



HR&A

NASSAU + SUFFOLK COVID-19 ECONOMIC IMPACT

Final Report

July 8, 2020

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Executive Summary

GOALS OF STUDY



HR&A was engaged by the Nassau County IDA and Suffolk County IDA to:

Develop a dynamic approach to measure the real-time economic impact of COVID-19 on the regional economy in terms of both depth & distribution

Understand the specific geographies, populations, and business sectors that have been disproportionately impacted by the COVID crisis, and how this might in turn impact local governments

Use these findings to inform local decision-making, requests for resources, and near- and long-term resilience planning

KEY FINDINGS



- The **unprecedented nature** of the crisis is rewriting the fundamental patterns of local economies in real-time, requiring **new and dynamic approaches** to measuring impact
- Long Island has been particularly hard hit by the dual health + economic crises, **shedding jobs at a faster rate compared to NYC and surrounding suburbs** during early months of the crisis
- Net job losses to-date total **220K** and may reach as high as **375K** in 2020, reducing local earnings by as much as **\$21B** and local economic activity by **\$61B**
- As a multi-year economic crisis, earnings and spending losses **may be even greater in 2021** owing to prolonged recovery within some sectors coupled with expiring unemployment benefits
- COVID-related job and earnings losses will have a **tremendous impact on sales tax revenues**, the primary source of revenue for both counties. These impacts will be **felt in 2020, 2021, and beyond**
- Job losses are concentrated among **low-paying** jobs, workers with **low levels of education**, and **Hispanic/Latino workers** on Long Island. Existing economic disparities, including disparate access to credit, opportunity and mobility, and affordable housing may make it more difficult for these populations to recover
- County governments are working to leverage state and federal resources to **support business operations**, **restore consumer confidence**, and **assist hard-hit sectors**, but **additional Federal resources are crucial** to the region's recovery

A DUAL CRISIS

CUMULATIVE WEEKLY INITIAL
UNEMPLOYMENT CLAIMS ON LONG ISLAND

1,500
3/14

316,000
5/16

TOTAL COVID-19 CASES
ON LONG ISLAND

125
3/14

77,000
5/16

We are facing a dual crisis—an unprecedented global health emergency coupled with the fastest rise in unemployment on record.

OUR APPROACH

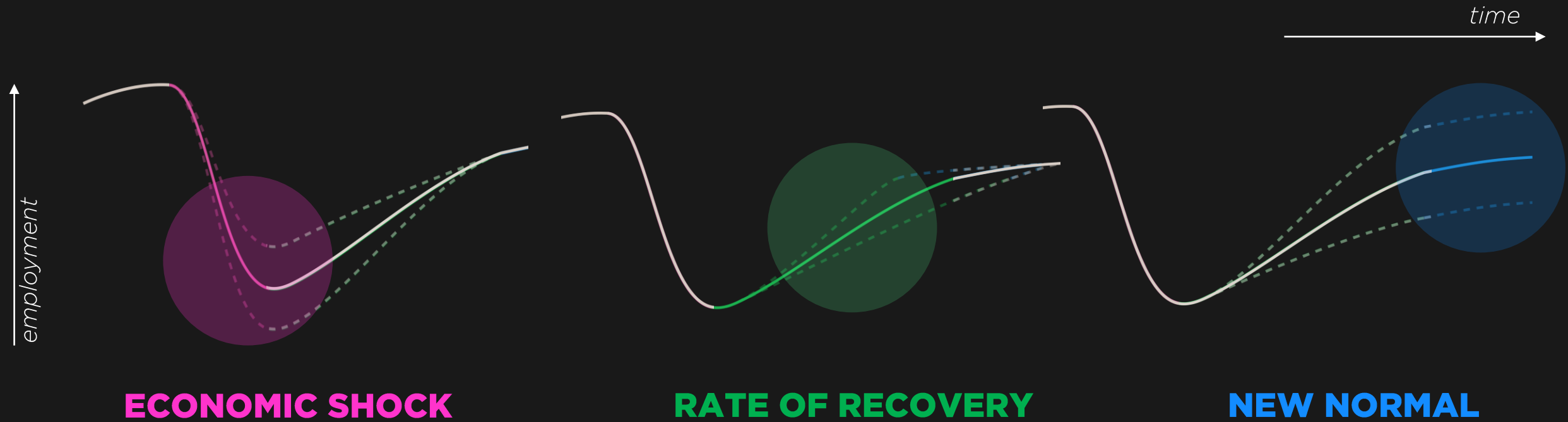


The unprecedented nature of the COVID crisis is rewriting the fundamental patterns of local economies in real-time, requiring new approaches to projecting impact. Our analysis therefore:

- Draws upon a variety of data sources to project the **initial economic shock** from COVID-19 by sector, including documented monthly job losses from the U.S. Bureau of Labor Statistics and weekly initial Unemployment Insurance claims from the New York State Department of Labor
- Expands upon precedent impact studies and methodologies and consults other economic forecasts to identify differential **rates of recovery**
- Considers the perspectives of local industry groups and civic organizations to project “**new normal**” levels of economic activity

Total economic and fiscal impacts reflect the combined industry effects across the three phases of economic shock, recovery, and stabilization.

SHOCK + RECOVERY



How deep is the initial impact of business shutdowns and reductions in consumer demand?

When will businesses reopen and how well-positioned are they to resume full operations?

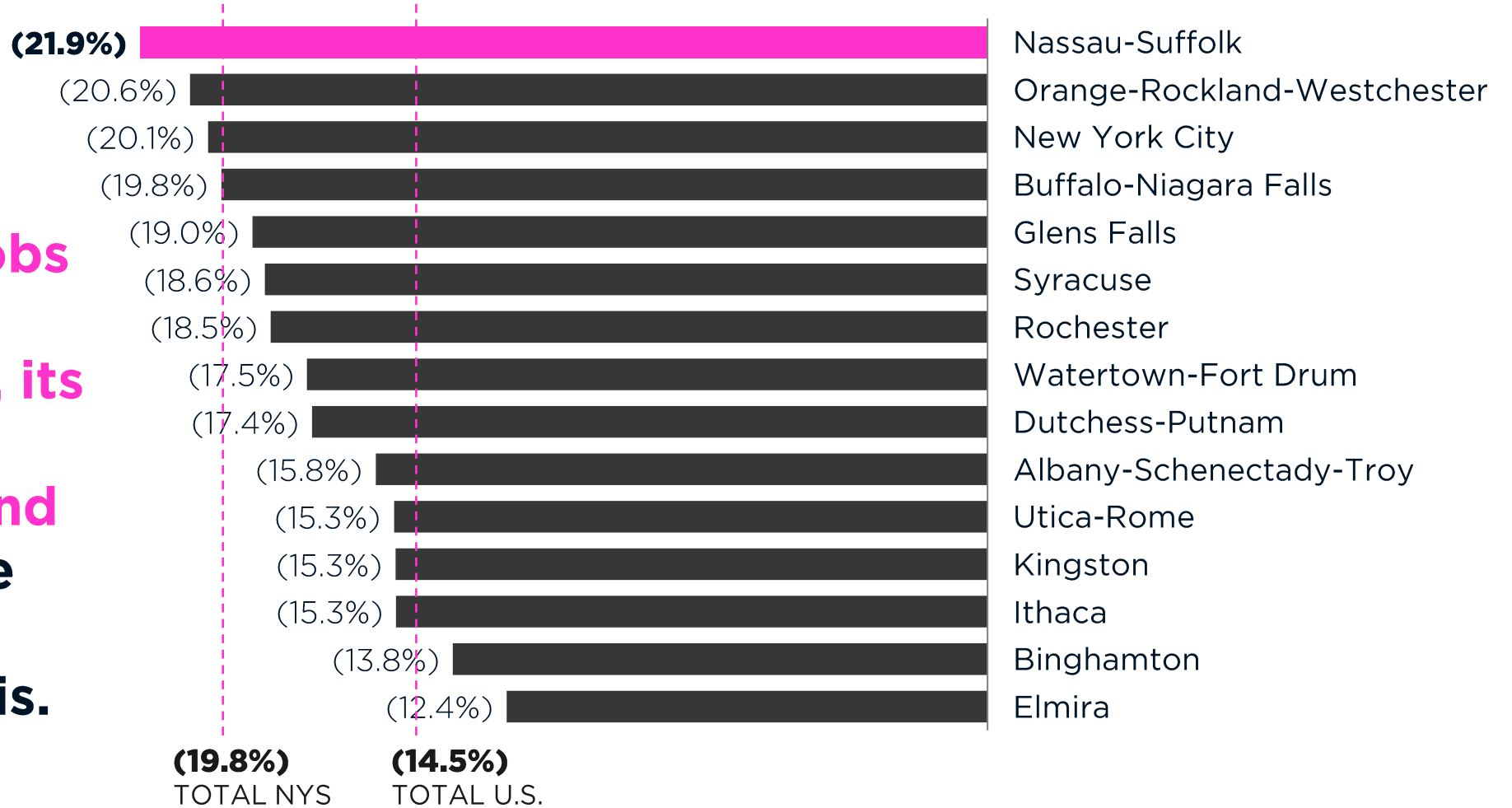
What share of pre-COVID jobs will be recovered at stabilization?

SHOCK

Long Island businesses shed jobs at a faster rate compared to NYC, its northern suburbs, New York State, and the U.S. as a whole during the initial months of the crisis.

Source: U.S. Bureau of Labor Statistics

**PERCENTAGE CHANGE IN TOTAL NON-FARM EMPLOYMENT
FEB-APR 2020 (SEASONALLY ADJUSTED)**



SHOCK



TOTAL JOB LOSSES FROM COVID-19 ON LONG ISLAND PROJECTED AT TROUGH ABSENT SIGNIFICANT POLICY INTERVENTION

270,000

TOTAL INITIAL COVID-RELATED JOB LOSSES ON LONG ISLAND (FEB - APR 2020, NON-SEASONALLY ADJUSTED)

Source: U.S. Bureau of Labor Statistics, NYSDOL, EMSI

145,000 – 175,000*

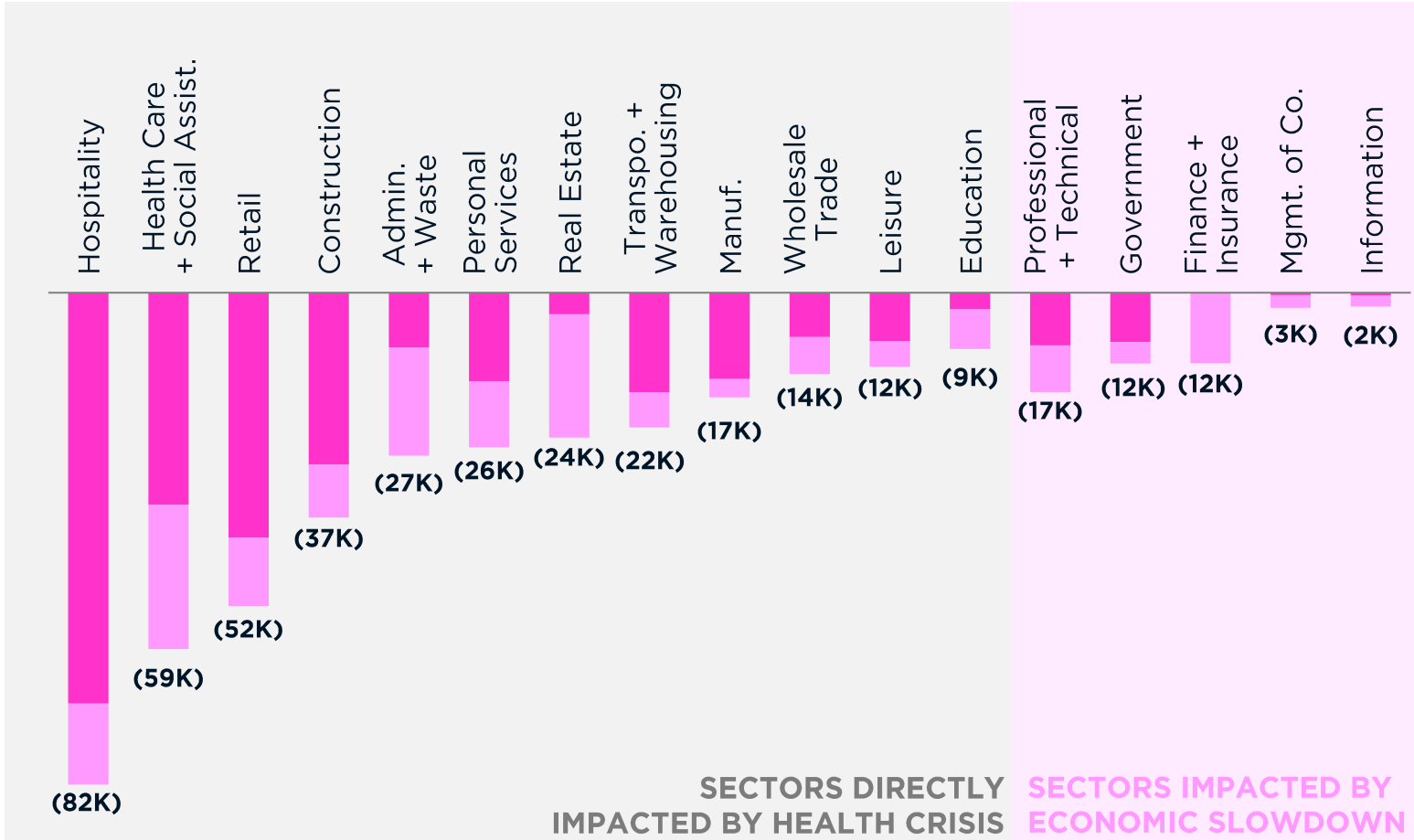
POTENTIAL ADDITIONAL JOB LOSSES OWING TO ONGOING EFFECTS OF THE ECONOMIC SLOWDOWN (MAY 2020-ONWARD)

- Long Island businesses **shed 270K jobs during the first 2 months** of the crisis. Businesses **recouped 48K jobs** in May, as some economic activity curtailed during the pandemic resumed
- Continued supply chain disruptions and reductions in consumer demand are expected to result in an **additional job losses** beyond those recorded to-date. Total job losses in 2020 are expected to reach **375K** relative to pre-COVID levels
- The regional economy is expected to continue showing **net job losses through 2021**, though the pace of job loss will be moderate as segments of the economy begin to recover

COVID-19 ECONOMIC IMPACT | EXECUTIVE SUMMARY

SHOCK

TOTAL PROJECTED JOB LOSSES ON LONG ISLAND BY INDUSTRY, FEB 2020 THRU TROUGH (NON-SEASONALLY ADJUSTED)



- **>90%** of initial job losses were in sectors directly impacted by the health crisis
- **2/3** of total projected job losses within directly impacted sectors occurred during the first 2 months of the crisis, when economic activity was severely curtailed by COVID and efforts to contain it
- A majority of follow-on job losses, or those in **sectors primarily impacted through the effects of economic slowdown**, are expected to occur **after the initial shock period**

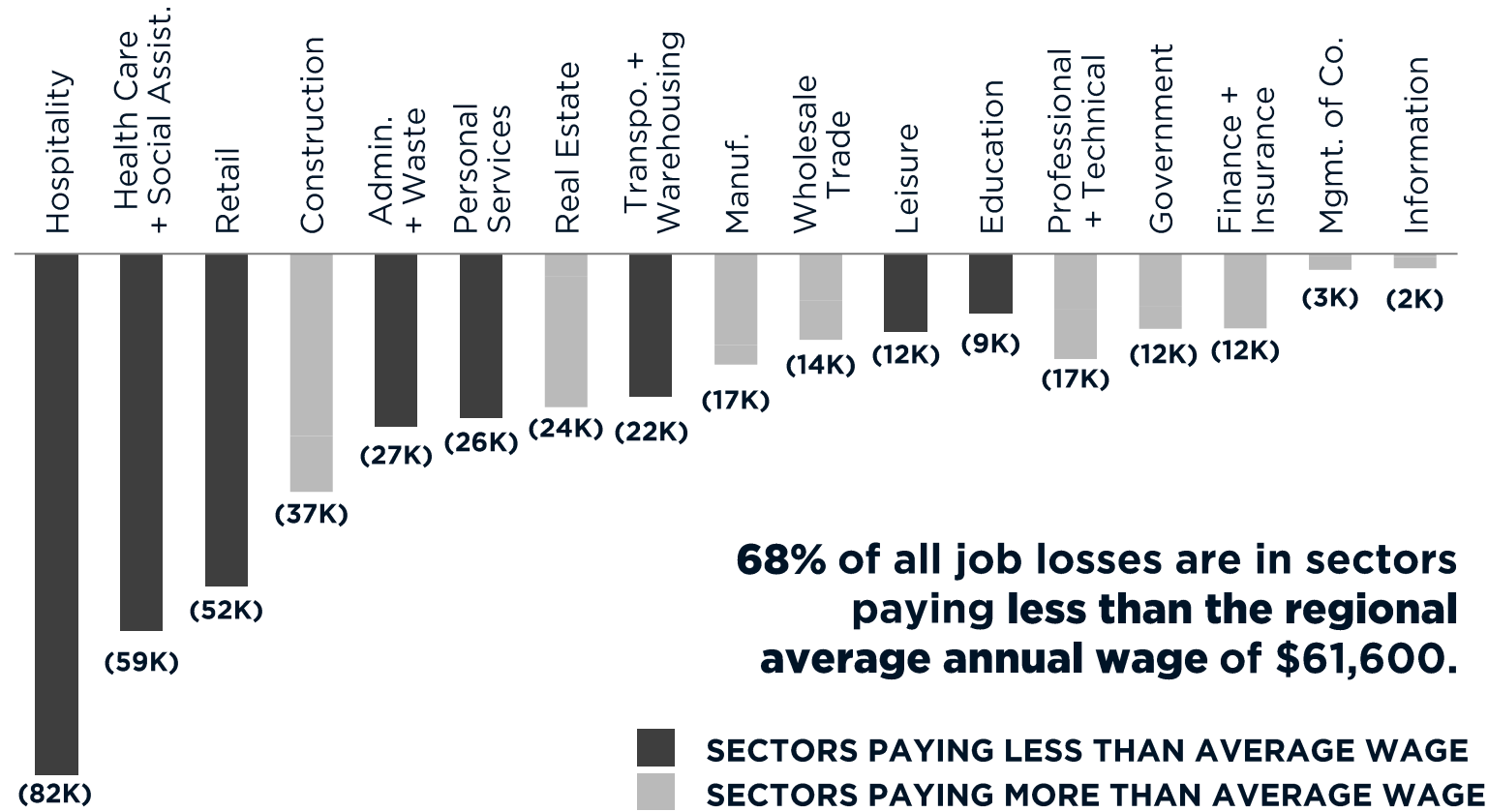
■ INITIAL JOB LOSSES (FEB - APR 2020)
 ■ FOLLOW-ON JOB LOSSES (MAY 2020 - TROUGH)

Source: U.S. Bureau of Labor Statistics, NYS DOL, EMSI

DISPARATE IMPACT



TOTAL PROJECTED JOB LOSSES ON LONG ISLAND BY INDUSTRY, FEB 2020 THRU TROUGH (NON-SEASONALLY ADJUSTED)



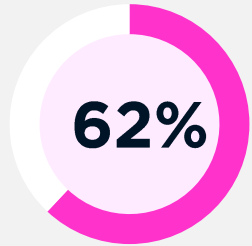
Projected job losses are heavily concentrated among low-earning professions.

The region's lowest-paying sector—Hospitality—experienced the greatest decline during initial months of the crisis, with employment down two-thirds.

Hispanic + Latino workers make up a disproportionate share of Hospitality workers on Long Island (27% vs. 17% of all workers), indicating disparate impacts felt among minority populations.

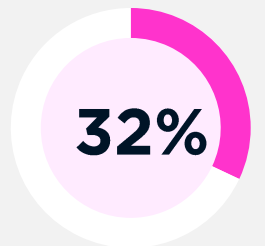
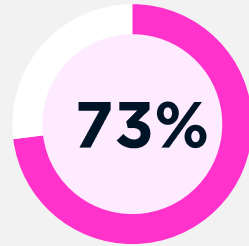
DISPARATE IMPACT

% TOTAL LONG ISLAND JOBS

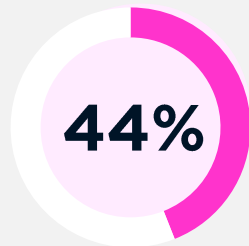


Workers with High School Diploma or Below

% TOTAL COVID-RELATED JOB LOSSES



Jobs Paying <\$35K per Year

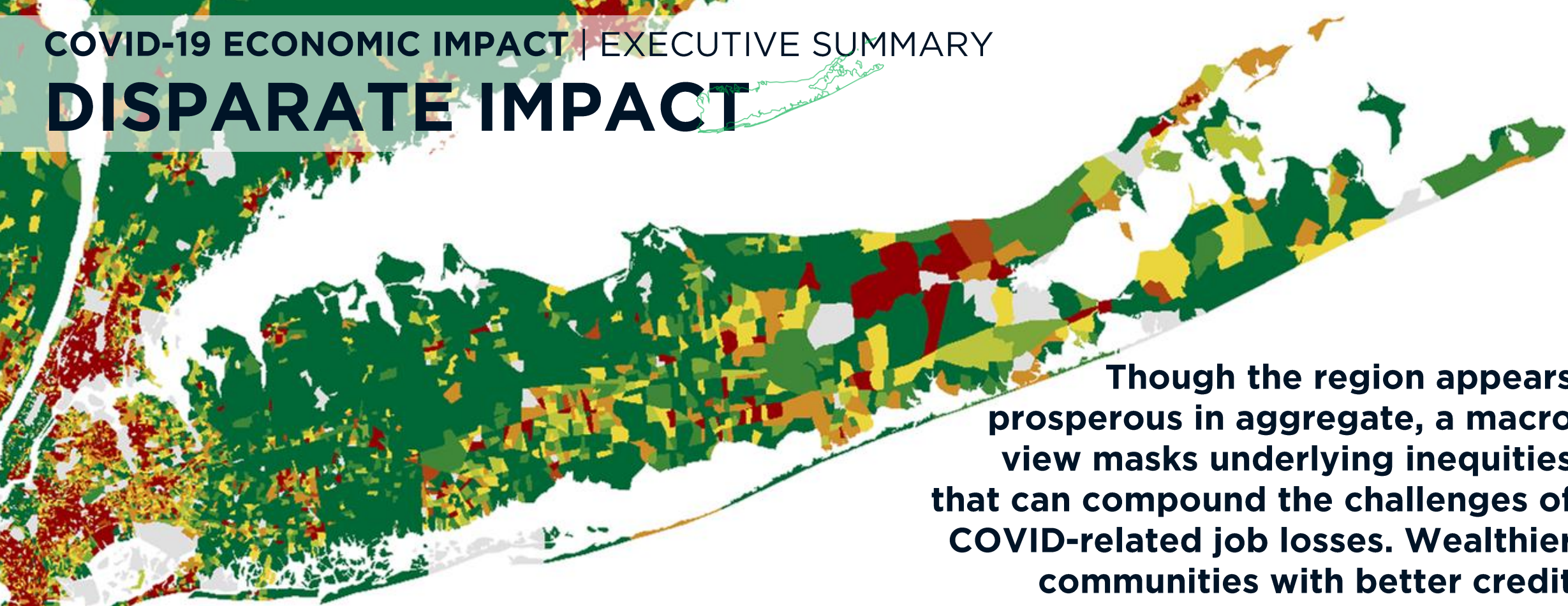


Source: EMSI

Job losses on Long Island are heavily concentrated among workers **without a post-secondary education** and those earning **less than \$35,000 per year**.

In addition to bearing a disproportionate share of job losses, lower-income households and communities of color may suffer from **slower recovery rates owing to pre-existing inequities** like limited credit access, lower mobility and access to opportunity, and lack of affordable housing.

DISPARATE IMPACT



**Median Household Income by
Census Block Group**



Though the region appears prosperous in aggregate, a macro view masks underlying inequities that can compound the challenges of COVID-related job losses. Wealthier communities with better credit access tend to recover faster from disasters such as Superstorm Sandy. Areas of concentrated poverty + restricted capital access should be considered as part of place-based approaches to COVID recovery.

Source: U.S. Census Bureau; Federal Reserve Bank of New York, *Long Island Credit Profile*, 2017.

ECONOMIC IMPACT



TOTAL ANNUAL ECONOMIC IMPACT OF COVID-19 ON LONG ISLAND (2020)

375K

NET JOB LOSSES ON LONG ISLAND
(VS. PRE-COVID LEVELS)

\$21 BILLION

EARNINGS LOSSES AMONG LONG
ISLAND WORKERS

\$61 BILLION

REDUCED ECONOMIC ACTIVITY ON
LONG ISLAND

RECOVERY

Recovery will occur in waves, with the starting point (trough) and duration differing by industry depending on public policy interventions, industry adaptivity, firm-worker dynamics, and business size.

Impact Category	Industries	Trough	Recovery Period	Percent of Jobs Recovered
First Wave	<ul style="list-style-type: none"> • Finance + insurance • Management of co. + enterprises • Professional + technical services • Government • Information 	Q3 2020	6 months (Q1 2021)	95%
Second Wave	<ul style="list-style-type: none"> • Real estate • Retail • Admin + waste services • Agriculture • Construction/utilities • Education • Health care + social assistance • Manufacturing • Wholesale trade • Other services 	Q2 2021	12 months (Q2 2022)	85%
Third Wave	<ul style="list-style-type: none"> • Accommodation + food services • Transportation + warehousing • Arts, entertainment, recreation 	Q4 2021	24 months (Q4 2023)	75%

RECOVERY



SURVEY FINDINGS

Business Recovery:

- **62%** of Nassau County businesses expect to recover in 2021; **10%** expect to recover in 5+ years (Hofstra)
- **6 of 10** higher education institutions on Long Island expect to recover in 5 years (LIRACHE)
- **34%** of real estate firms on Long Island expect to recover in 2021; **29%** expect to recover in 2-5 years (ABLI LIBI Real Estate Survey)

Business Closure:

- **8% of small businesses** (<25 employees) in Nassau County may close this year, compared to **3%** of businesses with more than 25 employees. (Hofstra)
- **50%** of businesses in Suffolk County have closed temporarily; **1%** of businesses have closed permanently (BRU Survey)
- **12%** of real estate firms report that **21%-50% of tenants** are closing down their business (ABLI LIBI Real Estate Survey)
- **One-third** of industrial businesses on Long Island are at risk of closing (HIA-LI)

ROADMAP TO RECOVERY



TIMELINE OF RECENT EVENTS + COUNTY ACTIONS



- Offering **stabilization loans** to small businesses, M/WBEs, and non-profits that did not receive federal stimulus funds
- Addressing **PPE supply needs** through procurement protocols and free PPE for certain small businesses, non-profits, and M/WBEs
- **Surveying local businesses** to understand needs and inform approaches to recovery
- Convening a Coronavirus **Economic Advisory Council** and **Fiscal Impact Task Force**
- Creating a **virtual “one stop shop”** for reopening resources and employment assistance
- **Leveraging open space, streets, and temporarily vacant structures** to expand access to outdoor programming, dining, and entertainment to restore consumer confidence

ROADMAP TO RECOVERY



Additional financial resources are needed to advance the Long Island region's recovery, including **budgetary relief** for local governments as well as additional support for **people, businesses, and places**, to include:

Financial

- **Federal funding** as outlined in the HEROES Act passed by the House, which included \$375B in **budgetary relief for local governments** to help avoid cuts to public services, layoffs, and/or tax increases, all of which could further negatively impact the local economy.
- **Extension of benefits** for workers and businesses given the on-going impacts of the pandemic and the likelihood of **multi-year impacts**.
- **Federal infrastructure funds** to address long-term impacts to the built environment, spur job creation, and transform the region to become more resilient in the face of future cataclysmic events and economic shocks.
- Continued federal relief programs to support **small businesses, encourage new businesses**, and recover **heavily impacted industries**.
- Assistance to states and counties for **workforce development, job retraining**, and **equity initiatives** in disproportionately affected communities and populations.

ROADMAP TO RECOVERY



Other interventions to advance this recovery framework include:

Regulatory

- Streamlining local approvals and permitting processes to **ensure 'shovel ready' construction work** is in the pipeline.
- **Developing policy changes and revitalization strategies** that target heavily impacted industries (e.g. Hospitality, Healthcare, Retail, and Construction) and commercial corridors (e.g. village downtowns and Main Streets).

Programmatic

- **Investing in training and reskilling for workers disproportionately impacted** by the crisis, many of whom will be limited in their ability to find alternative job opportunities given a mismatch between existing skills and those needed to access jobs in sectors quickest to recover.
- Partnering with local businesses and institutions to develop **on-the-job training programs.**



Stony Brook Medicine

 Stony Brook
University Hospital

Baseline Conditions



1,357,000
RESIDENTS (2019)

631,550
WORKERS (2019)

\$116K
MEDIAN HOUSEHOLD INCOME
(2018)

1,477,000
RESIDENTS (2019)

663,300
WORKERS (2019)

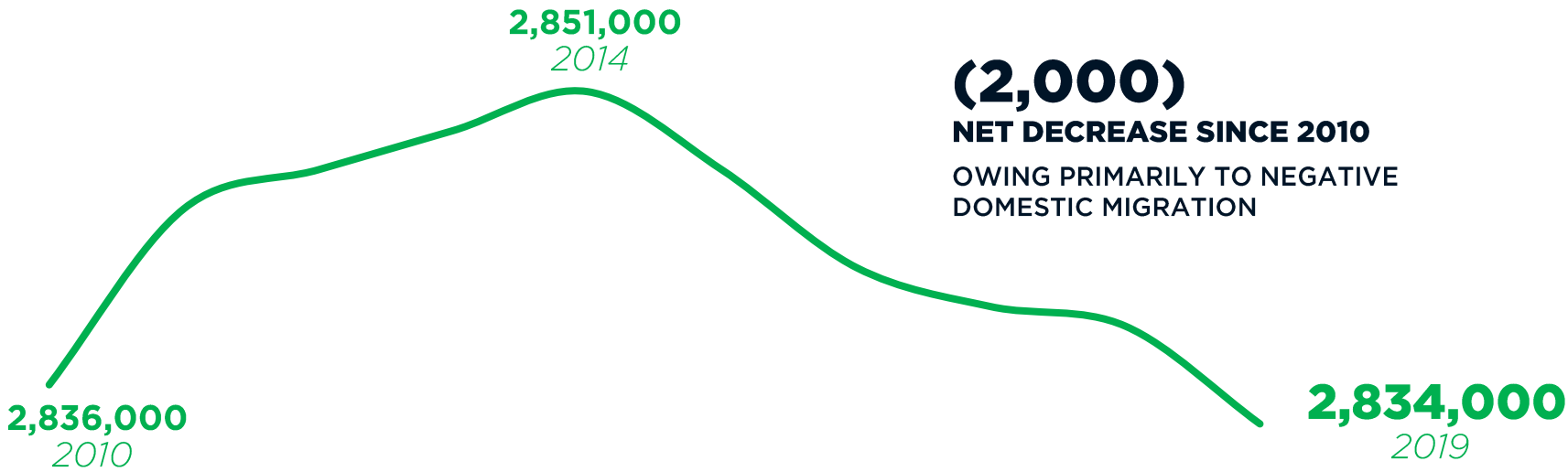
\$100K
MEDIAN HOUSEHOLD INCOME
(2018)

2,834,000
LONG ISLAND RESIDENTS (2019)

1,294,850
WORKERS (2019)

\$107K
MEDIAN HOUSEHOLD INCOME
(2018)

LONG ISLAND POPULATION (2010-2019)

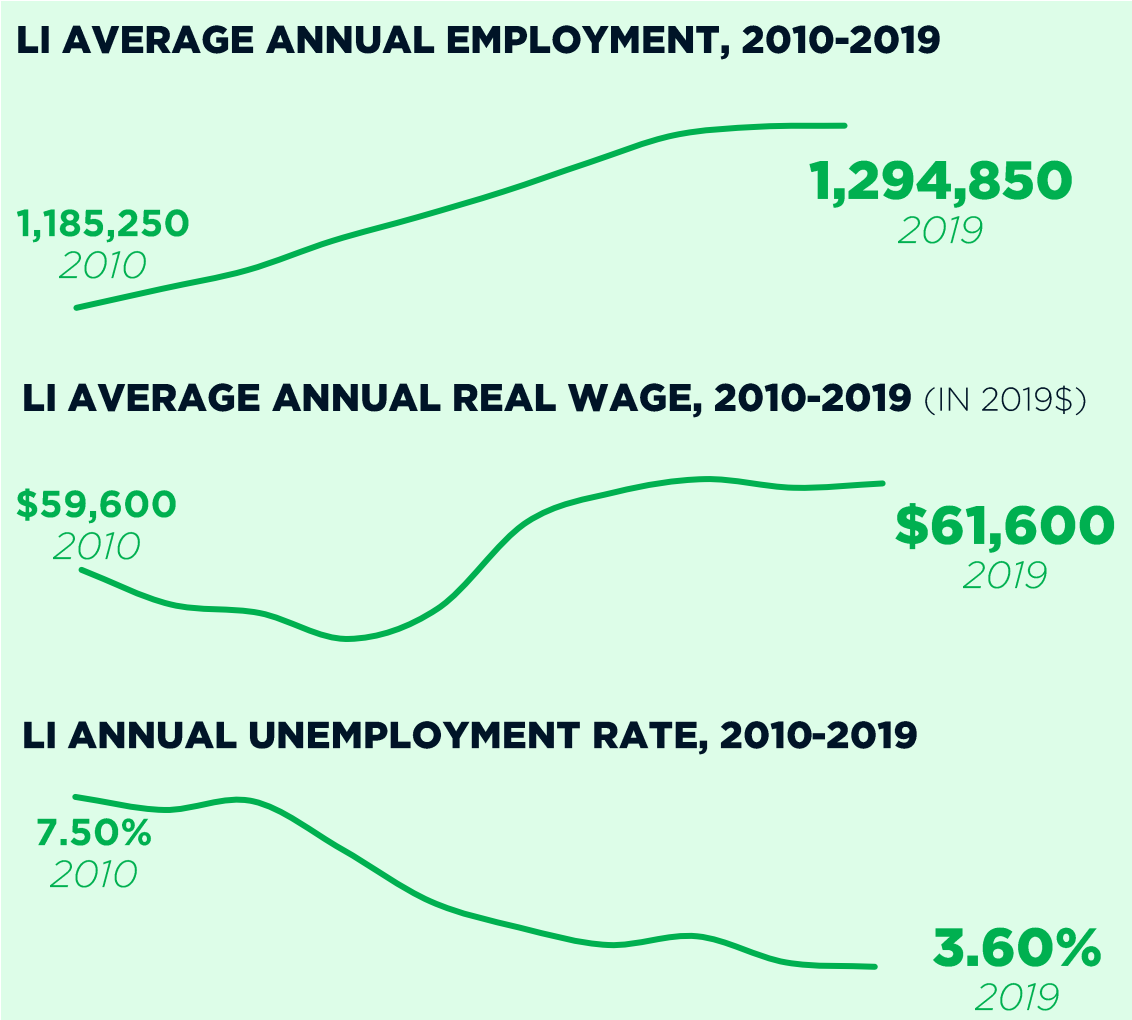


The total population of Long Island is in decline owing primarily to domestic out-migration. A limited stock of affordable housing further contributes to brain drain throughout the region, with the share of young adult and adult populations declining since 2000.

	SHARE OF TOTAL POPULATION AGES <18	SHARE OF TOTAL POPULATION AGES 25-44	NATIVE BORN SHARE OF TOTAL POPULATION
2000	25%	30%	86%
2018	21%	24%	81%
2000-2018 Loss	(95K)	(157K)	(63K)

BASELINE | ECONOMIC TRENDS

Businesses on Long Island experienced slower job and wage growth over the past decade relative to statewide trends. Resident unemployment rates on Long Island were lower than that of the state in 2019.



9%
109,600 NET JOB GROWTH, 2010-2019

3.4%
INCREASE IN REAL AVG. ANNUAL WAGES, 2010-2019

3.6%
UNEMPLOYMENT RATE, 2019



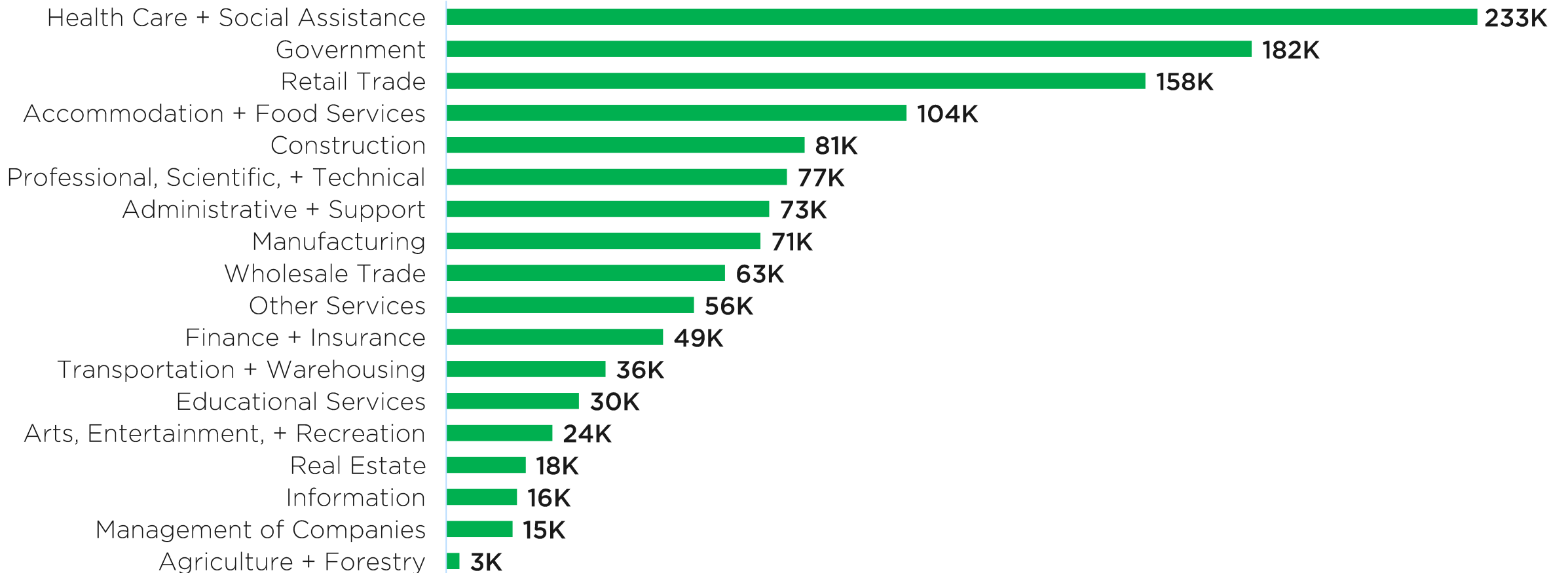
14%
1,157,00 NET JOB GROWTH, 2010-2019

7.5%
INCREASE IN REAL AVG. ANNUAL WAGES, 2010-2019

4.0%
UNEMPLOYMENT RATE, 2019

TOTAL LONG ISLAND EMPLOYMENT BY INDUSTRY, 2019

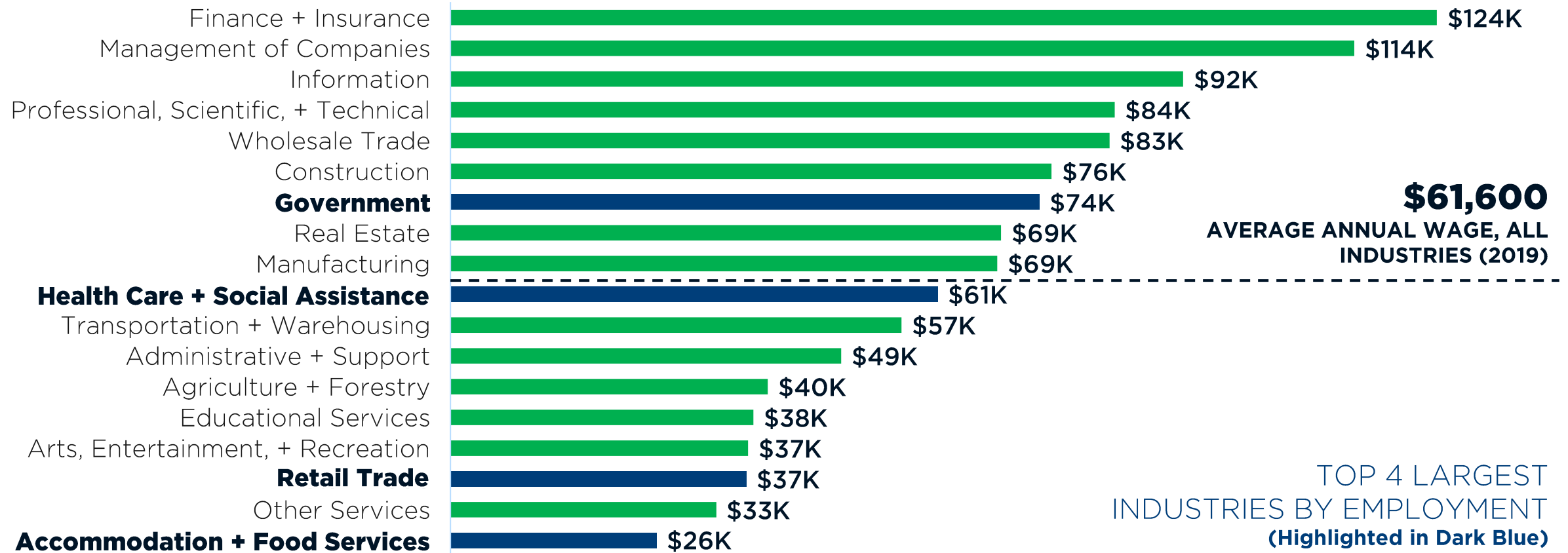
The four largest industries on Long Island (Health Care + Social Assistance, Government, Retail, and Accommodation + Food) accounted for more than half (53%) of all employment on Long Island in 2019.



BASELINE | INDUSTRY TRENDS

AVERAGE ANNUAL WAGE BY INDUSTRY, 2019

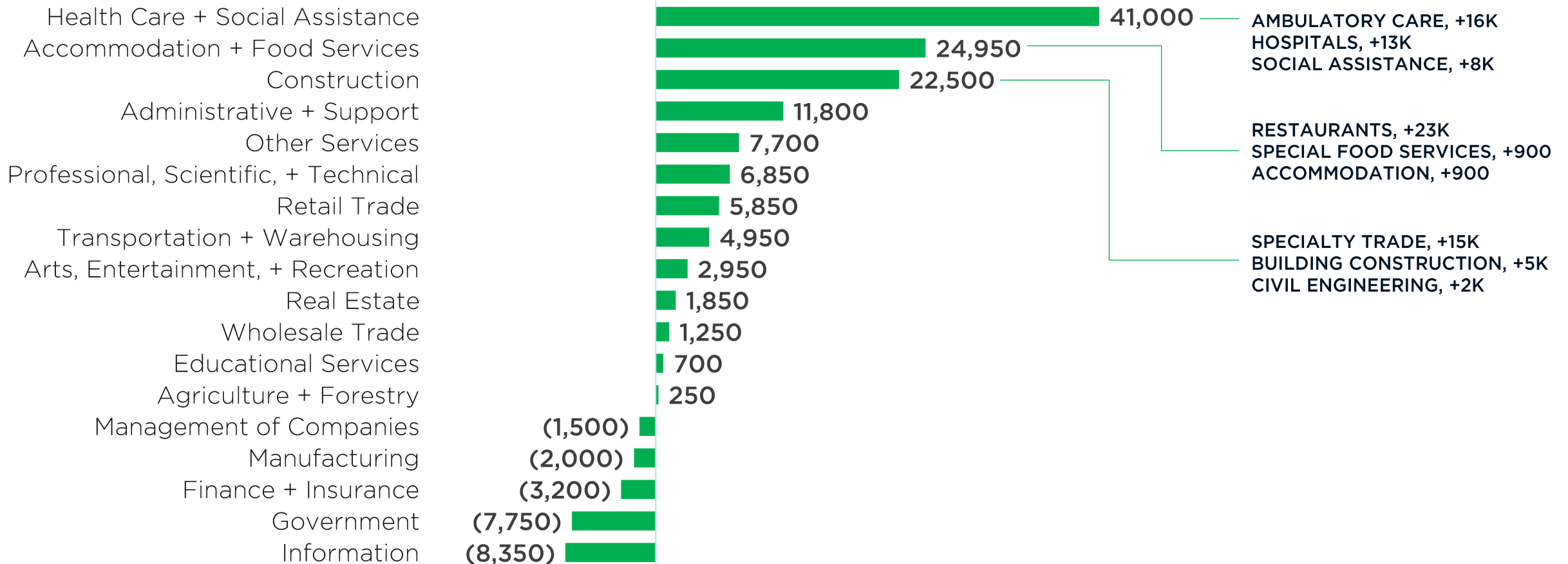
Some of the largest and fastest-growing industries on Long Island pay lower-than-average wages. Health Care, Retail, and Accommodation + Food pay average annual wages at or below the region-wide average of \$62K.



BASELINE | INDUSTRY TRENDS

LONG ISLAND JOB GROWTH BY INDUSTRY, 2010-2019

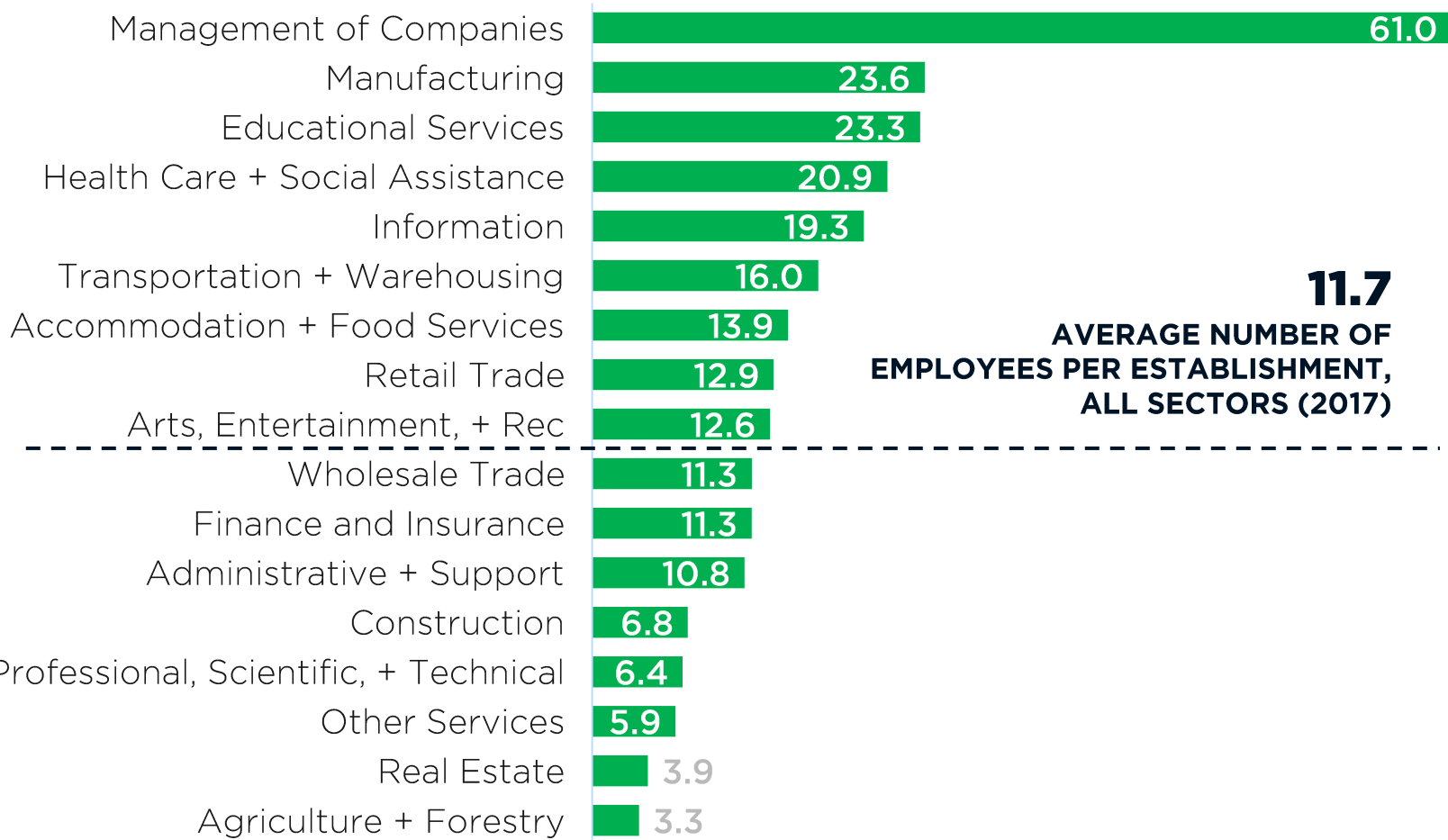
The three fastest-growing sectors—Health Care + Social Assistance, Accommodation + Food, and Construction—accounted for 80% of net total job growth on Long Island over the last decade.



BASELINE | BUSINESS TRENDS

AVERAGE NUMBER OF EMPLOYEES PER ESTABLISHMENT (2017)

The overwhelming majority of businesses on Long Island are small- or mid-sized. Nearly two-thirds (64%) of establishments on Long Island have fewer than 5 employees, compared to 54% of firms nationwide.



98,400

TOTAL ESTABLISHMENTS IN LONG ISLAND (2017)

64%

ESTABLISHMENTS WITH FEWER THAN 5 EMPLOYEES

79%

ESTABLISHMENTS WITH FEWER THAN 10 EMPLOYEES

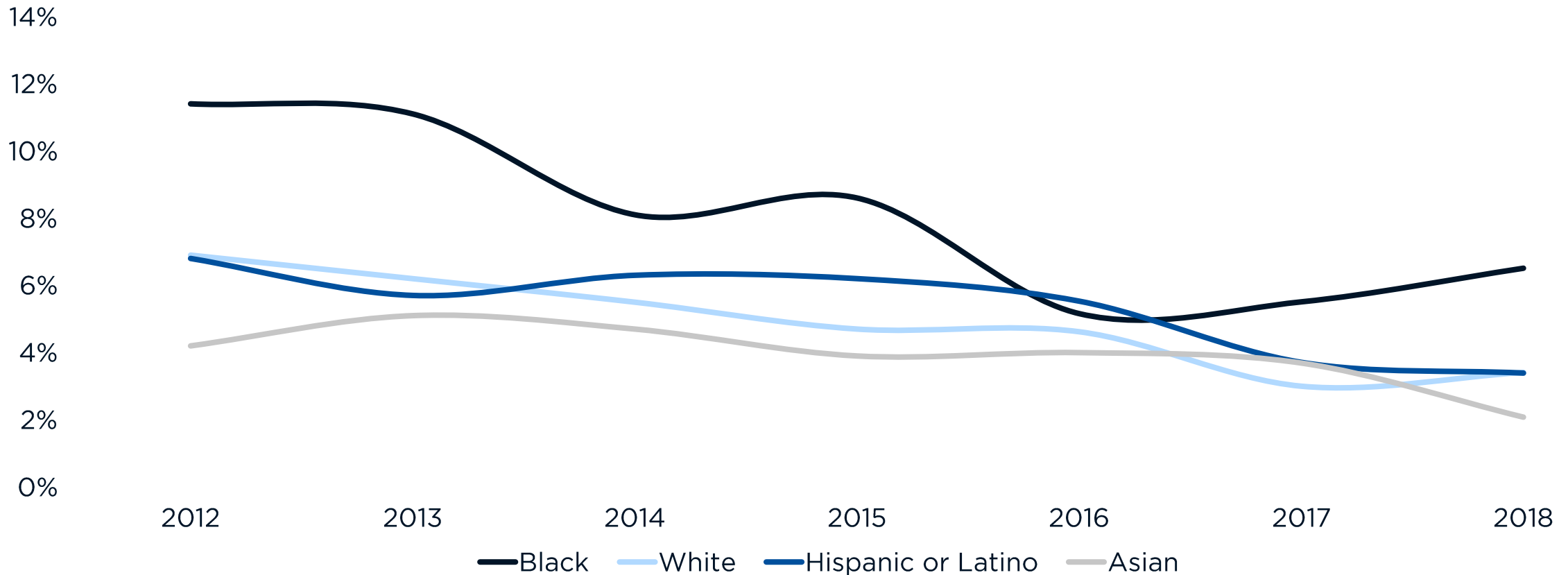
0.1%

ESTABLISHMENTS WITH 500+ EMPLOYEES

AVERAGE ANNUAL UNEMPLOYMENT RATE BY RACE + ETHNICITY

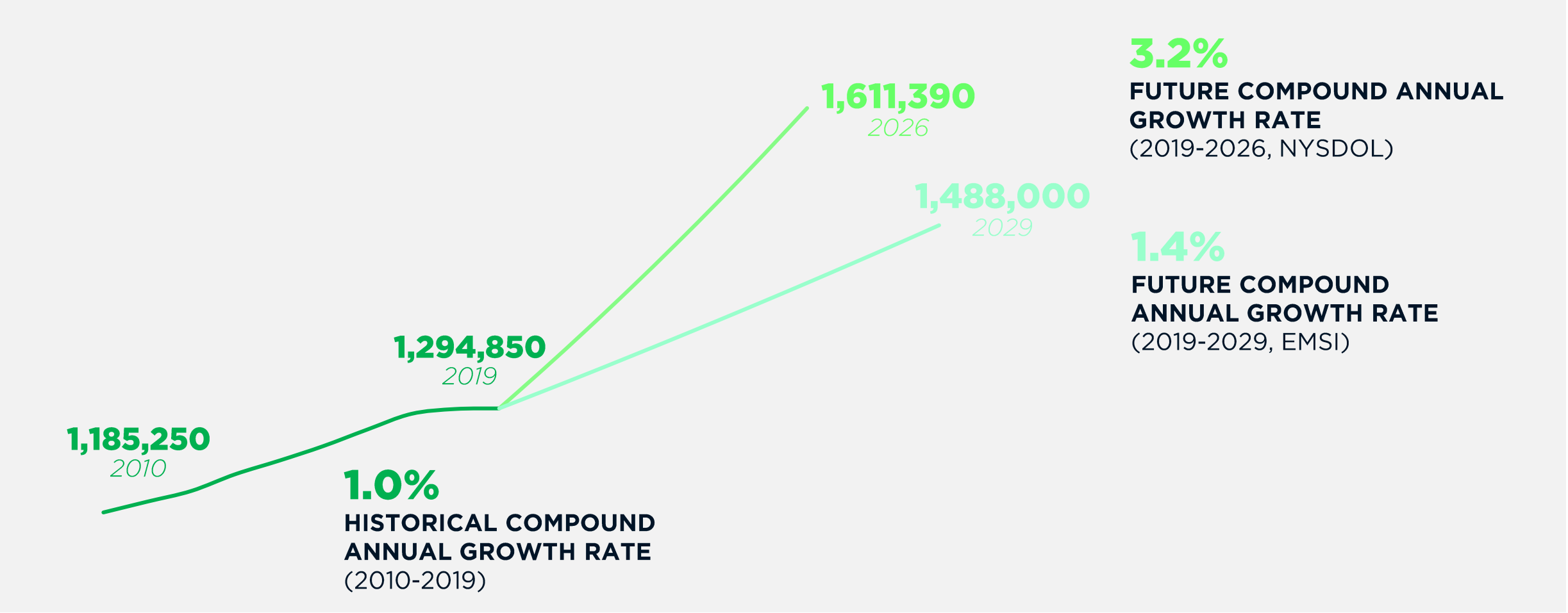
TOTAL LONG ISLAND

Economic prosperity is not evenly distributed on Long Island. Black residents suffered from persistently high unemployment coming out of the Great Recession and have seen a steady uptick in recent years.



LONG ISLAND ANNUAL EMPLOYMENT TRENDS + PROJECTIONS, 2010-2029

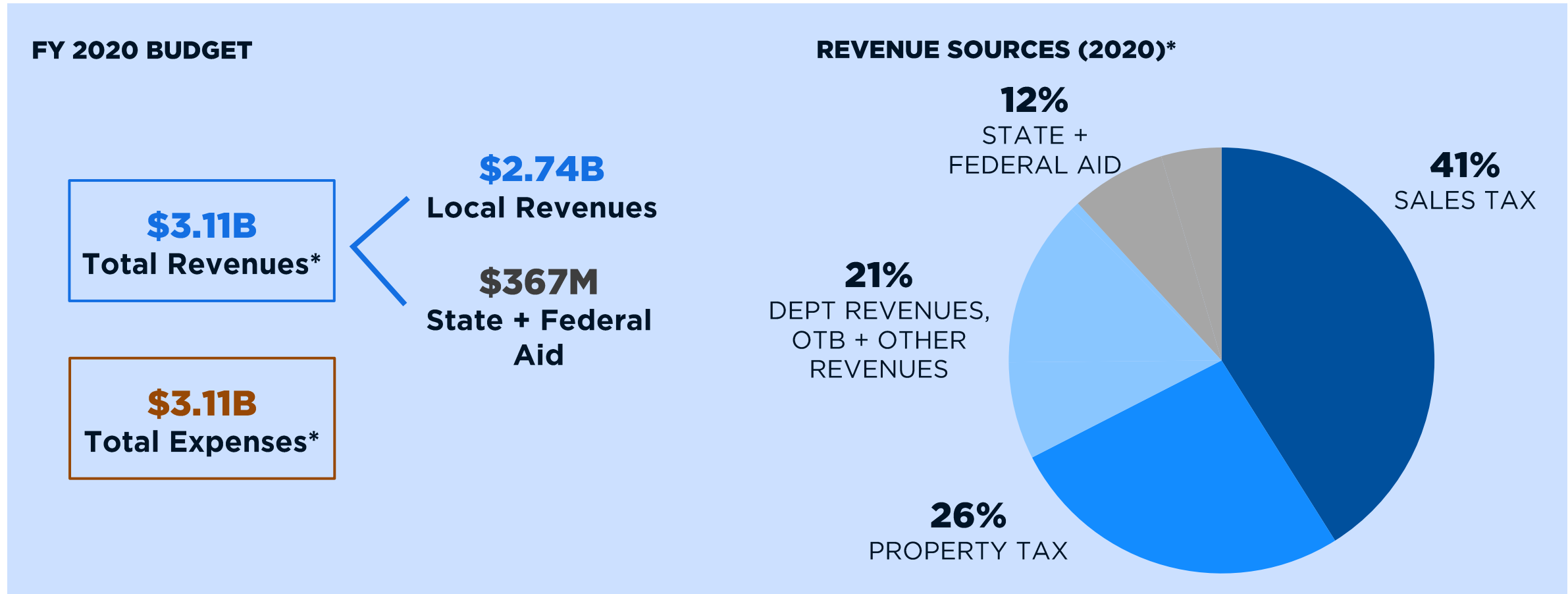
Jobs grew at a relatively muted pace on Long Island over the last decade. Before the COVID crisis took hold, future employment was projected to grow between 1.4% and 3.2% on a compound annual basis.



REVENUES AND EXPENDITURES

NASSAU COUNTY

Nassau sources approximately two-thirds of total revenues from sales and property taxes.



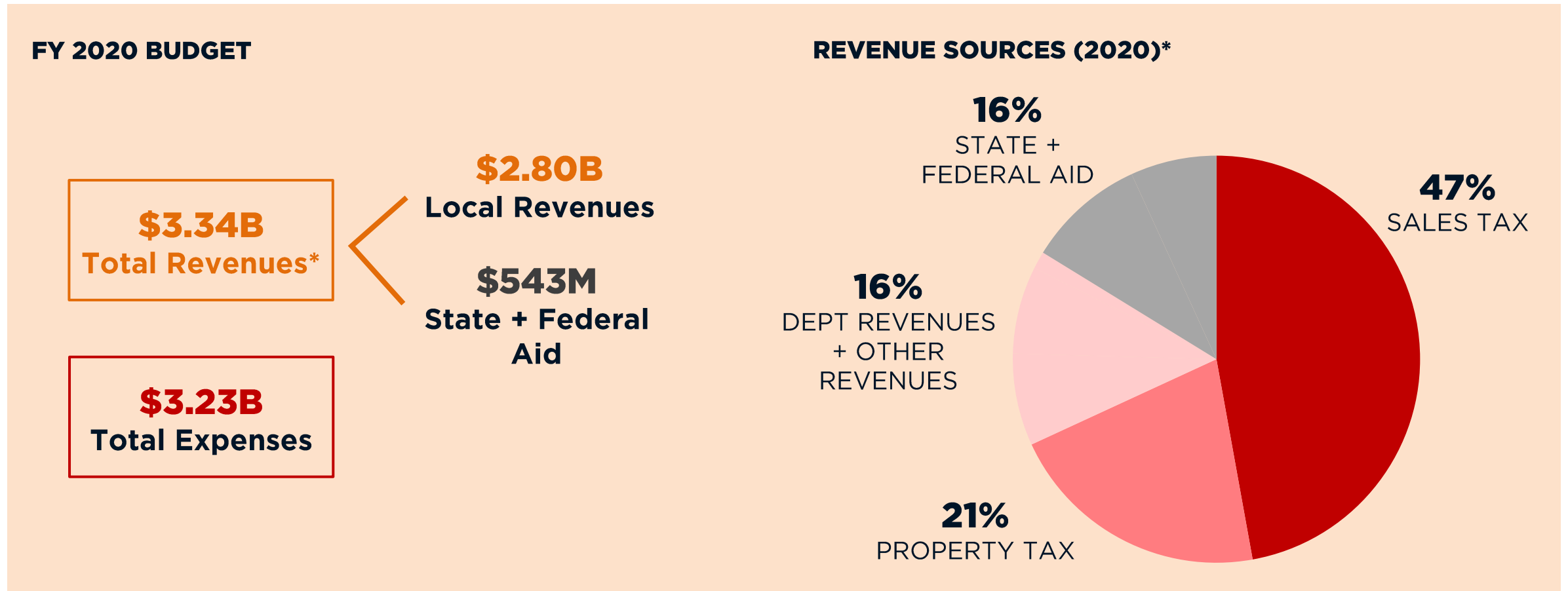
Source: Nassau County 2020 NIFA Approved Budget, Summary of Fiscal 2020

*Excludes Interfunds

REVENUES AND EXPENDITURES

SUFFOLK COUNTY

Suffolk relies heavily on sales taxes, with nearly half of total revenues coming from sales taxes in 2020 (vs. 41% in Nassau).



Source: Suffolk County 2020 Adopted OB Narrative Summary

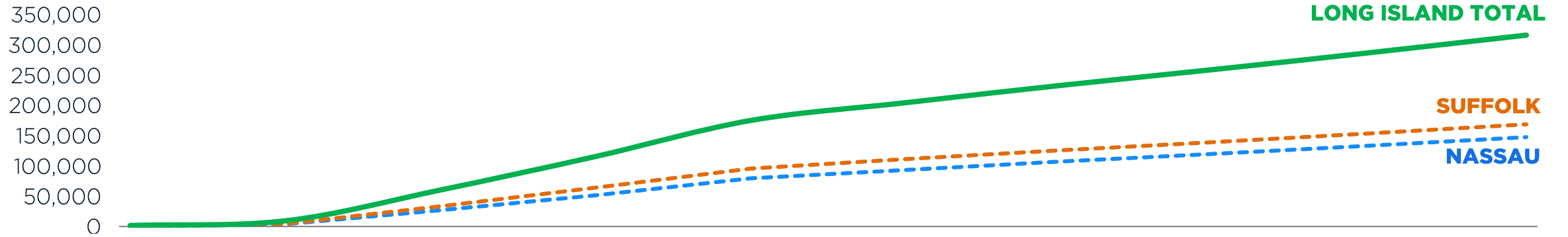
*Excludes Interfunds



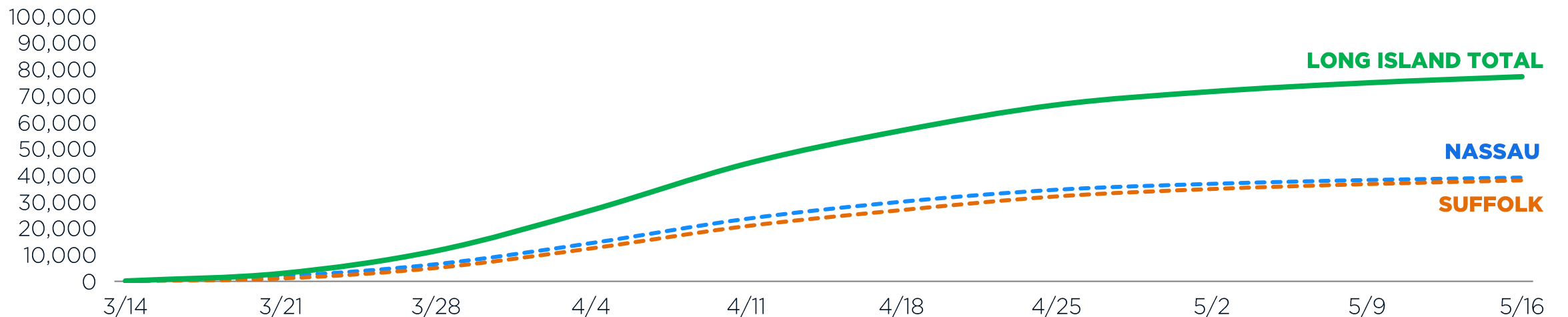
Economic Disruption Scenarios

We are facing a dual crisis—an unprecedented global health emergency coupled with the fastest rise in unemployment on record.

CUMULATIVE INITIAL UNEMPLOYMENT INSURANCE CLAIMS

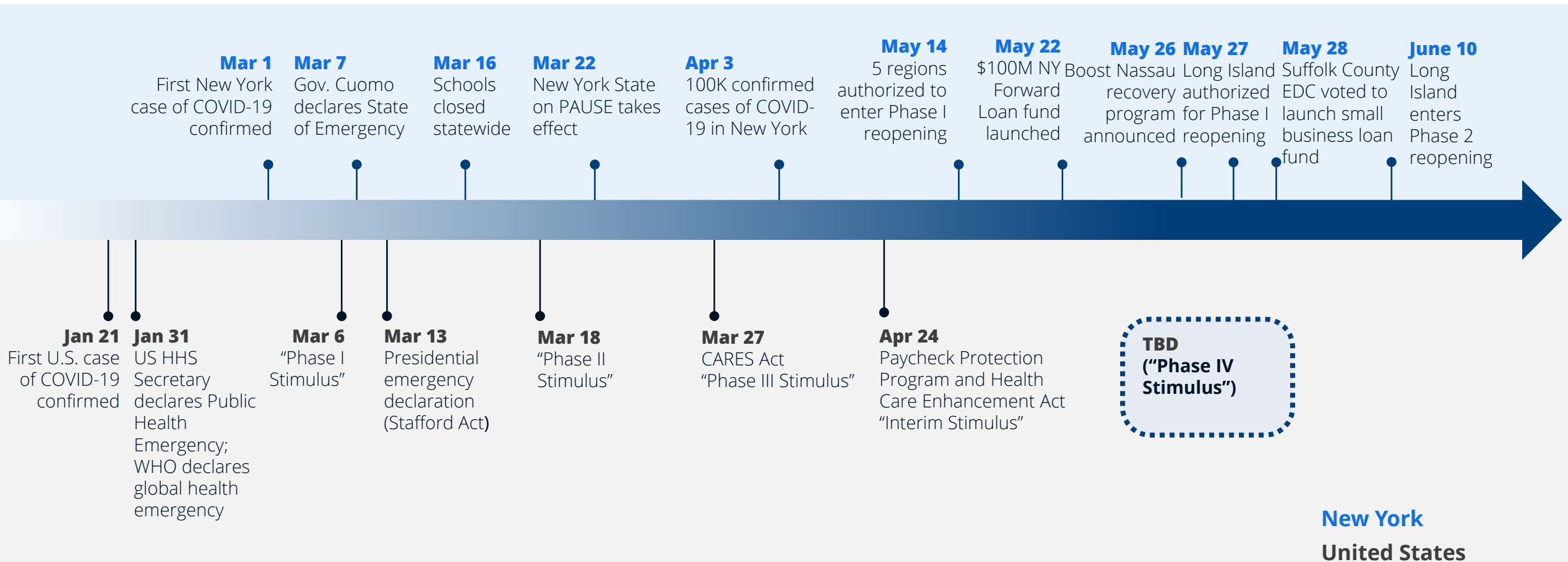


COVID-19 CASES



TIMELINE OF RECENT EVENTS

As the focus of government action shifts from emergency health response to stabilizing the economy, County leaders must be equipped with a sound understanding of how the economic fallout from COVID-19 is playing out in local communities to make informed decisions about investments and policies related to recovery.



New York
United States

GOALS OF STUDY

This work is guided by two related sets of questions which are critical to informing local decision-making and resource allocation in the aftermath of a disaster or crisis:

- 1. How, specifically, has this disaster impacted our local economy? What are the geographies, populations, and business sectors that have been disproportionately impacted, and how might this in turn impact regional and local governments?**
- 2. How can local government, business leaders, and community stakeholders use these impact assessments to guide policymaking, recovery funding, and near- and long-term resilience planning?**



METHODOLOGY

HR&A drew upon a variety of sources to inform our approach to measuring the economic impact of COVID-19 on Long Island, including:

Data Sources:

- U.S. Bureau of Labor Statistics, Current Employment Statistics and Local Area Unemployment Statistics
- EMSI Staffing Patterns, Input-Output multipliers
- New York State Department of Labor (NYSDOL) Weekly Initial Unemployment Claims
- U.S. Census Bureau, American Community Survey

Surveys:

- Nassau County-Hofstra Business Survey
- Suffolk County Business Recovery Unit Survey
- LIRACHE Higher Education Survey
- ABLI LIBI Real Estate Survey
- HIA-LI Coronavirus Reopen Survey

Precedent Impact Reports & Methodologies:

- St. Louis Fed, UChicago Becker Friedman Institute (*At-risk occupations*)
- Delaware State Department of Labor (*“Essential” businesses by industry code*)
- Brookings Institute
- CBO 2005 Report on Possible Macroeconomic Effects of an Influenza Pandemic
- GDP Macroeconomic Forecasts (RSQE, Wells Fargo, IHS Markit)
- NBER Working Paper: Pandemic Recession: L or V-Shaped?
- NYMTC: 250 Socioeconomic + Demographic Models Enhancements

HR&A's approach considers the **initial economic shock** from COVID-19, reflecting the impact of business shutdowns and reductions in consumer demand; differential **rates of recovery**, depending on when businesses are allowed to reopen and how well-positioned they are to resume full operations; and **"new normal"** levels of economic activity, which may be at, above, or below pre-COVID levels depending on economic sector.

COVID-19 IMPACT

Total reduction in employment relative to the baseline

ECONOMIC SHOCK

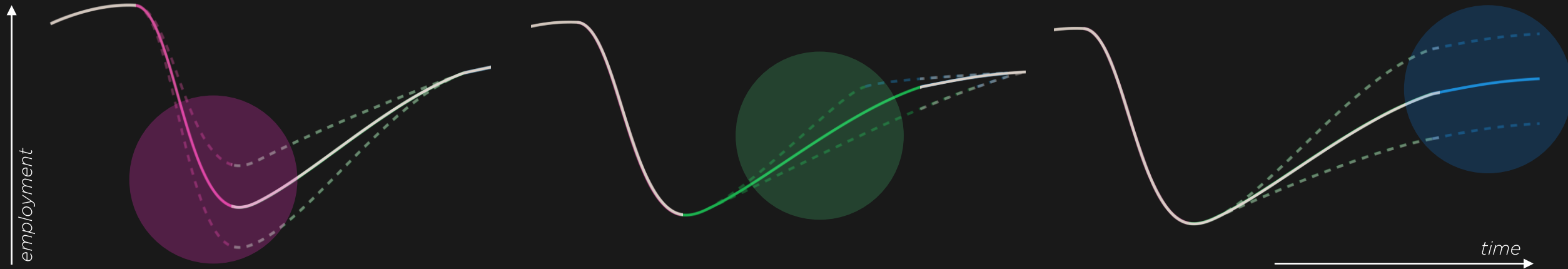
How deep is the initial impact?

RATE OF RECOVERY

When will recovery / resumed hirings begin?

NEW NORMAL

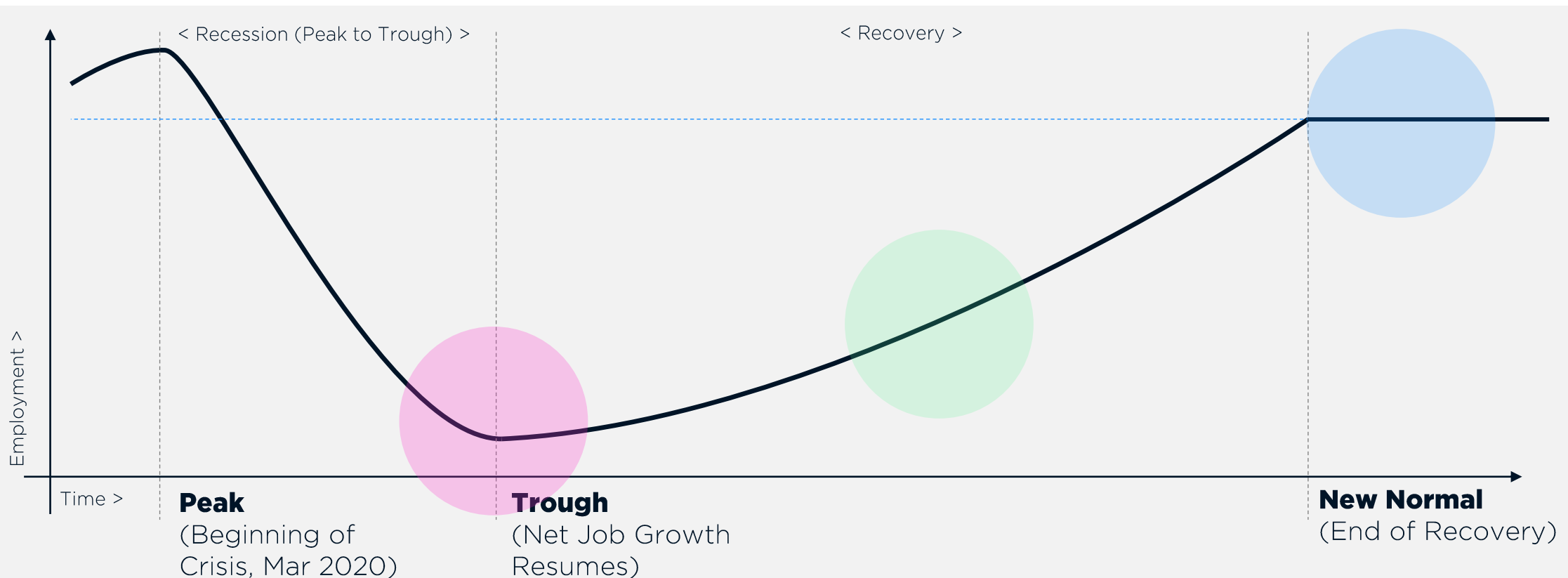
What share of jobs are recovered at stabilization?



Stay-at-home orders cause business closures or modification. Firms face several months of limited-to-no revenue. Some are unable to support expenses like payroll and rent. An initial group of businesses will close.

Social distancing requires ongoing modifications to business activity, even as stay-at-home orders are lifted. Businesses will see an indeterminate period of lower revenue, extending the period of uncertainty around ability to support expenses. More businesses will be forced to close.

An uncertain future defined by uneven recovery and instability in the face of potential recurrences. Firms must adapt to a new, post-COVID market equilibrium. New business formation may be stifled.



Economic Shock

METHODOLOGY

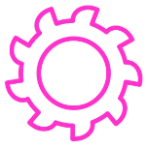
Building from recorded job losses to-date, most of which are assumed to be a function of mandatory business closures, we project potential future job losses by sector through the end of the initial economic shock, or “trough.” To do so, we:



Anchor job loss estimates to monthly employment statistics showing documented changes in employment by sector for the Nassau-Suffolk Metropolitan Division relative to pre-COVID levels (Feb 2020).



Distinguish between job losses in industries directly impacted by the health crisis (direct impacts) versus those impacted primarily through the effects of the economic slowdown (secondary impacts).



Apply economic multipliers to recorded job losses in directly impacted sectors to determine total follow-on job losses owing to reductions in demand.

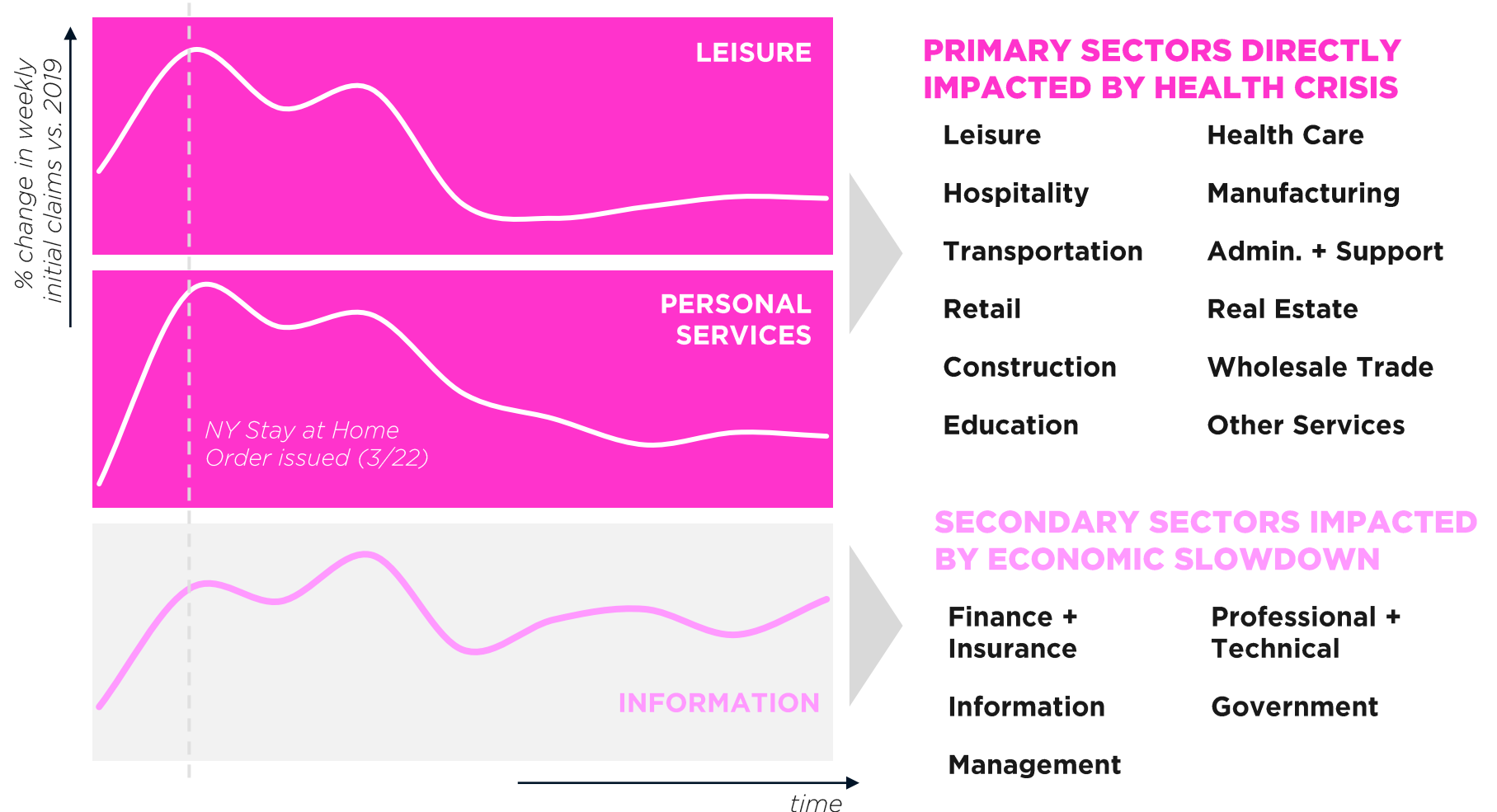
Direct impacts are only measured for the time that the local economy is on PAUSE. Once the stay-at-home order is lifted, all changes in directly impacted sectors are assumed to be a function of reductions in consumer demand. All impacts assume no significant future policy interventions.

OVER-THE-YEAR INCREASE IN WEEKLY INITIAL UNEMPLOYMENT CLAIMS BY SECTOR TOTAL NEW YORK STATE, WEEKS ENDING 3/21 THRU 5/16

Total job losses reflect the dual impacts of the public health crisis and subsequent changes in consumer demand.

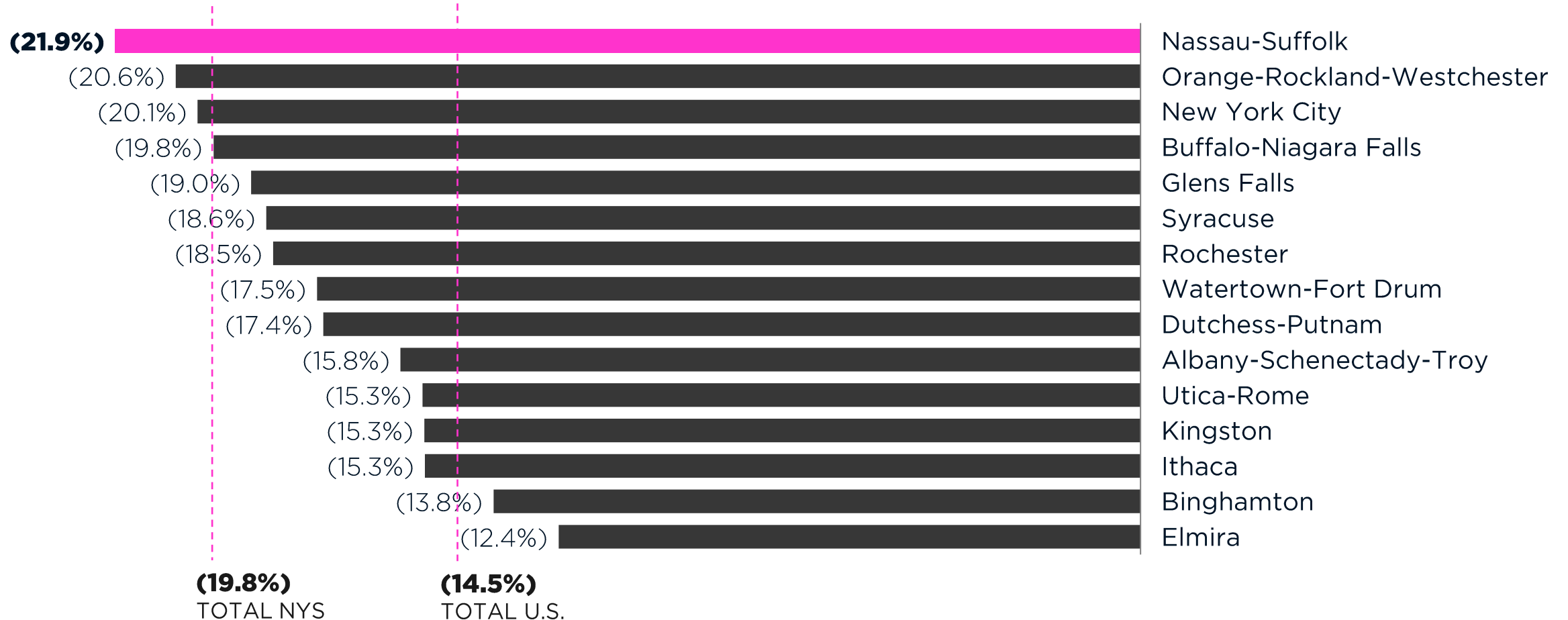
Early spikes in UI claims are largely a function of mandatory business closures within sectors **directly impacted** by the health crisis.

Secondary effects are typified by an uptick weeks following the Stay at Home Order, followed by flatter, sustained trends in initial UI claims.

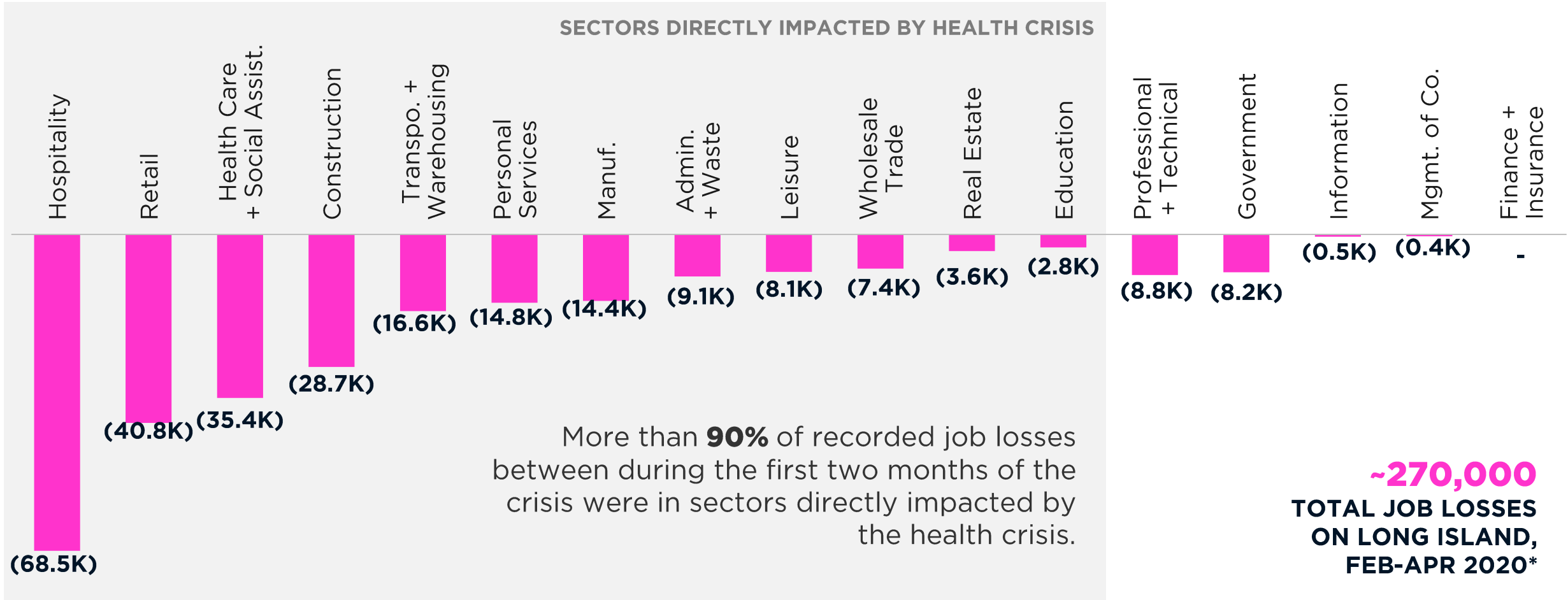


PERCENTAGE CHANGE IN TOTAL NON-FARM EMPLOYMENT (FEB - APR 2020, SEASONALLY ADJUSTED)

Long Island businesses shed jobs at a faster rate (22%) compared to all other metro regions in New York State during the initial months of the crisis.

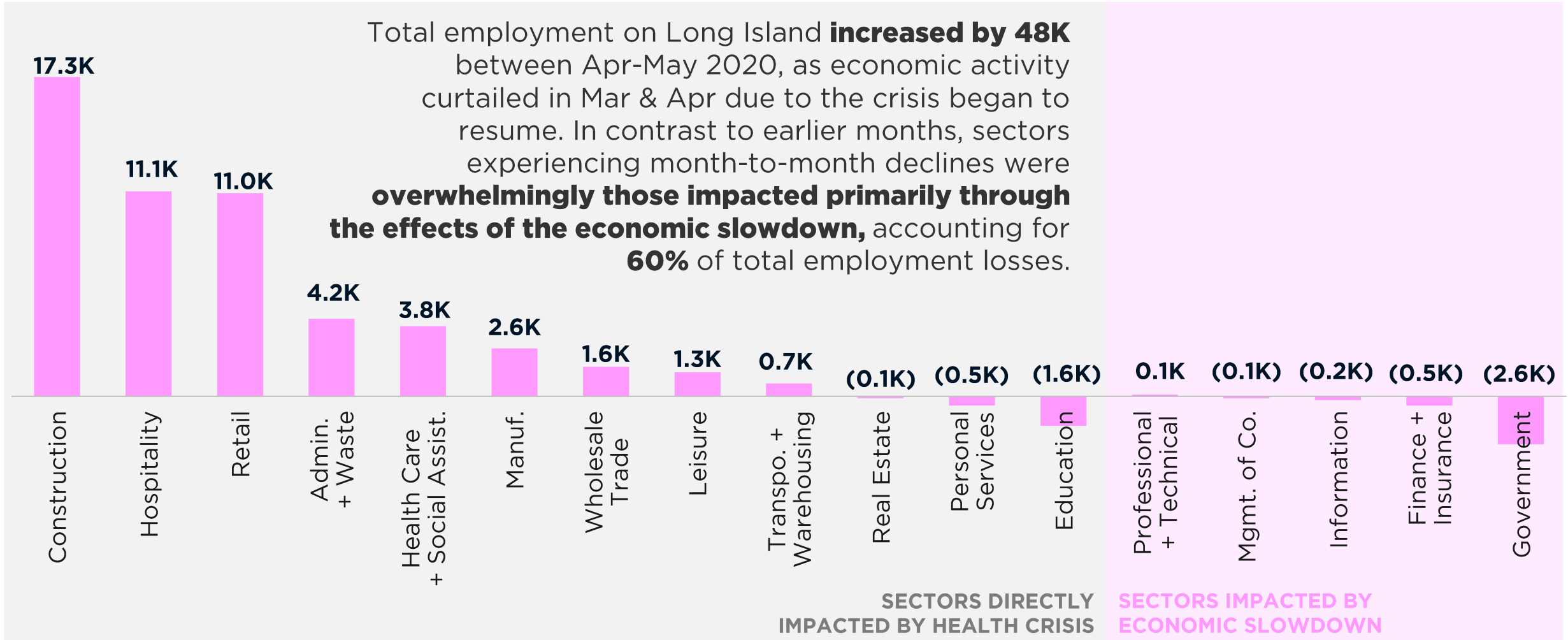


INITIAL JOB LOSSES ON LONG ISLAND BY INDUSTRY FEB - APR 2020, NON-SEASONALLY ADJUSTED



* Sectoral job losses based on non-seasonally adjusted figures. Seasonally adjusted job losses through Apr 2020 equal 296K.

FOLLOW-ON JOB LOSSES BY INDUSTRY APR - MAY 2020, NON-SEASONALLY ADJUSTED



TOTAL JOB LOSSES FROM COVID-19 ON LONG ISLAND PROJECTED AT TROUGH ABSENT SIGNIFICANT POLICY INTERVENTION

270,000

TOTAL INITIAL COVID-RELATED JOB LOSSES ON LONG ISLAND (FEB - APR 2020, NON-SEASONALLY ADJUSTED)

145,000 – 175,000*

POTENTIAL ADDITIONAL JOB LOSSES OWING TO ONGOING EFFECTS OF THE ECONOMIC SLOWDOWN (MAY 2020-ONWARD)

** Reflects total gross job losses through the end of the economic shock period. As some sectors are expected to resume growth faster than others, total net job loss relative to pre-COVID levels are likely to be less than the 415K-445K at any point in time as new jobs will have been added.*

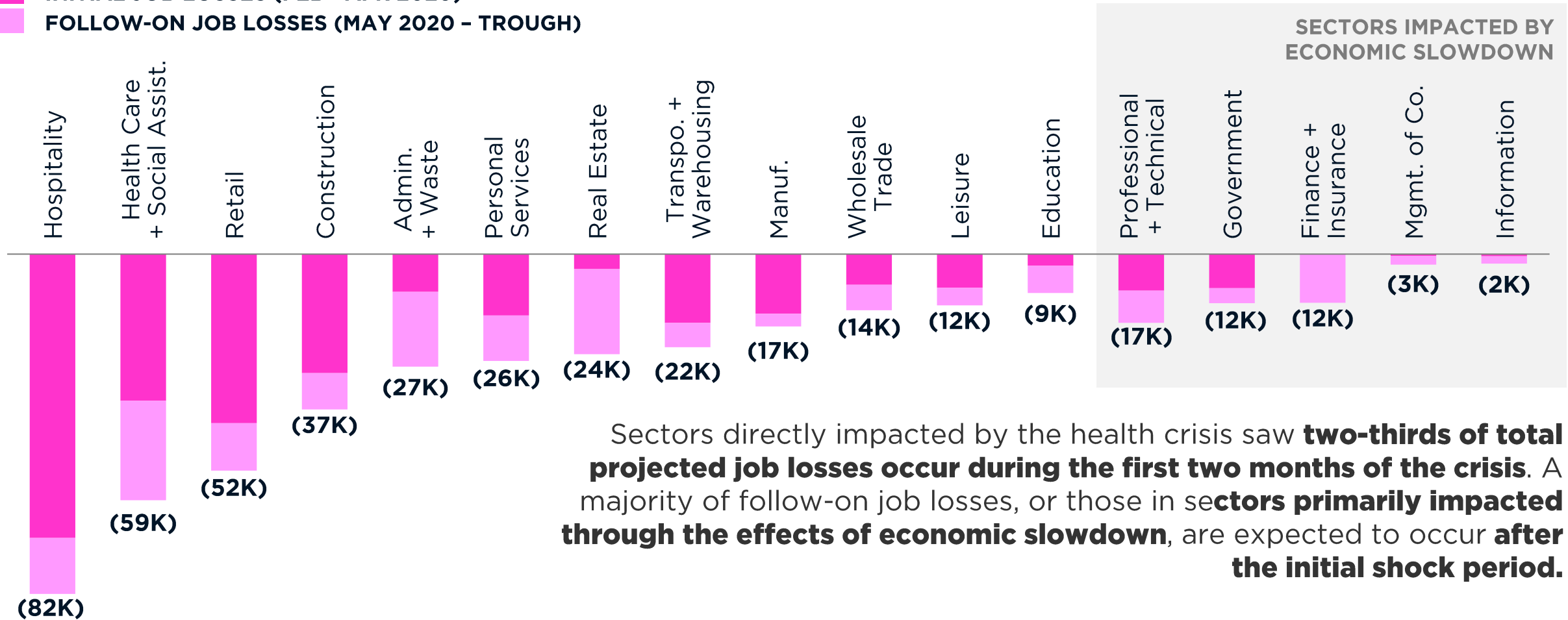
During the first two months of the crisis, businesses on Long Island **shed 270K jobs**. Businesses **recouped 48K jobs** in May 2020, as some economic activity that was substantially curtailed during the initial months of the pandemic resumed.

Continued **supply chain disruptions and lasting reductions in consumer demand** could result in additional jobs lost beyond those recorded to-date. Total job loss relative to pre-COVID levels is projected to reach **375K** through the end of 2020. Net job losses may **continue through 2021**, though at a moderate pace as more segments of the economy begin to recover.

ECONOMIC SHOCK | TOTAL IMPACT BY SECTOR

TOTAL PROJECTED JOB LOSSES ON LONG ISLAND BY INDUSTRY, FEB 2020 THRU TROUGH

- INITIAL JOB LOSSES (FEB - APR 2020)
- FOLLOW-ON JOB LOSSES (MAY 2020 - TROUGH)



Sectors directly impacted by the health crisis saw **two-thirds of total projected job losses occur during the first two months of the crisis**. A majority of follow-on job losses, or those in sectors primarily impacted through the effects of economic slowdown, are expected to occur **after the initial shock period**.

* Sectoral job losses based off non-seasonally adjusted figures. Future job losses by sector cover all classes of workers, including self-employed and extended proprietors. Figures shown above represent the midpoint of the projected range.

TOP 15 OCCUPATIONS WITH GREATEST JOB LOSSES ON LONG ISLAND FEB 2020 THRU TROUGH

OCCUPATION	TOTAL JOB LOSS	MEDIAN EARNINGS
Food Prep. + Serving Workers (Incl. Fast Food)	(17.8K)	\$24K
Waiters + Waitresses	(17.1K)	\$28K
Retail Salespersons	(16.0K)	\$23K
Cashiers	(11.2K)	\$25K
Real Estate Sales Agents	(9.8K)	\$49K
Janitors + Cleaners (Excl. Maids + Housekeepers)	(7.9K)	\$31K
Cooks, Restaurant	(7.9K)	\$27K
General + Operations Managers	(6.4K)	\$123K
Office Clerks, General	(6.3K)	\$32K
Laborers + Freight, Stock, Material Movers	(6.1K)	\$30K
Construction Laborers	(6.1K)	\$40K
Registered Nurses	(6.0K)	\$95K
Personal Care Aides	(6.0K)	\$27K
Home Health Aides	(5.5K)	\$27K
Stock Clerks + Order Fillers	(5.5K)	\$25K

Job losses are heavily **concentrated among low-earning professions**, particularly those in the Hospitality sector.

More than **2/3 of total Hospitality jobs** on Long Island were lost between Feb-Apr 2020. The sector is also the region's lowest-paying, with median annual earnings of **less than \$25K**.

COVID-19 JOB LOSSES BY CATEGORY % OF TOTAL WORKFORCE VS. COVID-IMPACTED WORKERS

	% Long Island Jobs	% COVID Job Losses
EDUCATIONAL ATTAINMENT		
High school or below	62%	73%
Less than 4-year degree	9%	9%
Bachelor's or above	29%	19%
ON-THE-JOB TRAINING		
Internship/residency	2%	1%
Apprenticeship	2%	3%
On-the-job training	59%	67%
None	37%	29%
MEDIAN ANNUAL EARNINGS		
Less than \$35,000	32%	44%
\$35,000 to \$50,000	22%	23%
\$50,000 to \$75,000	22%	19%
\$75,000 to \$100,000	13%	8%
\$100,000 to \$150,000	9%	6%
\$150,000+	1%	1%

By examining the characteristics of workers within impacted occupations or industries, we can understand who is most likely to suffer economic losses (possibly in conjunction with poor health outcomes). **Hispanic + Latino** workers, for example, make up a disproportionate share of workers in the hardest hit sector (27% of Hospitality workers vs. 17% of all workers Long Island).

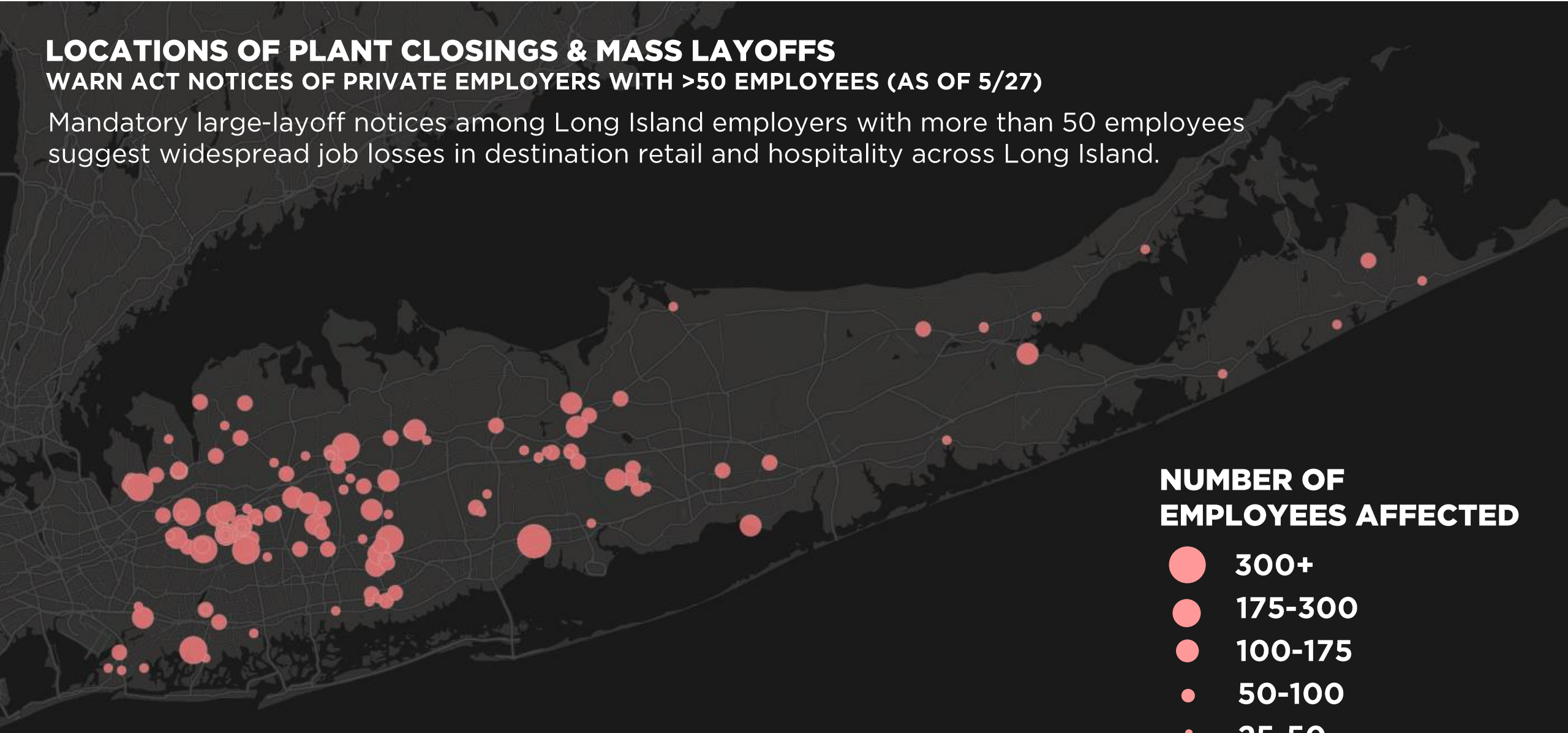
If economic losses were equally shared, the percentages within any given category to the left should be similar to the percentage for all local workers. Differences suggest areas for policy focus.

Job losses are heavily concentrated among **workers without a post-secondary education** and those **earning less than \$35,000** per year. That a disproportionate share of jobs shed had offered workers some form of on-the-job training further suggests that **retraining or reskilling initiatives need to be central to future recovery efforts** on Long Island.

LOCATIONS OF PLANT CLOSINGS & MASS LAYOFFS

WARN ACT NOTICES OF PRIVATE EMPLOYERS WITH >50 EMPLOYEES (AS OF 5/27)

Mandatory large-layoff notices among Long Island employers with more than 50 employees suggest widespread job losses in destination retail and hospitality across Long Island.



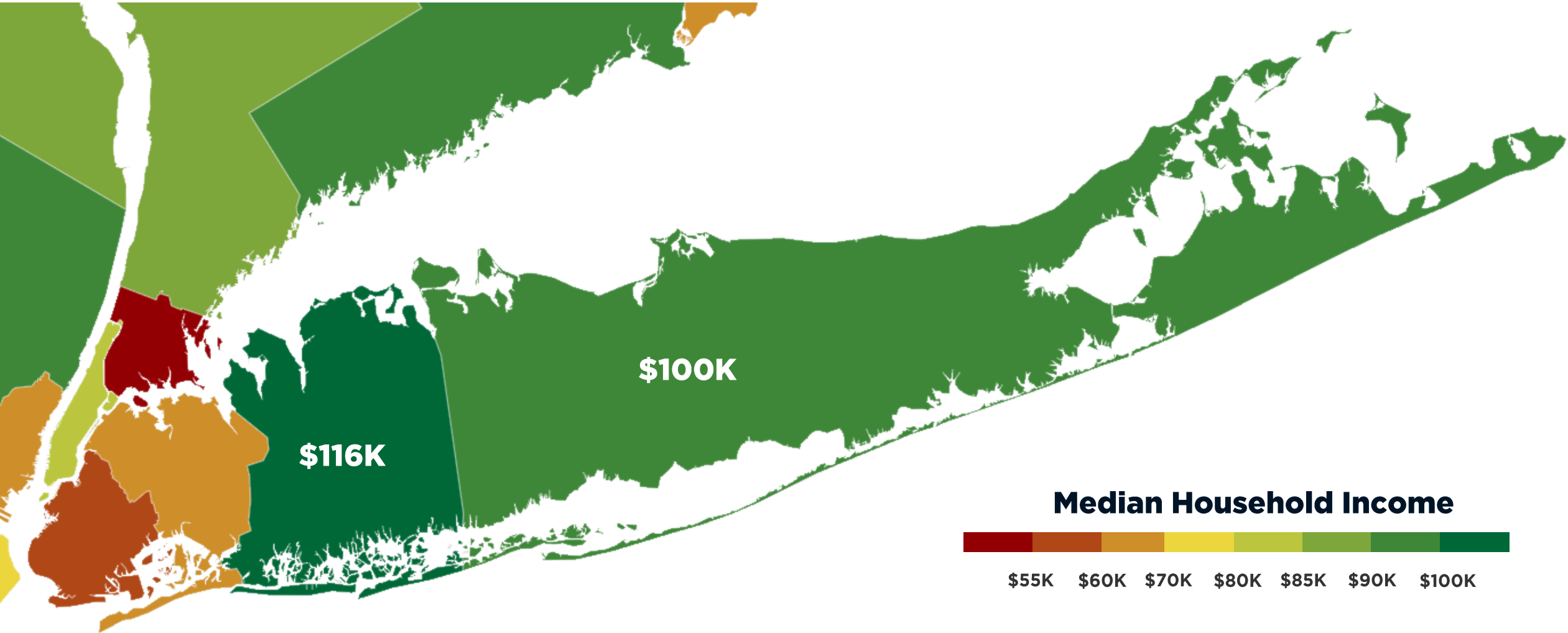
NUMBER OF EMPLOYEES AFFECTED

- 300+
- 175-300
- 100-175
- 50-100
- 25-50

Source: NYS DOL WARN Notices as of 5/27/20

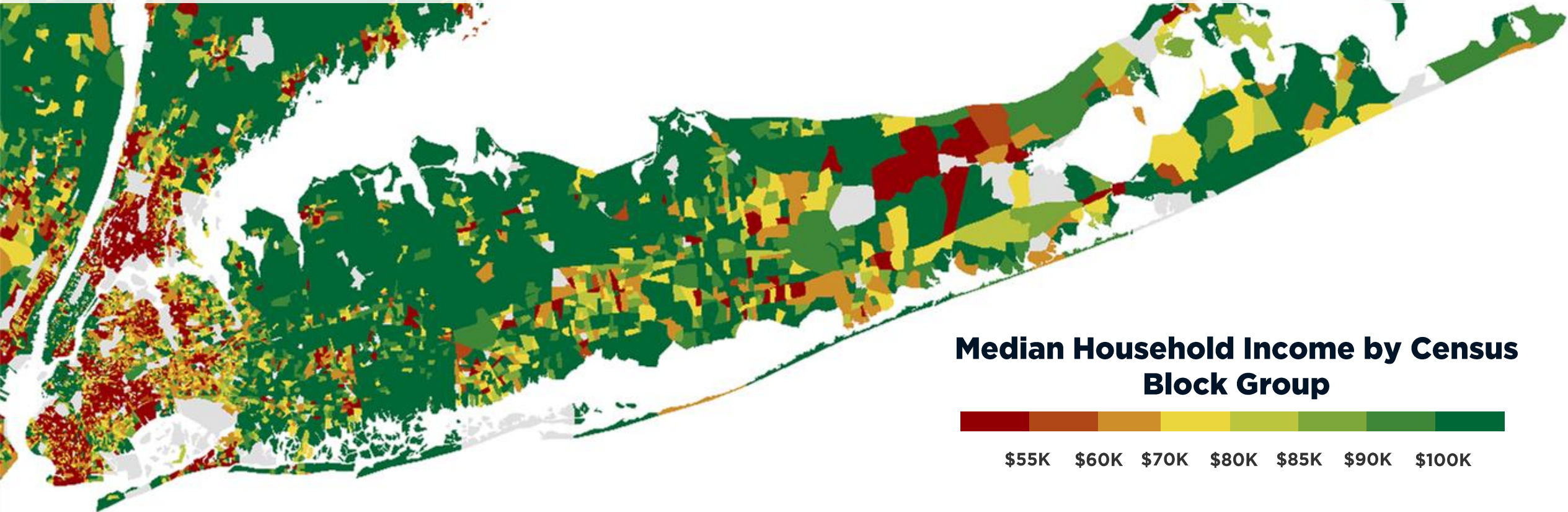
ECONOMIC SHOCK | IMPACTS BY LOCATION

Long Island appears economically prosperous when viewed in aggregate, suggesting a potential heightened ability to weather sudden/severe disruptions in income relative to surrounding counties with lower baseline income.



ECONOMIC SHOCK | IMPACTS BY LOCATION

However, a macro view masks underlying inequities that can compound the challenges of COVID-related job losses. A 2017 study by the New York Fed identified 18 ZIP Codes on Long Island that rank among the lowest in the nation along a variety of credit inclusion, credit capacity, and debt management indicators, areas that track closely with concentrations of lower-income households. The Fed concluded that wealthier communities with better credit access recover faster from disasters such as Superstorm Sandy relative to less prosperous communities. Areas of concentrated poverty and/or restricted capital access should be considered as part of place-based approaches to recovery.

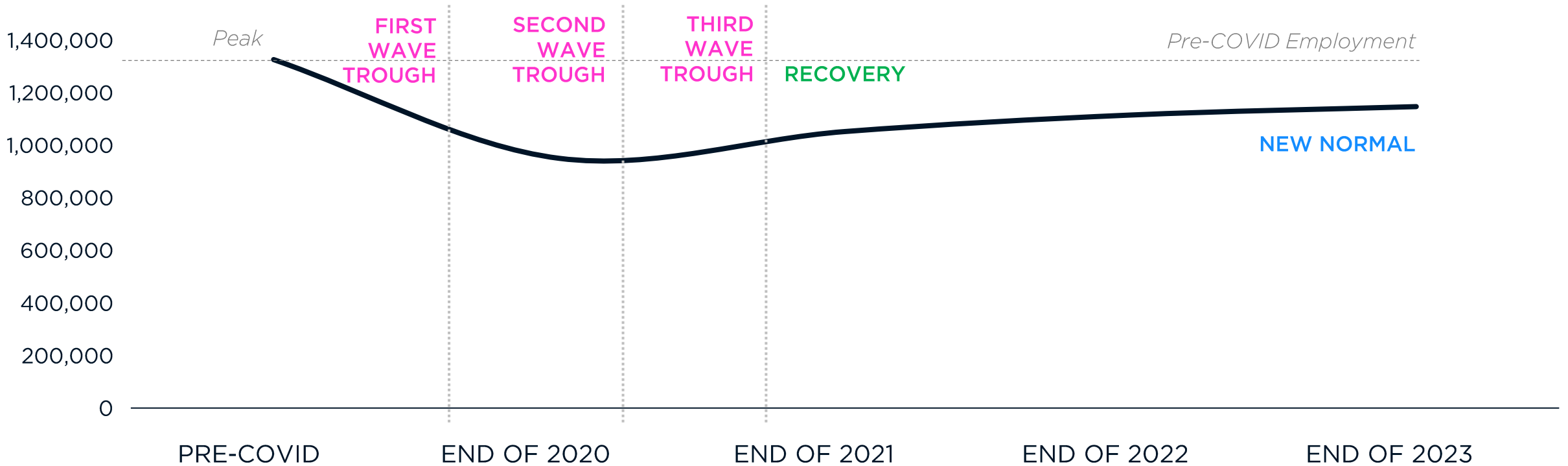


Source: U.S. Census Bureau; Federal Reserve Bank of New York, *Long Island Credit Profile*, 2017.

TOTAL IMPACT | ANNUAL EMPLOYMENT IMPACT

TOTAL ANNUAL LONG ISLAND EMPLOYMENT

Job loss and (eventual) recovery rates will vary by sector. Some sectors may start to resume growth even as others remain in decline. The total job loss relative to pre-COVID levels will reflect the net effects of recession and recovery within different segments of the regional economy. The net annual employment projections below take into account differential recession durations and rates of recovery by sector.*



* See Rate of Recovery and New Normal sections of report for underlying assumptions.

ANNUAL NET JOB LOSSES + ECONOMIC IMPACT

Long Island could see a total net loss of 375K jobs through the end of 2020 relative to pre-COVID employment levels. As the economy begins to recover in 2021, the total delta is expected to drop to 275K jobs. Job losses are in turn associated with reduced earnings and reduced spending by businesses and households in the local economy.

Year	Total Long Island Jobs	Net Job Loss (vs. Pre-COVID)	Earnings Loss (Unadjusted)**	Personal + Business Spending Loss
Pre-COVID (Feb 2020)	1.3M	-	-	-
2020	950K	(375K)	(\$21.4B)	(\$60.9B)
2021	1.1M	(275K)	(\$14.7B)	(\$41.7B)

* See Rate of Recovery and New Normal sections of report for underlying assumptions.

** Unadjusted earnings loss refers to total potential earnings impact, not adjusted for earnings that could be recovered through state or federal unemployment benefits. The total spending loss shown above correlates with the unadjusted earnings loss figure and similarly does not account for any adjustments in spending potential that could be recovered through unemployment benefits.

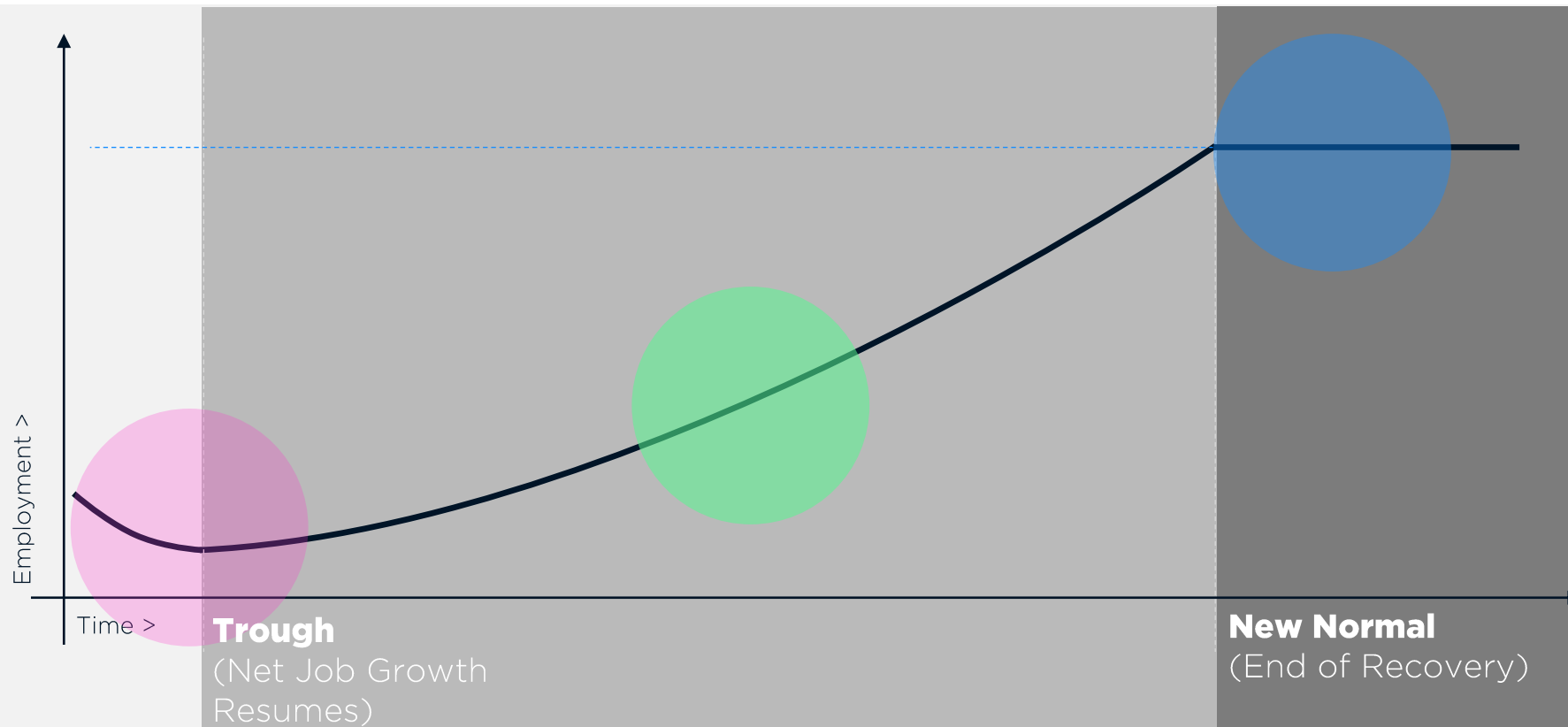
Economic Recovery

ECONOMIC RECOVERY | **OVERVIEW**

Economic Shock ends at the point in which net job gains begin to occur.

Recovery will occur in waves, with the starting point (the trough) and duration differing by industry depending on public policy interventions, industry adaptivity, firm-worker dynamics, and business size.

New Normal will be established at the end of the recovery period as growth stabilizes. It is defined as the share of pre-COVID-19 employment at the time of stabilization.



RATE OF RECOVERY FACTOR: PUBLIC POLICY

REGIONAL RECOVERY PLANNING

The Governor has established a phased business reopening plan that prioritizes sectors with the lowest risk of workplace or customer infection spread and those with the greatest economic impact.

PHASE 1 REOPENING

Construction, Manufacturing, Wholesale Trade, Curbside Retail

PHASE 2 REOPENING

Professional Services, Finance + Insurance, Retail, Admin + Support, Real Estate

PHASE 3 REOPENING

Restaurants + Food, Hotels + Accommodations

PHASE 4 REOPENING

Arts, Entertainment, Recreation, Education

OTHER EXTERNAL / MACRO FACTORS

- Potential for subsequent rounds of stimulus funding for workers, businesses, and localities*
- Clear guidelines for health and safety accompanying business reopenings
- Availability of appropriate protective equipment and testing kits
- Development and availability of vaccine

*Analysis does not assume subsequent rounds of stimulus funding.

RATE OF RECOVERY FACTOR: INDUSTRY ADAPTIVITY

The timing and phasing of resumed growth will be both a function of when businesses are allowed to re-open and how well-positioned they are to resume full operations. For sectors directly impacted by the public health crisis, greater clarity around what businesses should be doing to ensure the safety of workers and customers is needed before large-scale rebounds can occur.

FIRST WAVE

Sectors primarily impacted by the effects of the economic slowdown (vs. those directly impacted by the public health crisis) are best-situated for recovery. Many have maintained operations during the stay-at-home order owing to a heightened ability to work remotely, and thus are more adaptive in the face of future uncertainties.

SECOND WAVE

Social distancing requires ongoing modifications to business activity, even as stay-at-home orders are lifted. Businesses directly impacted by the health crisis may see an indeterminate period of lower revenue, extending uncertainties around ability to support expenses such as payroll and rent. More businesses will be forced to close, even as others begin to recover.

THIRD WAVE

Sectors which are indefinitely impacted by the public health crisis such as Hospitality and Leisure are unlikely to recover until an effective treatment or vaccine becomes widely available.

phased returns to growth by sector

Finance + Insurance; Information Management of Co. + Enterprises; Professional + Technical Services; Government

Retail; Construction; Education; Health Care + Social Assistance; Admin. + Support; Real Estate; Wholesale Trade; Manufacturing; Other Services

Leisure; Hospitality; Transportation

ECONOMIC RECOVERY | **RESUMED GROWTH**

RATE OF RECOVERY FACTOR: FIRM-WORKER DYNAMICS

The rate of recovery will also depend on individual employer/employee dynamics, including how long workers had been employed with their previous employer and the strength of their relationship to the firm.



JOB TENURE

LONG

AVERAGE

< 2 YEARS



FIRM-EMPLOYEE RELATIONSHIP

STRONG

MODERATE

LOW/NONE



LENGTH OF UNEMPLOYMENT SPELL

SHORT

MODERATE

LONG

RATE OF RECOVERY FACTOR: BUSINESS SIZE

As seen with other recent economic downturns, growth rates are likely to differ by business size, with the largest firms quickest to recover and the smallest among the last to do so. This is particularly pertinent for Long Island, where 79% of all businesses employ fewer than 10 workers.

DIFFERENTIAL RATES OF RECOVERY FOLLOWING 2007 RECESSION

AVERAGE TIME TO REACH PRE-RECESSION EMPLOYMENT LEVELS

4 YEARS

BUSINESSES WITH **500+**
EMPLOYEES

(**0.1%** OF FIRMS ON LONG ISLAND;
42% TOTAL PRIVATE EMPLOYMENT)

8 YEARS

BUSINESSES WITH **10-499**
EMPLOYEES

(**21%** OF FIRMS ON LONG ISLAND)

12 YEARS

BUSINESSES WITH **<10**
EMPLOYEES

(**79%** OF FIRMS ON LONG ISLAND)

DISPARATE IMPACTS ON SMALL BUSINESSES

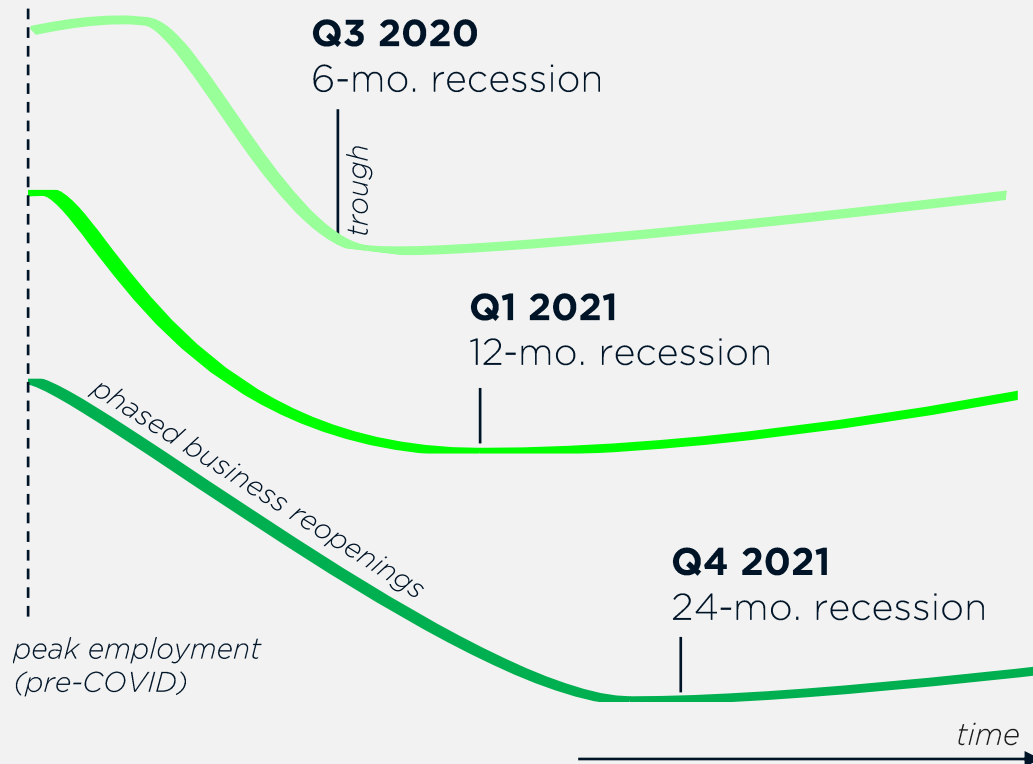
Half of small businesses have just 1-2 months of cash on hand, less than the duration of the crisis to-date, a crisis which shows few signs of abating. Minority- and women-owned small businesses, which under normal circumstances already face reduced rates of business formation, revenues, and access to financing, are particularly vulnerable owing to their concentration within at-risk industries such as retail and hospitality. Without significant and extended intervention, these businesses are unlikely to reopen, and those that do will enter an even more challenging business environment.

HOW LONG WILL THE RECESSION LAST?

Economic recessions begin at the peak of the business cycle and end at the trough. The overall duration will be a function of how long it takes to hit bottom and subsequently, when businesses begin to (re)hire.

PROJECTED RECESSION DURATION BY INDUSTRY GROUP

HYPOTHETICAL / NOT DRAWN TO SCALE



11.1 MONTHS
Average recession duration,
peak to trough (1945-2009)

Source: NBER

FIRST WAVE

Finance + Insurance; Information; Management of Companies + Enterprises; Professional + Technical Services; Government

SECOND WAVE

Retail; Construction; Education; Health Care + Social Assistance; Admin. + Support; Real Estate; Wholesale Trade; Manufacturing; Other Services

THIRD WAVE

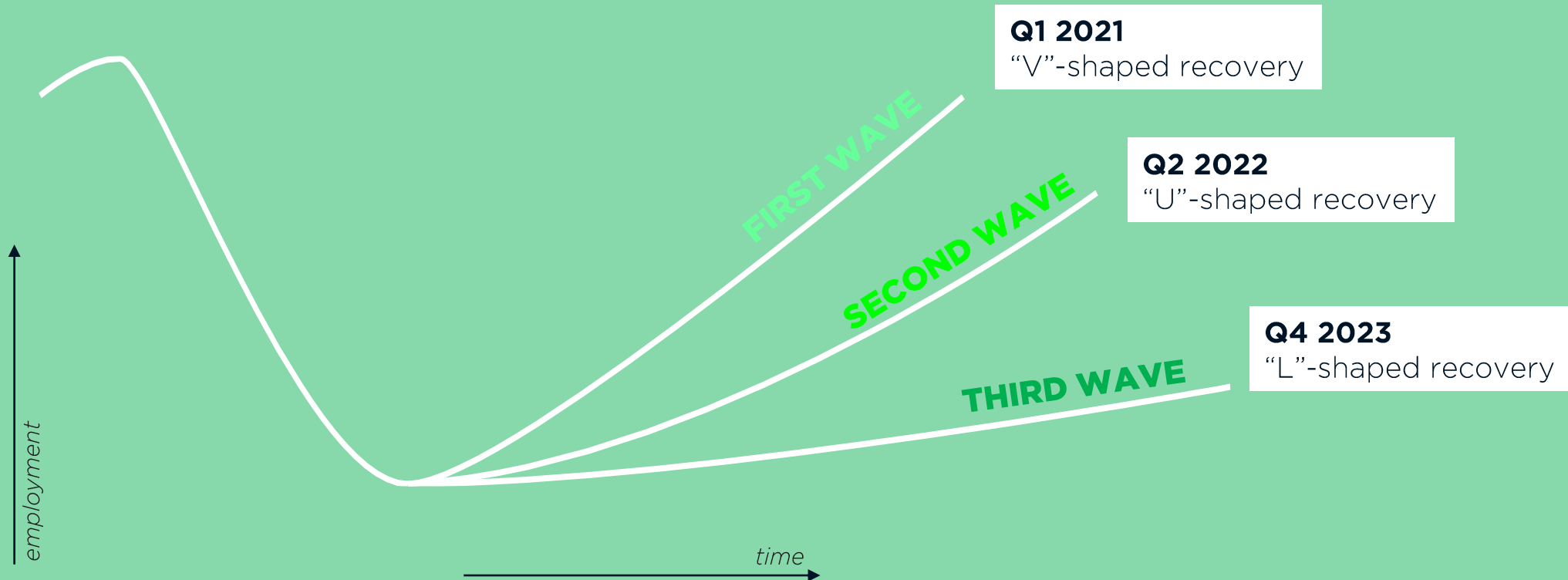
Leisure; Hospitality; Transportation

WHAT WILL RECOVERY LOOK LIKE?

The rate at which sectors add jobs coming out of the trough will determine the arc of recovery. Rapid recoveries take a “V” shape whereas prolonged recoveries such as those anticipated for Leisure + Hospitality are “L”-shaped.

OVERALL RECESSION DURATION + SHAPE OF RECOVERY

HYPOTHETICAL / NOT DRAWN TO SCALE



New Normal

WHAT WILL BE THE NEW NORMAL?

It depends who you ask.

Permanent Layoffs:

- **20%** of current layoffs are permanent (BLS)
- **42%** of layoffs, including furloughs, will be permanent (UChicago)
- **40-50%** of unemployed workers have no expectation of being recalled to their previous job (Oxford University Survey)

Labor Force:

- Up to **1/4** of jobs won't come back (Joseph Brusuelas, RSM)
- **8M** people will exit the labor force through Q3 2020 (Philip Swagel, CBO)

Business Closure:

- **31%** of small businesses have a **50%+ chance of bankruptcy** in the next 6 mo. (Yale, Princeton, Oxford Survey)
- **52%** of small businesses expect to be **out of business** in 6 mo. (Society of Human Resource Management Survey)
- The avg. business has more than \$10K in monthly expenses and **<1 mo.** of cash on-hand (NBER)
- After a major natural disaster, **40-60%** of businesses never reopen (FEMA)

WHAT WILL BE THE NEW NORMAL ON LONG ISLAND?

Here's what we've heard.

Business Recovery:

- **62%** of businesses expect to recover in 2021; **10%** expect to recover in 5+ years (Hofstra Survey)
- **6 of 10** higher education institutions expect to recover in 5 years (LIRACHE Survey)
- **34%** of real estate firms in Long Island expect to recover in 2021; **29%** expect to recover in 2-5 years (ABLI LIBI Real Estate Survey)

Business Closure:

- **8%** of small businesses (<25 employees) may close this year (Hofstra Survey)
- **50%** of businesses have closed temporarily; **1%** of businesses have closed permanently (Suffolk BRU Survey)
- **12%** of businesses report that **21%-50% of tenants** are closing down their business (ABLI LIBI Real Estate Survey)
- **One-third** of industrial businesses are at risk of closing (HIA-LI Coronavirus Reopen Survey)

Industry Insights

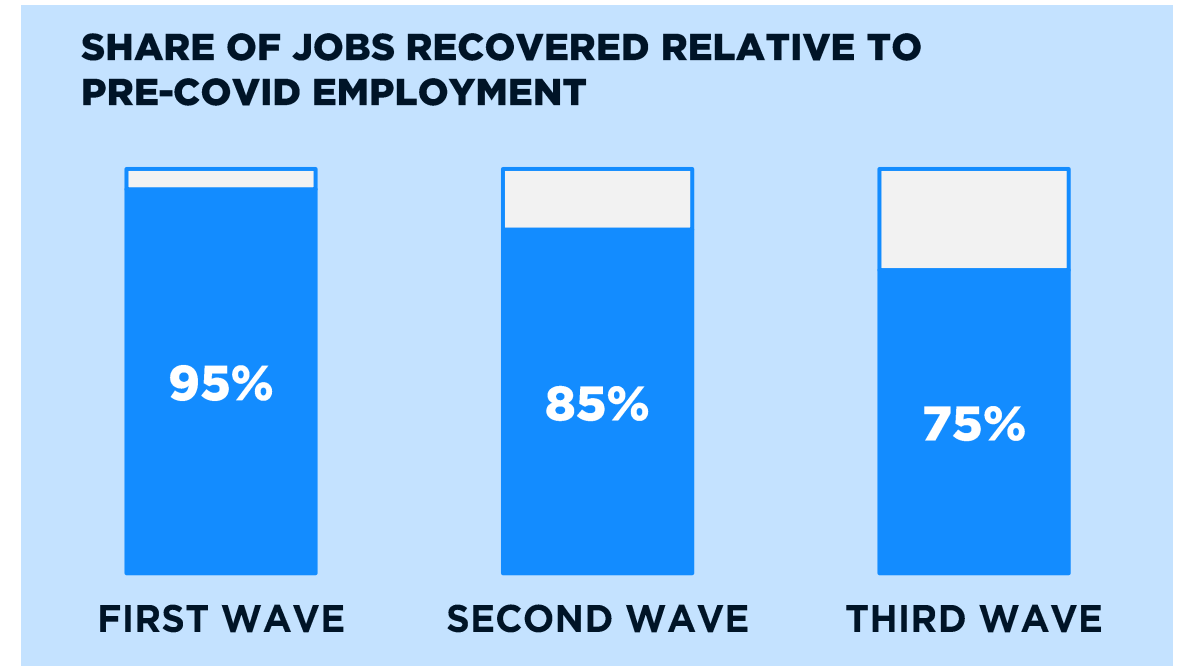
- March and April are the busiest months for the Long Island construction industry in a typical year. Much of this activity has been lost with the freeze on non-essential construction.
- Long Island relies heavily on tourism and hospitality revenues generated during the summer months, which the Suffolk Budget Dept projects will be down 50% relative to 2019. Many businesses have shifted their focus to new reservations and rebookings for the 2021 season.

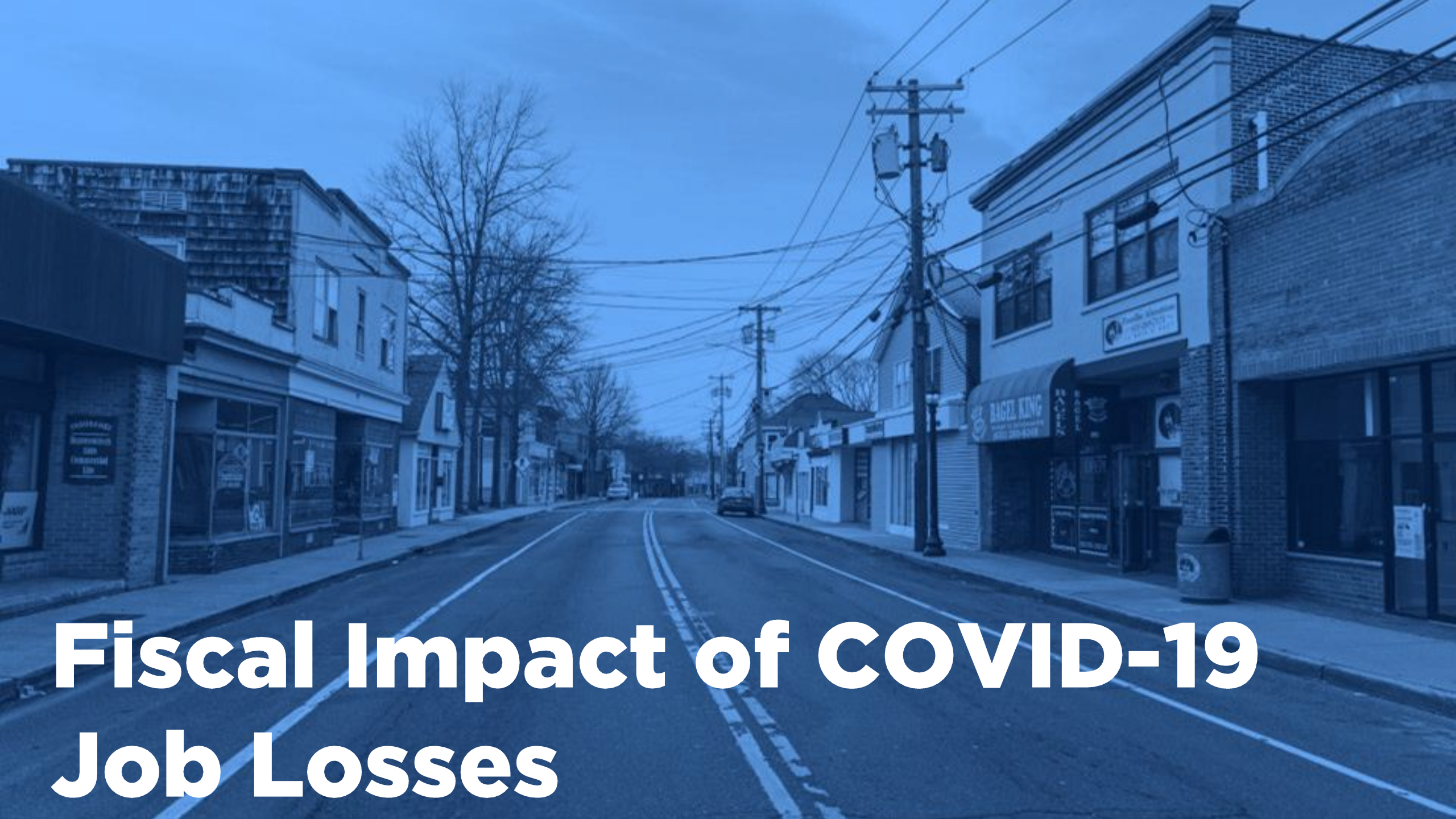
WHAT WILL BE THE NEW NORMAL ON LONG ISLAND?

There are far too many unknowns to be able to project employment over the long-term with any degree of certainty.

While short-term impacts are already evident, many government agencies, including the U.S. Bureau of Labor Statistics, the New York State Department of Labor, and New York City Department of City Planning, do not plan to adapt long-term forecasting methods in response to COVID; the public health crisis is considered a cyclical rather than a structural disruption to the economy and thus long-term trends should remain relatively unchanged.

Since our analysis is focused on the nearer-term, our impact scenario assigns differential rates of employment recovery to sectors based on where each might be relative to pre-COVID employment once the third wave of recovery has reached stabilization (assumed Q4 2023). Over time, beyond the scope of our analysis, sectors may fully catch up to pre-COVID levels.





Fiscal Impact of COVID-19

Job Losses

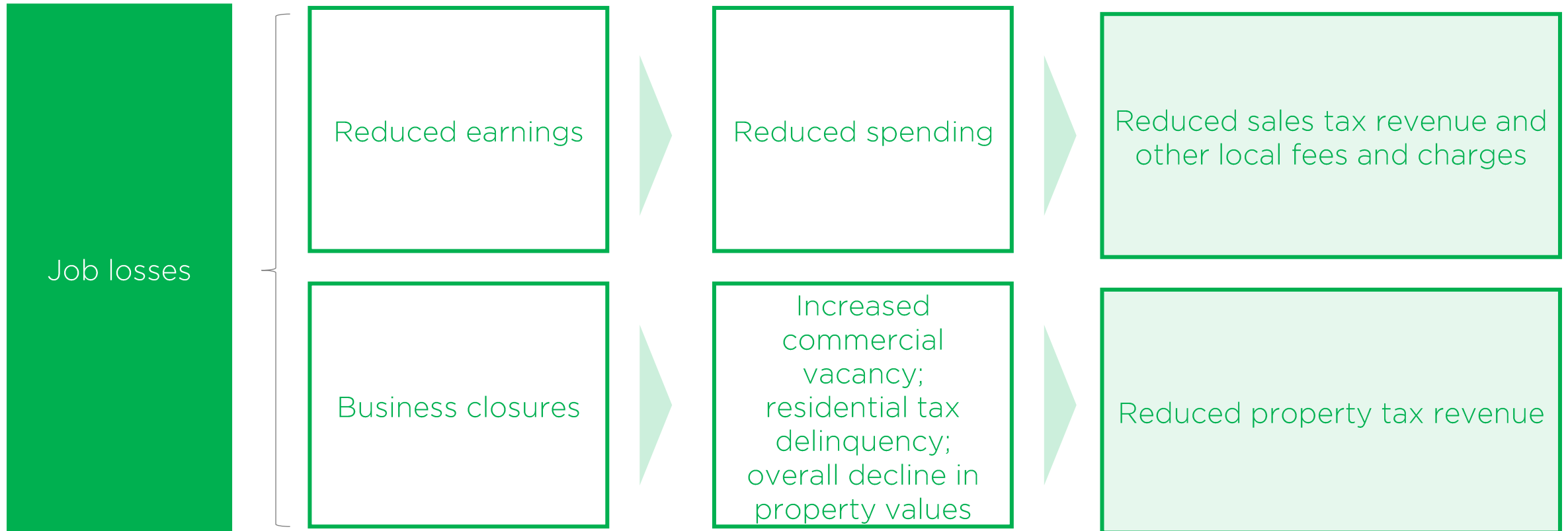
SUMMARY OF RECOVERY ASSUMPTIONS

To estimate the economic and fiscal impacts of COVID-related job losses on Long Island, we modeled a potential scenario using the timing and recovery assumptions below.

Impact Category	Industries	Trough	Recovery Period	Percent of Jobs Recovered
First Wave	<ul style="list-style-type: none"> • Finance + insurance • Management of co. + enterprises • Professional + technical services • Government • Information 	Q3 2020	6 months (Q1 2021)	95%
Second Wave	<ul style="list-style-type: none"> • Real estate • Retail • Admin + waste services • Agriculture • Construction/utilities • Education • Health care + social assistance • Manufacturing • Wholesale trade • Other services 	Q2 2021	12 months (Q2 2022)	85%
Third Wave	<ul style="list-style-type: none"> • Accommodation + food services • Transportation + warehousing • Arts, entertainment, recreation 	Q4 2021	24 months (Q4 2023)	75%

APPROACH

Business closures and job losses owing to COVID-19 will lead to reductions in earnings and spending potential, which will in turn impact local tax revenues.



FISCAL IMPACT OF JOB LOSSES | **OVERVIEW**

APPROACH

Potential fiscal impacts were estimated using the historical average ratio of employee earnings on Long Island to County tax revenues. While the relationship between earnings and tax revenues may vary by tax type, we assume that, on average, a reduction in earnings will proportionally decrease tax payments across local tax types, with the exception of property taxes; the impact to property taxes will depend on the timing of assessments.



* In addition to the total earnings loss, our fiscal impact analysis also considered an adjusted total earnings loss based on an estimate of the share of earnings that could potentially be recovered through state and federal unemployment benefits. The adjusted impact number reflects an adjustment for earnings losses that incorporate the use of available state and federal unemployment benefits. This analysis does not assume continuation of unemployment benefits under the CARES Act beyond that already in effect and set to expire in July 2020.

TOTAL ANNUAL ECONOMIC IMPACT OF COVID-19 ON LONG ISLAND (2020)

375K

**NET JOB LOSSES ON LONG ISLAND
(VS. PRE-COVID LEVELS)**

\$21 BILLION

**EARNINGS LOSSES AMONG LONG
ISLAND WORKERS**

\$61 BILLION

**REDUCED ECONOMIC ACTIVITY ON
LONG ISLAND**

ESTIMATED FISCAL IMPACT OF JOB LOSSES ON COUNTY REVENUES

COVID-related job losses have had a devastating impact on sales & use tax collections due to reduced earnings and spending. The below chart outlines HR&A’s estimates of the impact for FY 2020 and FY 2021 based solely on this reduced spending. The range of the estimated revenue loss is dependent on the extent and duration of federal and state unemployment benefits and the related impact on consumer spending. Forgone local tax revenues could grow further in FY 2021 as unemployment benefits expire.

The figures below do not include property tax impacts.

	FY 2020	FY 2021
Nassau County Local Revenue Impact	\$185M-\$360M	\$195M-\$250M
Suffolk County Local Revenue Impact	\$165M-\$325M	\$175M-\$225M
Long Island Total	\$350M-\$685M	\$370M-\$475M

* Analysis based on estimated net job losses relative to pre-COVID employment levels. Since our benchmark is relative to pre-COVID employment, it does not measure impacts against projected growth in tax revenues.

ESTIMATED IMPACT OF JOB LOSSES ON COUNTY REVENUES: METHODOLOGY

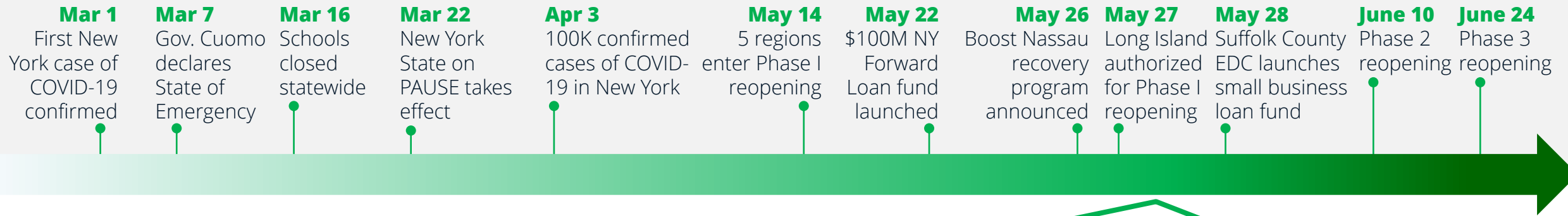
HR&A’s revenue impact estimates differ from figures released by Nassau & Suffolk Counties and **should be considered a subset of each County’s total projected loss in sales & use taxes and other revenues**. Among other differences, County figures are based on actual revenues collected as well as anticipated changes in consumer behavior, while HR&A’s estimates consider only those impacts associated with jobs/earnings losses owing to the economic shutdown and follow-on changes in consumer demand. HR&A’s analysis also excludes property taxes.

	HR&A Estimate	Nassau County Estimate	Suffolk County Estimate
Nassau Fiscal Impact	\$185M-\$360M (FY20)	\$384M (FY20)*	N/A
Suffolk Fiscal Impact	\$165M-\$325M (FY20)	N/A	\$469M-\$590M (FY20)**
Source of Impact	<ul style="list-style-type: none"> • COVID-related job losses only 	<ul style="list-style-type: none"> • COVID-related job losses • Additional changes in consumer spending behavior or service fee collections beyond those resulting in direct or indirect job loss 	
Approach / Methodology	<ul style="list-style-type: none"> • Proj. job/earnings losses by sector • Historical ratio of earnings to taxes • Sector-specific rates of recovery 	<ul style="list-style-type: none"> • Percentage reduction by tax type • Recent sales tax collections 	<ul style="list-style-type: none"> • Projected reduction in GDP • Ratio of GDP to local tax revenue
Tax Categories Included	<ul style="list-style-type: none"> • Sales Taxes • Other Local Revenues (e.g. charges for services) 	<ul style="list-style-type: none"> • Sales Taxes • Other Local Revenues • State Aid 	<ul style="list-style-type: none"> • Sales Taxes • Other Local Revenues • Property Taxes • State + Federal Aid
Offsets	<ul style="list-style-type: none"> • Accounts for UI benefits 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A

* Includes estimated impacts to state aid (\$32M), which was not included in HR&A’s analysis. The County has lost \$436M in revenue that will be offset by \$52M in expense savings, creating a \$384M budget deficit. Source: Monthly County Budget Report For the Period Ending April 30, 2020.

** Includes estimated impacts to property taxes (\$35M), state aid (\$2M), and federal aid (\$4M), which were not included in HR&A’s analysis in the above table. Source: COVID-19 Fiscal Impact Task Force Final Report, June 1, 2020.

TIMELINE OF RECENT EVENTS + COUNTY ACTIONS



- Offering **stabilization loans** to small businesses, M/WBEs, and non-profits that did not receive federal stimulus funds
- Addressing **PPE supply needs** through procurement protocols and free PPE for certain small businesses, non-profits, and M/WBEs
- **Surveying local businesses** to understand needs and inform approaches to recovery
- Convening a Coronavirus **Economic Advisory Council** and **Fiscal Impact Task Force**
- Creating a **virtual “one stop shop”** for reopening resources and employment assistance
- **Leveraging open space, streets, and temporarily vacant structures** to expand access to outdoor programming, dining, and entertainment to restore consumer confidence

Additional financial resources are needed to advance the Long Island region's recovery, including **budgetary relief for local governments** as well as additional support for **people, businesses, and places**, to include:

Financial

- **Federal funding** as outlined in the HEROES Act passed by the House, which included \$375B in **budgetary relief for local governments** to help avoid cuts to public services, layoffs, and/or tax increases, all of which could further negatively impact the local economy.
- **Extension of benefits** for workers and businesses given the on-going impacts of the pandemic and the likelihood of **multi-year impacts**.
- **Federal infrastructure funds** to address long-term impacts to the built environment, spur job creation, and transform the region to become more resilient in the face of future cataclysmic events and economic shocks.
- Continued federal relief programs to support **small businesses, encourage new businesses**, and recover **heavily impacted industries**.
- Assistance to states and counties for **workforce development, job retraining**, and **equity initiatives** in disproportionately affected communities and populations.

Other interventions to advance this recovery framework include:

Regulatory

- Streamlining local approvals and permitting processes to **ensure 'shovel ready' construction work** is in the pipeline.
- **Developing policy changes and revitalization strategies** that target heavily impacted industries (e.g. Hospitality, Healthcare, Retail, and Construction) and commercial corridors (e.g. village downtowns and Main Streets).

Programmatic

- **Investing in training and reskilling for workers disproportionately impacted** by the crisis, many of whom will be limited in their ability to find alternative job opportunities given a mismatch between existing skills and those needed to access jobs in sectors quickest to recover.
- Partnering with local businesses and institutions to develop **on-the-job training programs.**



HR&A

NASSAU + SUFFOLK COVID-19 ECONOMIC IMPACT

Final Report

July 8, 2020



Appendix

STAKEHOLDER OUTREACH

METHODOLOGY

HR&A had conversations with business and industry leaders on Long Island to gather qualitative insights, which were used to contextualize our analysis. Anecdotal findings from our discussions are included in the subsequent pages.

Stakeholders:

- Terri Alessi-Miceli, *Hauppauge Industrial Association of Long Island*
- John Durso, *Long Island Federation of Labor, Local 338*
- Dolores Freidrich, *Hofstra University*
- Dennis Grossman, *Nassau Council of Chambers of Commerce, DMI Group Inc.*
- Catherine Hennessy, *Hofstra University*
- Kristen Jarnagin, *Discover Long Island*
- Kevin Law, *Long Island Association*
- Lawrence Levy, *Hofstra University*
- Mitchell Pally, *Long Island Builders Institute*
- Stuart Rabinowitz, *Hofstra University*
- Luis Vazquez, *Long Island Hispanic Chamber of Commerce*

ECONOMIC SHOCK

Stakeholders noted that many Long Island businesses rely on seasonal or cyclical consumer demand, which makes them especially vulnerable to disasters and economic shocks that bring about abrupt changes in consumer behavior.

- For many small businesses across all industries, the 8-week loan period for PPP is too short relative to the duration of economic shock. For a substantial number of businesses in the retail, accommodations and food, and construction industries, the statewide restrictions on permitted business activity has prevented PPP utilization as business operations have paused completely.
- The temporary closure of “non-essential” businesses and changes in consumer spending as a result of COVID-19 has disrupted the seasonality of business activity on Long Island.
- Given the unprecedented nature of the COVID-19 crisis, businessowners on Long Island expressed concerns about ongoing public health impacts, consumer confidence, access to supply chains, and potential permanent damages that premature reopening could bring if accompanied by a new wave of infections.

RATE OF RECOVERY

Stakeholders believe that the rate of recovery will depend on regaining consumer confidence and the extent of federal, state, and local support.

- Recovery will partially depend on the rate at which consumer confidence is restored. Businesses in all industries have expressed the need for continued federal, state, and local assistance during the recovery process as consumer demand is expected to return gradually.
- Financial aid and support programs need to be extended over a longer time period to ensure that businesses can recover quickly.
- County governments should invest in industry- and place-specific business and workforce development programs that can accelerate the rate of recovery through supporting disproportionately impacted workers.

NEW NORMAL

While the new normal for most industries is still nebulous, stakeholders speculate that COVID-19 will prompt shifts in business operations, consumer markets, and commuter trends.

- While many businesses will continue to occupy traditional brick-and-mortar stores post-COVID-19, social distancing has accelerated the adoption of online business services, which may lead to some downsizing of leased space.
- Industries may expand to new consumer markets. For example, with the current restrictions on international travel, the tourism and hospitality industry is shifting their marketing strategy to capture more local and regional visitors in the upcoming summer season. Across all industries, the ability to capture new potential customers may improve the new normal.
- COVID-19 may reshape commuter trends on Long Island and the greater region. A potential decline in office demand, increased telecommuting, and more flexible work hours may prompt changes in how Long Islanders live and work. Associated shifts in LIRR ridership and commute duration may occur.
- New downtown revitalization initiatives, mixed-use infill development, TOD, and workforce development programs may mitigate permanent job and businesses losses.

FISCAL IMPACT METHODOLOGY

APPROACH

We find ourselves in a moment that lacks parallel in modern history. Projections of the severity and duration of impact change on a near-daily basis, with even the most advanced forecasting models unable to accurately predict what lies ahead. As the health crisis and the federal stimulus response to it continue to evolve rapidly, government and civic leadership must be prepared with real-time data to allow local decisionmakers to deploy finite local resources in a strategic manner and to support requests for federal and state aid where there are severe shortfalls.

The Nassau and Suffolk County Budget Departments have each prepared their own high-level estimates of how local coffers may be impacted over the coming years, relying on **national economic data** and **recent sales tax collections**. Nassau County reviewed economic projections and financial reports and applied percentage reductions to different tax categories by fiscal quarter. Suffolk County consulted national forecasts to project future declines in GDP, and applied ratios to estimate tax losses.

The goal of HR&A's analysis is to understand the impact on local businesses and workers. We've therefore adopted a bottom-up approach to estimating fiscal impact based on **projected jobs and earnings losses** among **Long Island businesses** and their employees. In so doing, we are able to adjust for the availability of partial or full earnings offsets provided through federal and state unemployment insurance programs. This approach allows us to pinpoint the severity of impact at different points in time by taking into account the expiration or exhaustion of unemployment insurance benefits during the out-years. HR&A's fiscal impact estimates are different from projections undertaken by the Counties since they **do not** capture the full extent of impact from temporary business closures, reductions in consumer spending or service fee collections due to the stay-at-home order, and other long-term changes in consumer behavior **beyond those which are reasonably expected to result in direct or indirect jobs and earnings losses**. HR&A's estimated impacts should therefore be considered a subset of each County's total projected losses.

In summation: The hit to County tax revenues is likely to be **even worse next year than this year**. This is not a 2020 or a 2021 problem, but one likely to **extend across multiple fiscal years**.

APPROACH

HR&A's fiscal impact analysis focuses on the impacts that COVID-related **job losses** on Long Island and resulting **earnings losses** could have on **local revenues**. Our methodology is tailored to assess the impact of current and projected local economic conditions. Our analysis is based on projected jobs and earnings losses specific to Long Island.

- While we anticipate that job losses will be a key driver of fiscal impact, other factors will influence the total fiscal impact of COVID-19. Our analysis reflects the impacts of reduced consumer spending and reduced visitation **to the extent that these trends are reflected in associated jobs and earnings losses**, which we largely assume to be the case. However, a limitation of this methodology is that our analysis likely does not capture the full extent of impacts related to near-term consumer spending behavior and temporary business closures that did not result in direct or indirect job losses. In this way, HR&A's estimated impacts should therefore be considered **a subset of each County's total projected losses**.
- Earnings losses reflect those associated with **businesses located on Long Island**. This does not include the full impact of reduced spending among newly unemployed Long Island residents who previously worked outside of Long Island, beyond the impact that reduced resident spending would factor into job losses in Long Island businesses.
- Our fiscal impact model evaluates the **historical ratio of earnings and local revenues**, as defined by the NYS Comptroller. The local revenues considered include real property taxes and assessments, other real property tax items, sales and use taxes, other non-property taxes, charges for services, charges to other governments, use and sale of property, and other local revenues. The analysis **excludes state aid, federal aid, proceeds of debt, and other non-local sources** of revenues.
- The baseline of our model evaluates jobs and earnings losses **relative to pre-COVID levels** of employment (Feb 2020). Since our benchmark is relative to pre-COVID employment, it does not measure impacts against projected growth in tax revenues.

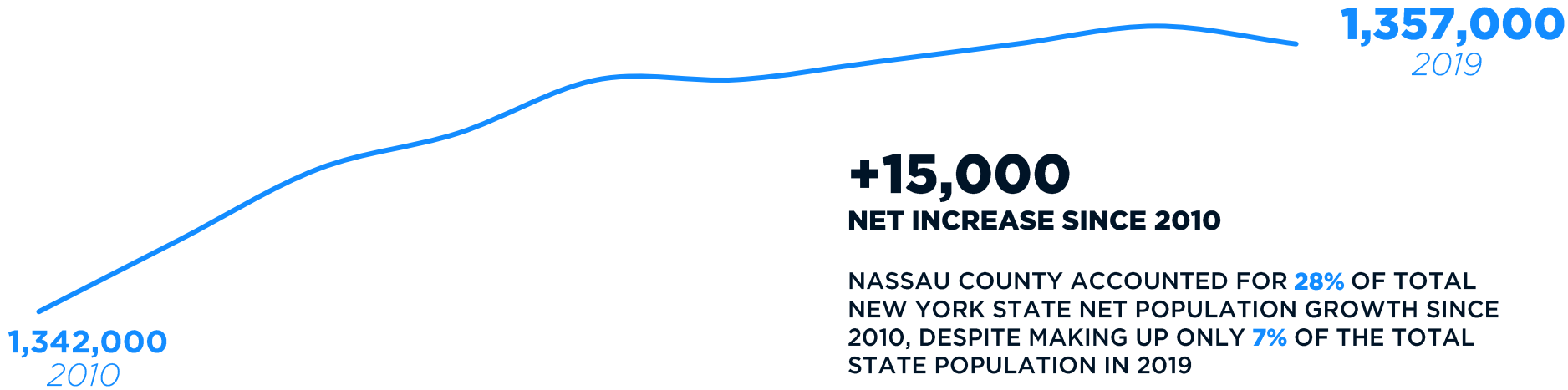
FISCAL IMPACT – PROPERTY TAX

In addition, Long Island can expect impacts to property tax revenues. COVID-related job losses may result in part from permanent business closures, which in turn drives increased commercial vacancy rates. Loss of income and spending capacity may further result in greater residential property tax delinquency and pressures to reduce local budgets.

We anticipate that impacts to property taxes will be limited in FY 2020, since impacts to property taxes are influenced by regulatory factors, such as the complexity of assessment procedures and the timing of assessments. While we do not expect the impact to be realized in the immediate-term, impacts to property tax collections are likely to occur in future years. We estimate that impacts to property taxes in future years could range up to \$100M for each county.

NASSAU COUNTY BASELINE TRENDS

NASSAU COUNTY POPULATION (2010-2019)



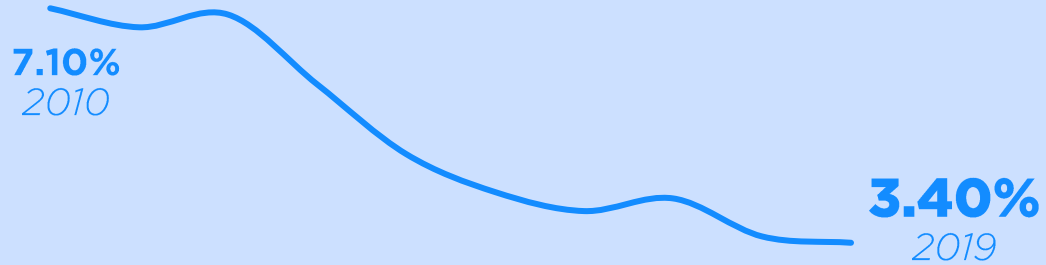
		SHARE OF TOTAL POPULATION AGES 45+	NON-WHITE SHARE OF TOTAL POPULATION	FOREIGN BORN SHARE OF TOTAL POPULATION	MEDIAN HOUSEHOLD INCOME (2018\$)
	2000	39%	21%	18%	\$109K
	2018	46%	32%	23%	\$116K

BASELINE | ECONOMIC TRENDS

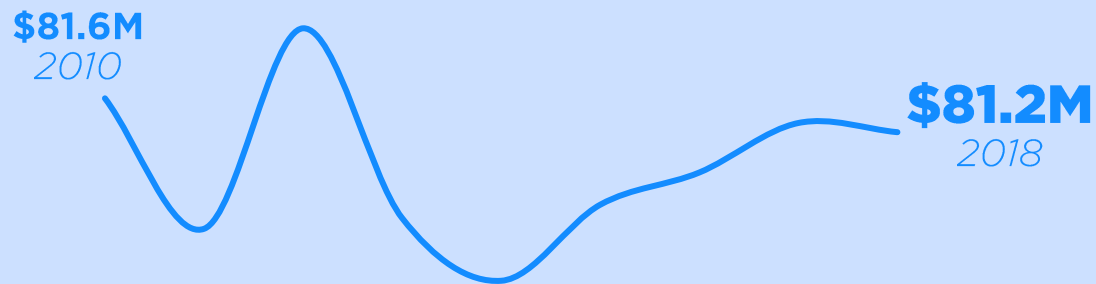
NASSAU AVERAGE ANNUAL EMPLOYMENT, 2010-2019



NASSAU ANNUAL UNEMPLOYMENT RATE, 2010-2019



NASSAU GROSS REGIONAL PRODUCT (GRP), 2010-2018 (CHAINED 2012\$)



NASSAU COUNTY

8%
49,100 NET JOB
GROWTH, 2010-2019

\$78K
AVG. ANNUAL WAGE OF
JOBS IN NASSAU, 2019

3.4%
UNEMPLOYMENT RATE,
2019

(0.5%)
NET DECREASE IN GRP,
2010-2018



NEW YORK STATE

14%
1,157,00 NET JOB
GROWTH, 2010-2019

\$90K
AVG. ANNUAL WAGE
OF JOBS IN NYS, 2019

4.0%
UNEMPLOYMENT RATE,
2019

13%
NET INCREASE IN GDP,
2010-2018

48,600

TOTAL ESTABLISHMENTS IN NASSAU COUNTY (2017)

65%

ESTABLISHMENTS WITH FEWER THAN 5 EMPLOYEES

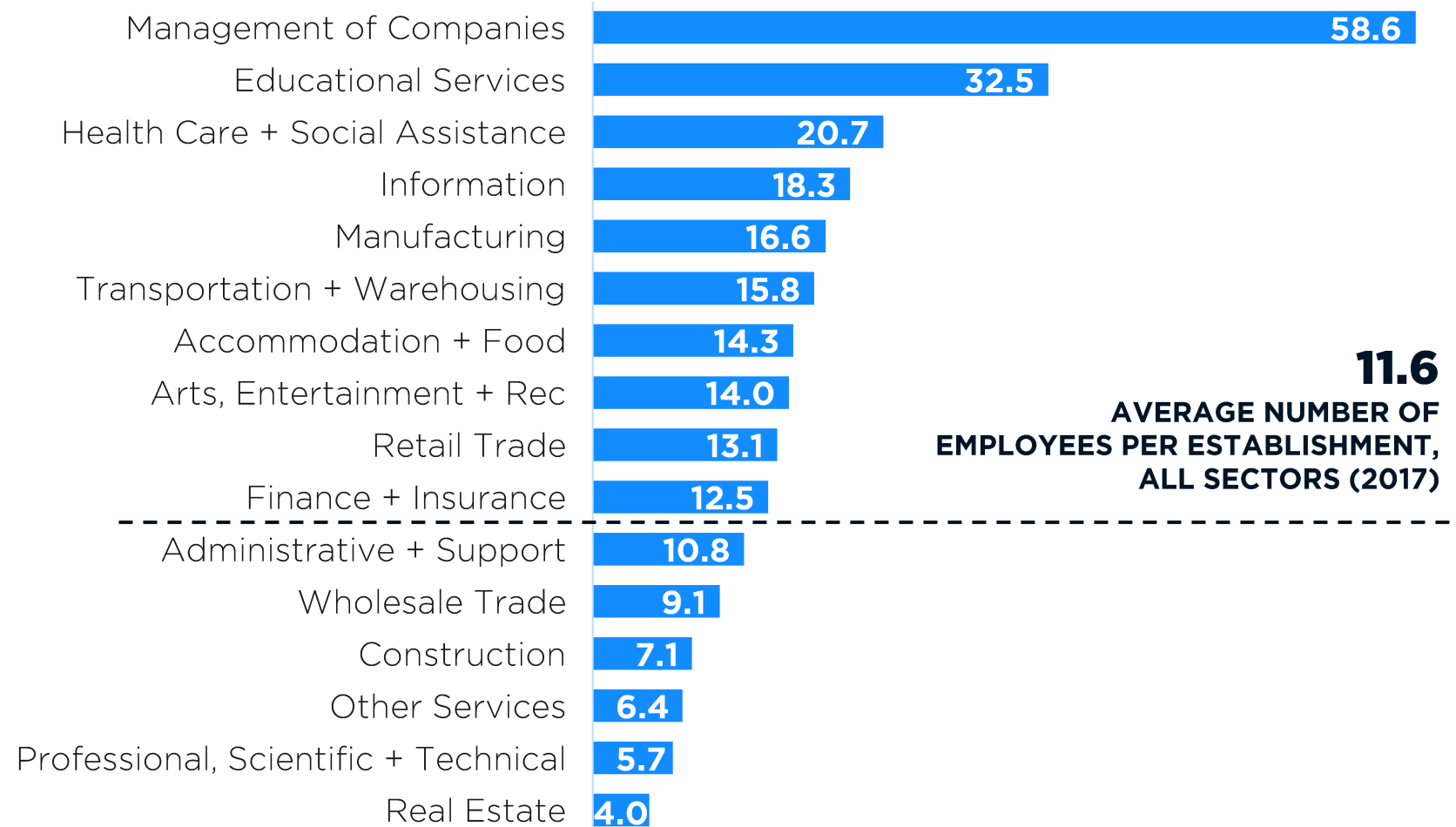
80%

ESTABLISHMENTS WITH FEWER THAN 10 EMPLOYEES

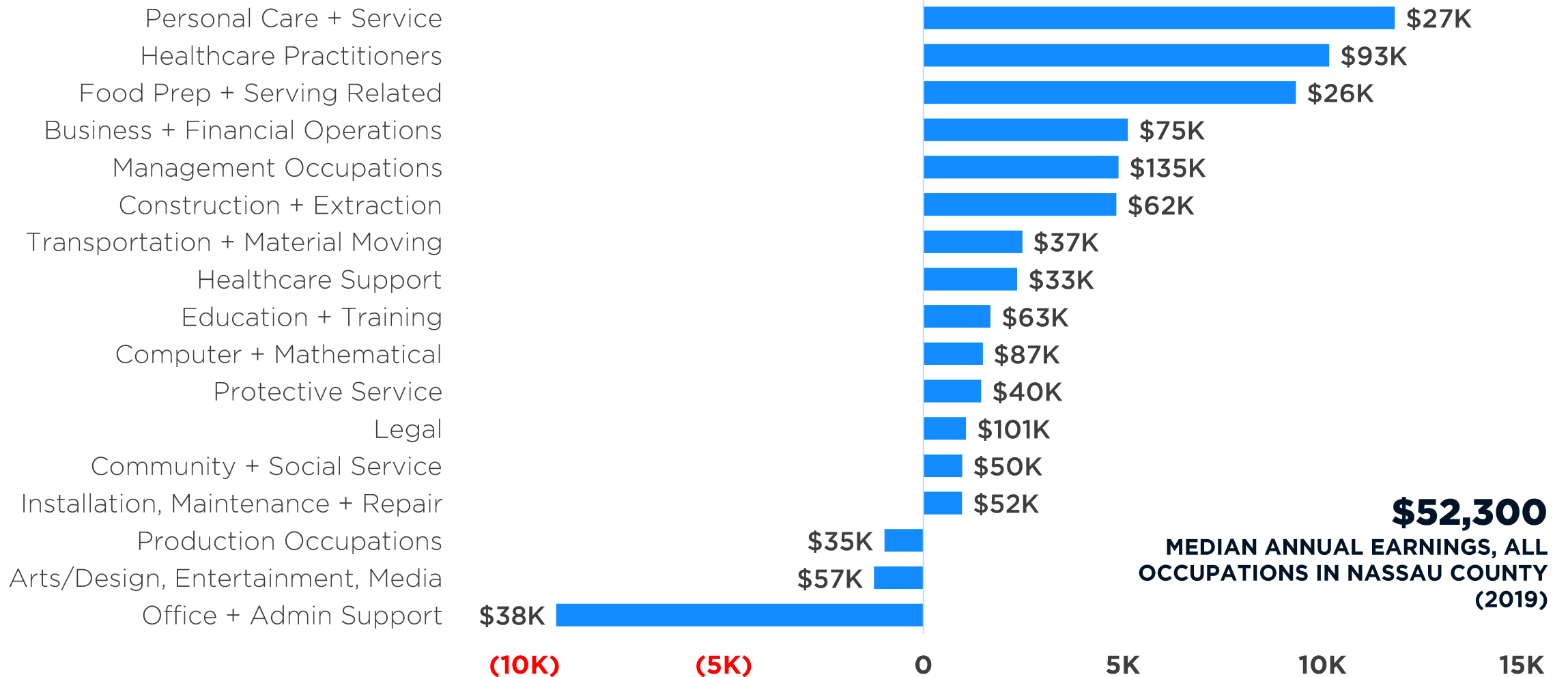
99.9%

ESTABLISHMENTS WITH FEWER THAN 500 EMPLOYEES

AVERAGE NUMBER OF EMPLOYEES PER ESTABLISHMENT

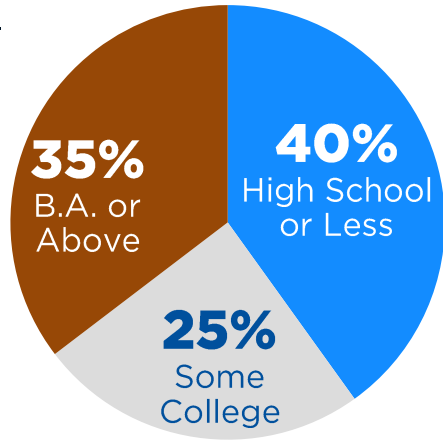


NASSAU COUNTY JOB GROWTH BY OCCUPATION + WAGE, 2010-2019

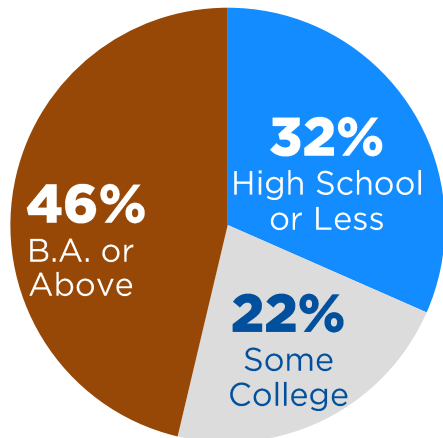


NASSAU COUNTY EDUCATIONAL ATTAINMENT

2000



2018



22,500

HIGHER EDUCATION COMPLETIONS FROM 23 LOCAL INSTITUTIONS (2018)

4% OF COMPLETIONS FROM DISTANCE-OFFERED PROGRAMS

24% LESS THAN 4-YEAR DEGREES



SHARE OF TOTAL COMPLETIONS BY INSTITUTION (2018):

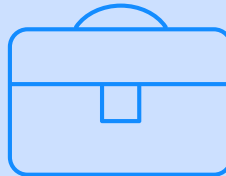
19% LIU POST

15% HOFSTRA UNIVERSITY

15% NASSAU COMMUNITY COLLEGE

11% ADELPHI UNIVERSITY

10% NY INSTITUTE OF TECHNOLOGY



OF UNIQUE JOB POSTINGS BY FIRM (SEP 2016-MAY 2019):

11,400 NORTHWELL HEALTH

10,900 CRST INTERNATIONAL

5,500 ORACLE

3,900 CARE.COM

3,700 CVS HEALTH

SUFFOLK COUNTY BASELINE TRENDS

BASELINE | POPULATION TRENDS

SUFFOLK COUNTY POPULATION (2010-2019)



	SHARE OF TOTAL POPULATION AGES 45+	NON-WHITE SHARE OF TOTAL POPULATION	FOREIGN BORN SHARE OF TOTAL POPULATION	MEDIAN HOUSEHOLD INCOME (2018\$)
2000	35%	15%	11%	\$99K
2018	46%	19%	16%	\$100K

BASELINE | ECONOMIC TRENDS

SUFFOLK AVERAGE ANNUAL EMPLOYMENT, 2010-2019



SUFFOLK ANNUAL UNEMPLOYMENT RATE, 2010-2019



SUFFOLK GROSS REGIONAL PRODUCT (GRP), 2010-2018 (CHAINED 2012\$)



SUFFOLK COUNTY

10%

60,500 NET JOB GROWTH, 2010-2019

\$77K

AVG. ANNUAL WAGE OF JOBS IN SUFFOLK, 2019

3.7%

UNEMPLOYMENT RATE, 2019

4.7%

NET INCREASE IN GRP, 2010-2018



NEW YORK STATE

14%

1,157,00 NET JOB GROWTH, 2010-2019

\$90K

AVG. ANNUAL WAGE OF JOBS IN SUFFOLK, 2019

4.0%

UNEMPLOYMENT RATE, 2019

13%

NET INCREASE IN GDP, 2010-2018

49,800

TOTAL ESTABLISHMENTS IN SUFFOLK COUNTY (2017)

62%

ESTABLISHMENTS WITH FEWER THAN 5 EMPLOYEES

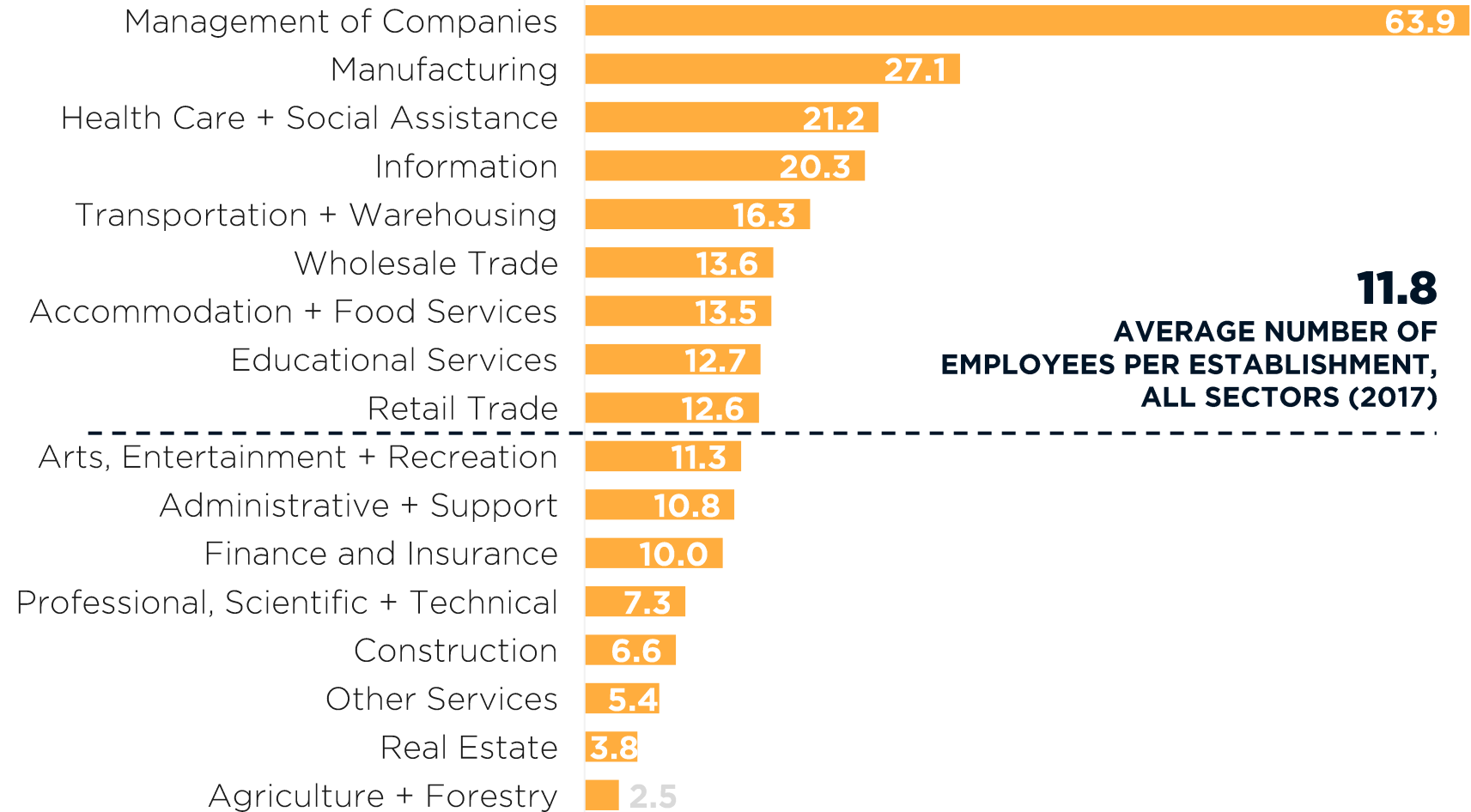
78%

ESTABLISHMENTS WITH FEWER THAN 10 EMPLOYEES

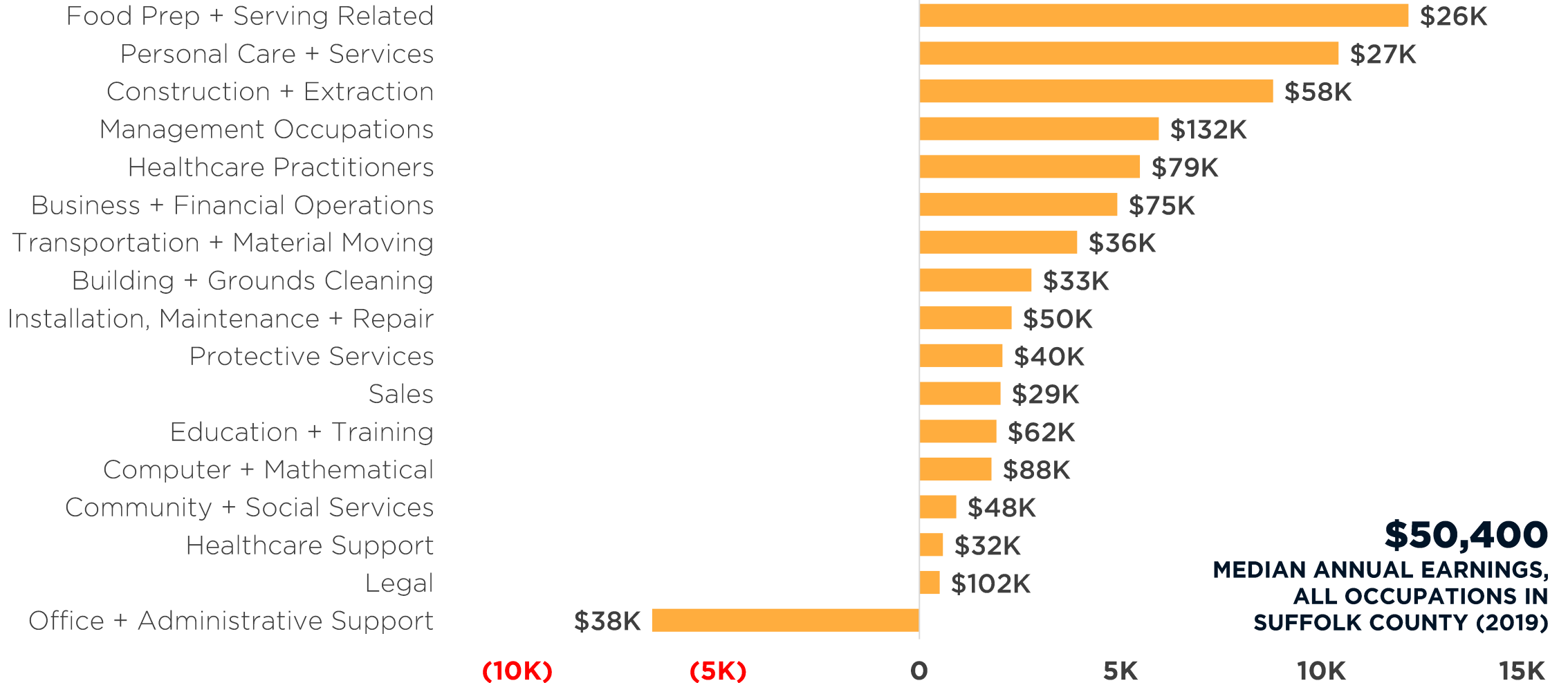
99.9%

ESTABLISHMENTS WITH FEWER THAN 500 EMPLOYEES

AVERAGE NUMBER OF EMPLOYEES PER ESTABLISHMENT



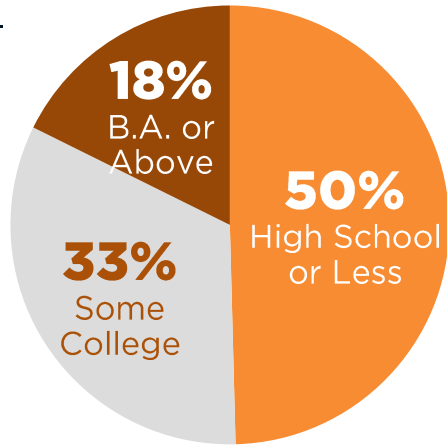
SUFFOLK COUNTY JOB GROWTH BY OCCUPATION + WAGE, 2010-2019



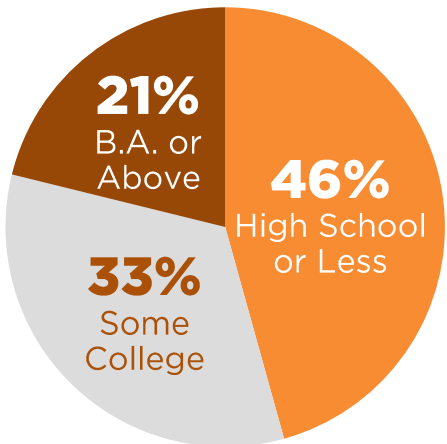
BASELINE | EDUCATIONAL ATTAINMENT

SUFFOLK COUNTY EDUCATIONAL ATTAINMENT

2000



2018



14,200

HIGHER EDUCATION COMPLETIONS FROM 13 LOCAL INSTITUTIONS (2018)

11% OF COMPLETIONS FROM DISTANCE-OFFERED PROGRAMS

36% LESS THAN 4-YEAR DEGREES



SHARE OF TOTAL COMPLETIONS BY INSTITUTION (2018):

55% STONY BROOK UNIVERSITY

27% SUFFOLK COUNTY COMMUNITY COLLEGE

8% ST. JOSEPH'S COLLEGE - LONG ISLAND

1% BRANFORD HALL - BOHEMIA

1% BRANFORD HALL - AMITYVILLE



OF UNIQUE JOB POSTINGS BY FIRM (SEP 2016-MAY 2019):

16,800 CRST INTERNATIONAL

4,500 STATE UNIVERSITY OF NEW YORK

4,100 CARE.COM

3,800 MOUNT SINAI HOSPITAL

3,700 RANDSTAD N.V.