Regional Community & Economic Development Forum
06.15.16

CONNECTIONS 2045

Greater Philadelphia
FUTURE FORCES

DELAWARE VALLEY
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REGIONAL
PLANNING COMMISSION

LIVABLE COMMUNITIES
GROWTH MANAGEMENT
ECONOMIC COMPETITIVENESS
MULTIMODAL TRANSPORTATION

FUTURE FORCES

LIVABLE COMMUNITIES
GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
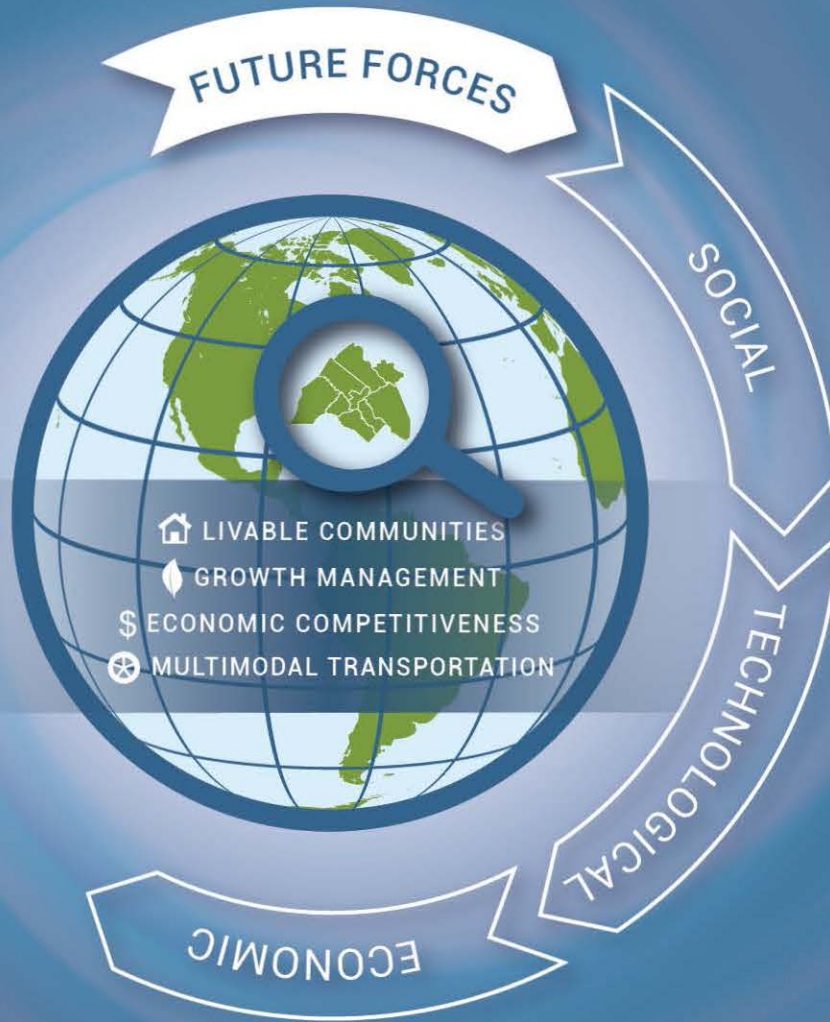MULTIMODAL TRANSPORTATION

FUTURE FORCES

SOCIAL

🏠 LIVABLE COMMUNITIES
🍃 GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
✹ MULTIMODAL TRANSPORTATION

FUTURE FORCES

SOCIAL

TECHNOLOGICAL

LIVABLE COMMUNITIES
GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
MULTIMODAL TRANSPORTATION

FUTURE FORCES

SOCIAL

TECHNOLOGICAL

ECONOMIC

🏠 LIVABLE COMMUNITIES
🍃 GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
⚙ MULTIMODAL TRANSPORTATION

FUTURE FORCES

SOCIAL

TECHNOLOGICAL

ECONOMIC

ENVIRONMENTAL

LIVABLE COMMUNITIES
GROWTH MANAGEMENT
$ ECONOMIC COMPETITIVENESS
MULTIMODAL TRANSPORTATION

#MakingConnections | @dvrpc
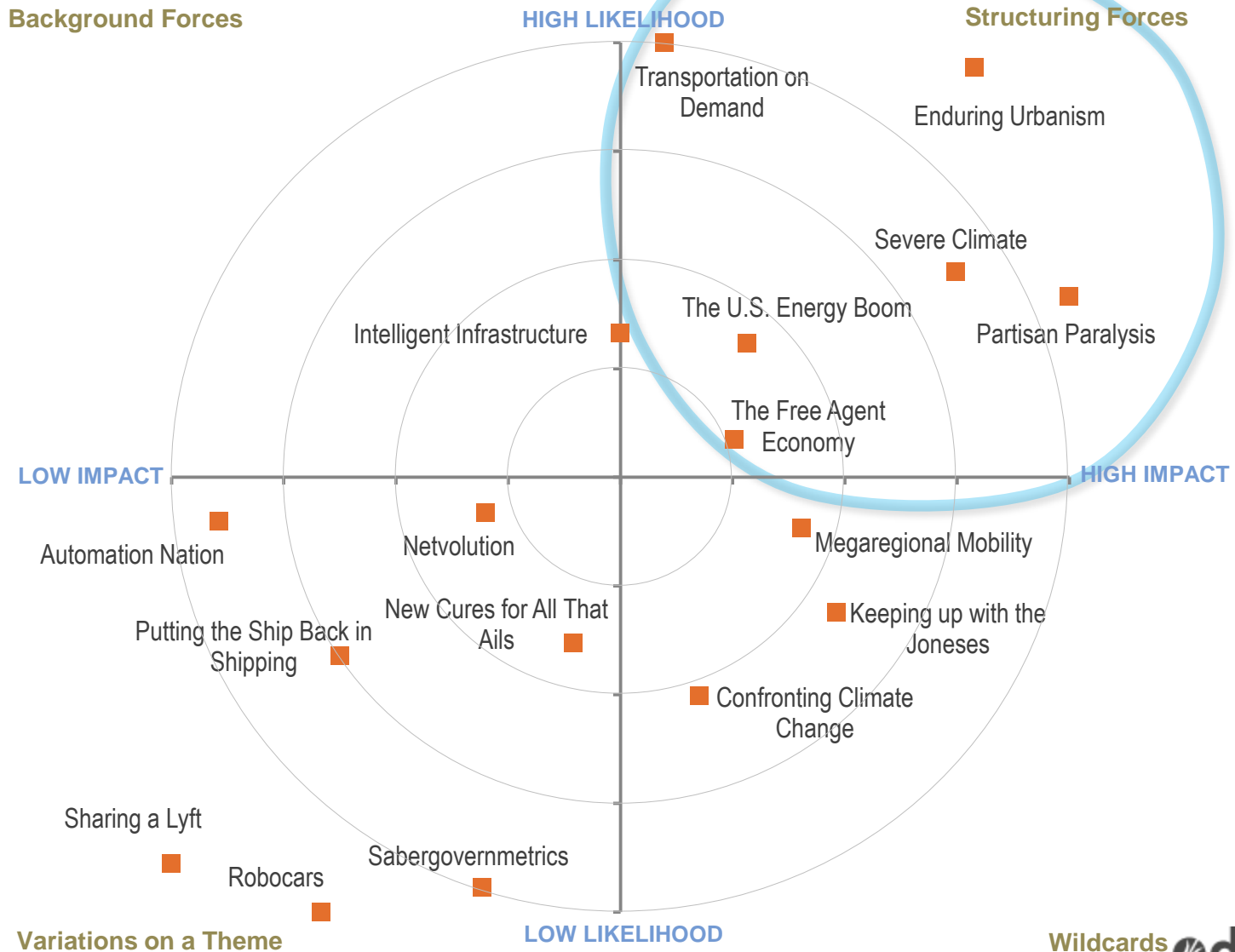
Coronation of a Pope

2005 — Benedict

2013 — Francis

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"It's tough to make predictions, especially about the future."

Yogi Berra, Baseball player and 20th Century Philosopher

IMPACT-LIKELIHOOD VOTING RESULTS

Background Forces

HIGH LIKELIHOOD
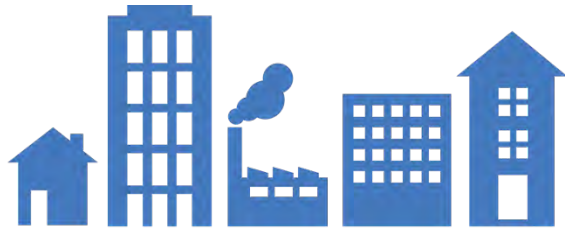
Structuring Forces

Transportation on Demand

Enduring Urbanism

Severe Climate

The U.S. Energy Boom

Intelligent Infrastructure

Partisan Paralysis

The Free Agent Economy

LOW IMPACT

HIGH IMPACT

Automation Nation

Netvolution

Megaregional Mobility

New Cures for All That Ails

Keeping up with the Joneses

Putting the Ship Back in Shipping

Confronting Climate Change

Sharing a Lyft

Sabergovernmetrics

Robocars

Variations on a Theme

LOW LIKELIHOOD

Wildcards

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Future Forces

Image: BLT Architects
© BLT Architects 2014

What-If Scenario

ENDURING URBANISM

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Moving back to walkable centers is the start of a long-term trend

Regional Pros and Cons

ENDURING URBANISM

+ New residents and jobs in cities

+ Increased transit use

+ Improved urban schools

— Gentrification

— Suburban distress

— Loss of industrial land

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Photo: Benjamin's Desk

What-If Scenario

THE FREE AGENT ECONOMY FOR HIRE

Individuals must create their own economic opportunities

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Regional Pros and Cons

Source: PennConnects

+ Entrepreneurs and Innovators

+ Ability to work from anywhere

+ On-demand services for anything

— Incomes less stable and low skilled workers fall further behind

— Transit service impacts

— Virtual classrooms and telemedicine impact a key sector

THE FREE AGENT ECONOMY — FOR HIRE

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What-If Scenario

SEVERE CLIMATE

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Increasing atmospheric carbon levels lead to the worst-case outcomes of climate change

Regional Pros and Cons

Source: SEPTA

+ Longer growing season

+ Lower heating costs

+ Attractive for climate refugees

− Service disruptions

− Global trade suffers

− Health and habitat impacts

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What-If Scenario

TRANSPORTATION
ON DEMAND

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Smartphones, apps, and real-time information help people get around

Regional Pros and Cons

+ Service whenever and wherever

+ Reduced car ownership

+ Fewer parking lots

— More suburban sprawl

— Increased congestion

— Less transit; equity and access

Source: www.carsharing.de

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What-If Scenario

THE U.S. ENERGY BOOM

Growth around an energy hub

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Regional Pros and Cons

PHILADELPHIA: THE NEW PETRO METRO?

COAL DID IT IN THE 1800s. Today, abundant domestic natural gas and crude oil have the potential to make Philadelphia a manufacturing powerhouse once again. With new and existing infrastructure—rail lines, the port, a more robust pipeline network—the city could become a global energy trading and processing hub, and an attractive destination for factories looking for cheap and reliable energy and easy access to the big East Coast consumer markets.

Source: Philly Magazine

+ Lower energy prices & less reliance on foreign oil

+ Job opportunities for lower skilled workers

+ Increased global trade

—

– Increased GHG emissions

– Health impacts of air pollutants

– Delays move to clean energy

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"The only relevant discussions about the future are those where we succeed in shifting the question from whether something will happen to what would we do if it happened."

Arie de Geus, former coordinator, Group Planning,
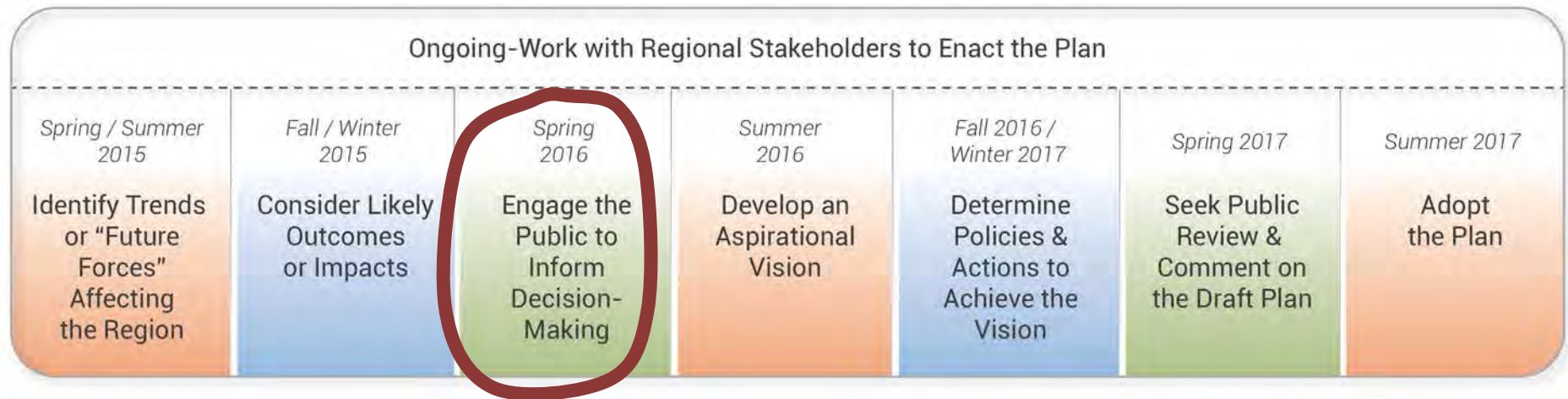*Shell International Petroleum Company*

HOW DO WE GET THERE FROM HERE?

Vision

The Region Today

Future Forces

CONNECTIONS 2045
The Region in 2045

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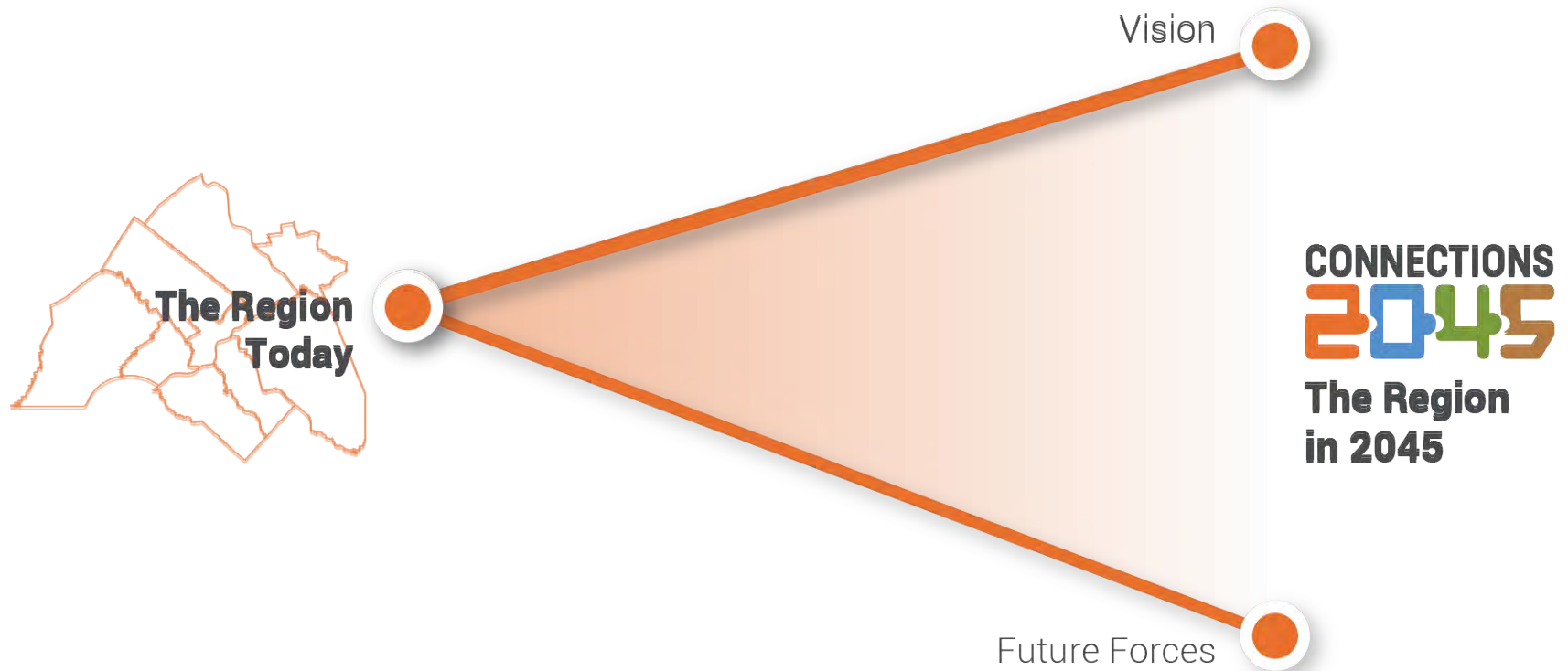
VISIONING WORKSHOP

- **What do you value most in the region right now?**

- **What concerns you the most when thinking about Greater Philadelphia in 2045?**

- **What is your vision for the future of Greater Philadelphia?**

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PLAN UPDATE TIMELINE

Ongoing-Work with Regional Stakeholders to Enact the Plan

Spring / Summer 2015	Fall / Winter 2015	Spring 2016	Summer 2016	Fall 2016 / Winter 2017	Spring 2017	Summer 2017
Identify Trends or "Future Forces" Affecting the Region	Consider Likely Outcomes or Impacts	Engage the Public to Inform Decision-Making	Develop an Aspirational Vision	Determine Policies & Actions to Achieve the Vision	Seek Public Review & Comment on the Draft Plan	Adopt the Plan

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STAY INVOLVED!

- If not already, sign up for DVRPC's newsletter and email lists

- Follow us on social media: **@dvrpc**

- Visit **www.dvrpc.org/Connections2045** for info on the Long-Range Plan update

- Participate in an upcoming workshop in Fall 2016

- Review the draft Plan document in late Spring 2017

RATING *the* REGION
METROPOLITAN INDICATORS REPORT

DELAWARE VALLEY
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REGIONAL
PLANNING COMMISSION

Rating the Region

- Similar reports were completed in 1993 and 2007.

- Compares the Philadelphia metro to 24 other large metros plus Trenton-Ewing.

- For many indicators, compares each primary city to their MSA as a whole.

- Purpose is to identify regional strengths, weaknesses, opportunities, and threats.

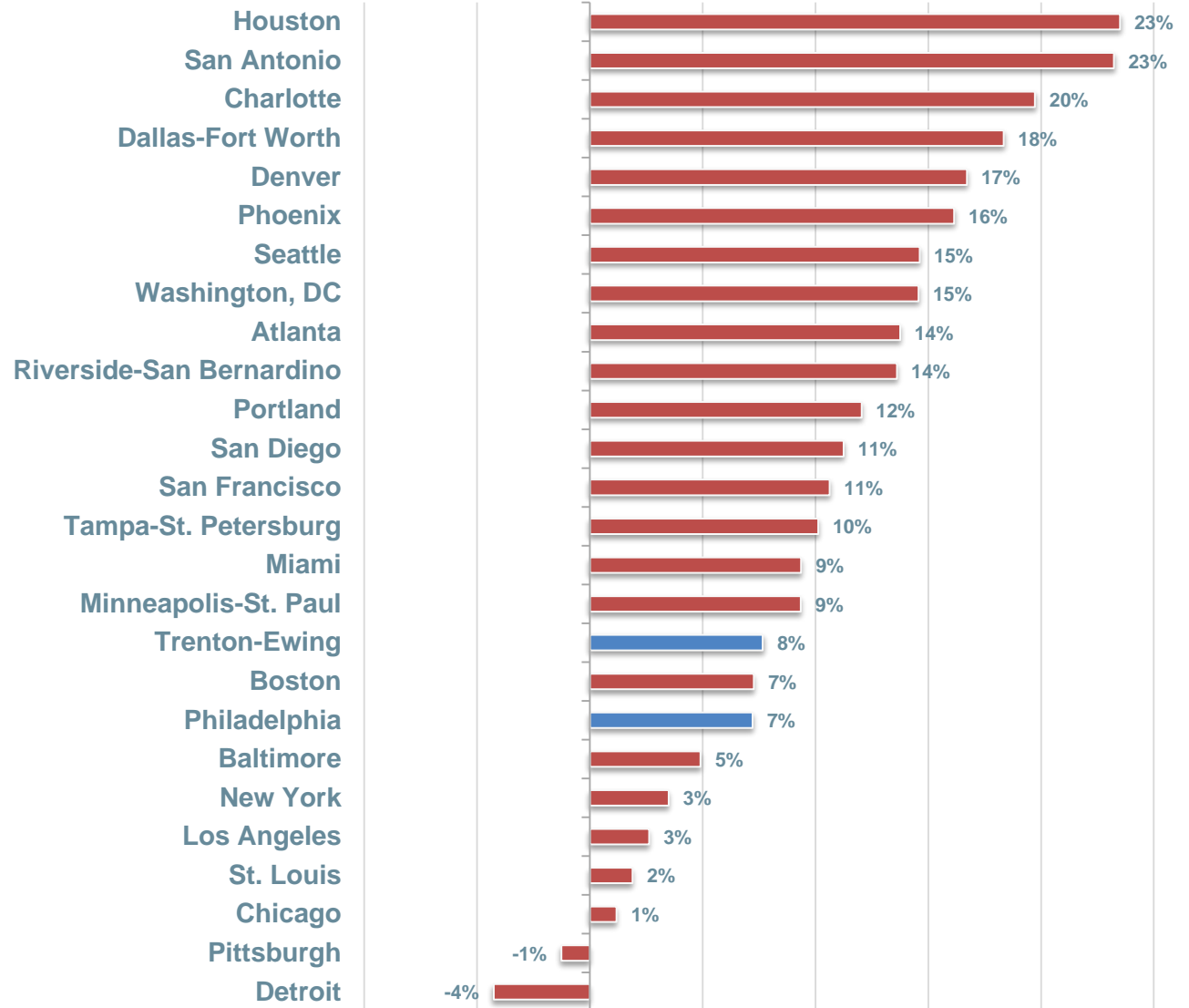- Along with *Tracking Progress*, lays the foundation for the development of *Connections 2045.*

Indicators

- Demographics (population, population trends, race, ethnicity, national origin, age and dependency, educational attainment, income, poverty, housing tenure and occupancy)

- The Environment and Natural Resources (parks, air quality, clean jobs, CO_2 produced during congestion)

- Livable Communities (housing value, housing affordability, cost of living, crime, arts, culture, recreation, educational opportunity, health care, governance)

- The Economy (employment, labor, income, real estate, GDP, Fortune 500 company headquarters, exports, innovation, internet access)

- Transportation (commuting modes, average commute time, congestion, transit ridership, maritime trade, aviation)

Population in the Metro Area

Metro Area	2014 Population	Metro Area	2014 Population
New York	20.1 million	Detroit	4.3 million
Los Angeles	13.3 million	Seattle	3.7 million
Chicago	9.6 million	Minneapolis-St. Paul	3.5 million
Dallas-Fort Worth	7.0 million	San Diego	3.3 million
Houston	6.5 million	Tampa	2.9 million
Philadelphia	6.1 million	St. Louis	2.8 million
Washington, DC	6.0 million	Baltimore	2.8 million
Miami	5.9 million	Denver	2.8 million
Atlanta	5.6 million	Charlotte	2.4 million
Boston	4.7 million	Pittsburgh	2.4 million
San Francisco	4.6 million	Portland	2.3 million
Phoenix	4.5 million	San Antonio	2.3 million
Riverside	4.4 million	Trenton-Ewing	371,532

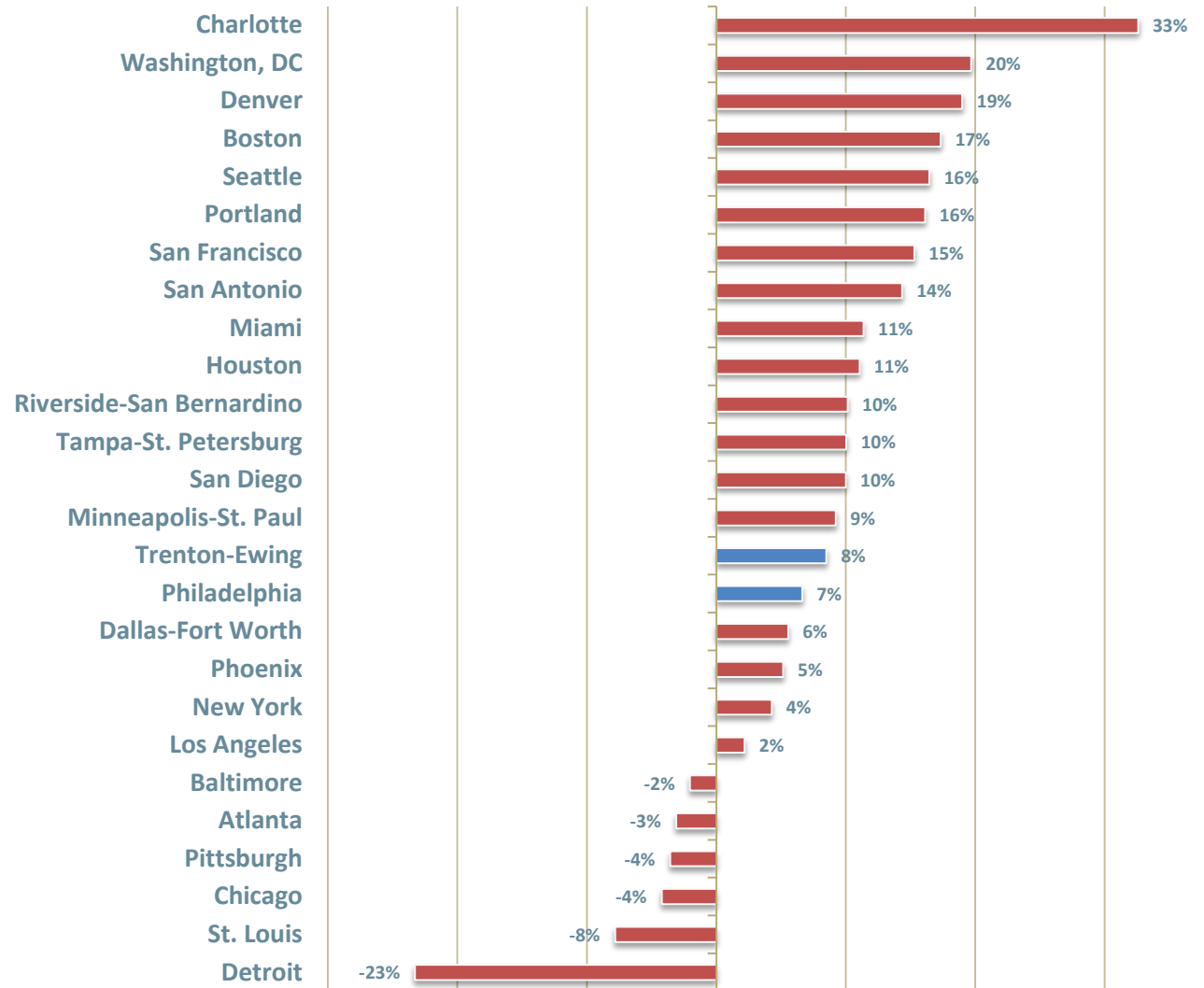# Change in Metro Area Population, 2005-2014

Metro Area	Change
Houston	23%
San Antonio	23%
Charlotte	20%
Dallas-Fort Worth	18%
Denver	17%
Phoenix	16%
Seattle	15%
Washington, DC	15%
Atlanta	14%
Riverside-San Bernardino	14%
Portland	12%
San Diego	11%
San Francisco	11%
Tampa-St. Petersburg	10%
Miami	9%
Minneapolis-St. Paul	9%
Trenton-Ewing	8%
Boston	7%
Philadelphia	7%
Baltimore	5%
New York	3%
Los Angeles	3%
St. Louis	2%
Chicago	1%
Pittsburgh	-1%
Detroit	-4%

Source: U.S. Census Bureau, American Community Survey.

Population in the Primary City

Primary City	2014 Population/ Percent of the Metro Population	Primary City	2014 Population/ Percent of the Metro Population
New York City	8.49 mil / 42%	City of Denver	663,862 / 24%
City of Los Angeles	3.93 mil / 30%	Washington, DC	658,893 / 11%
City of Chicago	2.72 mil / 28%	City of Boston	655,884 / 14%
City of Houston	2.24 mil / 35%	City of Baltimore	622,793 / 22%
City of Philadelphia	1.56 mil / 26%	City of Portland	619,360 / 26%
City of Phoenix	1.54 mil / 34%	City of Atlanta	456,002 / 8%
City of San Antonio	1.44 mil / 62%	City of Miami	430,332 / 7%
City of San Diego	1.38 mil / 42%	City of Minneapolis	407,207 / 12%
City of Dallas	1.28 mil / 18%	City of Tampa	358,699 / 12%
City of San Francisco	852,469 / 19%	Riverside City	319,504 / 7%
City of Charlotte	809,958 / 34%	City of St. Louis	317,419 / 11%
City of Detroit	680,250 / 16%	City of Pittsburgh	305,412 / 13%
City of Seattle	668,342 / 18%	City of Trenton	84,047 / 23%

Change in the Primary City's Population, 2005-2014

City	Change
Charlotte	33%
Washington, DC	20%
Denver	19%
Boston	17%
Seattle	16%
Portland	16%
San Francisco	15%
San Antonio	14%
Miami	11%
Houston	11%
Riverside-San Bernardino	10%
Tampa-St. Petersburg	10%
San Diego	10%
Minneapolis-St. Paul	9%
Trenton-Ewing	8%
Philadelphia	7%
Dallas-Fort Worth	6%
Phoenix	5%
New York	4%
Los Angeles	2%
Baltimore	-2%
Atlanta	-3%
Pittsburgh	-4%
Chicago	-4%
St. Louis	-8%
Detroit	-23%

Source: U.S. Census Bureau, American Community Survey.

Employment in the Metro Area

Metro Area	2014 Employment	Metro Area	2014 Employment
New York	12,094,064	Minneapolis-St. Paul	2,369,366
Los Angeles	8,158,392	Seattle	2,365,079
Chicago	5,802,279	San Diego	1,977,874
Dallas-Fort Worth	4,464,571	Portland	1,936,488
Washington, DC	4,075,889	Riverside	1,866,302
Houston	3,945,191	Denver	1,837,288
Philadelphia	3,564,216	Baltimore	1,754,218
Miami	3,554,117	St. Louis	1,702,859
Atlanta	3,374,779	Tampa	1,590,096
Boston	3,322,513	Pittsburgh	1,445,889
San Francisco	3,064,300	Charlotte	1,409,063
Phoenix	2,448,608	San Antonio	1,308,059
Detroit	2,429,818	Trenton-Ewing	271,817

Source: U.S. Bureau of Economic Analysis

Change in Metro Area Employment, 2004-2014
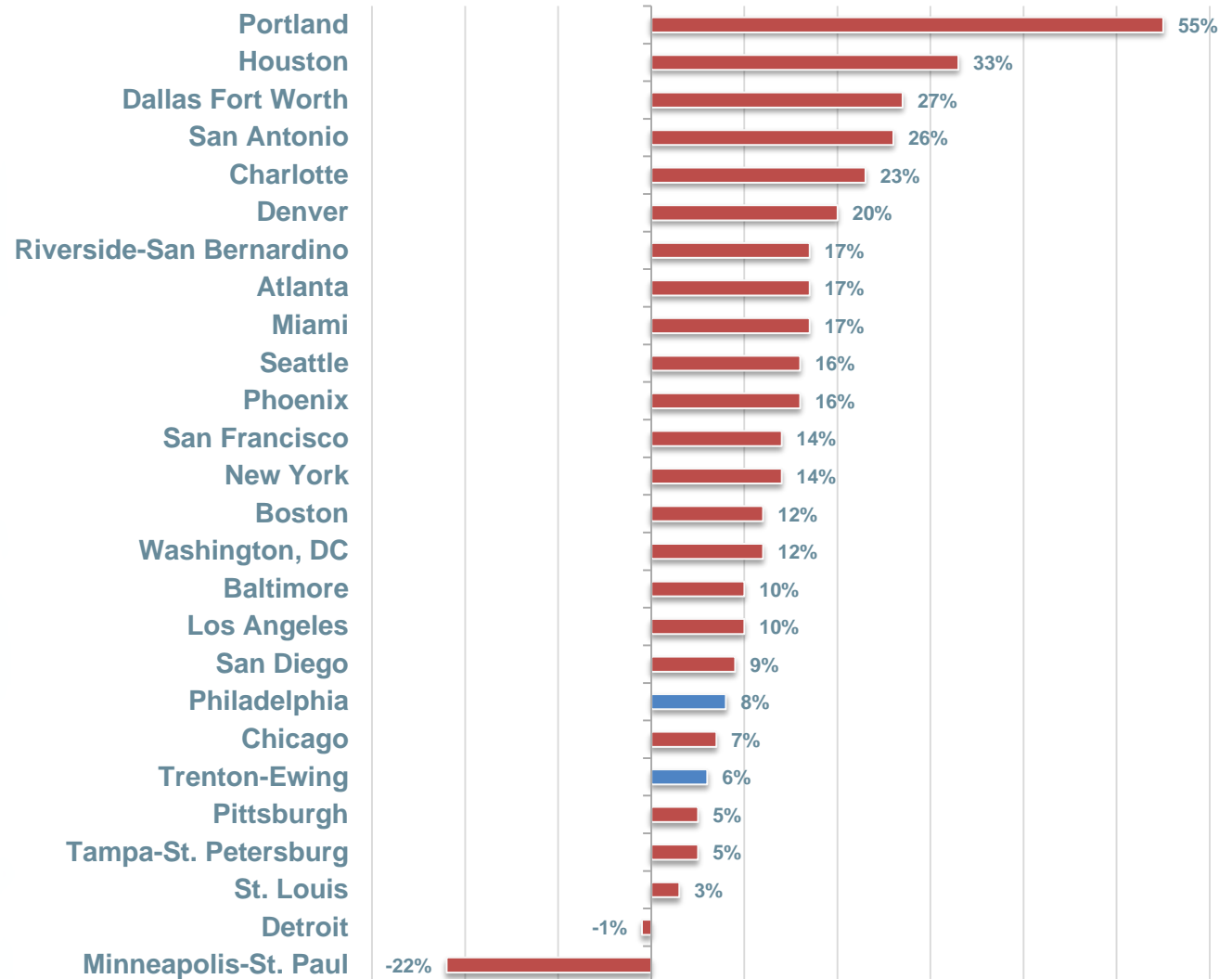
Source: U.S. Bureau of Economic Analysis

Quality of Life

- Strengths
  - Access to arts, culture, and recreation
  - Urban parkland
  - Walkable park access in the primary city
  - Improving air quality
  - Access to health care
  - Relatively low crime rate

- Weaknesses
  - Urban expenditures on parks
  - Days with an unhealthy air quality index
  - CO_2 produced by autos during congestion
  - Crimes occurring in the primary city

Housing

- **Strengths**
  - Affordability (particularly when considering the combined cost of housing and transportation)
  - High homeownership rate
  - Residential construction in the primary city

- **Weaknesses**
  - Increasing rental housing costs
  - Limited affordable housing opportunities close to suburban job centers
  - Relatively high mortgage foreclosure rate
  - Relatively few residential permits as a percent of the region's existing housing stock

Education

- **Strengths**
  - High school drop-out rate in the metro area
  - Percentage of adults with a college degree
  - Extensive network of educational facilities
  - Education and knowledge creation workers per capita
  - Funding per student in the primary city

- **Weaknesses**
  - Percentage of adults who did not finish high school in the primary city versus the metro area
  - Literacy in the primary city
  - Households with internet access in the primary city

Income and Wages

- Strengths
  - Earnings per job
  - Median household income
  - Per capita income

- Weaknesses
  - Relatively low cost-of-living adjusted wage
  - Change in per capita and household income
  - Income disparity between the city and the metro area as a whole
  - Concentration of poverty in the primary city

The Economy

- **Strengths**
  - Economic diversity
  - Relatively low unemployment
  - Fortune 500 company headquarters
  - Capacity for innovation
  - Per capita GDP

- **Weaknesses**
  - Employment growth
  - Relatively low labor force participation rate
  - Exports per capita
  - R & D expenditures
  - Venture capital investments
  - Relatively high tax burden

Transportation

- Strengths
  - Relatively short average daily commute times
  - Relatively high percentages of workers who use transit, walk, or bike to work
  - Low average daily vehicle miles traveled
  - Total tonnage moving through the region's ports
  - International passenger activity at PHL

- Weaknesses
  - Aging transportation infrastructure
  - Declining tonnage moving through the region's ports

Conclusion

- The region can address its weaknesses and threats by capitalizing and building on its strengths and opportunities:

  - Lackluster population and employment growth → market the region's high quality of life, relative affordability, quality transportation network, and extensive education and health care networks.

  - Increasing service needs and mobility challenges associated with an aging population → utilize the region's quality health care facilities and transportation network.

Conclusion

- Disparities between urban and suburban educational attainment → expand partnerships within the region's vast network of public and private educational facilities.

- Disparities between urban and suburban labor force participation and unemployment → provide job training and improve transportation access to suburban employment centers.

Presentation

Delaware Valley Regional Planning Commission: Regional Community and Economic Development Forum

ihs.com

15 June 2016

Phil Hopkins, Director +1 215 798 7468, phil.hopkins@ihs.com

The Great Recession

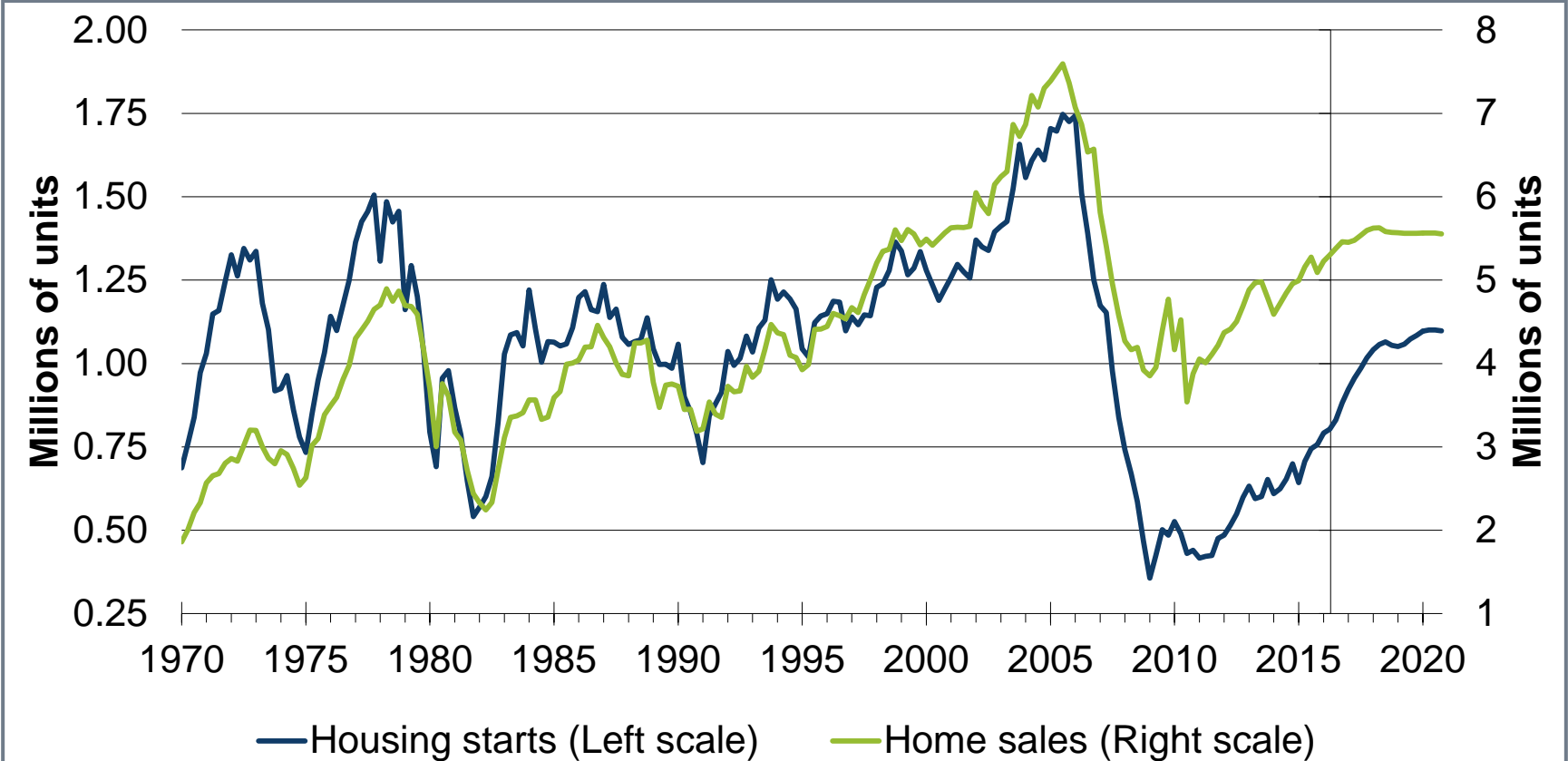## Growth Rates in US Employment and Real GDP
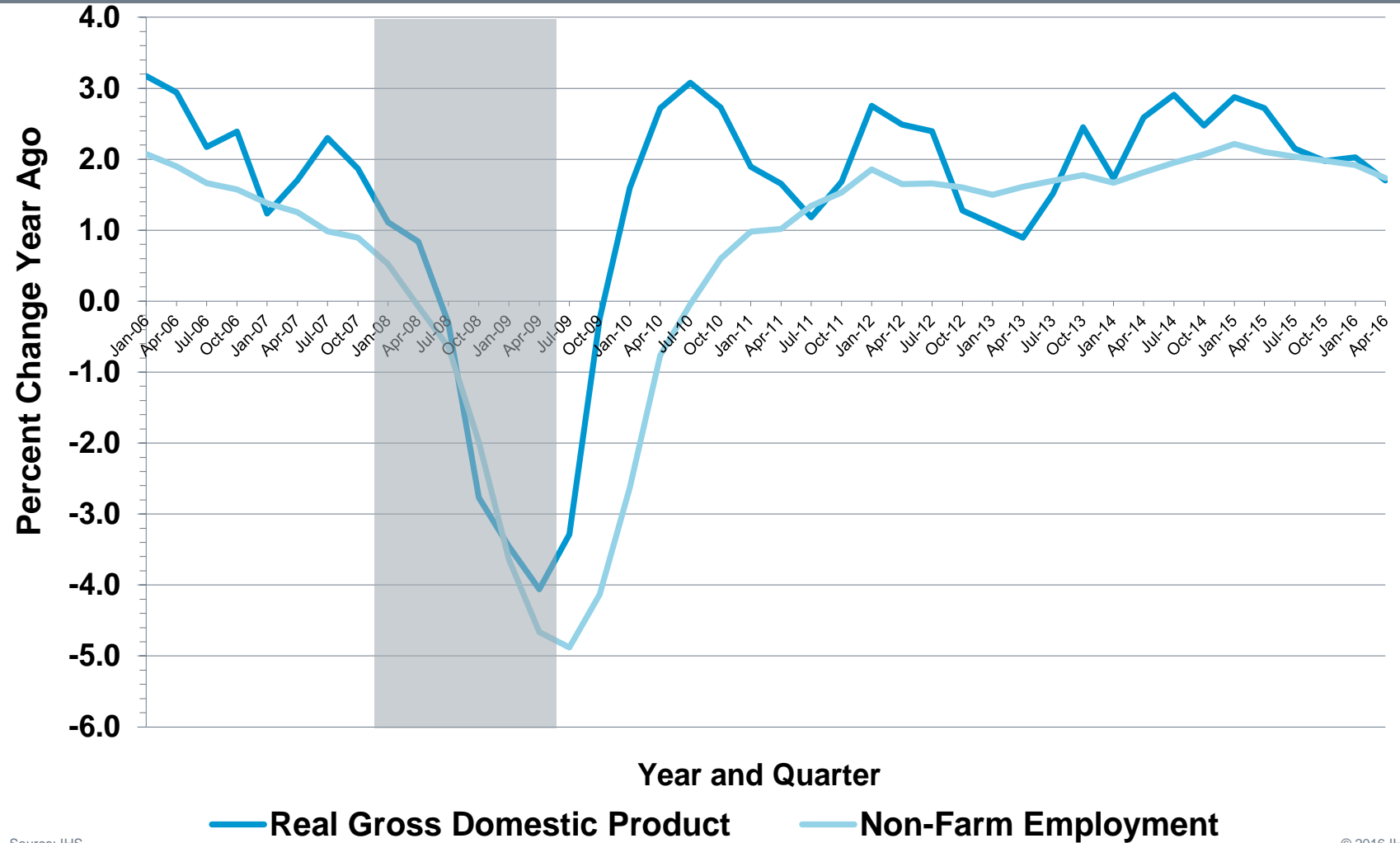
Source: IHS

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Employment Recovery Trends

|	Recovery Period - # of Months		% Difference	% Change Peak to Trough	
Recession	**US**	**Philadelphia MSA**		**US**	**Philadelphia MSA**
1990	34	75	120.6%	-1.5%	-5.4%
2001	36	53	47.2%	-2.0%	-1.4%
2007	77	90	16.9%	-6.3%	-5.2%

Employment Recovery - Last 3 Recessions

Employment Trends
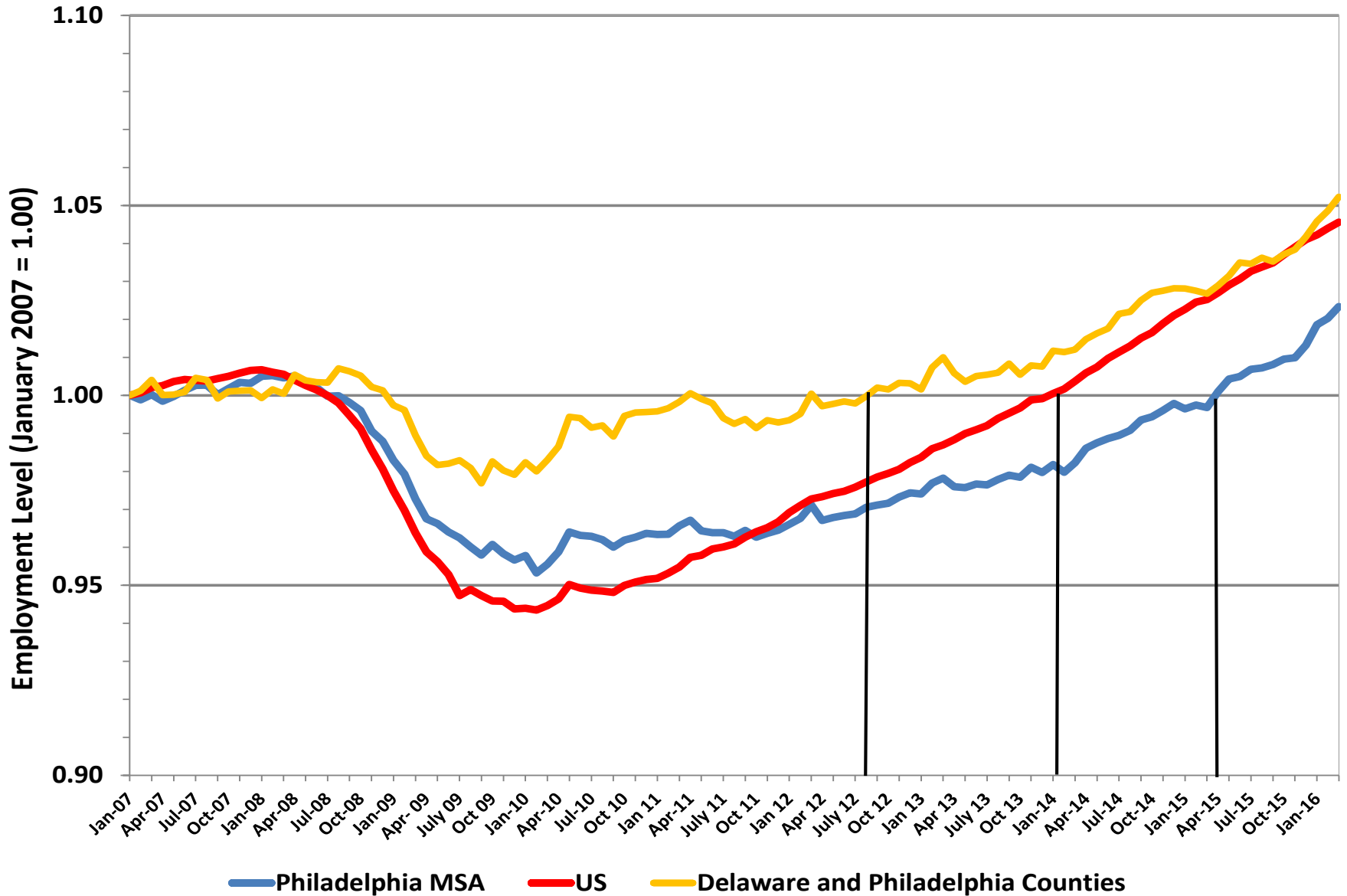
Employment Change by Sector Since Recession Start

% Employment Change by Sector - Start of the Recession to March 2016

Legend: ■ Philadelphia MSA   ■ U.S.
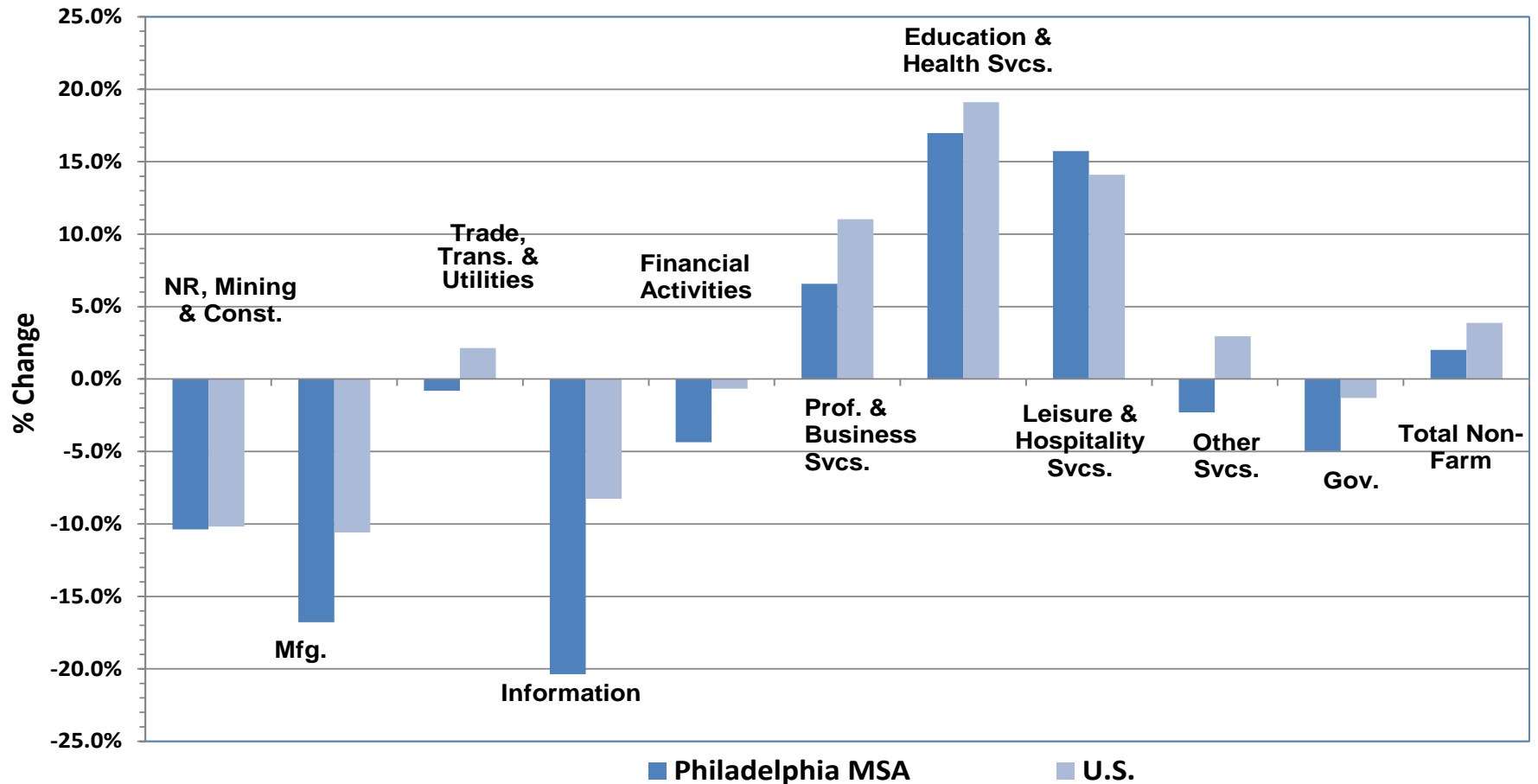
Source: BLS, 2016. Current Employment Statistics. Numbers seasonally adjusted by the Philadelphia Federal Reserve Bank. Data through March 2016

MSA Growth Since 2007q1

Employment Growth in the 25 Largest MSAs
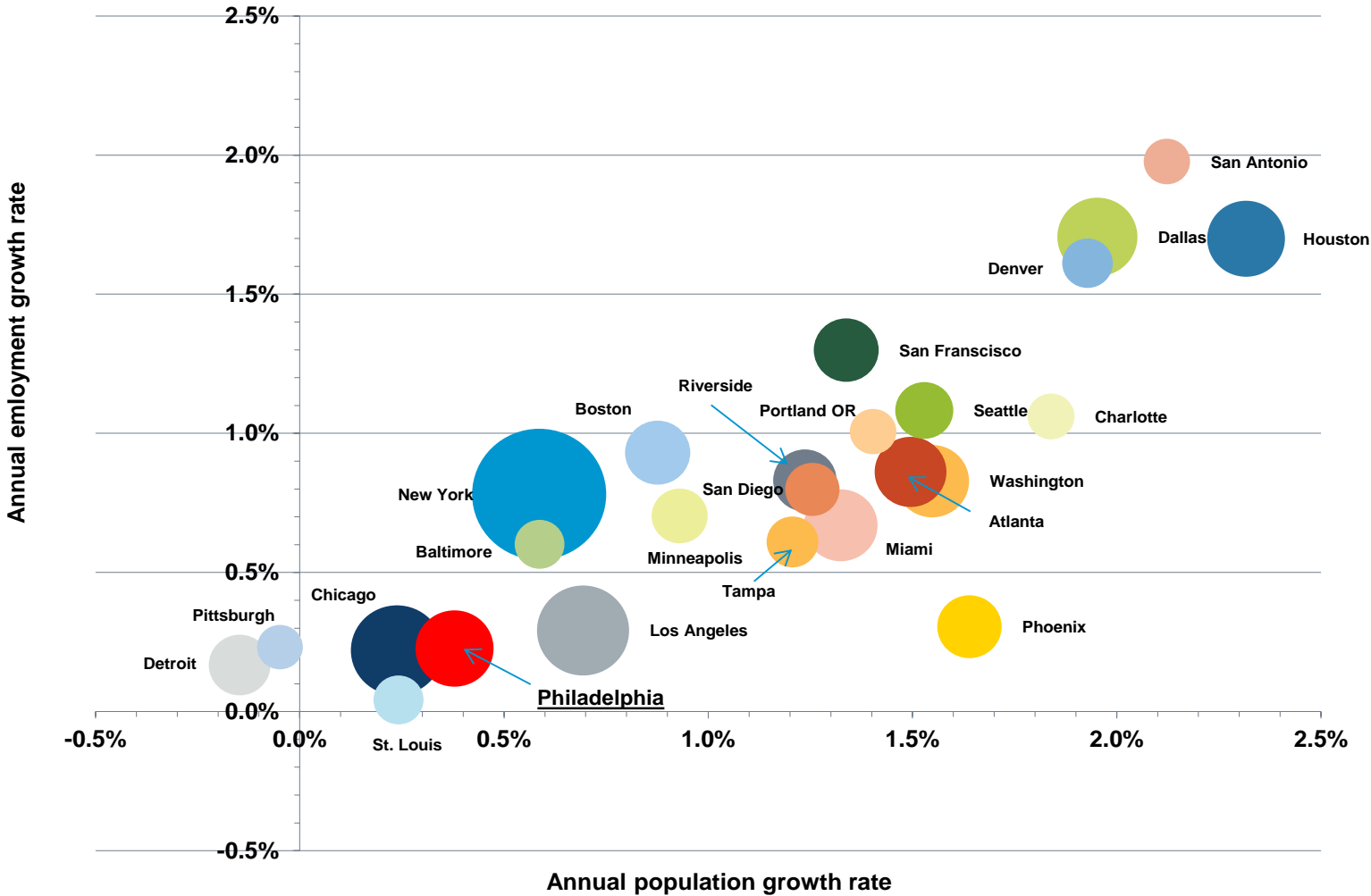
Notes: Growth rates are from 2007q2 to 2016q2, bubble size is total employment in 2016q2
Source: IHS

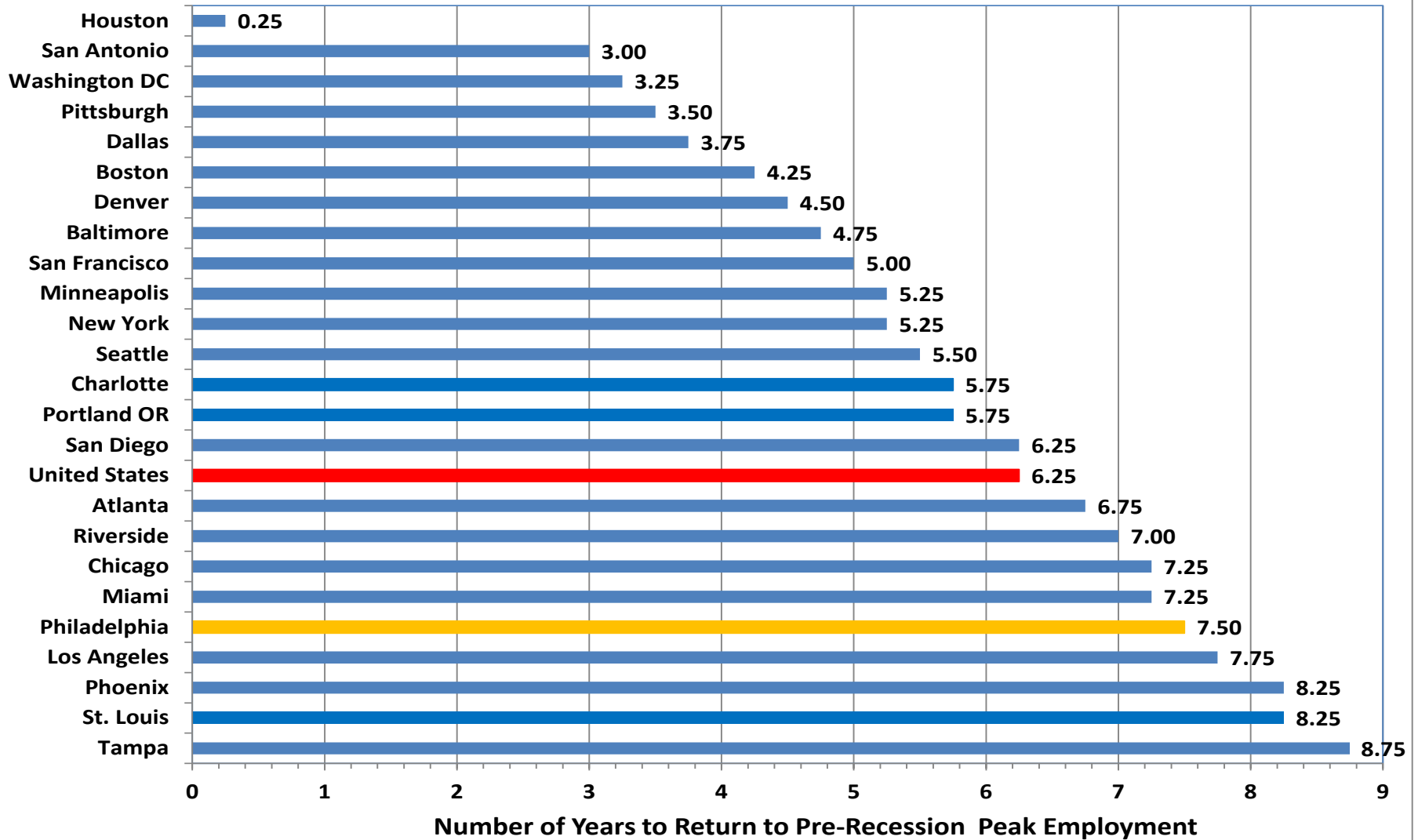© 2016 IHS

Philadelphia MSA Recovery from 2007q4 to 2016q2

Philadelphia Ranks Among the 25 Largest MSAs Based on Changes between 2007q4 and 2016q2							
Measure	2007q4	2016q2	Rank for 2016q2 Level	Difference	CAGR	Difference Rank	CAGR Rank
Average Annual Wage, Total Nonfarm (Thousands of $)	$ 51.80	$ 61.95	11	$ 10.2	2.1%	11	11
Employment, Goods-Making (Thousands of Jobs)	347.8	297.0	9	(50.8)	-1.8%	21	18
Employment, Total Nonfarm (Thousands of Jobs)	2,816.4	2,871.2	7	54.8	0.2%	21	22
Gross Metro Product (Millions of $)	$ 334,743.6	$ 414,304.3	8	$ 79,560.7	2.5%	9	16
Housing Starts, Total Private	11,786.2	16,516.2	13	4,730.0	4.0%	13	10
Median Household Income (Thousands of $)	$ 59.2	$ 65.7	10	$ 6.5	1.2%	15	16
Personal Income (Millions of $)	$ 279,105.6	$ 356,725.7	8	$ 77,620.1	2.9%	9	16
Population (Thousands of persons)	5,894.5	6,087.0	7	192.5	0.4%	20	21
Retail Sales, Total (Millions of $)	$ 86,198.3	$ 99,524.2	5	$ 13,325.9	1.7%	8	16
Median Sales Price of an Existing Single Family Home	$ 254,546	$ 219,947	16	$ (34,599)	-1.7%	21	20

Note: peak median sales price for an existing single family home is for 2007q2
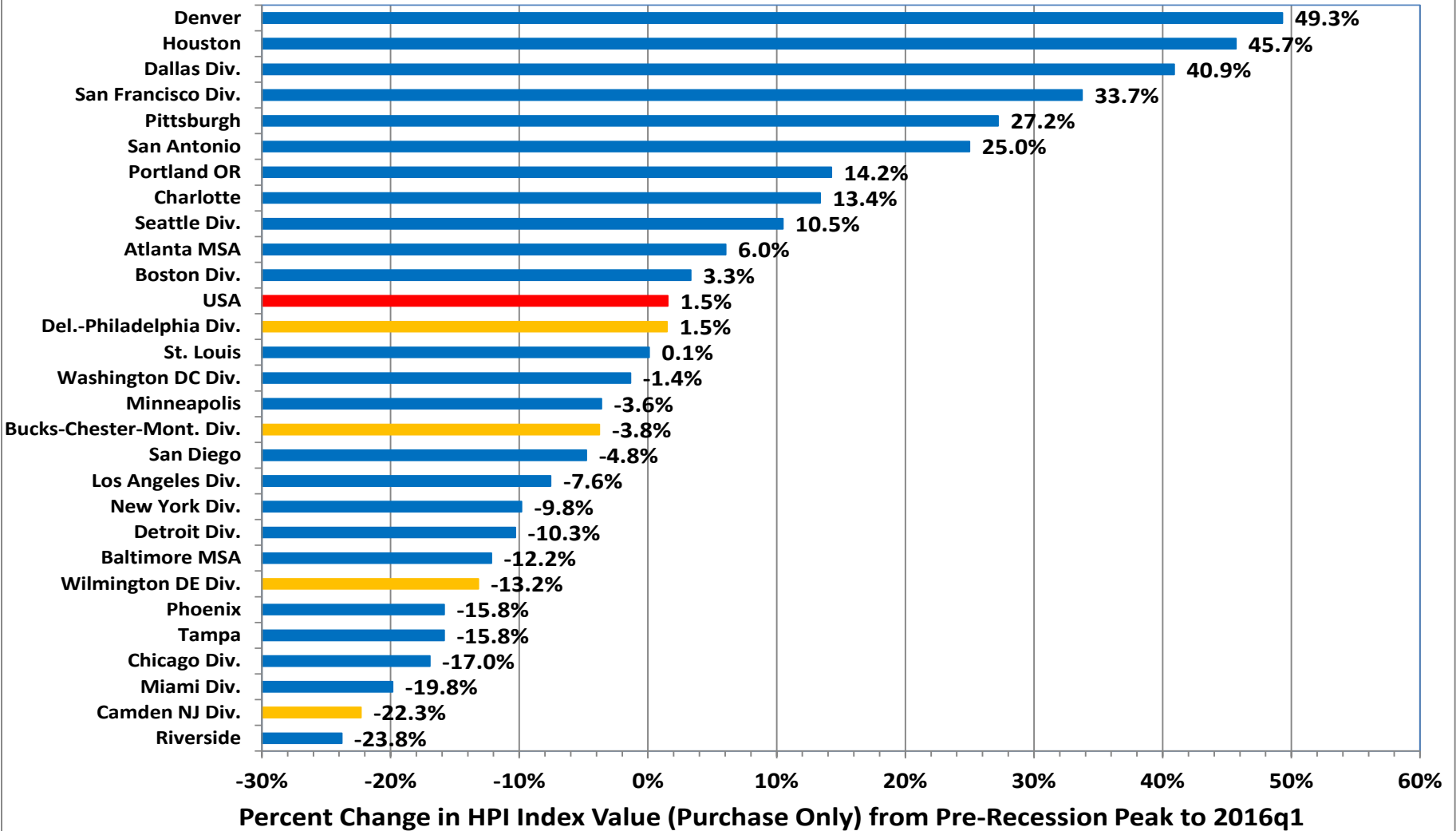
CAGR: compound annual growth rate

Employment Recovery – Years Back to Pre-Recession Peak

DVRPC / June 2016

Number of Years to Return to Pre-Recession Peak Employment

City	Years
Houston	0.25
San Antonio	3.00
Washington DC	3.25
Pittsburgh	3.50
Dallas	3.75
Boston	4.25
Denver	4.50
Baltimore	4.75
San Francisco	5.00
Minneapolis	5.25
New York	5.25
Seattle	5.50
Charlotte	5.75
Portland OR	5.75
San Diego	6.25
United States	6.25
Atlanta	6.75
Riverside	7.00
Chicago	7.25
Miami	7.25
Philadelphia	7.50
Los Angeles	7.75
Phoenix	8.25
St. Louis	8.25
Tampa	8.75

Note: the Detroit MSA is not included as its employment has not yet returned to its pre-reccsion peak.

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Housing Price Recovery

DVRPC / June 2016

Change in Housing Prices from Pre- Recession Peak

City	Percent Change
Denver	49.3%
Houston	45.7%
Dallas Div.	40.9%
San Francisco Div.	33.7%
Pittsburgh	27.2%
San Antonio	25.0%
Portland OR	14.2%
Charlotte	13.4%
Seattle Div.	10.5%
Atlanta MSA	6.0%
Boston Div.	3.3%
USA	1.5%
Del.-Philadelphia Div.	1.5%
St. Louis	0.1%
Washington DC Div.	-1.4%
Minneapolis	-3.6%
Bucks-Chester-Mont. Div.	-3.8%
San Diego	-4.8%
Los Angeles Div.	-7.6%
New York Div.	-9.8%
Detroit Div.	-10.3%
Baltimore MSA	-12.2%
Wilmington DE Div.	-13.2%
Phoenix	-15.8%
Tampa	-15.8%
Chicago Div.	-17.0%
Miami Div.	-19.8%
Camden NJ Div.	-22.3%
Riverside	-23.8%

Percent Change in HPI Index Value (Purchase Only) from Pre-Recession Peak to 2016q1

Why is the MSA lagging?

- No single major factor, but the combined effects of a number of different ones
  - No dominant strengths, but few glaring weaknesses
  - Average performer for many metrics
- A very competitive situation – Boston, NYC and Washington have unique competitive assets we do not have
  - We have cost advantages over them – wages, housing, cost of living
- The Northeast US is more expensive than most other parts of the country except the west coast
- Large MSAs in Northeast and Midwest have had lower population and employment growth rates than the sunbelt and west coast metros
- Economic structure
  - 25% of employment in above-average performing sectors
  - 75% in below-average performing sectors

Why is the MSA lagging?

- Large differences between City and MSA
  - 3rd on difference between City and MSA in population in poverty
  - 2nd on difference between MSA and City in population with Bachelor's or higher
- Entrepreneurial Activity; Kauffman ranks in 2016:
  - Growth Entrepreneurship -14th
  - Main St. Entrepreneurship – 13th
  - Startup Activity – 21st
- Innovation – rank 10th in patent award rate since 2007
- Export Activity – ranks 10th in export value in 2014

Appendices

Employment Change by County in the Philadelphia MSA

Employment Change by County in the Philadelphia MSA						
County	January 2007	December 2015	Difference	% Change	Rank for Difference	Rank for % change
Bucks County	260,156	258,291	(1,865)	-0.7%	10	9
Chester County	234,827	247,700	12,873	5.5%	4	3
Delaware County	206,587	222,193	15,606	7.6%	2	1
Montgomery County	481,225	488,621	7,396	1.5%	5	7
Philadelphia County	627,260	662,468	35,208	5.6%	1	2
Burlington County	201,544	201,156	(388)	-0.2%	8	8
Camden County	206,737	201,448	(5,289)	-2.6%	11	10
Gloucester County	102,434	105,470	3,036	3.0%	6	6
Salem County	22,230	20,513	(1,717)	-7.7%	9	11
New Castle County	279,314	293,219	13,905	5.0%	3	4
Cecil County	29,745	30,661	916	3.1%	7	5
Total MSA	2,652,059	2,731,740	79,681	3.0%		
US (Millions of jobs)	132.6	141.9	9.3	7.1%		

Data is total covered employment, all industries, all ownerships; measures number of jobs

Source: Bureau of Labor Statistics, Quarterly Census of Employment and Wages, downloaded June 9, 2016. Data for December 2015 is preliminary

http://data.bls.gov/pdq/SurveyOutputServlet;jsessionid=E35F36AF4345BE4C383864C1A3A90C6A.tc_instance5
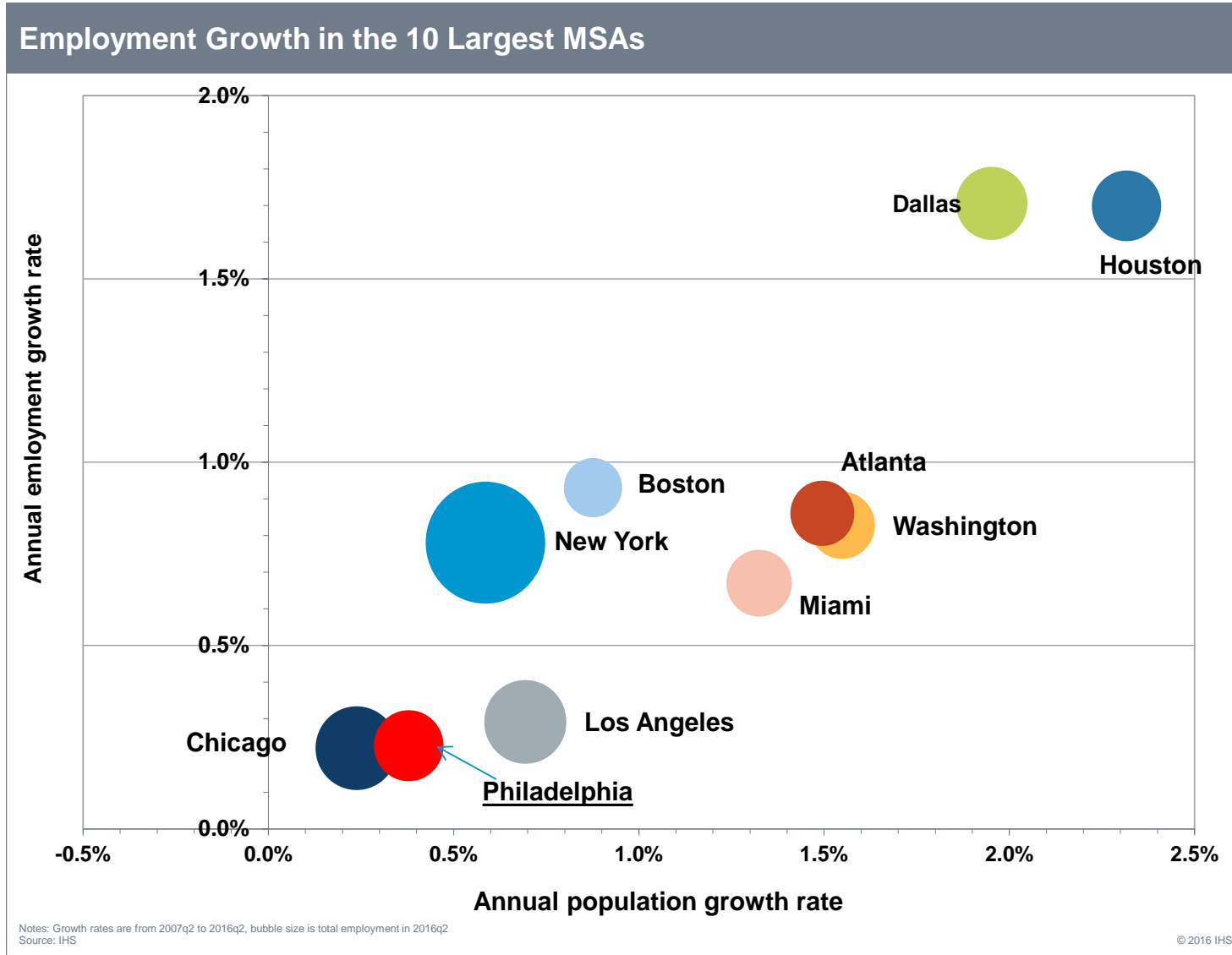
Educational Attainment

% Population 25 years and above with Bachelors Degree or Higher				
Area	City	MSA	Difference (MSA - City)	Rank
Atlanta	66.9	47.8	-19.1	24
Baltimore	40.8	52.6	11.8	4
Boston	48.6	63.5	14.9	3
Charlotte	44.2	41.2	-3	16
Chicago	48.9	48.6	-0.3	13
Dallas	38.2	42.6	4.4	8
Denver	60.8	54	-6.8	18
Detroit	18.5	39.9	21.4	1
Houston	35.6	40.5	4.9	7
Los Angeles	42.1	42.7	0.6	11
Miami	32.3	39.8	7.5	6
Minneapolis	52.2	52	-0.2	12
New York	49.3	52.3	3	10
Philadelphia	31.9	47.8	15.9	2
Phoenix	35.8	39.1	3.3	9
Pittsburgh	55.2	42.8	-12.4	23
Portland	50.4	47.7	-2.7	15
Riverside	31.3	26.9	-4.4	17
San Antonio	36	35.7	-0.3	13
San Diego	59.3	48.4	-10.9	21
San Francisco	73.6	62.8	-10.8	20
Seattle	81.4	52.3	-29.1	25
St. Louis	32.3	43.7	11.4	5
Tampa	46.8	36.2	-10.6	19
Washington DC	83.5	71.5	-12	22
United States	40.3			

Source: Bureau of the Census, American Community Survey, 2016. 2010-20214 5-year data

Poverty Levels

% Population Living in Poverty During the Last 12 Months				
Area	City	MSA	Difference (City - MSA)	Rank
Atlanta	25.2	15.7	9.5	10
Baltimore	24.2	11	13.2	4
Boston	21.9	10.4	11.5	7
Charlotte	17.3	15.3	2	22
Chicago	22.7	14.1	8.6	12
Dallas	24.1	14.8	9.3	11
Denver	18.3	12	6.3	14
Detroit	39.8	16.9	22.9	1
Houston	22.9	16.3	6.6	13
Los Angeles	22.4	17.1	5.3	18
Miami	29.9	17.3	12.6	5
Minneapolis	22.6	10.6	12	6
New York	20.6	14.3	6.3	14
Philadelphia	26.7	13.2	13.5	3
Phoenix	23.2	17.1	6.1	17
Pittsburgh	22.8	12.3	10.5	8
Portland OR	18.3	13.9	4.4	19
Riverside	19.7	18	1.7	24
San Antonio	20.1	16.6	3.5	20
San Diego	15.8	14.7	1.1	25
San Francisco	13.3	11.3	2	22
Seattle	14	11.7	2.3	21
St. Louis	27.8	13.2	14.6	2
Tampa	22	15.7	6.3	14
District of Columbia	18.2	8.4	9.8	9
United States	15.6			

Source: American Community Survey, 2016. 2010-20214 5-year data

Economic Structure Diversity

Hachmann Indices of Structure Diversity for the 25 Largest MSAs (based on 2015 population)				
MSA	**Index value using 2-digit NAICs code**	**Rank**	**Index value using 3-digit NAICs codes**	**Rank**
Atlanta-Sandy Springs-Roswell, GA	.917	14	.704	7
Baltimore-Columbia-Towson, MD	.904	20	.739	2
Boston-Cambridge-Newton, MA-NH	.900	21	.706	6
Charlotte-Gastonia-Concord, NC-SC	.914	16	.599	21
Chicago-Naperville-Elgin, IL-IN-WI	.941	3	.691	8
Dallas-Fort Worth-Arlington, TX	.937	5	.665	14
Denver-Aurora-Lakewood, CO	.926	12	.691	9
Detroit-Warren-Livonia, MI	.868	23	.666	13
Houston-The Woodlands-Sugar Land, TX	.819	24	.555	24
Los Angeles-Long Beach-Anaheim, CA	.930	9	.602	20
Miami-Fort Lauderdale-West Palm Beach, FL	.908	18	.645	17
Minneapolis-St. Paul-Bloomington, MN-WI	.935	7	.685	11
New York-Newark-Jersey City, NY-NJ-PA	.905	19	.584	22
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	.924	13	.690	10
Phoenix-Mesa-Scottsdale, AZ	.931	8	.760	1
Pittsburgh, PA	.912	17	.722	3
Portland-Vancouver-Hillsboro, OR-WA	.955	1	.650	15
Riverside-San Bernardino-Ontario, CA	.897	22	.502	25
San Antonio-New Braunfels, TX	.928	10	.621	19
San Diego-Carlsbad, CA	.935	6	.649	16
San Francisco-Oakland-Hayward, CA	.941	4	.667	12
Seattle-Tacoma-Bellevue, WA	.914	15	.627	18
St. Louis, MO-IL	.949	2	.717	4
Tampa-St. Petersburg-Clearwater, FL	.927	11	.712	5
Washington-Arlington-Alexandria, DC-VA-MD-WV	.572	25	.583	23
Total for all large MSAs	.963		.722	

Patent Award Rates in the Large MSAs

Patent Award Rates in the 25 Largest MSAs - Number of Utility Patents per 1,000 persons				
MSA	Average 2000 to 2013	Rank	Average 2007 to 2013	Rank
Atlanta-Sandy Springs-Roswell, GA	.263	18	.291	15
Baltimore-Columbia-Towson, MD	.238	19	.237	19
Boston-Cambridge-Newton, MA-NH	.803	3	.893	4
Charlotte-Gastonia-Concord, NC-SC	.126	23	.131	23
Chicago-Naperville-Elgin, IL-IN-WI	.298	13	.302	13
Dallas-Fort Worth-Arlington, TX	.340	9	.329	11
Denver-Aurora-Lakewood, CO	.263	17	.274	18
Detroit-Warren-Livonia, MI	.506	7	.517	7
Houston-The Woodlands-Sugar Land, TX	.337	10	.339	9
Los Angeles-Long Beach-Anaheim, CA	.343	8	.370	8
Miami-Fort Lauderdale-West Palm Beach, FL	.169	21	.174	21
Minneapolis-St. Paul-Bloomington, MN-WI	.757	4	.788	5
New York-Newark-Jersey City, NY-NJ-PA	.281	14	.296	14
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	.333	11	.334	10
Phoenix-Mesa-Scottsdale, AZ	.322	12	.309	12
Pittsburgh, PA	.274	15	.283	17
Portland-Vancouver-Hillsboro, OR-WA	.715	6	.762	6
Riverside-San Bernardino-Ontario, CA	.093	25	.086	25
San Antonio-New Braunfels, TX	.122	24	.129	24
San Diego-Carlsbad, CA	.813	2	.958	3
San Francisco-Oakland-Hayward, CA	1.172	1	1.376	1
Seattle-Tacoma-Bellevue, WA	.736	5	1.004	2
St. Louis, MO-IL	.225	20	.224	20
Tampa-St. Petersburg-Clearwater, FL	.146	22	.154	22
Washington-Arlington-Alexandria, DC-VA-MD-WV	.265	16	.285	16
Total for all large MSAs	.393		.423	

Source: US Patent and Trademark Office, 2016. Calendar Year Patent Statistics (January 1 to December 31).

http://www.uspto.gov/web/offices/ac/ido/oeip/taf/reports_cbsa.htm

Note: utility patents account for about 90% of those issued by the USPTO in recent years

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