metro New Orleans, data was not collected for 1988, 1993, 1999, 2005, and 2007. Population data was obtained from the Census Bureau Population Estimates Program. Populations are taken from intercensal Estimates, except for 2001 – 2005, when postcensal Vintage 2009 estimates were used, and 2011-2014, when postcensal Vintage 2014 estimates were used.

SIZE OF THE CITY’S MIDDLE CLASS

The 1979, 1989 and 1999 Decennial Census data represents the calendar year. National income quintiles were adjusted to reflect cost of living differences using Fair Market Rents. Households in tabulated data tables were distributed across the adjusted national income quintiles using linear interpolation. Data was not available for “Black/ African American, not Hispanic.”

INCOME INEQUALITY

Data reflects the U.S. Office of Management and Budget definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time. Metro-level upper quintile income data is not available before the 2006 American Community Survey.

Bottom 20%: Changes in income levels between 2010 and 2013 are significant at the 95% confidence interval for metro New Orleans and the United States, but not for New Orleans. For 2013, differences in income levels between all geographies are significant at the 95% confidence interval.

Top 5%: Changes in income levels between 2010 and 2013 are significant at the 95% confidence interval for the United States, but not for New Orleans and metro New Orleans. For 2013, differences in income levels between metro New Orleans and the United States are significant at the 95% confidence interval, but are not between New Orleans and the United States and between New Orleans and metro New Orleans.

SUBURBANIZATION OF POVERTY

The 2013 ACS data reflects incomes during 2012-2013. The 1979, 1989 and 1999 Decennial Census data represents the calendar year.

Poverty rates: For the United States and for the rest of metro New Orleans (but not for New Orleans), changes in the poverty rate between 1999 and 2013 are significant at the 95% confidence interval. For 2013, differences in the poverty rate between New Orleans and the rest of metro New Orleans are significant, as are differences between New Orleans and the United States. However, there is no significant difference in 2013 in the poverty rate between the United States and the rest of metro New Orleans.

Poverty estimates: For New Orleans and for the rest of metro New Orleans, changes in poverty estimates between 1999 and 2013 are significant at the 95% confidence interval. For 2013, differences in poverty estimates between New Orleans and the rest of metro New Orleans are significant at the 95% confidence interval.

Quality of Life

ARTS AND CULTURE

Data includes organizations classified under the A ("Arts and Culture") National Taxonomy of Exempt Entities (NTEE) code. Revenue includes total revenues reported by public charities (501 (c)(3)) with gross receipts over \$25,000, that filed annual information reports (Form 990s) with the IRS. Tax-exempt organizations with more than \$5,000 in annual gross receipts must register with the IRS, but they do not have to file the annual information report until they reach annual gross receipts of \$25,000. Religious congregations, denominations, and organizations controlled by religious denominations have automatic section 501(c)(3) status and are not required to register or file. Foundations of any size must register and file. Total revenue includes contributions, gifts, grants, net special events income, investment income, program services and contracts, dues, net sales, and other income.

PUBLIC EDUCATION

In 2003-04 through 2009-10, "Academically Satisfactory" schools must have a baseline school performance score of 60 or above (which coincides with earning between one and five stars from the state). In 2010-11, "Academically Satisfactory" schools must have a baseline school performance score of 65 or above (which coincides with a letter grade of A, B, C, or D) to reflect increases in state performance requirements. In 2011-12, "Academically Satisfactory" schools must have a baseline school performance score of 75 or above (which coincides with a letter grade of A, B, C, or D) to reflect increases in state performance requirements. In 2012-13, the Louisiana Department of Education (LDE) revised its school performance score scale-moving from a 200-point scale to a 150 point scale. In 2012-13 and each year since, "Academically Satisfactory" schools must have a baseline school performance score of 50 or above (which coincides with a letter grade of A, B, C, or D) to reflect increases in state performance requirements. Baseline school performance scores are calculated based on school performance over a two-year period. Schools of "unknown quality" include enrollment at schools that do not have a School Performance Score because the school is new, is an alternative school, or is a pre-school or kindergarten program. In addition, schools of "unknown quality" include schools that are led by operators who took over the governance of existing failing schools and agreed to maintain all previous grade levels and former students. Data reflects all students attending public schools in Orleans Parish including schools run directly by and chartered by the Orleans Parish School Board, schools run directly by the Recovery School District and charter schools overseen by the Recovery School District, and schools chartered by the State Board of Elementary and Secondary Education. In addition, Milestone SABIS Academy is counted in the Orleans Parish school performance scores for the 2012-13 school year despite the fact that the school had temporarily moved to a Jefferson Parish location. However, data does not reflect students that received vouchers and attended a private school.

According to LDE, school Performance Scores are based on student achievement, academic indicators and measures of career and college readiness, such as Carnegie credits earned through 9th grade; graduation rates; and earned Advanced Placement, International Baccalaureate, and Dual Enrollment. Below are the descriptions of how scores are determined for elementary, middle, and high schools:

Elementary schools (K-6): 100% of the school grade is based on student achievement on annual assessments in English language arts, math, science, and social studies. Schools may also earn points for significant improvement with students who are academically behind.

Middle schools (7-8): 95% of the school grade is based on student achievement on annual assessments with the final 5% based on credits earned through the end of students' 9th grade year. Schools may also earn points for significant improvement with students who are academically behind.

High schools (9-12): Half of the school grade is based on student achievement (25% on the ACT and 25% on End-of-Course assessments). Half of the school grade is based on graduation (25% on the graduation index, which rewards achievements like Advanced Placement and International Baccalaureate exam credit, and 25% on the cohort graduation rate, the percentage of students graduating in four years). Schools may also earn points for significant improvement with students who are academically behind. For more information on the LDE school grade, see <http://www.louisianabelieves.com/accountability/school-performance-scores>.

HIGH SCHOOL GRADUATION RATES

Pre-Katrina data for all parishes was excluded from this indicator, because according to the Louisiana Department of Education (LDE)

High school Performance report, LDE did not calculate the cohort graduation rate for the 2004-2005 school year for any school in any school district, and the 2003-2004 cohort graduation rate was calculated after the fact for Orleans Parish. As such, 2003-04 graduation rate data was not certified at the district level at the end of that year. For more information on pre-Katrina graduation rates, see <http://www.louisianabelieves.com/docs/default-source/katrina/final-louisiana-believes-v5-high-school-performance.pdf?sfvrsn=2>.

Districts that were heavily impacted by the hurricanes of 2005-06 do not have graduation cohort results from 2005-06 to 2008-09. These districts are Cameron, City of Bogalusa, Orleans, Plaquemines, RSD-New Orleans, and St. Bernard. Jefferson requested that their graduation data be included beginning with their 2008 reports, and BESE granted the request. For more information on post-Katrina graduation rates, see <http://www.louisianabelieves.com/docs/default-source/data-management/2013-2014-cohort-graduation-rate-file.pdf?sfvrsn=2>.

Chapter 6 of Louisiana's Department of Education Bulletin 111- The Louisiana School, District, and State Accountability System, defines a cohort as all students who entered 9th grade for the first time in the state of Louisiana in a given academic year. Each cohort of students is tracked for four years, from entry as first-time ninth graders through four academic years in order to determine cohort graduation rates. For more information on cohort graduation rates, see <http://doa.louisiana.gov/osr/lac/28v83/28v83.doc>.

Years reflect the end year of a school year , i.e., 2012 refers to the 2011-12 school year.

YOUTH INVESTMENT

Data reflects the Bridgewater Group's definition of youth-serving nonprofits, which is composed of 22 National Taxonomy of Exempt Entities (NTEE) codes. These organizations do not include any schools or charter schools. National Center for Charitable Statistics data is available on a county-by-county basis, so New Orleans data was available because New Orleans and Orleans Parish are interchangeable. On the other hand, Houston data reflects the youth-serving nonprofit revenues of Harris County and the population of Harris County. The City of Houston is fully located within Harris County and accounts for over half of its population. All data is in 2014 inflation-adjusted dollars using the CPI-U-RS. For information about the NTEE codes used for this indicator, see the downloadable excel tables at www.datacenterresearch.org.

Revenue includes total revenues reported by public charities (501 (c)(3)) with gross receipts over \$25,000, that filed annual information reports (Form 990s) with the IRS. Tax-exempt organizations with more than \$5,000 in annual gross receipts must register with the IRS, but they do not have to file the annual information report until they reach annual gross receipts of \$25,000. Religious congregations, denominations, and organizations controlled by religious denominations have automatic section 501(c)(3) status and are not required to register or file. Foundations of any size must register and file. Total revenue includes contributions, gifts, grants, net special events income, investment income, program services and contracts, dues, net sales, and other income.

PUBLIC SAFETY

Data reflects known offenses (not arrests or convictions) per 100,000 population. Crime rates are not available for agencies that report data for less than 12 months of a year. Violent crime includes murder and non-negligent manslaughter; forcible rape; robbery; and aggravated assault. Property crime includes burglary, larceny-theft, and motor vehicle theft. The FBI uses population estimates that are lagged by one year and based on provisional estimates. This is a particular problem post-Katrina, causing distortedly low 2006 crime rates for Orleans Parish. For this reason we recalculate the 2006 crime rates for Orleans Parish and the metropolitan area based on the Census Bureau's 2006 population estimates (vintage 2009). Data for 1995-2009 includes estimates by the FBI when agencies fail to report. Data for 1982-1994 does not include estimates for missing data. Thus, St. Bernard crime and population is excluded for years 1982-1994, and St. John crime and population is excluded for years 1982-1985, and 1987. Due to changes in reporting practices, annexations, and/or incomplete data, 2000 figures are not comparable to previous years' data. The FBI strongly cautions users against making direct comparisons of crime rates between cities. The rest of metro New Orleans includes St. James Parish for the years 1995-2002, and 2013. The FBI did not publish 2005 crime data for metro New Orleans. For 2009, the FBI determined that St. Bernard Parish did not follow national UCR Program guidelines for reporting an offense and did not publish property crime data for metro New Orleans. Consequently, the property crime rate for the rest of metro New Orleans area could not be calculated.

PUBLIC CORRUPTION

Convictions for violations of federal corruption laws include federal, state and local officials, and private individuals convicted in a public corruption case as reported by the U.S. Department of Justice's Public Integrity Section. Convictions are reported by Judicial District. There are 92 Judicial Districts in the United States. New Orleans is in the Eastern District of Louisiana, which consists of the following thirteen (13) parishes: Assumption, Jefferson, Lafourche, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John,

St. Tammany, Tangipahoa, Terrebonne, and Washington. Judicial Districts vary substantially in size. For example, the Eastern District of Louisiana serves a population of over 1.5 million while the Middle District of Florida serves over 11 million people.

HOUSING AFFORDABILITY

This affordable housing indicator includes occupied units where housing cost as a percentage of household income was computed. The Decennial Census universe is slightly different from the ACS because the former excludes single-family houses on 10 acres or more. Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies over time. The ACS data reflects incomes and rents during a two-year period. The Decennial Census data represents the calendar year.

For renters, changes between 2004 and 2013 were significant at the 95% confidence interval for the United States only and were not significant for New Orleans or the rest of metro New Orleans. For renters in 2013, differences between New Orleans and the United States are significant at the 95% confidence interval. However, differences between the United States and the rest of metro New Orleans are not significant for renters in 2013. Differences between New Orleans and the rest of metro New Orleans are also not significant for renters in 2013.

For homeowners, changes between 2004 and 2013 are significant at the 95% confidence interval for the United States, but not for New Orleans or for the rest of metro New Orleans. For homeowners in 2013, differences between the United States and New Orleans and between New Orleans and the rest of metro New Orleans are significant at the 95% confidence interval. However, the difference for homeowners in 2013 between the United States and the rest of metro New Orleans is not significant.

Sustainability

COMMUTING BY PUBLIC TRANSIT

Data reflects the U.S. Office of Management and Budget (OMB) definition for the New Orleans MSA at the time of each survey, and thus varies slightly over time. Tests of significance were computed at the 95% confidence interval for Orleans Parish. The difference between 2011 and 2013 is not statistically significant. There are statistical differences between all other years for Orleans Parish. Tests of significance were computed at the 95% confidence interval for the rest of metro New Orleans. There are no statistical differences between or among any years. Tests of significance were computed at the 95% confidence interval for the U.S. The differences between and among all years are statistically significant. The differences between all geographies are statistically significant except between Orleans Parish and the U.S. in 2006.

AIR QUALITY

The pollutants used to calculate AQI are: CO, NO₂, O₃, SO₂, PM_{2.5}, and PM₁₀. The AQI includes those pollutants that can impact humans within a few hours or days of breathing the air. Days with AQI less than 100 include categories “good” and “moderate.” Days with AQI greater than 100 include categories “unhealthy for sensitive groups,” “unhealthy,” “very unhealthy,” and “hazardous.” For detailed descriptions of each of these categories, visit airnow.gov. Because weather conditions can strongly influence the AQI, change over time is evaluated by comparing 3-year averages. The federal standards for ozone and sulfur dioxide were strengthened in 2008 and 2010 respectively, and, as a result, although air quality may have improved, AQI days over 100 might not have decreased as a result.

GROUNDWATER SALINITY

The nine sample sites have at least five recorded measurements for salinity, are near wells used for drinking water or industrial uses, and are in or near historical freshwater areas. A chloride concentration greater than 250 mg/L was used as an indicator of the presence of saltwater.

COASTAL WETLANDS

The 1932 and 1956 dataset and the 1973-2010 dataset do not have the same spatial resolution, nor the same source imagery, and interpretation of the data should proceed only with the knowledge that there are issues of comparability between these two time frames. Portions outside of the area of coverage in Pontchartrain Basin in 1932 and 1956 are assumed not to have undergone change with regard to land and water categories between 1932 and 1973 (Refer to USGS SIM 3164 to view the boundaries of data coverage). This assumption is necessary to compare areas for the entire basin and is based on the assumption that those areas which were not covered in the 1932 and 1956 data are typically forested wetlands in the upper portions of the basin. Forested wetlands in this portion of the basin have historically been very stable with regard to change among land and water categories.

Endnotes

EXECUTIVE SUMMARY

1. National Centers for Environmental Information. Billion-Dollar Weather and Climate Disasters: Table of Events. Retrieved from <https://www.ncdc.noaa.gov/billions/events>.
2. Ibid.
3. R. W. Kates, C. E. Colten, S. Laska, and S. P. Leatherman. (2006, October 3). Reconstruction of New Orleans After Hurricane Katrina: A Research Perspective. *Proceedings of the National Academy of Sciences of the United States of America*, 103(40), 14653-14660. Retrieved from http://belfercenter.ksg.harvard.edu/files/xstandard/kates_pnas_katrina_2006.pdf.
4. The Brookings Institution Metropolitan Policy Program. (2005, October). New Orleans After the Storm: Lessons from the Past, a Plan for the Future. Retrieved from http://www.brookings.edu/~media/research/files/reports/2005/10/metropolitanpolicy/20051012_neworleans.pdf
5. Bruneau et al argue that strength, redundancy, resourcefulness and rapidity of restoration are all essential aspects of resilient infrastructure. Bruneau, M., et. al. (2003, November). A Framework to Quantitatively Assess and Enhance the Seismic Resilience of Communities. *Earthquake Spectra*, 19(4), 733–752. Retrieved from <http://www.eng.buffalo.edu/~bruneau/EERI%202003%20Bruneau%20et%20al.pdf>
6. Hill, E., et. al., "Economic Shocks and Regional Economic Resilience," and Foster, "Regional Resilience: How Do We Know It When We See It?"; Katheleen Sherrieb, Fran H. Norris, and Sandro Galea, "Measuring Capacities for Community Resilience," *Social Indicators Research* (2010); and Edward L. Glaeser and Albert Saiz, "The Rise of the Skilled City," (Cambridge: Harvard Institute of Economic Research, 2003); Paton, Douglas. (2003). Disaster preparedness: a social-cognitive perspective. *Disaster Prevention and Management*, 12(3), 210-216.
7. The essays that form The New Orleans Index at Ten collection highlight how the region has used the break in the status quo caused by Katrina and the levee failures to undertake significant reforms in criminal justice systems, housing, and land use planning, to name a just a few.
8. City of New Orleans. New Orleans Preliminary Resilience Assessment. (2005, June). Retrieved from <http://www.nola.gov/resilience/resources/nola-preliminary-resilience-assessment-6-15/>

THE NEW ORLEANS INDEX AT TEN

1. This report identified 65 weak cities that yielded 57 "weak city" metros because a few of the 65 cities were in the same metro area, New Orleans was deleted, and the metro area for one city (Newark, NJ) was omitted as it is part of the much larger and stronger New York City metro area. See: Vey, J.S. (2007). Restoring prosperity: The state role in revitalizing America's older industrial cities. Retrieved on July 25, 2013, from <http://www.brookings.edu/research/reports/2007/05/metropolitanpolicy-vey>.
2. Bureau of Labor Statistics. (2005, June). State and metro area employment, hours, & earnings. Retrieved on July 2, 2013, from <http://www.bls.gov/sae/790faq2.htm#Ques3>. Commercial fishers are typically self-employed and their deckhands often include unpaid family members.
3. Thus, though important to this coastal metro, many commercial fishing jobs are not included in official job estimates.
4. To the extent that production for local consumption can replace the need for imports, this economic activity also increases total production, sales, and income of firms within the region. For general information on traded industries and regional economics, see Hoover E.M., Giarratani, F. (1999). How regions develop. In *An Introduction to Regional Economics*. Retrieved June 21, 2010, from <http://www.ri.wvu.edu/WebBook/Giarratani/chaptereleven.htm#11.3>.
5. The evidence for this relationship is that traded clusters are leading indicators of overall regional job growth or decline. For example, declines in traded industry employment and output typically lead regional economies into recessions and increases in such employment typically lead them into economic recovery.
6. United States Department of Transportation. (2014). Tonnage of top 50 U.S. Water Ports [Data file]. Retrieved from http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/publications/national_transportation_statistics/html/table_01_57.html
7. The Data Center analysis of data from EMSI and The U.S. Cluster Mapping Project.
8. Porter, Michael E. (2003). The Economic Performance of Regions. *Regional Studies*, 37(6&7), 549-578. http://www.clustermapping.us/sites/default/files/files/resource/The_Economic_Performance_of_Regions.pdf
9. Romer, P.M. (2008). Economic growth. In *The concise encyclopedia of economics*. Retrieved on July 1, 2103, from <http://www.econlib.org/library/Enc/EconomicGrowth.html>. 8 Krugman, P.R. (1990). *The age of diminished expectations: U.S. economic policy in the 1990s*. Cambridge, MA: MIT Press. 9 Stangler, D. (2010). High growth firms and the future of the American economy (Firm formation and economic growth series). Retrieved on July 1, 2013, from <http://www.kauffman.org/uploadedfiles/high>
10. Airports Council International. (2012, January). The Economic Impact of Commercial Airports in 2010. Retrieved on June 5, 2015 from, http://www.aci-na.org/sites/default/files/airport_economic_impact_report_2012.pdf.
11. Florida, Richard. (2013). The Boom Towns and Ghost Towns of the New Economy. *The Atlantic*. <http://www.creativeclass.com/rfcgdb/articles/The%20Atlantic%20The%20Boom%20Towns%20and%20Ghost%20Towns%20of%20the%20New%20Economy.pdf>
12. Florida, R. L., & Kenney, M. (1988). Venture Capital, High Technology and Regional Development. *Regional Studies*, 22 (1), 33-48.
13. Powell, W. W., Koput, K. W., Bowie, J. I., & Smith-Doerr, L. (2002). The spatial clustering of science and capital: Accounting for biotech firm-venture capital relationships. *Regional Studies*, 36(3), 291-305.
14. Simon, C.J. & Nardinelli, C. (1996). The talk of the town: Human capital, information, and the growth of English cities, 1861-1961, *Explorations in Economic History*, 33(3), 384-413.
15. Cheeseman Day, J. & Newburger, E.C. (2002). *The big payoff: Education attainment and synthetic estimates of work-life earnings*. Washington, DC: U.S. Census Bureau.
16. Mishel, L., Bivens, J. Gould, E. & Shierholz, H. (2013). *The state of working America*, 12th edition. Ithaca, NY: Cornell University Press.

17. Glaeser, E. & Saiz, A. (2004). The rise of the skilled city. *Brookings-Wharton Papers on Urban Affairs*, 5, 47-94.
18. Gunter, D. L., Orszag, P. R., Kane, Thomas J. (2002, October 11). State Support for Higher Education, Medicaid, and the Business Cycle. The Brookings Institution. Retrieved from <http://www.brookings.edu/research/papers/2002/10/11education-kane>
19. Glaeser, E.L. & Saiz, A. (2004). The Rise of the Skilled City. *Brookings-Wharton Papers on Urban Affairs*, 5, 47-94. Retrieved from <http://www.nber.org/papers/w10191.pdf>.
20. Black, D., Kolesnikova, N., & Taylor, L. (2010). African-American economic progress in urban areas: A tale of 14 American cities. Retrieved June 3, 2013, from <http://research.stlouisfed.org/wp/2010/2010-015.pdf>.
21. Chinhui, J. & Potter, S. (2006). Changes in labor force participation in the United States. *Journal of Economic Perspectives*, 20(3), 27-46. Retrieved June 27, 2013, from <http://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.20.3.27>; Lee, M. A. & Mather, M. (2008). U.S. labor force trends. *Population Bulletin*, 63(2). Retrieved on June 27, 2013, from <http://www.prb.org/pdf08/63.2uslabor.pdf>.
22. Pew Charitable Trusts. (2007). Public safety, public spending: Forecasting America's prison population 2007-2011. Retrieved July 1, 2013, from http://www.pewtrusts.org/uploadedFiles/wwwpewtrustsorg/Reports/State-based_policy/PSPP_prison_projections_0207.pdf.
23. Gendreau, P., Little, T., and Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works. *Criminology*, 34, 575-608. doi: 10.1111/j.1745-9125.1996.tb01220.x.
24. Holzer, H.J. (2009). Collateral costs: Effects of incarceration on employment and earnings among young workers. In S. Raphael and M.A. Stoll (Eds.), *Do Prisons Make Us Safer?* (239-268). New York: Russell Sage Foundation; and Goffman, A. (2009). On the run: Wanted men in a Philadelphia ghetto. *American Sociological Review*, 74(3), 339-357
25. Pager, D. (2003). The mark of a criminal record. *American Journal of Sociology*, 108(5), 937-975. Retrieved May 7, 2013, from http://www.princeton.edu/~pager/pager_ajs.pdf; Solomon, Amy. (2012). In search of a job: Criminal records as barriers to employment. *NIJ Journal*, 270, 42- 51. Retrieved May 7, 2013, from <http://www.crime-scene-investigator.net/NIJ-JobCriminalRecords.pdf>.
26. Mumola, C. J. (2000). Incarcerated parents and their children. Retrieved on August 2, 2013, from <http://www.bjs.gov/content/pub/pdf/iptc.pdf>. See also, Wildeman, C. and Western, B. (2008) Incarceration in fragile families. Retrieved on August 2, 2013, from http://futureofchildren.org/futureofchildren/publications/docs/20_02_08.pdf.
27. See "The New Orleans Index at Ten Collection: Criminal Justice: Changing Course on Incarceration." (New Orleans, The Data center, 2015) available at https://s3.amazonaws.com/gnocdc/reports/The+Data+Center_NOI10_Changing+Course+on+Incarceration.pdf
28. Jargowsky, P. (1997). *Poverty and place: Ghettos, barrios and the American city*. New York: Russell Sage Foundation.
29. Sohmer, R. (2005). Mind the gap: Reducing disparities to improve regional competitiveness in the Twin Cities. Retrieved on July 1, 2013, from http://www.brookings.edu/~media/research/files/reports/2005/10/cities%20sohmer/20051027_mindthegap.pdf
30. Pastor, Jr., M., Dreier, P., Grigsby III, J.E., and Lopez-Garza, M. (2000). *Regions that work: How cities and suburbs can grow together*. Minneapolis, MN: University of Minnesota Press.
31. Berube, A. & Tiffany, T. (2004). The shape of the curve: Household income distributions in U.S. cities, 1979- 1999. Retrieved on July 1, 2013, from http://www.brookings.edu/~media/research/files/reports/2004/8/ useconomics%20berube/20040803_income.
32. Glaeser, E. L., Resseger, M., Tobio, K. (2009). Inequality in Cities. *Journal of Regional Science*, 49(4), 615-646. Retrieved from <http://scholar.harvard.edu/files/resseger/files/glaeserressegertobiojrs.pdf>.
33. Berube, A. (2014, February 20). All Cities Are Not Unequal. The Brookings Institution. Retrieved from <http://www.brookings.edu/research/papers/2014/02/cities-unequal-berube>.
34. Florida, Richard. (2015, January 6). The Connection Between Successful Cities and Inequality. CityLab. Retrieved from <http://www.citylab.com/politics/2015/01/the-connection-between-successful-cities-and-inequality/384243/>.
35. Louisiana Department of Education. (n.d.). School performance score. Retrieved from <http://www.louisianabelieves.com/accountability/school-performance-scores>
36. Ibid.
37. Louisiana Department of Education. (2014). Louisiana cohort graduation rate continues to increase. Retrieved from <http://www.louisianabelieves.com/newsroom/news-releases/2014/07/11/louisiana-cohort-graduation-rate-continues-to-increase>
38. The adjusted cohort graduation rate (ACGR) is considered the most accurate measure available for reporting on-time graduation rates. A 4-year ACGR is defined as the number of students who graduate in 4 years with a regular high school diploma divided by the number of students who form the adjusted cohort for that graduating class. The term adjusted cohort means the students who enter grade 9 plus any students who transfer into the cohort in grades 9–12 minus any students who are removed from the cohort because they transferred out, moved out of the country, or were deceased. It was not until the 2010-2011 that all states used this common measure of graduation rates. See National Center for Education Statistics. (2014). Public high school four-year on-time graduation rates and event dropout rates: School years 2010-11 and 2011-12. Retrieved from <http://nces.ed.gov/pubs2014/2014391/> See also U.S. Department of Education. (2012). States report new high school graduation rates using more accurate, common measure. Retrieved from <http://www.ed.gov/news/press-releases/states-report-new-high-school-graduation-rates-using-more-accurate-common-measure> and
39. Witt, P.A. & Caldwell, L.L. (2010). The rationale for recreation services for youth: An evidenced based approach. Retrieved on July 8, 2013, from http://www.nrpa.org/uploadedFiles/nrpa.org/Publications_and_Research/Research/Papers/Witt-Caldwell-Full-Research-Paper.pdf.
40. Sellers, S., Perry, A., Sams-Abiodun, P., Plyer, A., and Ortiz, E. (2012). Building an inclusive, high-skilled workforce for New Orleans' next economy. Retrieved on September 28, 2012, from <http://www.gnocdc.org/Workforce/index.html>.
41. The National Collaboration for Youth. (2011). The impact of youth development programs on student academic achievement. Retrieved from <http://nationalassembly.org/Knowledge/documents/SchoolSuccessBrief.pdf>
42. The Data Center used the same 22 National Taxonomy of Exempt Entities (NTEE) codes selected by the Bridgespan Group to identify youth-serving organizations in their 2010 report titled *Four pillars of growth for youth-serving nonprofits*. Retrieved from <http://www.bridgespan.org/getmedia/184d6313-8266-4226-ab77-bb-b915eab337/Four-Pillars-of-Growth-for-Youth-Serving-Nonprofits.pdf.aspx>
43. Sole-Olle, A. and Sorribas-Navarro, P., (2014, July). Does Corruption Erode Trust in Government? Evidence from a Recent Surge of Local Scandals in Spain. Retrieved on June 22, 2015, from <http://ssrn.com/abstract=2470384>.

44. Simpson, D., Gradel T. J., Mouritsen, M., and Johnson, J. (2015, May). Chicago: Still the Capital of Corruption, Anti-Corruption Report Number 8. Retrieved on June 22, 2015, from <http://pols.uic.edu/political-science/chicago-politics/anti-corruption-reports>. Historically, from 1976 to 2013, The Eastern District of Louisiana had the 14th highest number of Convictions for Violations of Federal Corruption Laws out of the 92 judicial districts in the U.S.
45. Plyer, A. & Ortiz, E. (2011). Drivers of housing demand: Preparing for the impending elder boom. Retrieved on July 8, 2013, from <http://www.gnocdc.org/DriversOf-HousingDemand/index.html>; and Greater New Orleans Community Data Center analysis of data from American Community Survey 2004, 2011.
46. Turner, S., Sandt, L., Toole, J. Benz, R., & Patten, R. (2006). Federal Highway Administration University course on bicycle and pedestrian transportation (Publication No. FHWA-HRT-05-133). McLean, VA: Federal Highway Administration. Retrieved June 28, 2013 from <http://www.fhwa.dot.gov/publications/research/safety/ped-bike/05085/pdf/combinedlo.pdf>.
47. Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes. (2011). Pedestrian and bicycle count report, 2010-2011. Retrieved on June 28, 2013, from http://www.norpc.org/assets/pdf-documents/studies-and-plans/2011_Count_Report_Final.pdf.
48. Reynolds, C.C.O., Harris, M.A., Teschke, K., Crompton, P.A., & Winters, M. (2009). The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature. *Environmental Health*, 8(47).
49. Tomer, A., Kneebone, E., Puentes, R., and Berube, A. (2011). Missed opportunity: Transit and jobs in metropolitan America. Retrieved on July 1, 2013, from <http://www.brookings.edu/research/reports/2011/05/12-jobs-and-transit>.
50. Federal Transit Administration. (n.d.). Transit's role in environmental sustainability. Retrieved July 1, 2013 from http://www.fta.dot.gov/13835_8514.html.
51. Ride New Orleans. (2014). The State of Transit in New Orleans: The Need for a More Efficient, Equitable, and Sustainable System. Retrieved on June 18, 2015 http://rideneworleans.org/wp-content/uploads/2014/07/RideNewOrleans_StateOfTransitSystem_071614_FINAL21.pdf
52. Buchanan, S. (2015, June 1). Louisiana Manages to Meet EPA's Ozone Standard Before an Anticipated Rule Tightening. The Huffington Post. Retrieved from http://www.huffingtonpost.com/susan-buchanan/louisiana-manages-to-meet_b_7530508.html
53. State of Louisiana, Department of Transportation and Development, Office of Public Works, Hurricane Flood Protection and Intermodal Transportation Water Resources Programs. (2008). Groundwater resources in the New Orleans area, 2008. Retrieved on July 8, 2913, from <http://la.water.usgs.gov/publications/pdfs/TR80.pdf>; Environmental Protection Agency. (2013) United States Environmental Protection Agency: Water: Drinking water contaminants, Retrieved on July 8, 2013, from <http://water.epa.gov/drink/contaminants/secondarystandards.cfm>
54. Barlow, P.M. & Reichard, E.G. (2009). Saltwater intrusion in coastal regions of North America. *Hydrology Journal*, 18, 247-60. Retrieved July 24, 2013 from <http://www.samsi.info/sites/default/files/Barlow.pdf>; Freudenburg, W.R., Gramling, R.B., Laska, S. & Erikson, K. (2011). Catastrophe in the making: The engineering of Katrina and the disasters of tomorrow. New York: Island Press. See also, Louisiana Ground Water Resources Commission (2012). Managing Louisiana's groundwater resources with supplemental information on surface water resources: An interim report to the Louisiana legislature. Retrieved June 17, 2013, from <http://dnr.louisiana.gov/assets/docs/conservation/groundwater/12.Final.GW.Report.pdf>.
55. State of Louisiana, Executive Department. (2012). State of emergency – saltwater intrusion in Mississippi River. Baton Rouge, LA. Retrieved July 24, 2013 from <http://gov.louisiana.gov/assets/docs/87%20BJ%202012%20State%20of%20Emergency%20-%20Saltwater%20Intrusion.pdf>; Barlow, P. (2013). Freshwater-saltwater interactions along the Atlantic Coast: Saltwater Intrusion. Retrieved July 24, 2013 from <http://water.usgs.gov/ogw/gwrp/saltwater/salt.html>.
56. Barlow, P.M. & Reichard, E.G. (2009); Freudenburg, W.R., Gramling, R.B., Laska, S. & Erikson, K. (2011); and Louisiana Ground Water Resources Commission (2012). State of Louisiana, Department of Transportation and Development, Office of Public Works, Hurricane Flood Protection and Intermodal Transportation Water Resources Programs. (2008).
57. Louisiana Ground Water Resources Commission (2012); and State of Louisiana, Department of Transportation and Development, Office of Public Works, Hurricane Flood Protection and Intermodal Transportation Water Resources Programs. (2008).
58. State of Louisiana, Executive Department. (2012). State of emergency – saltwater intrusion in Mississippi River. Baton Rouge, LA. Retrieved July 24, 2013 from <http://gov.louisiana.gov/assets/docs/87%20BJ%202012%20State%20of%20Emergency%20-%20Saltwater%20Intrusion.pdf>; Barlow, P. (2013). Freshwater-saltwater interactions along the Atlantic Coast: Saltwater Intrusion. Retrieved July 24, 2013 from <http://water.usgs.gov/ogw/gwrp/saltwater/salt.html>.
59. Costanza, R., Perez-Maqueo, O., Martinez, M.L., Sutton, P., Anderson, S.J., and Mulder, K. (2008). The value of coastal wetlands for hurricane protection. *AMBIO: A Journal of the Human Environment*, 37(4), 241–248.
60. Coastal Protection and Restoration Authority. (2012). Louisiana's comprehensive master plan for a sustainable coast. Retrieved on June 24, 2014, from The State of Louisiana website <http://coastal.la.gov/a-common-vision/2012-coastal-master-plan/>

The Data Center is the most trusted resource for data about greater New Orleans and Southeast Louisiana. Since 1997, The Data Center has been an objective partner in bringing reliable, thoroughly researched data to conversations about building a more prosperous, inclusive, and sustainable region.

The Data Center (formerly known as the Greater New Orleans Community Data Center) became the local authority for tracking post-Katrina recovery with *The New Orleans Index*, developed in partnership with the Brookings Institution.

Principal Authors



ALLISON PLYER, Executive Director & Chief Demographer

Dr. Plyer is recognized as an international expert in post-Katrina demographics and disaster recovery trends. Dr. Plyer is co-editor of *Resilience and Opportunity: Lessons from the U.S. Gulf Coast after Katrina and Rita*, published by the Brookings Institution Press and contributor to publications by the National Academies Press. She frequently provides commentary on regional recovery and development to local and national media such as WBOK radio, the New Orleans Advocate, the New Orleans Times-Picayune, National Public Radio, The Associated Press, and The New York Times.



NIHAL SHRINATH, Data Manager & Research Associate

Mr. Shrinath is an economic scholar with an acute passion for demographic and geographic trends as well as issues of urban revitalization and environmental sustainability. He leads The Data Center's research on the development of the water management cluster in Southeast Louisiana, and is the lead author of *The Coastal Index 2015: Tracking Development of the Water Management Cluster in Southeast Louisiana*. Mr. Shrinath also provides research and analysis for The Data Center's many information products.



VICKI MACK, Senior Research Fellow

Dr. Mack is an expert in developmental psychology and juvenile delinquency who has examined community-based programs designed to serve youth, the social and demographic factors associated with juvenile delinquency, and juvenile offenders' responsiveness to interventions. She joined The Data Center after holding positions as a statistician and data dissemination specialist for the U.S. Census Bureau. She leads The Data Center's research on children and youth and she is the author of *New Orleans Kids, Working Parents, and Poverty*.