Planning & Data

Metro Lab, Rio de Janeiro, Nov 2015

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Regional Plan Association

THE FOURTH REGIONAL PLAN

Explore at **www.rpa.org/fourth-plan** ▶

November 2015

	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1		FROM GCT - POST-ESA									FROM GCT - POST-ESA WITH TUNNEL CONNECTING ESA WITH LEX AVE LINE									Difference between NYP and GCT	
2		Route	Walk time to street/subway	Google transit time	Google walk time	Walk time with penalty	Subway/ bus fare penalty(4) & initial transfer penal	Subway transfer penalty	TOTAL time from GCT		Route	Walk time to street/subway	Google transit time	Google walk time	Walk time with penalty	Subway/ bus fare penalty(4) & initial transfer penal	Subway transfer penalty	TOTAL time from GCT with connector		post-ESA without connector	post-ESA with connector
3		Sbwy:Lex/F	12.0	13	10	33	7	6	**59.0**		Sbwy:Lex/F	9.0	13	10	29	7	6	**54.5**		11.6	7.1
4		Sbwy:Lex/F	12.0	13	16	42	7	6	**68.0**		Sbwy:Lex/F	9.0	13	16	38	7	6	**63.5**		5.1	0.6
5		Sbwy:Lex/F	12.0	13	5	26	7	6	**51.5**		Sbwy:Lex/F	9.0	13	5	21	7	6	**47.0**		5.1	0.6
6		Sbwy:Lex	12.0	13	7	29	7	0	**48.5**		Sbwy:Lex	9.0	13	7	24	7	0	**44.0**		3.4	-1.1
7		Sbwy:Lex/F	12.0	13	10	33	7	6	**59.0**		Sbwy:Lex/F	9.0	13	10	29	7	6	**54.5**		5.1	0.6
8		Sbwy:Lex	12.0	15	4	24	7	0	**46.0**		Sbwy:Lex	9.0	15	4	20	7	0	**41.5**		11.4	6.9
9		Sbwy:Lex/F	12.0	13	15	41	7	6	**66.5**		Sbwy:Lex/F	9.0	13	15	36	7	6	**62.0**		8.6	4.1
10		Sbwy:Lex/F	12.0	13	16	42	7	6	**68.0**		Sbwy:Lex/F	9.0	13	16	38	7	6	**63.5**		8.6	4.1
11		Sbwy:Lex/F	12.0	13	13	38	7	6	**63.5**		Sbwy:Lex/F	9.0	13	13	33	7	6	**59.0**		8.6	4.1
12		Sbwy:Lex	12.0	12	4	24	7	0	**43.0**		Sbwy:Lex	9.0	12	4	20	7	0	**38.5**		9.9	5.4
13		Sbwy:Lex/F	12.0	13	8	30	7	6	**56.0**		Sbwy:Lex/F	9.0	13	8	26	7	6	**51.5**		5.1	0.6
14		Sbwy:Lex/F	12.0	13	6	27	7	3	**50.0**		Sbwy:Lex/F	9.0	13	6	23	7	3	**45.5**		5.6	1.1
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20		Sbwy:Lex	12.0	10	8	30	7	0	**47.0**		Sbwy:Lex	9.0	10	8	26	7	0	**42.5**		22.4	17.9
21		Sbwy:Lex/F	12.0	12	10	33	7	3	**55.0**		Sbwy:Lex/F	9.0	12	10	29	7	3	**50.5**		4.6	0.1
22		Sbwy:Lex	12.0	9	15	41	7	0	**56.5**		Sbwy:Lex	9.0	9	15	36	7	0	**52.0**		5.1	0.6
23		Sbwy:Lex/L	12.0	6	19	47	7	3	**62.5**		Sbwy:Lex/L	9.0	6	19	42	7	3	**58.0**		9.4	4.9
24		Sbwy:Lex	12.0	8	16	42	7	0	**57.0**		Sbwy:Lex	9.0	8	16	38	7	0	**52.5**		11.4	6.9
25		Sbwy:Lex	12.0	10	15	41	7	0	**57.5**		Sbwy:Lex	9.0	10	15	36	7	0	**53.0**		3.1	-1.4
26		Sbwy:Lex/L	12.0	6	16	42	7	3	**58.0**		Sbwy:Lex/L	9.0	6	16	38	7	3	**53.5**		-5.4	-9.9
27		Sbwy:Lex	12.0	10	9	32	7	0	**48.5**		Sbwy:Lex	9.0	10	9	27	7	0	**44.0**		-3.9	-8.4
28		Sbwy:Lex/L	12.0	6	12	36	7	3	**52.0**		Sbwy:Lex/L	9.0	6	12	32	7	3	**47.5**		-5.4	-9.9
29		Sbwy:Lex	12.0	10	1	20	7	0	**36.5**		Sbwy:Lex	9.0	10	1	15	7	0	**32.0**		2.9	-1.6
30		Sbwy:Lex/F	12.0	12	6	27	7	3	**49.0**		Sbwy:Lex/F	9.0	12	6	23	7	3	**44.5**		3.1	-1.4
31		Sbwy:Lex	12.0	9	13	38	7	0	**53.5**		Sbwy:Lex	9.0	9	13	33	7	0	**49.0**		3.6	-0.9
32		Sbwy:Lex	12.0	12	3	23	7	0	**41.5**		Sbwy:Lex	9.0	12	3	18	7	0	**37.0**		1.1	-3.4
33		Sbwy:Lex/L	12.0	6	12	36	7	3	**52.0**		Sbwy:Lex/L	9.0	6	12	32	7	3	**47.5**		8.6	4.1
34		Sbwy:Shuttle/2/1	12.0	11	4	24	7	6	**48.0**		Sbwy:Shuttle/2/1	12.0	11	4	24	7	6	**48.0**		21.9	21.9
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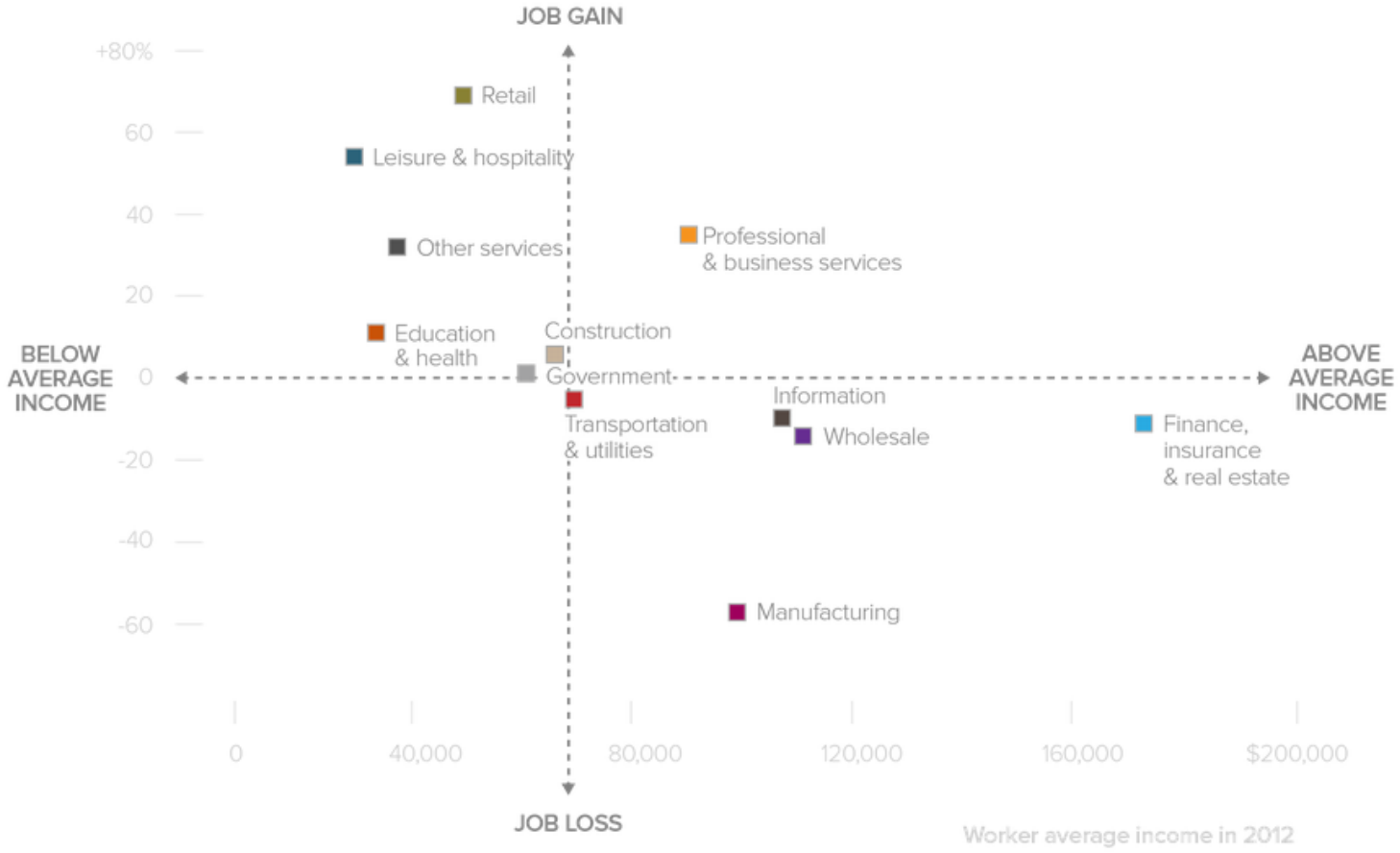
36		Sbwy:Lex	12.0	9	8	30	7	0	**46.0**		Sbwy:Lex	9.0	9	8	26	7	0	**41.5**		3.6	-0.9
37		Sbwy:Lex	12.0	9	5	26	7	0	**41.5**		Sbwy:Lex	9.0	9	5	21	7	0	**37.0**		-3.9	-8.4
38		Sbwy:Shuttle/2/1	12.0	9	9	32	7	6	**53.5**		Sbwy:Shuttle/2/1	12.0	9	9	32	7	6	**53.5**		24.6	24.6
39		Sbwy:Lex	12.0	8	6	27	7	0	**42.0**		Sbwy:Lex	9.0	8	6	23	7	0	**37.5**		-7.9	-12.4
40		Sbwy:Shuttle/2/1	12.0	11	8	30	7	6	**54.0**		Sbwy:Shuttle/2/1	12.0	11	8	30	7	6	**54.0**		21.9	21.9
41		Sbwy:Lex	12.0	4	9	32	7	0	**42.5**		Sbwy:Lex	9.0	4	9	27	7	0	**38.0**		7.6	3.1
42		Sbwy:Lex	12.0	11	5	26	7	3	**46.5**		Sbwy:Lex	9.0	11	5	21	7	3	**42.0**		4.6	0.1
43		Sbwy:Lex	12.0	4	4	24	7	0	**35.0**		Sbwy:Lex	9.0	4	4	20	7	0	**30.5**		-7.4	-11.9
44		Sbwy:Lex	12.0	9	4	24	7	0	**40.0**		Sbwy:Lex	9.0	9	4	20	7	0	**35.5**		5.1	0.6
45		Sbwy:Lex/L	12.0	6	12	36	7	3	**52.0**		Sbwy:Lex/L	9.0	6	12	32	7	3	**47.5**		9.4	4.9
46		Sbwy:Lex	12.0	10	4	24	7	3	**44.0**		Sbwy:Lex	9.0	10	4	20	7	3	**39.5**		11.6	7.1
47		Sbwy:Shuttle/2	12.0	10	6	27	7	6	**50.0**		Sbwy:Shuttle/2	12.0	10	6	27	7	6	**50.0**		22.9	22.9
48		Sbwy:Lex	12.0	4	8	30	7	0	**41.0**		Sbwy:Lex	9.0	4	8	26	7	0	**36.5**		6.9	2.4

CHANGE IN EMPLOYMENT BY SECTOR 1990–2013



Source: Bureau of Labor Statistics

fragile-success.rpa.org/c/1.html

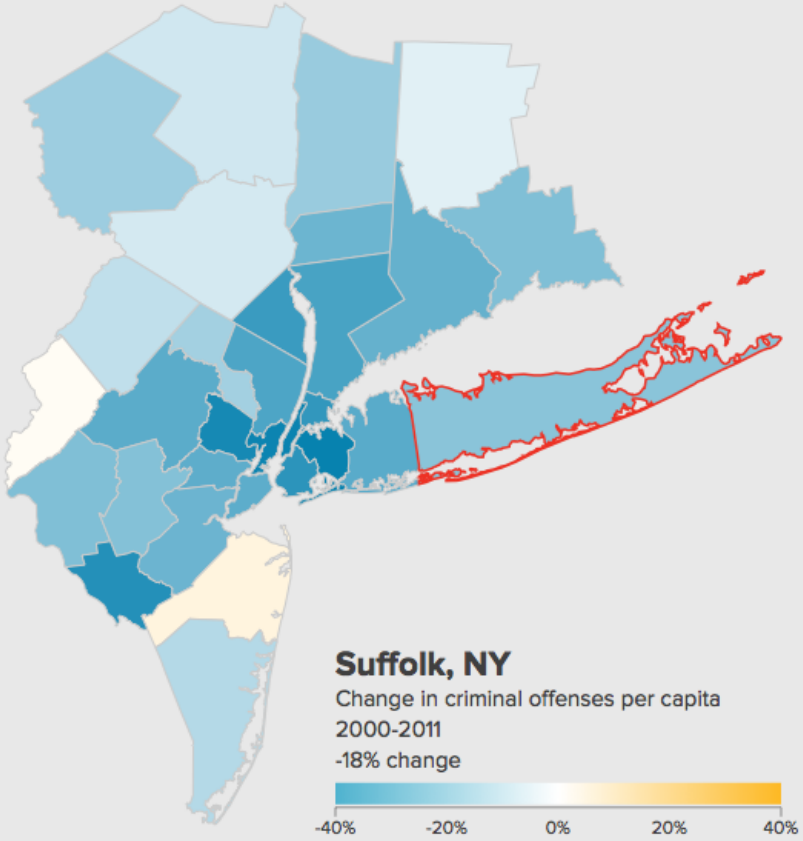
daily riders nyc bus

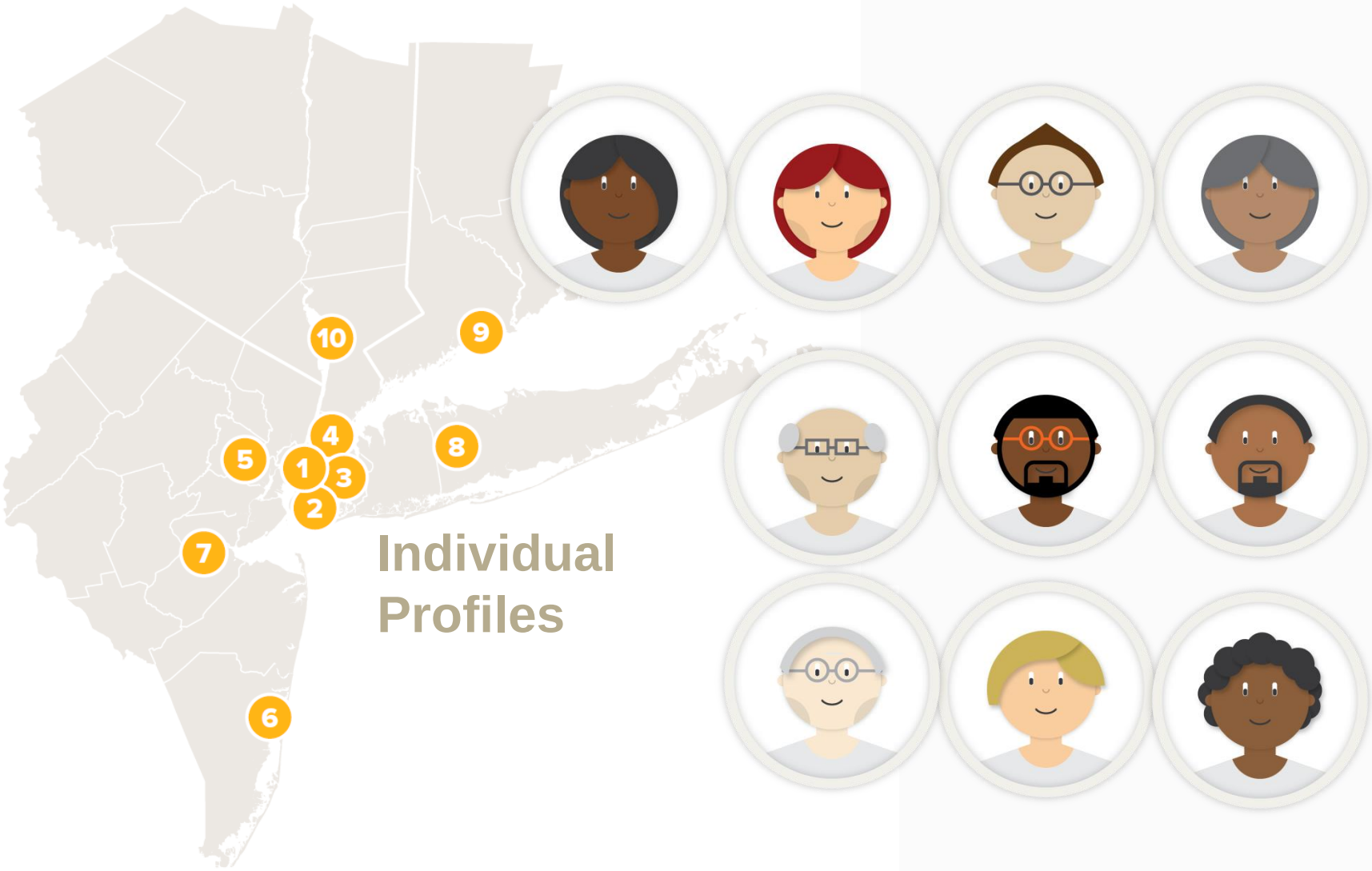
RPA

FRAGILE SUCCESS 1 2 3 4 5 6

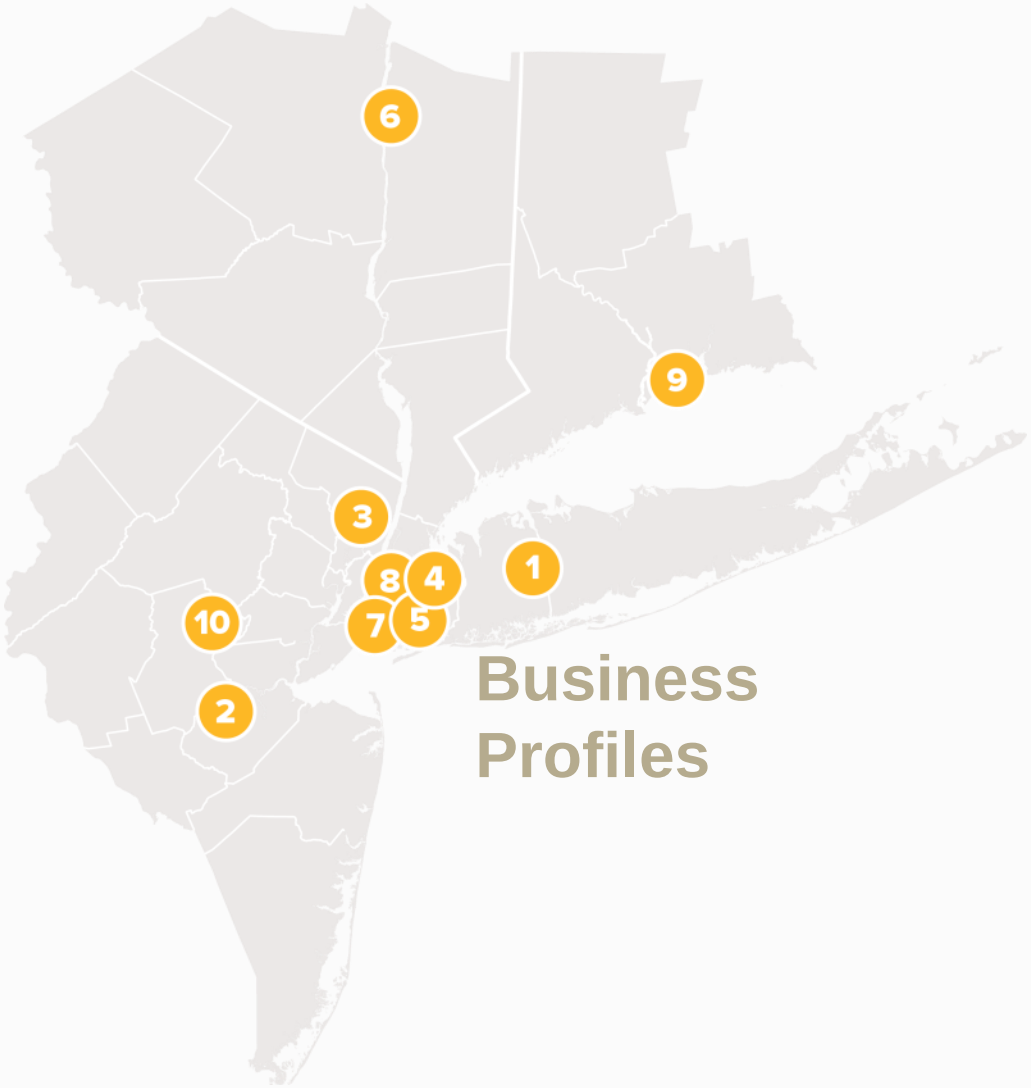
Change in criminal offenses per capita, 2000-2011

Monmouth, NJ	6%
Warren, NJ	2%
Litchfield, CT	-5%
Orange, NY	-7%
Ulster, NY	-7%
Sussex, NJ	-10%
Ocean, NJ	-12%
Passaic, NJ	-14%
Sullivan, NY	-15%
Dutchess, NY	-16%
Suffolk, NY	**-18%**
Somerset, NJ	-19%
Hunterdon, NJ	-20%
New Haven, CT	-20%
Putnam, NY	-23%
Middlesex, NJ	-23%
Fairfield, CT	-24%
Union, NJ	-25%
Richmond, NY	-25%
Morris, NJ	-26%
Nassau, NY	-26%
Bergen, NJ	-28%
Westchester, NY	-29%
Rockland, NY	-31%
Bronx, NY	-32%
Kings, NY	-33%
Mercer, NJ	-34%
Essex, NJ	-37%
Hudson, NJ	-38%
New York, NY	-38%
Queens, NY	-39%



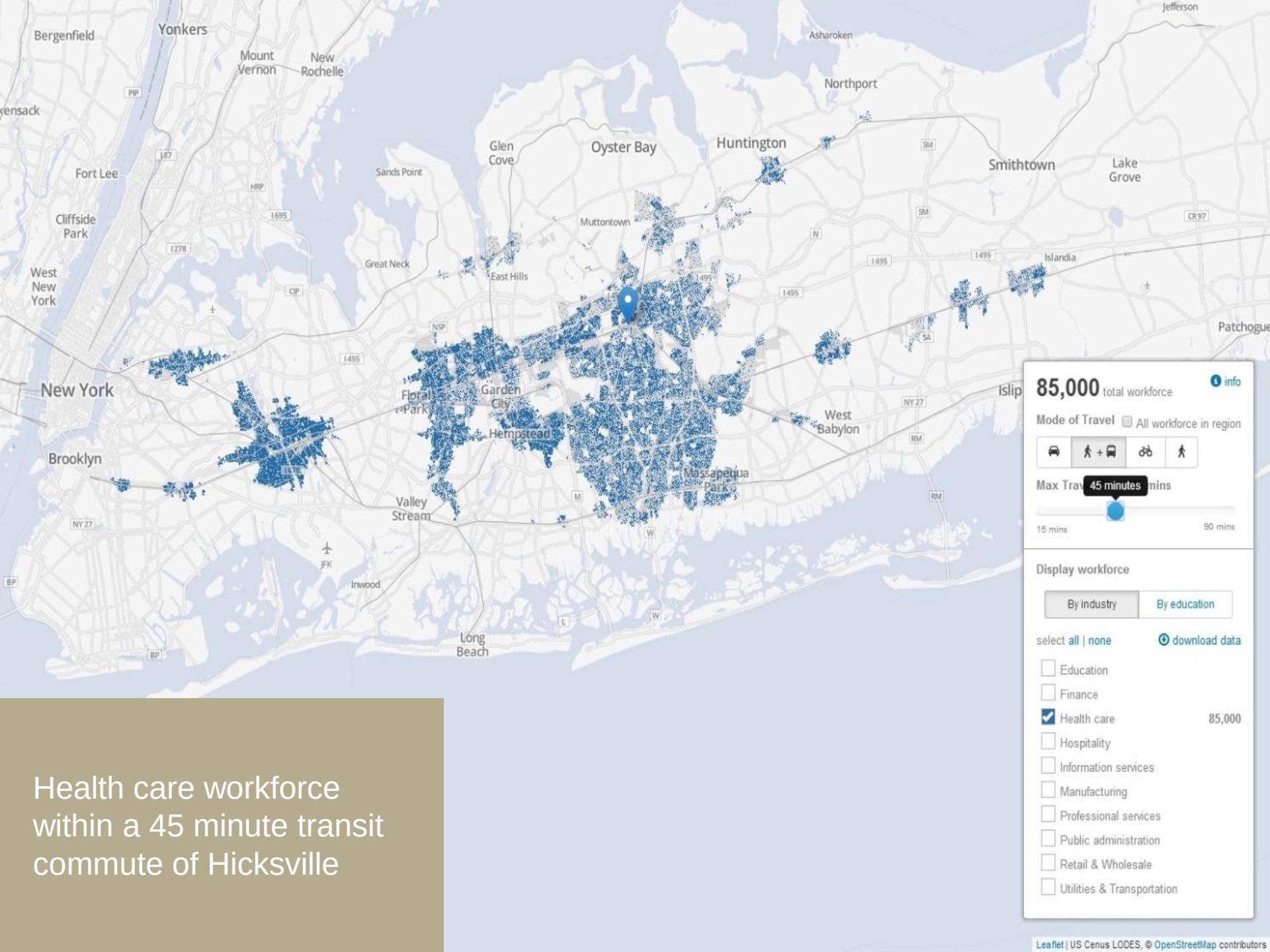


Individual Profiles

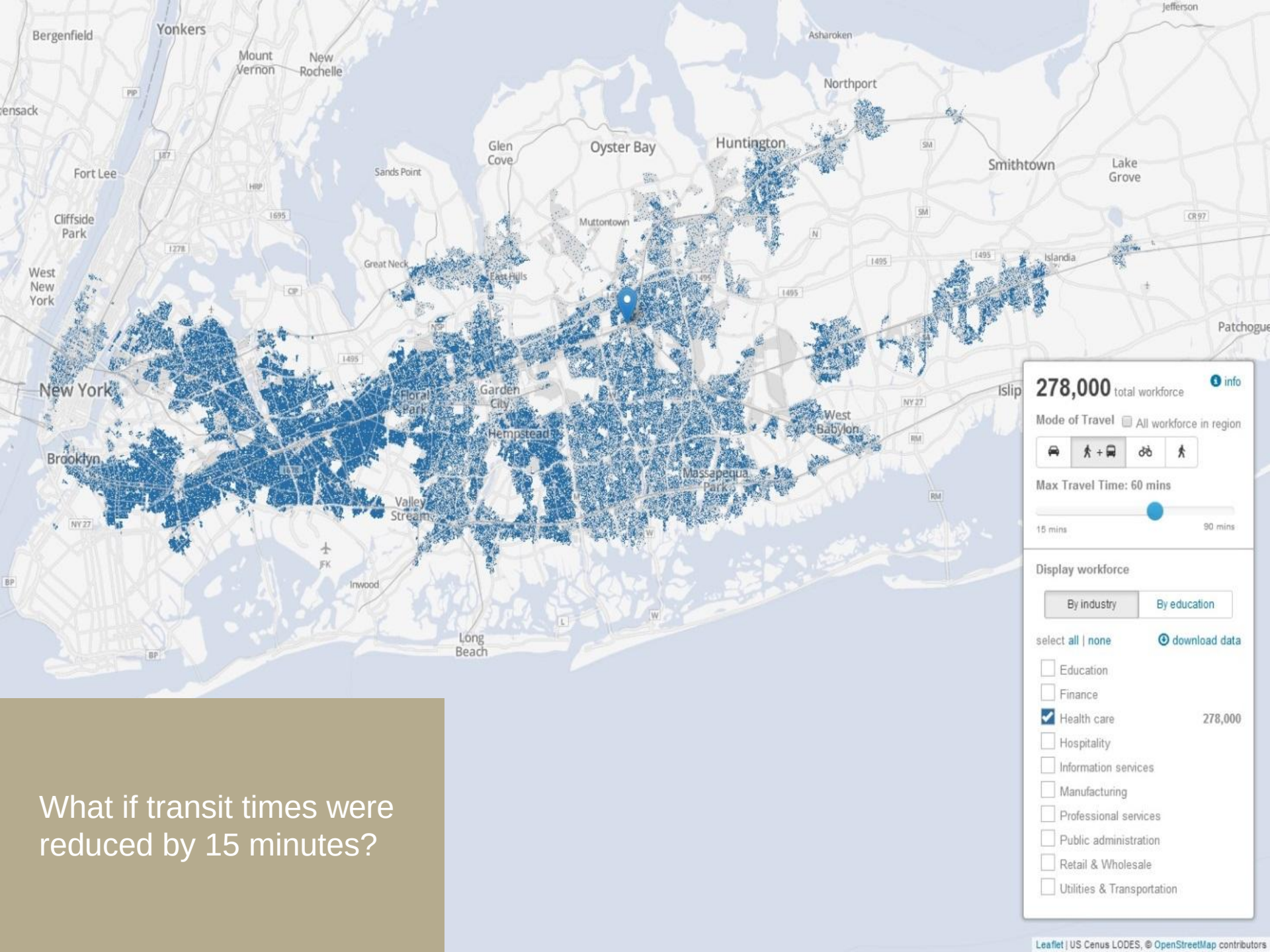


Business Profiles

1. **Health Care & Social Assistance**
   Community Hospitals
2. **Health Care & Social Assistance**
   Oldenberg Medical Research Labs
3. **Retail Trade**
   Selena's Women's Clothing
4. **Educational Services**
   Mid-Queens Academy: Public School
5. **Professional Services**
   DigitalLogistics: Software Developer
6. **Accommodation & Food Services**
   Mi Casa: Restaurant
7. **Administrative & Support Services**
   Kay Travel Unlimited
8. **Finance & Insurance: Global Securities**
   Investment Bank
9. **Manufacturing**
   Advertool: Fabricated Metal Plant
10. **Wholesale Trade**
    Central Jersey Bottlers

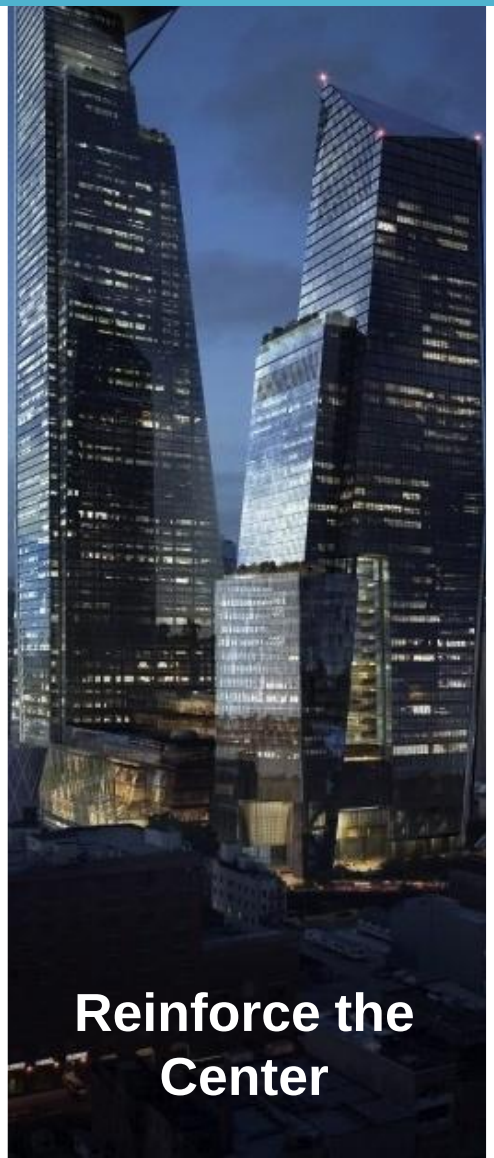


Health care workforce within a 45 minute transit commute of Hicksville

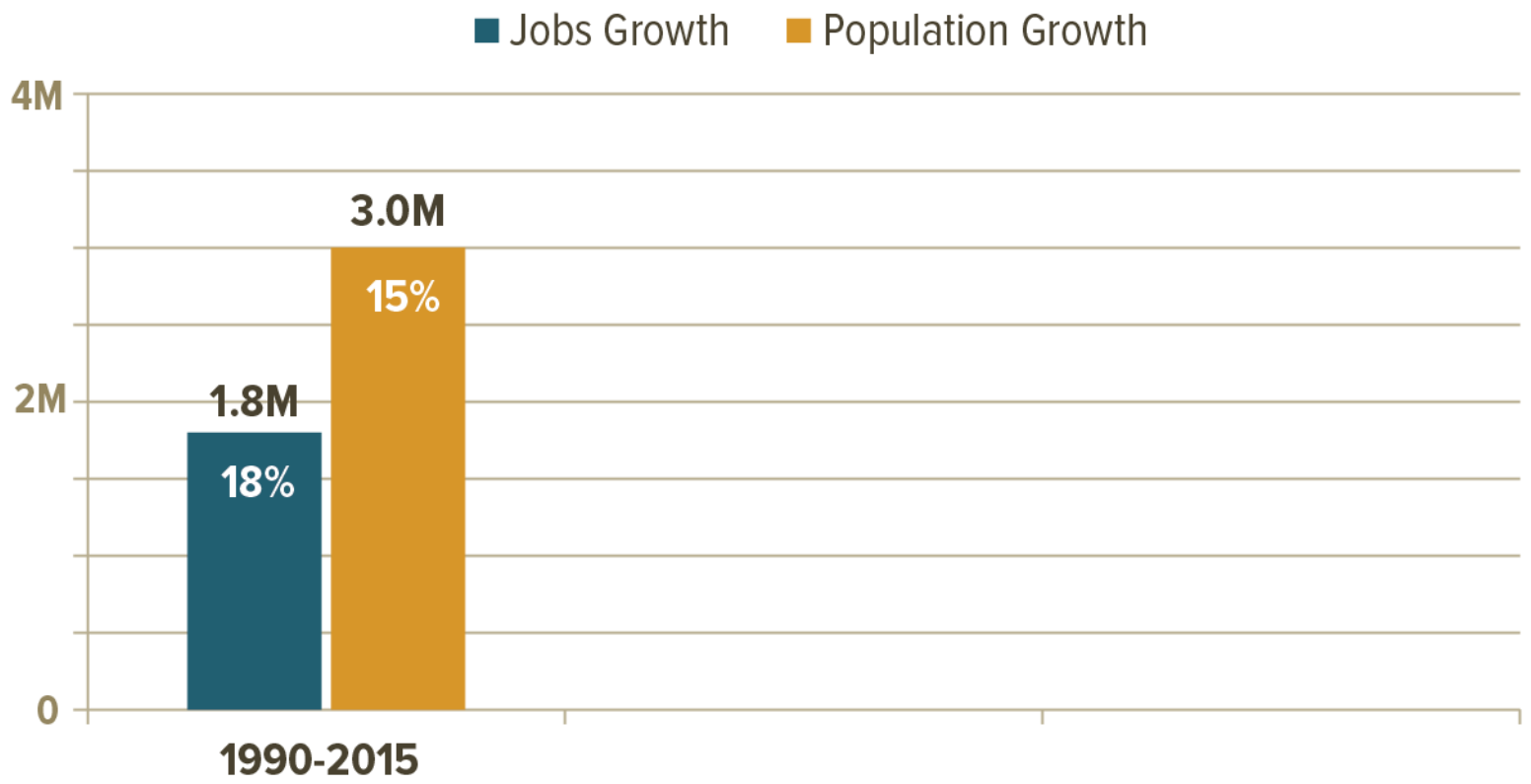


What if transit times were reduced by 15 minutes?

Scenario Planning



How much growth should we plan for?



2015 Jobs: 11.6 M
2015 Population: 22.9 M

Assumptions

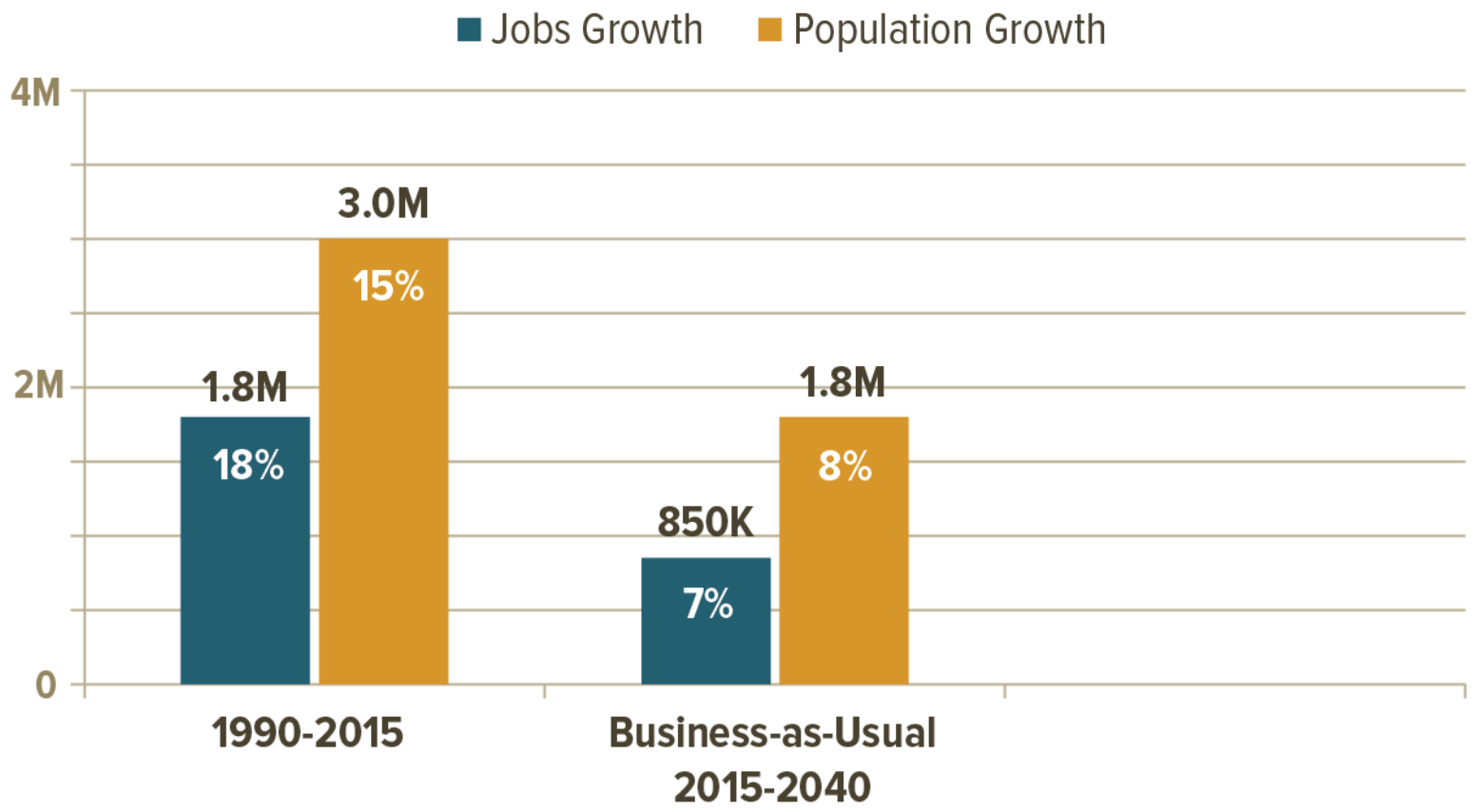
High Certainty

- Many more elderly
- Smaller working age population
- Racial and ethnic diversity
- Less land to develop
- Aging infrastructure
- Rising sea levels

Less Certainty

- Slightly lower national growth
- New jobs disproportionately high skill
- Substantial increase in working at home & off peak travel
- Preference for walkable neighborhoods will increase
- Other regions will invest strongly in housing and infrastructure
- More frequent and intense storms

How much growth should we plan for?



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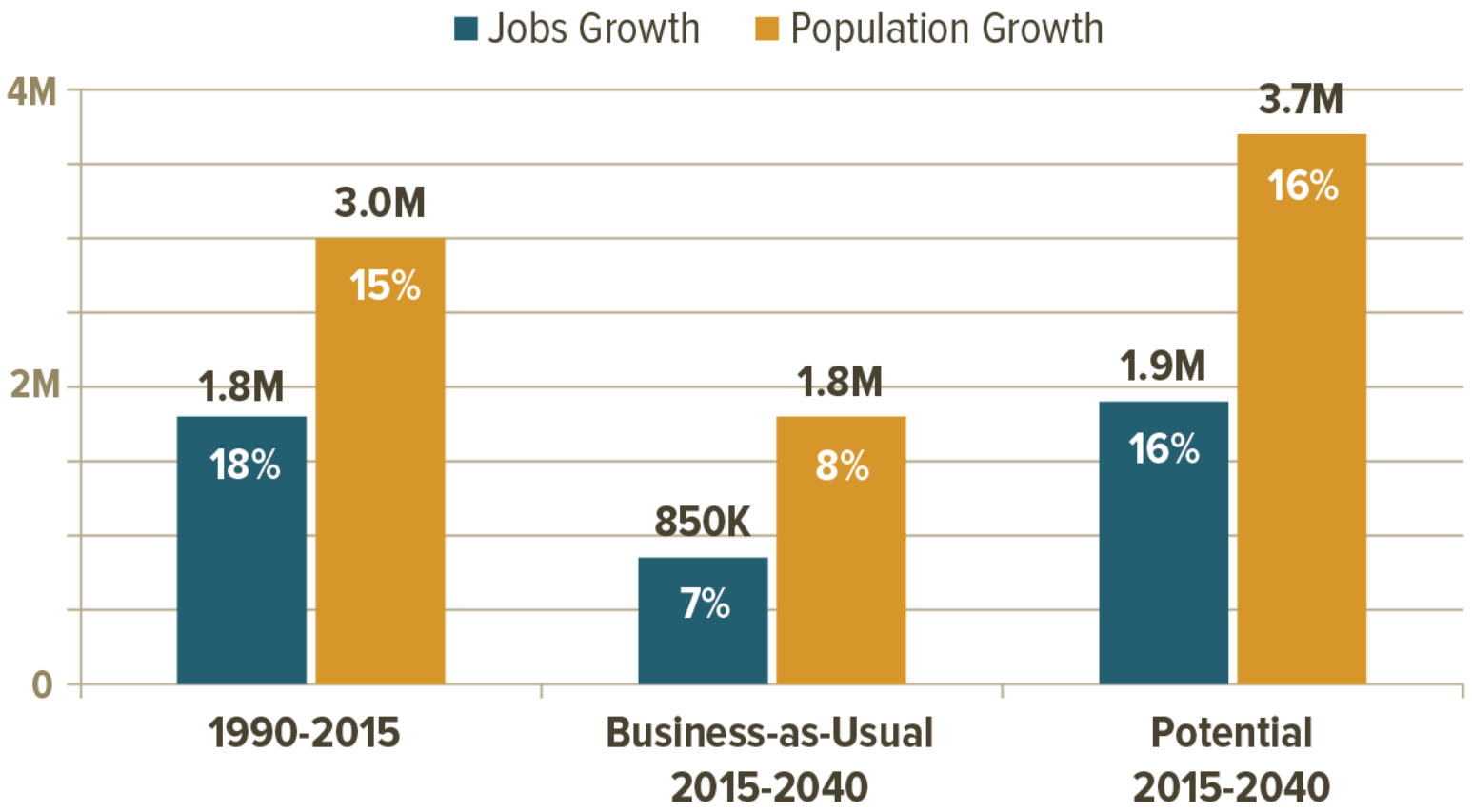
How much growth should we plan for?

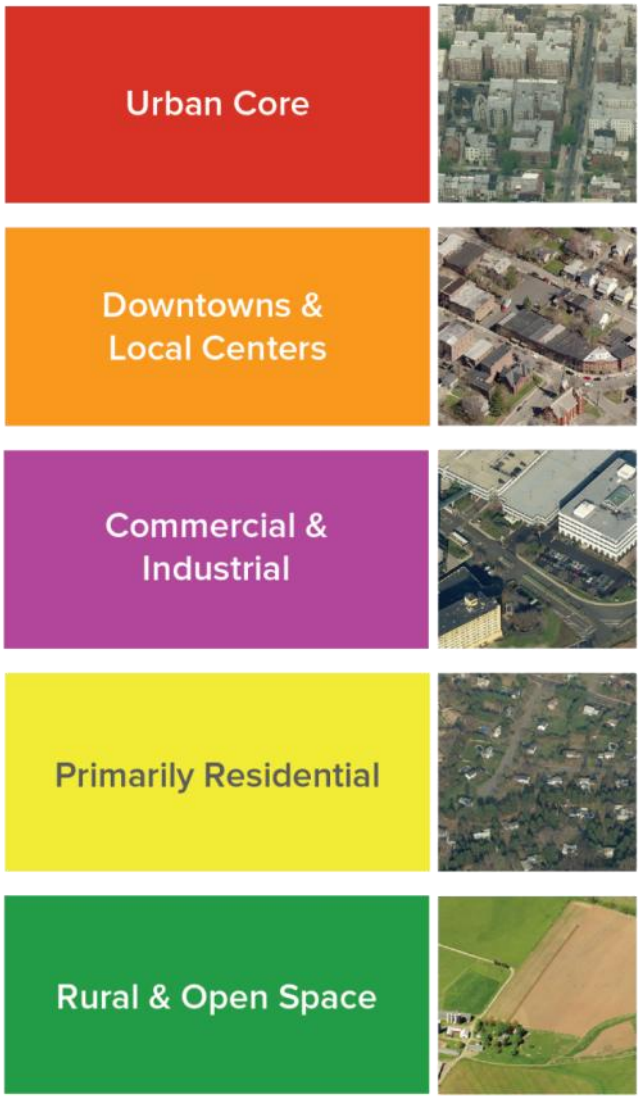


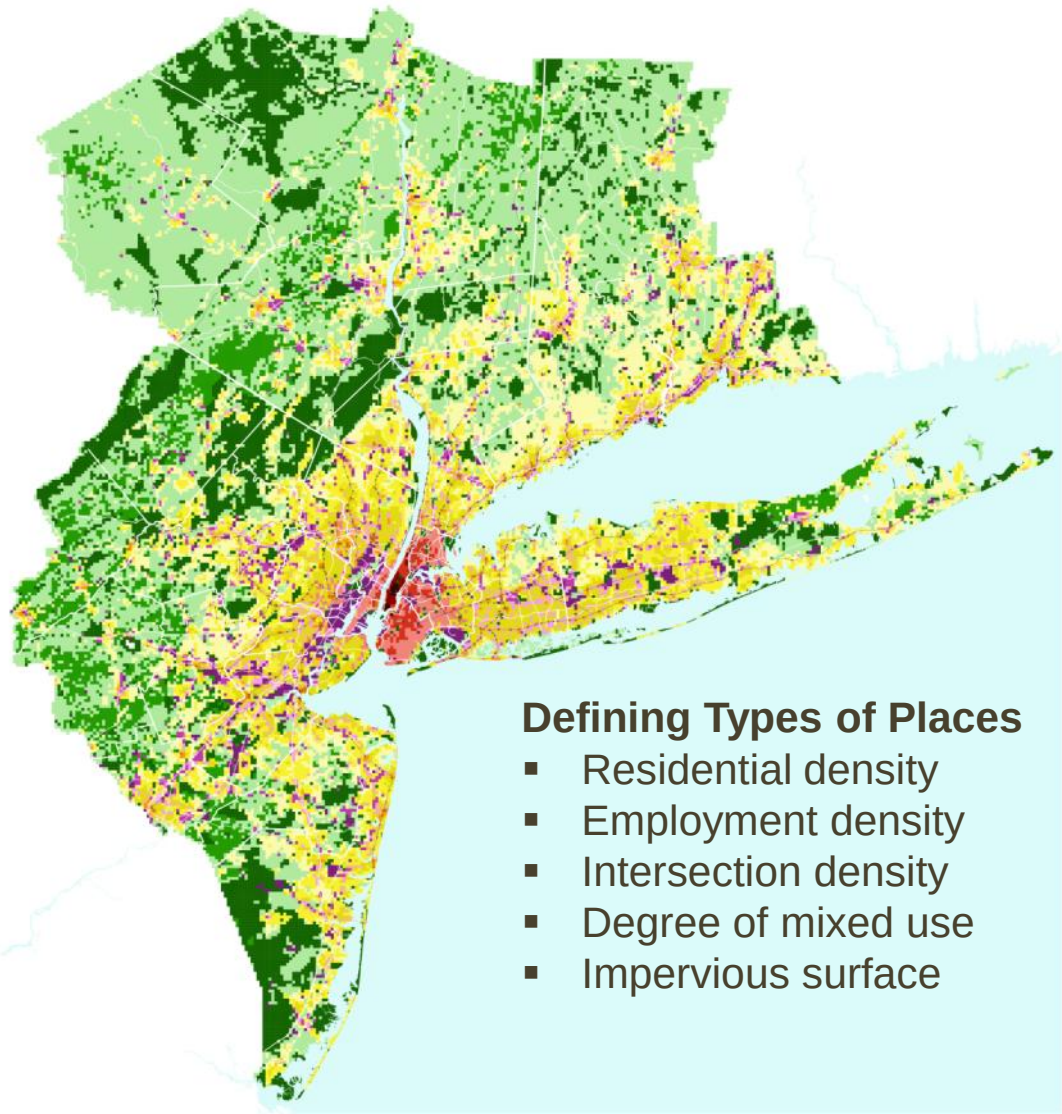
2015 Jobs: 11.6 M
2015 Population: 22.9 M

Why scenarios?

- Identify policy implications of different growth strategies
- Construct preferred growth strategy based on scenario analysis
- Build in flexibility to respond to changing economic and environmental conditions

Creating the Scenarios: Place Types

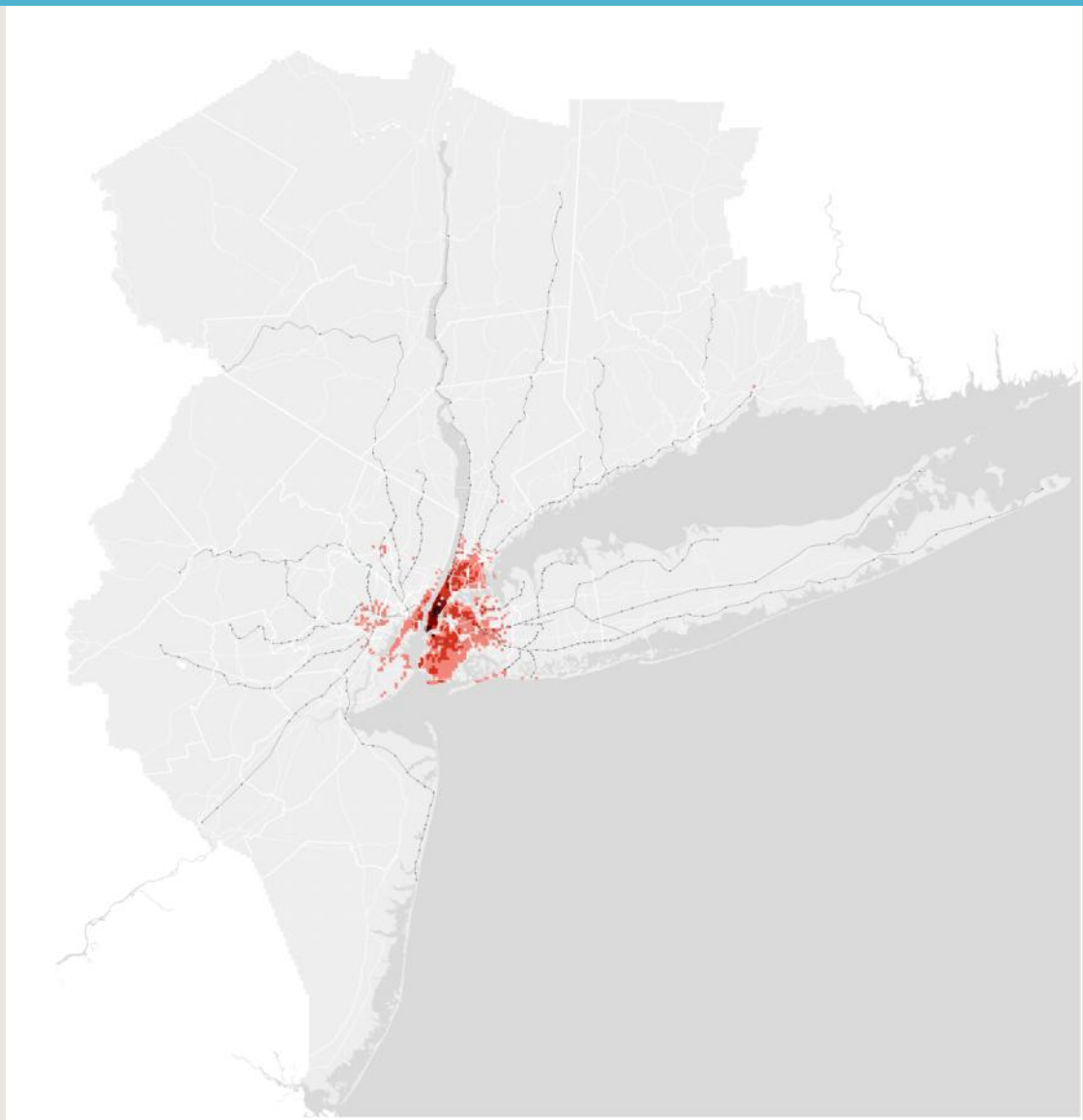




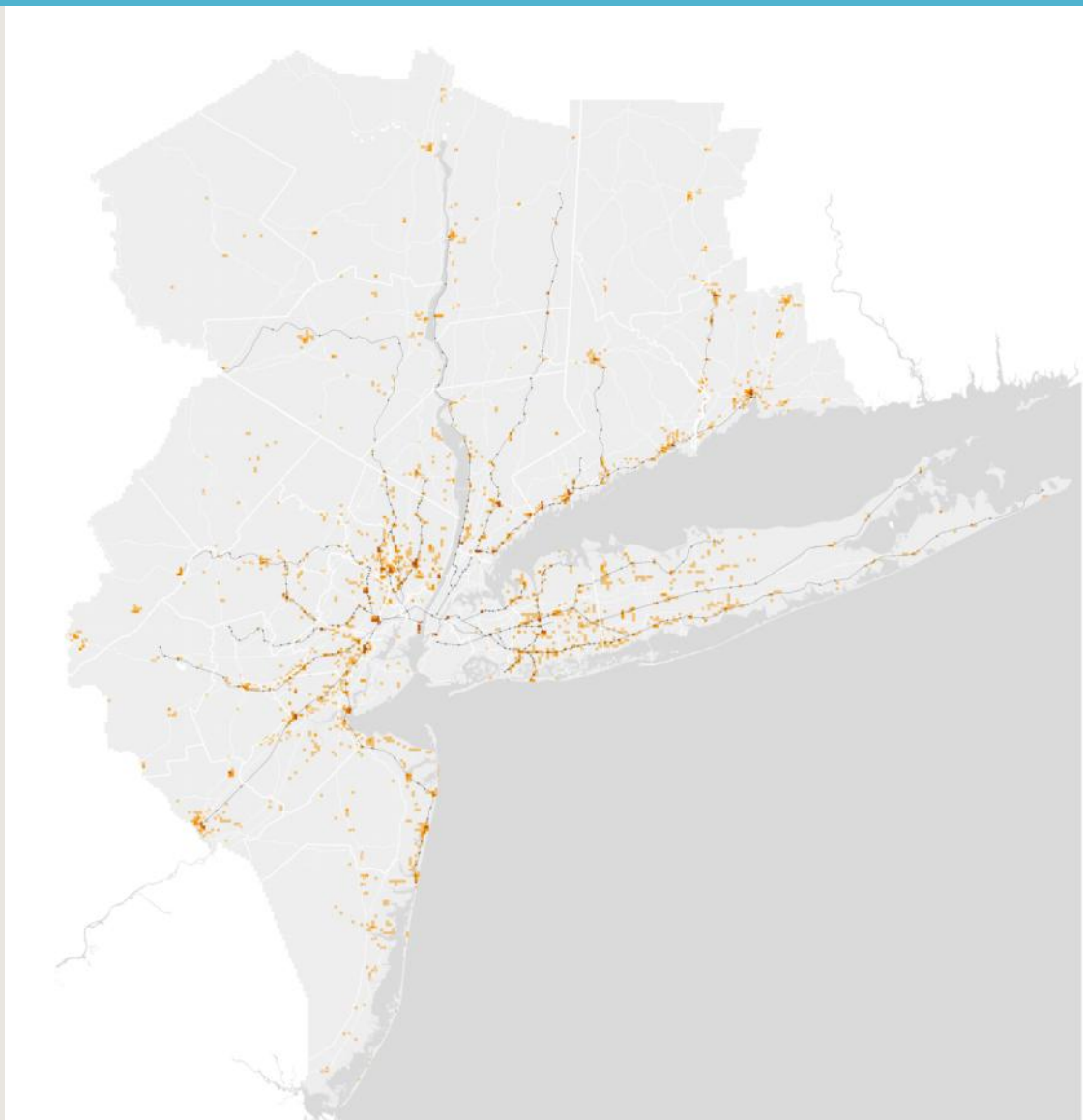
Defining Types of Places

- Residential density
- Employment density
- Intersection density
- Degree of mixed use
- Impervious surface

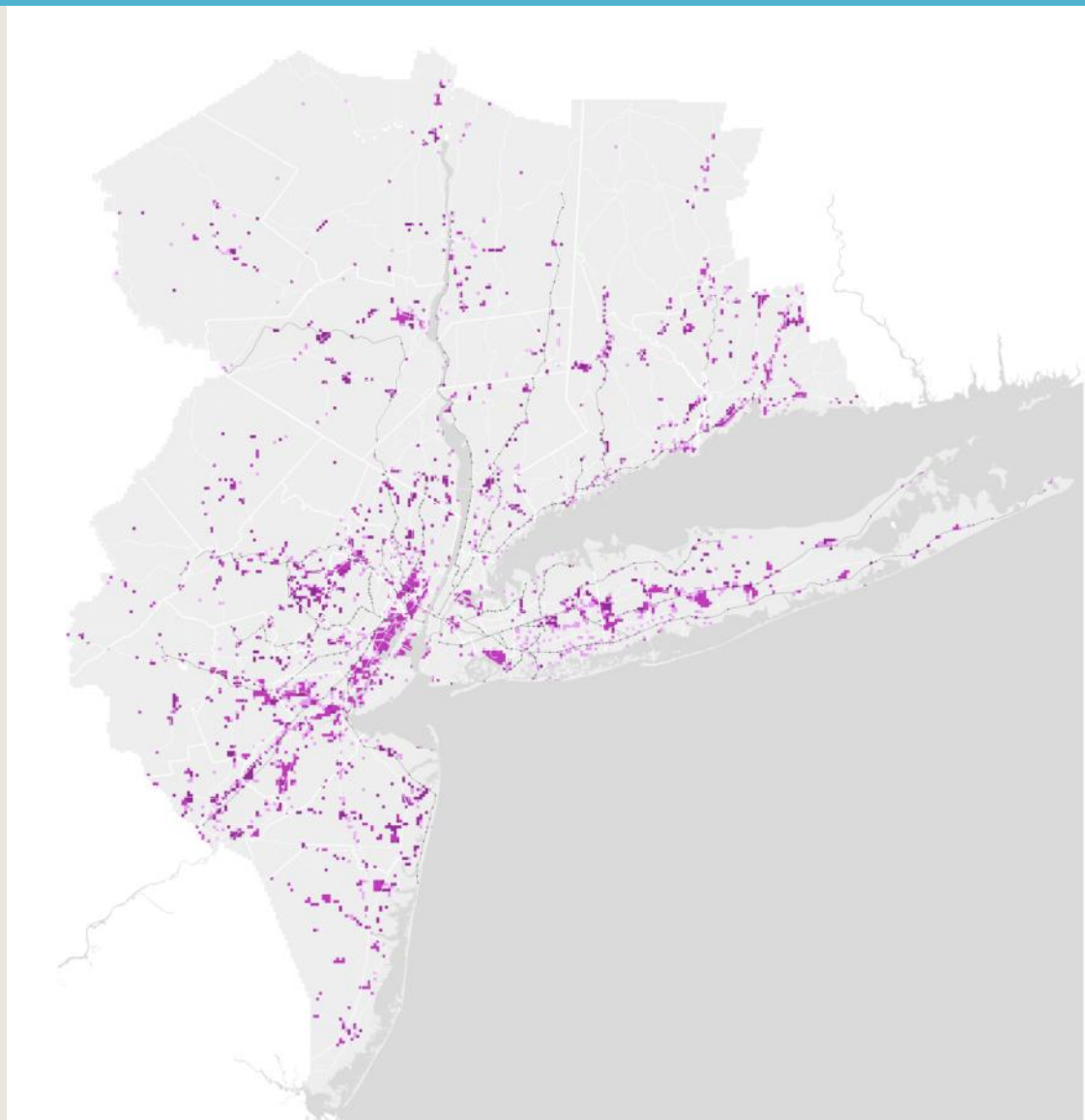
Place Type: The Urban Core



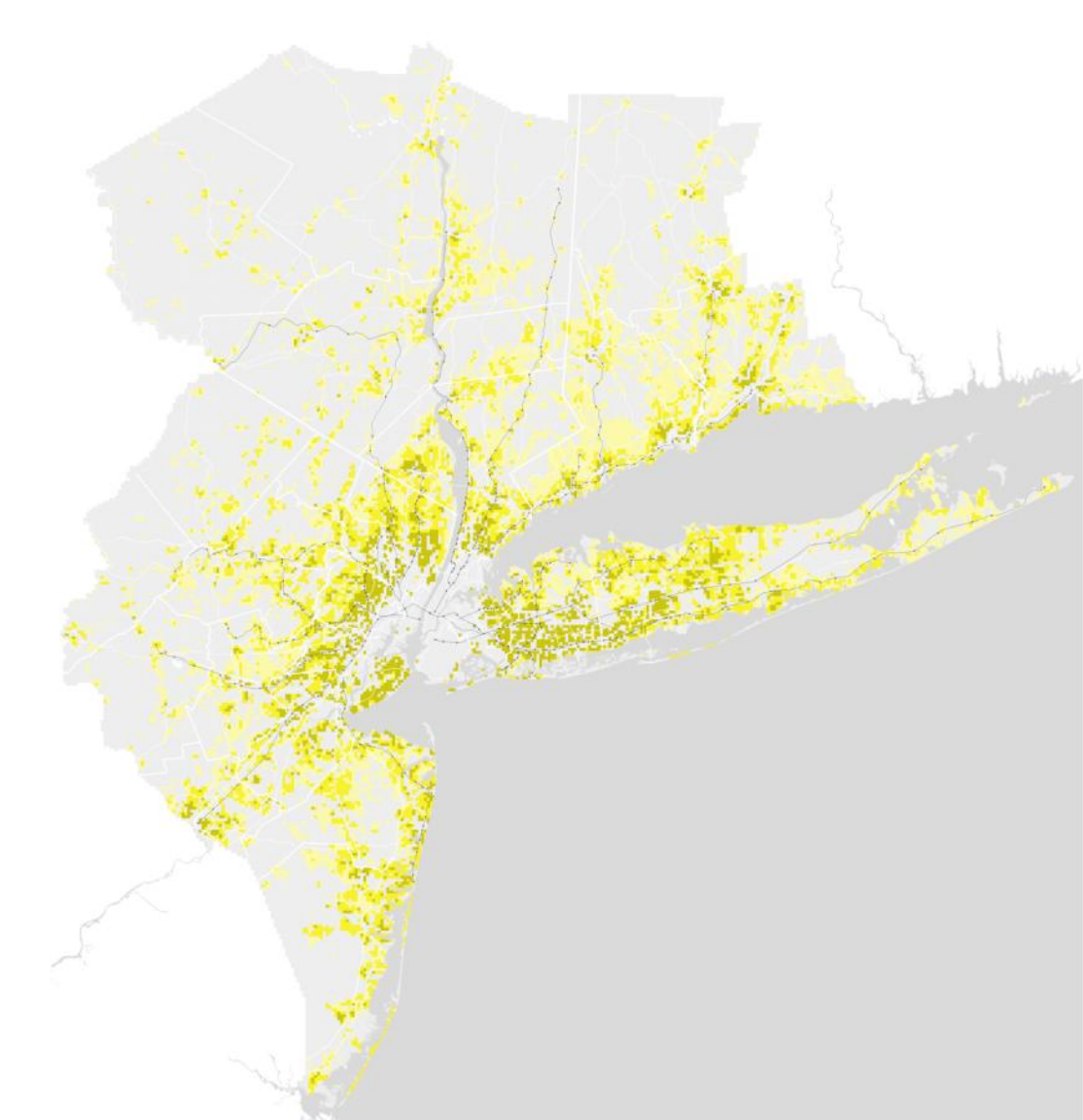
Place Type: Downtowns and Local Centers



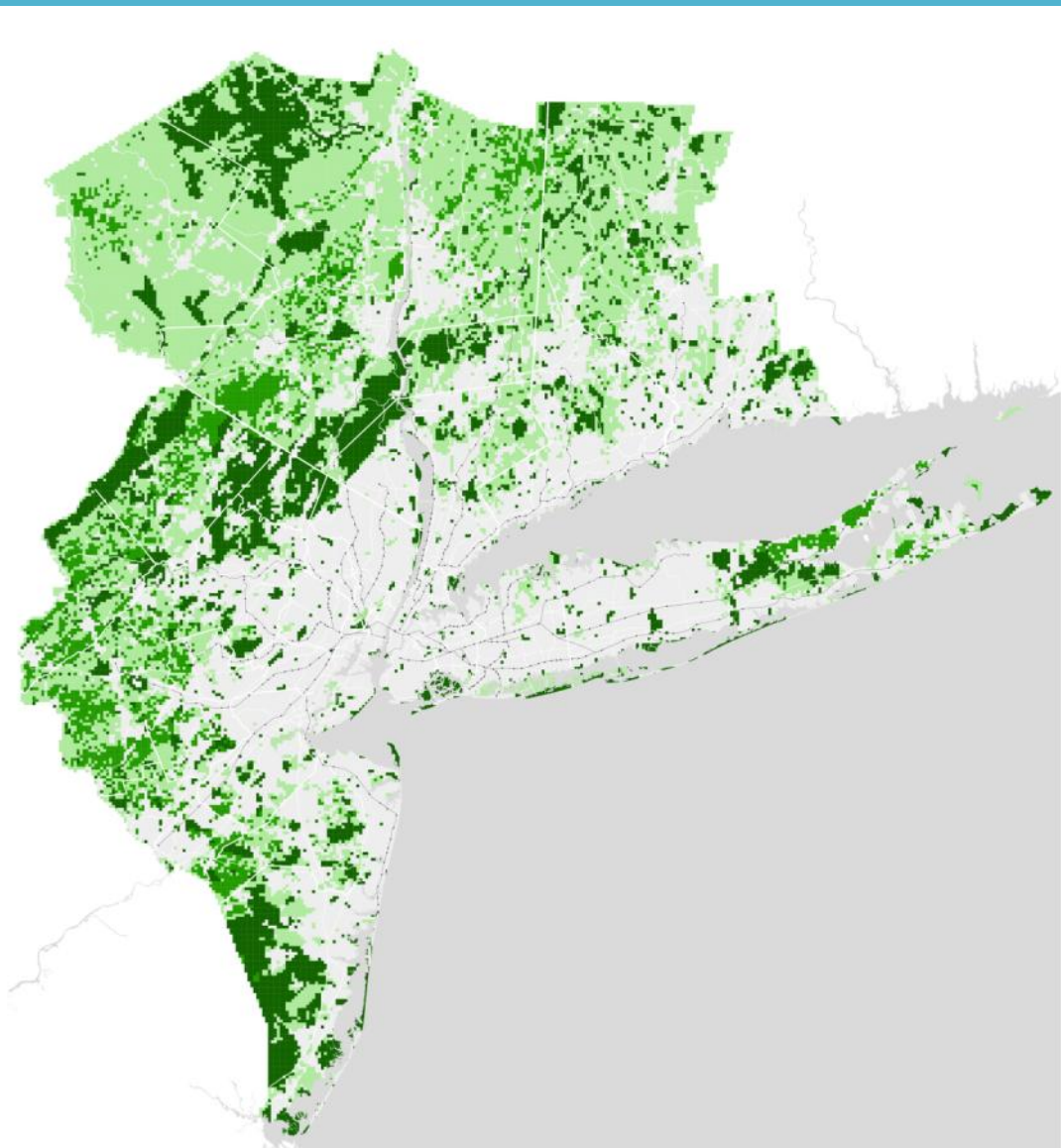
Place Type: Commercial and Industrial



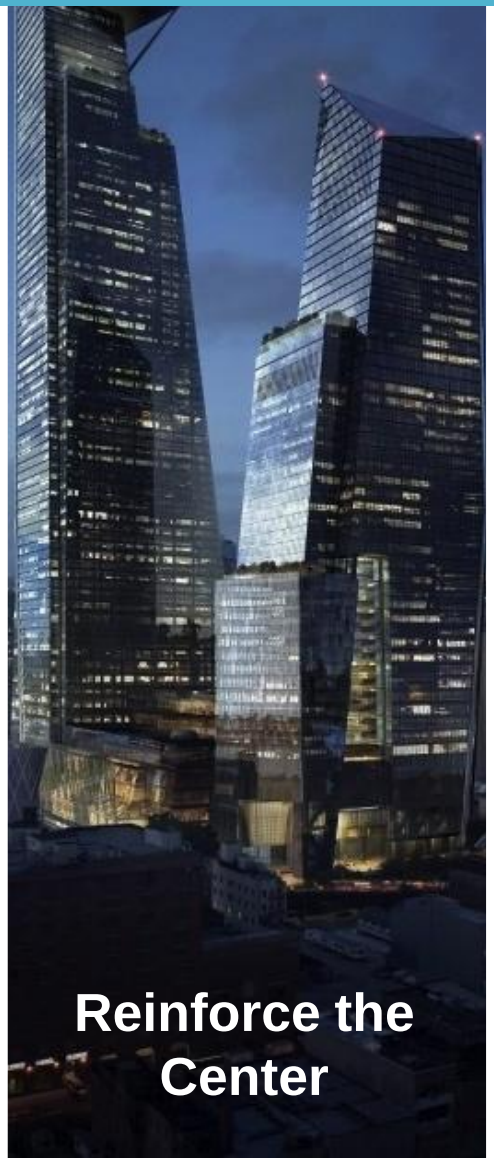
Place Type: Primarily Residential



Place Type: Rural and Open Space



Four ways to 1.9 million jobs and 3.7 million people



Grow with Nature

Most responsive to climate change and the environment

Defining features:

- Prioritize preservation of critical habitat and open space
- Distribute growth to the Core, centers and downtowns

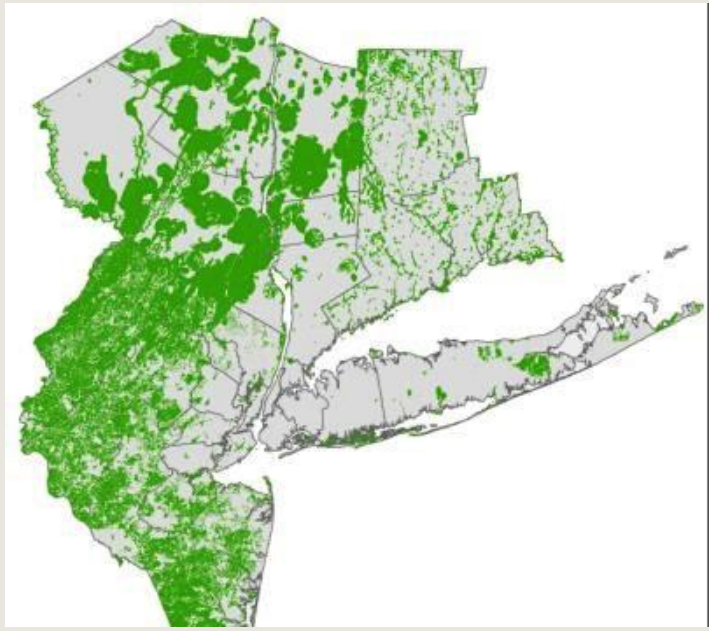
Why it might happen:

- Severe weather events are frequent
- Federal and state governments increase funding for resiliency initiatives

Policies, Projects, Investments:

Requires aggressive open space acquisition, managed retreat and urban housing production

Extreme weather



Critical habitat

Reinforce the Center

Best job access and most favorable to large cities

Defining features:

- Core is designed to absorb most of the region's growth
- Outside of the city, growth in some downtowns and residential places

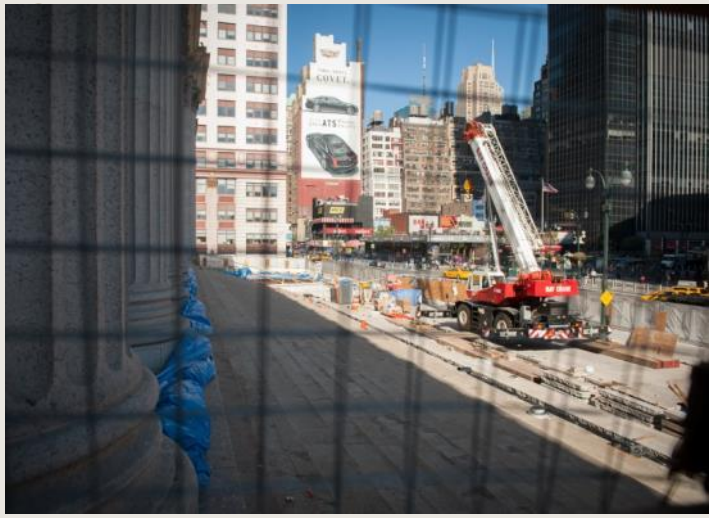
Why it might happen:

- New York makes major investments to accommodate growth
- Businesses continue to gravitate to large cities

Policies, Projects, Investments:

Requires the biggest transportation investments and congestion management into the urban core

New development in the



Building over the

Resurgent Downtowns

Most favorable to distressed cities and housing-jobs balance

Defining features:

- Growth is directed to transit-accessible downtowns, many of which are struggling
- Suburban economy is built around existing and new mixed-use centers

Why it might happen:

- Strong demand for walkable, mixed-use centers with constrained growth in the core
- Policies and investments create a “cycle of success”

Policies, Projects, Investments:

Requires multi-faceted urban strategy and investments to reverse trends

Mixed-use TOD,

Community

Reinvent the Suburbs

Retrofits sprawl and rejuvenates suburban economies

Defining features:

- Retrofit underutilized sprawl and post-industrial places.
- Continued trend for suburban growth.

Why it might happen:

- National and state barriers to brownfield and grey field remediation are removed.
- Millennials, baby boomers and immigrants want to stay or return to the suburbs

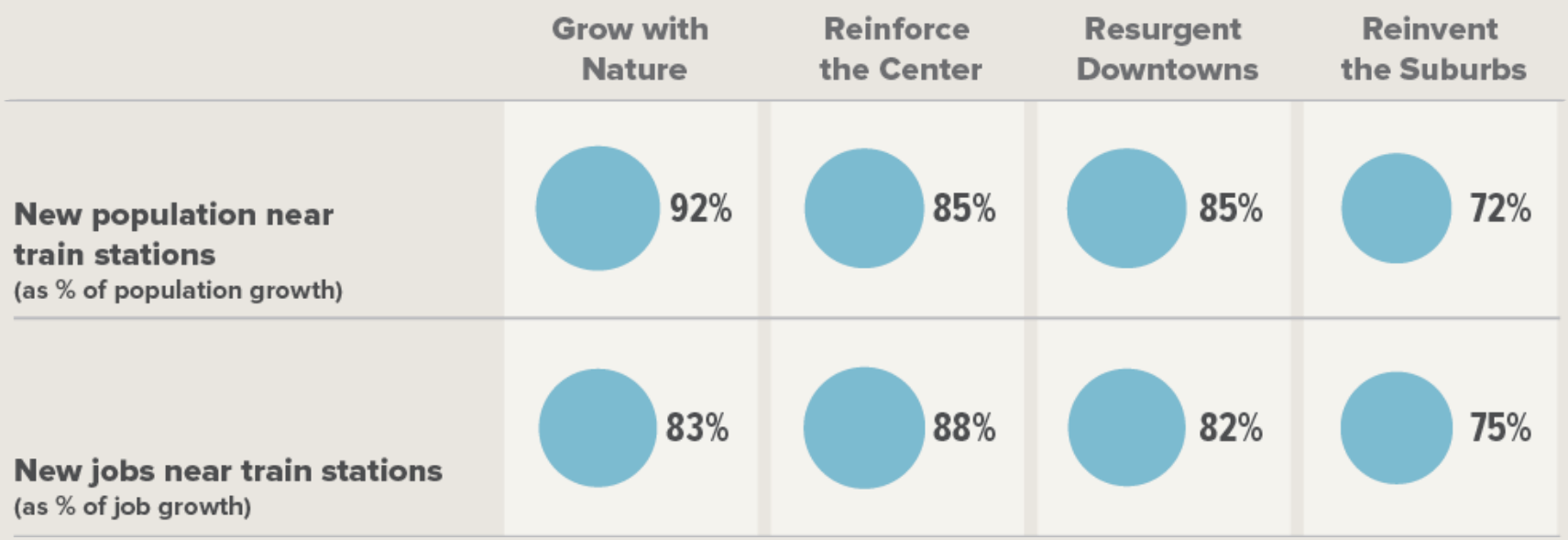
Policies, Projects, Investments:

Requires dramatic changes in intra-suburban use and mobility; opportunity to improve disconnected communities

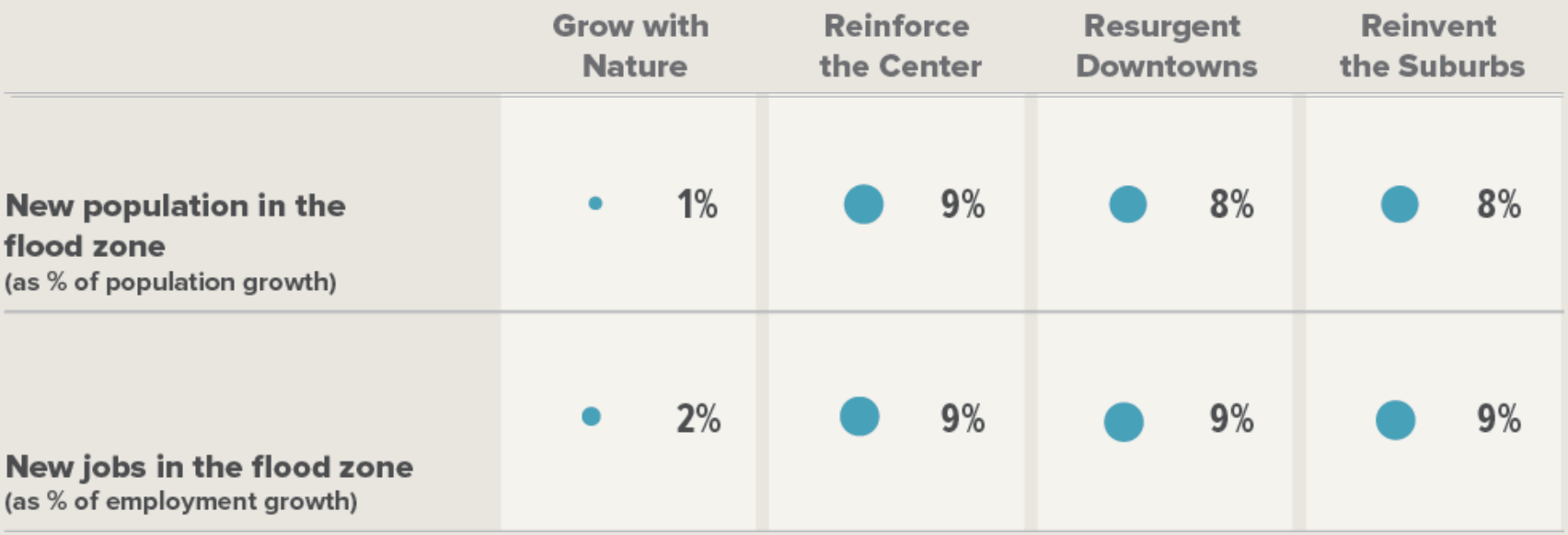
Corridor retrofit after

Corridor retrofit

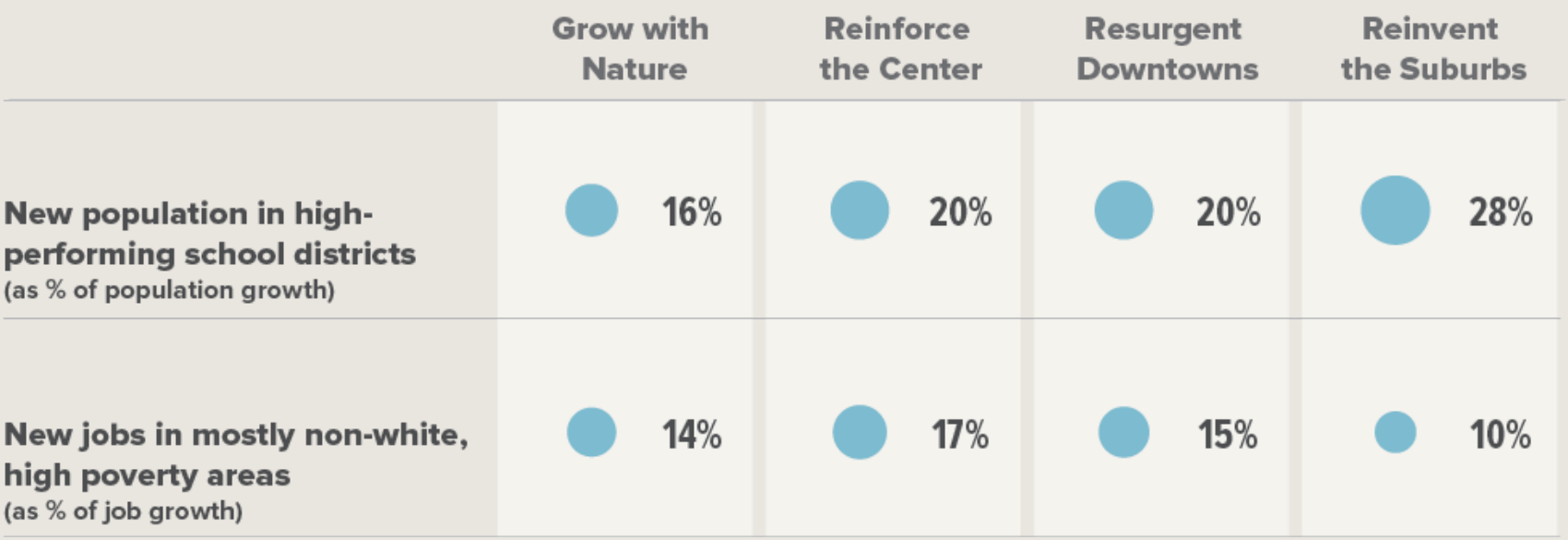
Growth near train stations



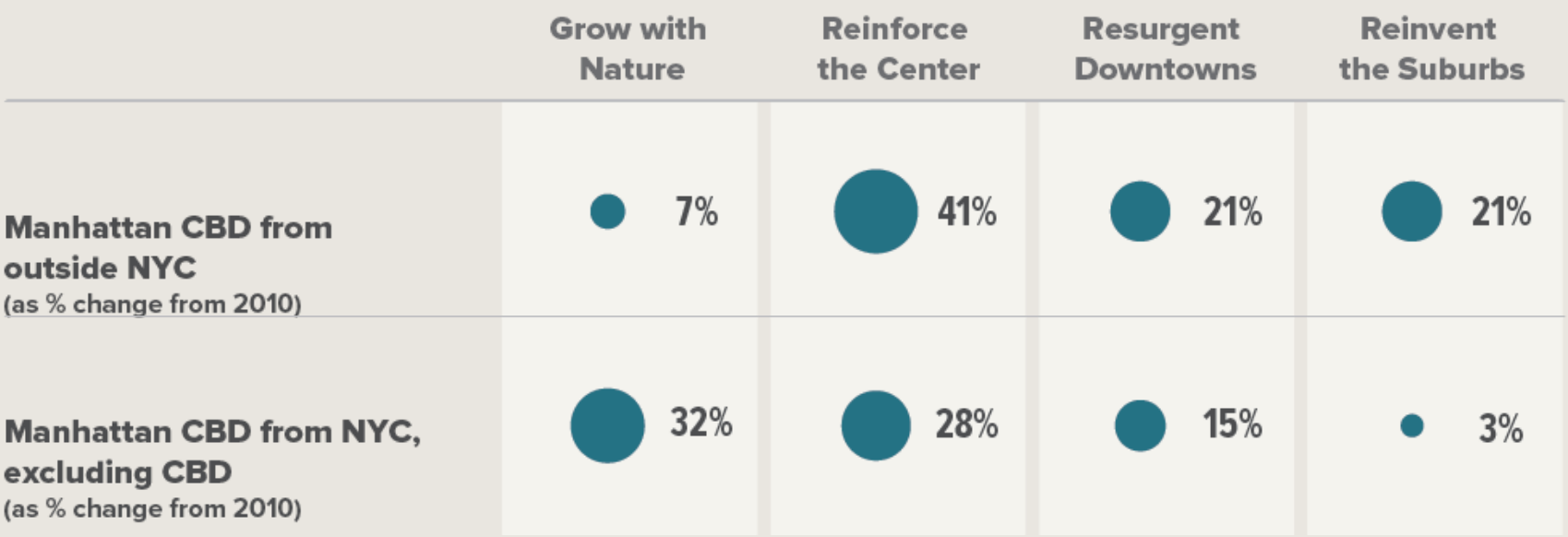
Climate and public health

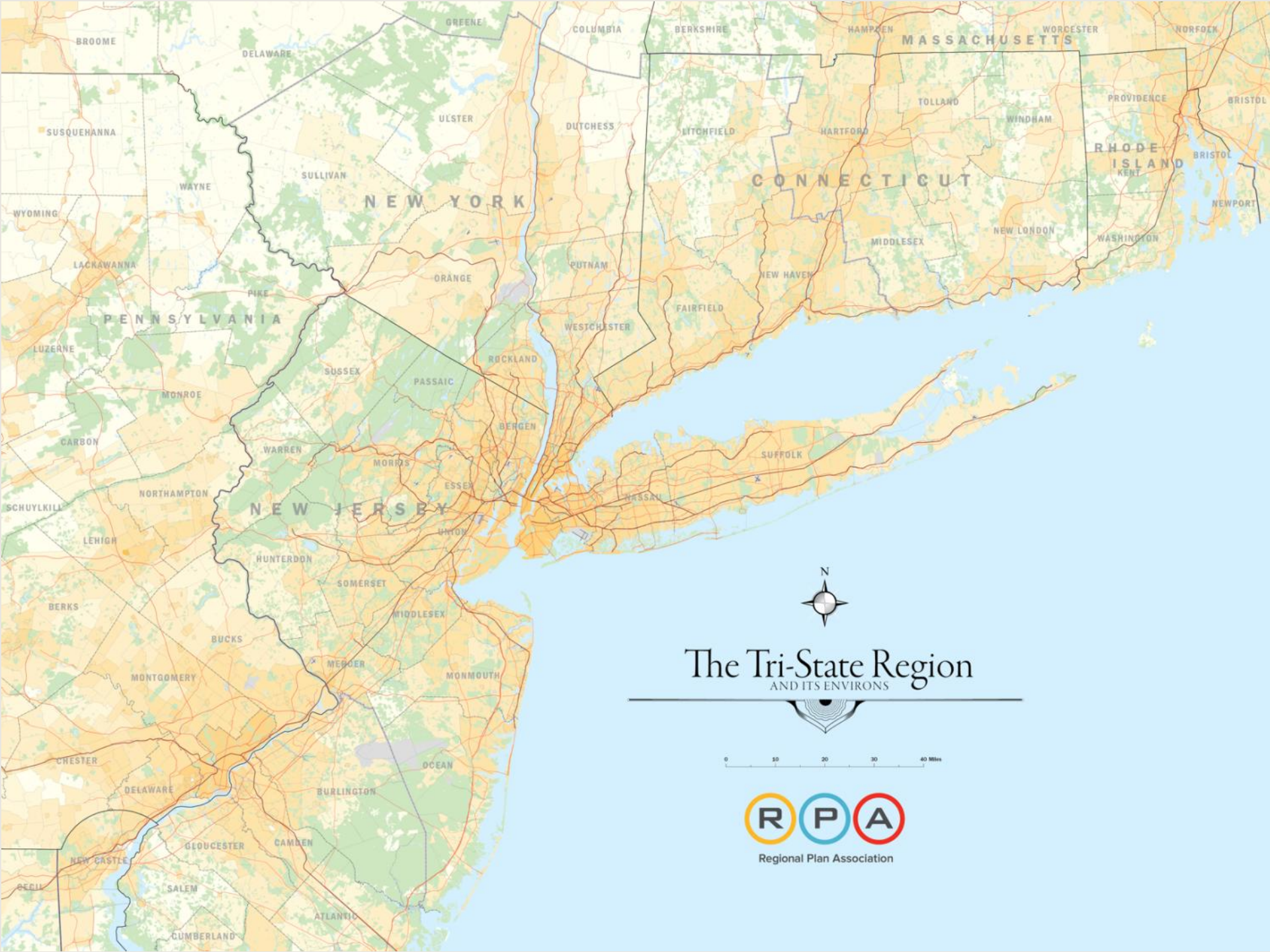


Social equity and opportunity



Transportation




BROOME
DELAWARE
GREENE
COLUMBIA
BERKSHIRE
HAMPDEN
WORCESTER
NORFOLK
MASSACHUSETTS
SUSQUEHANNA
ULSTER
DUTCHESS
LITCHFIELD
HARTFORD
TOLLAND
WINDHAM
PROVIDENCE
BRISTOL
RHODE ISLAND
KENT
WAYNE
SULLIVAN
NEW YORK
CONNECTICUT
WYOMING
NEWPORT
NEW LONDON
MIDDLESEX
WASHINGTON
LACKAWANNA
ORANGE
PUTNAM
NEW HAVEN
PIKE
FAIRFIELD
PENNSYLVANIA
WESTCHESTER
LUZERNE
ROCKLAND
SUSSEX
PASSAIC
MONROE
BERGEN
CARBON
WARREN
MORRIS
SUFFOLK
ESSEX
NORTHAMPTON
NASSAU
SCHUYLKILL
NEW JERSEY
UNION
LEHIGH
HUNTERDON
SOMERSET
BERKS
MIDDLESEX
BUCKS
MERCER
MONTGOMERY
MONMOUTH
CHESTER
OCEAN
DELAWARE
BURLINGTON
GLOUCESTER
CAMDEN
NEW CASTLE
CECIL
SALEM
ATLANTIC
CUMBERLAND
N
The Tri-State Region
AND ITS ENVIRONS
0
10
20
30
40 Miles
RPA
Regional Plan Association