Economic Inclusion Indicator Brief

NEW HAVEN, CONNECTICUT
Overview

- Population Characteristics
- Employment, Business Characteristics
- Indicator Overview
- Part 1: Economic Landscape Indicators
- Part 2: Inequality Indicators
- Part 3: Entrepreneurship Indicators
- Sources
### Population Characteristics

<table>
<thead>
<tr>
<th>Population Size; Change since 2010</th>
<th>Percent in Poverty; Median Family Income</th>
<th>Percent HS, higher; Percent BA, higher</th>
<th>Residents that are Foreign-born</th>
<th>Speak Language Other Than English at Home</th>
</tr>
</thead>
<tbody>
<tr>
<td>860,435 -2,554</td>
<td>11% $86,424</td>
<td>91% 34%</td>
<td>12%</td>
<td>22%</td>
</tr>
</tbody>
</table>

- **US - 13%** $60,336
- **US - 88%** 32%
- **US - 14%**
- **US - 22%**

#### Race
- White: 73.5%
- Not Hispanic: 81.9%
- Hispanic: 18.1%
- Other: 9.6%
- Asian: 4.0%
- Black: 13.5%

**Comparable to National Statistics**
Poverty rates are not evenly distributed in the New Haven area, with much higher rates seen in downtown New Haven and Waterbury.
Employment & Business Characteristics

- **Unemployment Rate**: 6.9% (Than nat'l (3.3%))
- **Percent of Business, Owned by Residents**: 86.8% (Than nat'l (83.1%))
- **Percent of jobs in the city, held by workers living in the city**: 64.9%
- **Percent of workers in the city, who work in the city**: 60.2%
Unemployment rates are not spread evenly throughout the New Haven area. Distinct pockets of high unemployment are visible, centered around certain towns and cities: New Haven, Waterbury and Meriden.
Part 1. Economic Landscape Indicators

**Health Care and Social Assistance + Construction + Wholesale Trade (53% of total growth)**

**Growth Industries**

Industry sectors that account for half of all employment growth in the County in the last 5 years

---

**64,599 (22% of total) N. Haven**

22% of total (State)

25% of total (National)

**Jobs at Risk of Automation by 2030**

Estimated number of current jobs in the MSA whose tasks are judged highly susceptible to computerization

---

**3,689 (1.3% of total)**

Same percentages for State and Nation

**Workers in Alternative Work Arrangements**

Estimated share of workers in the City who were in alternative work arrangements

---

forwardcities.org
Part 2. Inequality Indicators

Opportunity Gap
Average income percentile rank gap between children born to families at 25th vs 50th percentile of income distribution

-9%p : New Haven
-9%p : Buffalo
-7%p : Pittsburgh

Earnings Gap
Dollar amount that full-time workers make for every $1 a White (non-Hispanic) male makes

$1 : $.85 : $.71 : $.68 : $.60 : $.54 New Haven
White (non-Hispanic) ♂ : White (non-Hispanic) ♀ : Black ♂ : Black ♀ : Hispanic ♂ : Hispanic ♀

$1 (WM) : $0.78 (WF) : $0.71 (BM) : $0.63 (BF) Buffalo
$1 (WM) : $0.81 (WF) : $0.69 (BM) : $0.65 (BF) Pittsburgh

Wealth Gap
Difference in home-ownership rates between. White (non-Hispanic) and African-American/Black households

38%p New Haven
40%p Buffalo
30%p Pittsburgh

forwardcities.org
Part 3. Entrepreneurship Indicators

Self-Employment

Number and percent of self-employed New Haven County residents

Very Small Business Density and Dynamism

Number of businesses with 1-4 employees, change over last 5 years

Business Density

Number and percent of businesses that have been in business less than 2 years

Entrepreneur Density

Number of State businesses open less than 2 years per 1,000 residents ages 16-64

Entrepreneurial Diversity

Number of businesses open <2 years per 1,000 residents ages 16-64

1 per 1k female N. Haven
4 per 1k female Buffalo
3 per 1k female Pittsburgh
0.3 per 1k Black/AA N. Haven
1 per 1k Black/AA Buffalo
1 per 1k Black/AA Pittsburgh
1 per 1k Hispanic/African American Pittsburgh

19,855
+31

4,897
(7%)

30,529 (8% of total) N. Haven
36,656 (7% of total) Buffalo
14,527,648 (10% of total) Pittsburgh

36,656 (7% of total) Buffalo
14,527,648 (10% of total) Pittsburgh

Pittsburgh
Economic Landscape

Growth Industries, Alternative Work Arrangements, Automation
Growth Industries

Jobs by industry (number and percent total jobs), 2017
Growth Industries

Jobs by industry (number and percent total jobs), 2017

The same industries fill the top three jobs by number and percent, although the ranking is slightly different for the County and City.
Growth Industries

Change in jobs by industry between 2012 and 2017

Growth is happening, but in less stable types of jobs.

Declines are seen in both lower and higher wage jobs.
Growth Industries

Change in jobs by industry between 2012 and 2017

- Health Care and Social Assistance
- Construction
- Educational Services
- Wholesale Trade
- Manufacturing
- Other
- Management of Companies and Enterprises
- Utilities
- Professional, Scientific, and Technical Services
- Administrative Support
- Mining
- Agriculture, Forestry, Fishing, and Hunting
- Real Estate Rental and Leasing
- Finance and Insurance
- Transportation and Warehousing
- Public Administration
- Arts, Entertainment, and Recreation
- Information
- Retail Trade
- Accommodation and Food Services

Growth is happening in the same sectors in the County and the City.

Declines are seen in lower wage jobs in the City, compared to the County.
Growth Industries

Change in median earnings by industry between 2012 and 2017

- Agriculture, Forestry, Fishing, and Hunting
- Utilities
- Professional, Scientific, and Technical Services
- Finance and Insurance
- Public Administration
- Manufacturing
- Information
- Educational Services
- Management of Companies and Enterprises
- Wholesale Trade
- Health Care and Social Assistance
- Real Estate Rental and Leasing
- Construction
- Transportation and Warehousing
- Arts, Entertainment, and Recreation
- Administrative and Support
- Other
- Retail Trade
- Accommodation and Food Services

Median Earnings

Change in Median Earnings from 2012-2017

forwardcities.org
Workers in Alternative Work Arrangements

Estimated number and percent of workers in alt. work arrangements in 2017, by industry

- Construction
- Manufacturing
- Retail trade
- Leisure and hospitality
- Other services
- Transportation and utilities
- Public administration
- Wholesale trade
- Financial activities
- Information
- Agriculture and related industries
- Mining, quarrying, oil and gas extraction
Workers in Alternative Work Arrangements

Estimated difference of workers in alt. work arrangements, 2005 to 2017, by industry

- Education and health services
- Retail trade
- Agriculture and related industries
- Financial activities
- Mining, quarrying, oil and gas extraction
- Other services
- Public administration
- Leisure and hospitality
- Transportation and utilities
- Wholesale trade
- Information
- Manufacturing
- Construction
- Professional and business services

Change in Workers by Industry 2012-2017

City
Jobs At Risk of Automation by 2030

Number and percent of jobs at risk of automation across MSAs in CT, 2017
## Indicators: New Haven, Connecticut, United States

<table>
<thead>
<tr>
<th>Growth Industries</th>
<th>Jobs at Risk of Automation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health and Social Assistance (29%), Construction (14%), plus Wholesale Trade (10%) Total=53% (15,100 of 28,635 additional jobs)</td>
<td>114,830 (17% of total)</td>
</tr>
<tr>
<td>Healthcare and Social Assistance (28%), Construction (18%), Transportation and Warehousing (15%) Total = 61% (39,929 of 64,912 additional jobs)</td>
<td>1,458,400 (17% of total)</td>
</tr>
<tr>
<td>Construction (17%), Health and Social Assistance (14%), Professional, Scientific, and Technical Services (13%), Transportation and Warehousing (9%) Total= 53% (5,775,700 of 11,117,743 additional jobs)</td>
<td>23,883,490 (17% of total)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Workers in Alternative Work Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2% (3689 of 292,635)</td>
</tr>
<tr>
<td>1.2% (15,093 of 1,232,355)</td>
</tr>
<tr>
<td>1.2% (1,380,551 of 109,307,428)</td>
</tr>
</tbody>
</table>
Economic Inequality

Opportunity Gap, Earnings Gap, Wealth Gap
Opportunity Gap

Opportunity gap according to parental income, by gender and race

The gap is least for Black/African-American families, but these families also start and stay lower than all other subgroups.

The largest gap is for females of all races at over $10,500.
Opportunity Gap

Opportunity gap according to parental income
(Parental households with income in the 25th percentile vs 50th percentile)

All the gaps are negative, meaning children in the 25th percentile have not caught up to their peers in the 50th across the city, but it appears to be unevenly distributed across the city.
Median annual earnings for *full time workers* in 2017, by population subgroup

Median is the middle number of all the earnings amounts for New Haven. Median is used because it is less likely to be skewed by very high and very low numbers.

The cost of living in New Haven is 23% higher than the national average.
Earnings Gap

Median annual earnings for *full time workers* in 2017, by population subgroup

Median earnings for the City are slightly lower than the County, for all subgroups.

The cost of living in New Haven is 23% higher than the national average.
Earnings Gap

Earnings gap for full time workers, 2017

$1 (WM) : $.85 (WF) : $.71 (BM) : $.68 (BF) : $.60 (HM) : $.54 (HF)

For every dollar a White male makes in New Haven County:
A Hispanic female makes 54 cents
A Hispanic male makes 60 cents
A Black/African-American female makes 68 cents
A Black/African-American male makes 71 cents
A White female makes 85 cents

These numbers are several cents higher than the state average, and several cents higher than the national average for all but Hispanic males ($0.63).
Earnings Gap

Earnings gap for *full time workers*, 2017

For every dollar a White male makes in New Haven City:
- A Hispanic female makes **52 cents**
- A Hispanic male makes **53 cents**
- A Black/African-American female makes **68 cents**
- A Black/African-American male makes **70 cents**
- A White female makes **88 cents**

Compared to New Haven County:
- Women make more
- Black/African-American males make less
- Hispanic males and females make less

$1 (WM) : $.88 (WF) : $.70 (BM) : $.68 (BF) : $.53 (HM) : $.52 (HF)
In this case, a negative is a positive and a positive is a negative! The -2.4% means that the earnings gap for Black/African-American males shrank between 2012 and 2017.

The gap grew for Hispanic females by twice that amount in the same time frame.
The earnings gap trends for the City of New Haven are different from those in the County. Black/African-American and White females saw their earnings gaps decrease, while only Hispanic females saw their earnings gaps increase over the same time frame.
Earnings Gap
Median earnings for all workers 2017

Each change in color represents an equal amount of change given the range of values
**The data is filtered to include only subgroup populations for this gap with more than 10% presence in a census tract. Each change in color represents an equal amount of change given the range of values.**
Earnings Gap

Earnings gap for all workers in 2017
White Non-Hispanic and Black/African American

Earnings gap for all workers in 2017
White Non-Hispanic and Hispanic

**The data is filtered to include only subgroup populations for this gap with more than 10% presence in a census tract. Each change in color represents an equal amount of change given the range of values.**

Census Tract
Wealth Gap
Percent of households living in a home they own in 2017, by population subgroup

Using homeownership as a proxy for wealth:

Nearly three in four White families live in a home they own.

Just over three in 10 Hispanic and Black/African-Americans live in a home they own.
Using homeownership as a proxy for wealth:

Population subgroups are more equitable in terms of homeownership rates, however Black/African-American families still lag behind White and Hispanic families.
Wealth Gap

Homeownership in 2017

Change in Homeownership from 2012-2017

Each change in color represents an equal amount of change given the range of values.
Wealth Gap

Wealth gap in 2017
White Non-Hispanic and Black/African American

Wealth gap in 2017
White Non-Hispanic and Hispanic

**The data is filtered to include only subgroup populations for this gap with more than 10% household presence in a census tract.**
While the gaps are shrinking, they are doing so slowly and unevenly.

New Haven County

New Haven City
# Indicators: New Haven, Connecticut, United States

<table>
<thead>
<tr>
<th>Earnings Gap</th>
<th>Wealth Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 (WM) : $0.85 (WF) : $0.71 (BM) : $0.68 (BF) : $0.60 (HM) : $0.54 (HF)</td>
<td>38% p - W/B 36% p - W/H</td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>36% p - W/B 42% p W/H</td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>30% p - W/B 25% - W/H</td>
</tr>
</tbody>
</table>
Entrepreneurship

Self-Employment, Very Small Business Density and Dynamism, Entrepreneurial Density and Dynamism, & Entrepreneurial Diversity
Entrepreneur Diversity

Number of new businesses (<2 years) per 1000 adults (16-64) in the labor force in 2016, by race and gender

Just one in about 3,000 Black/African-American Connecticut residents start a small business
One in 1,000 - Buffalo
One in 1,000 - Columbus, OH

A little over two in 1,000 White Connecticut residents start a small business
11 in 1,000 - Buffalo
8 in 1,000 - Columbus, OH

Just one in 1,000 Hispanic or female Connecticut residents start a small business.
Four in 1,000 - Buffalo
Three in 1,000 - Columbus
Self-Employment

Percent of workers who are self-employed (incorporated and non-incorporated businesses) in 2017, by gender

Men report higher levels of self-employment, for either incorporated or not incorporated businesses in New Haven County.

There are more not incorporated businesses among the self-employed, opening that population to more risk.
Self-Employment

Percent of workers who are self employed (incorporated and non-incorporated businesses) in 2017, by gender

There are lower rates of self-employment in the City of New Haven than in the County.

There are more not incorporated businesses among the self-employed, opening that population to more risk.
Difference in the percent of employed who are self-employed (incorporated and non-incorporated businesses) between 2012 and 2017

The percentage of not incorporated businesses is growing at a faster rate over time. The total rates of self-employment are growing at a slower rate in the City than the County over time.
Self-Employment

Percent of employed who are self-employed in 2017

Each change in color represents an equal amount of change given the range of values

Change in percent of employed who are self-employed, 2012 to 2017
Nonemployer Density

Number of nonemployer businesses and average receipts in 2017, by industry*

- Professional, scientific, and technical services
- Real estate and rental and leasing
- Other services (except public administration)
- Construction
- Health care and social assistance
- Retail trade
- Administrative and support and waste manag..
- Arts, entertainment, and recreation
- Transportation and warehousing
- Educational services
- Finance and insurance
- Wholesale trade
- Accommodation and food services
- Information
- Manufacturing
- Agriculture, forestry, fishing and hunting
- Utilities

*Mining, quarrying, and oil and gas extraction is an outlier, with 6 Nonemployer Businesses and $211,000 in Average Receipts. It is not included in this graph.

Large number of establishments bringing in lower amounts of money.
Very Small Business Density and Dynamism

Number and Change in number of very small businesses (1-4 empl.) 2011-2016, by industry
Small Business Job Density

Number of Jobs at Businesses with < 20 Employees, 2015

Fairly even distribution of small businesses hubs throughout New Haven, with a few notable exceptions.

Each change in color represents an equal amount of change given the range of values.
New Business Dynamism

Number of new businesses >2 years and people employed, 2014 and 2016

The number of new firms have remained relatively the same, with a small downturn in number of employees of those firms over a two year period.

These jobs seem to be relatively well distributed throughout New Haven.

Number of Jobs at Businesses less than 3 years old in 2015
### Indicators: New Haven, Connecticut, United States

<table>
<thead>
<tr>
<th>Self-Employment</th>
<th>Very small business density and dynamism</th>
<th>Entrepreneurial (Business) Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>40,581 (10% of total)</td>
<td>9,855 +31</td>
<td>N/A for New Haven</td>
</tr>
<tr>
<td>184,032 (10% of total)</td>
<td>46,139 -398</td>
<td>4897 (7%)</td>
</tr>
<tr>
<td>14,256,831 (10% of total)</td>
<td>4,216,973 +179,363</td>
<td>517,380 (9%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A for New Haven</td>
<td>N/A for New Haven</td>
<td>N/A for New Haven</td>
<td>N/A for New Haven</td>
</tr>
<tr>
<td>2.1 per 1,000</td>
<td>1 per 1,000</td>
<td>0.3 per 1,000</td>
<td>1 per 1,000</td>
</tr>
<tr>
<td>2.5 per 1,000</td>
<td>1.2 per 1,000</td>
<td>0.7 per 1,000</td>
<td>1.3 per 1,000</td>
</tr>
</tbody>
</table>
See you on social!

@FC_Research

@ForwardCities

forwardcities.org
## Indicators: New Haven, Connecticut, United States

<table>
<thead>
<tr>
<th>Earnings Gap</th>
<th>Wealth Gap</th>
<th>Growth Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 (WM) : $0.85 (WF) : $0.71 (BM) : $0.68 (BF) : $0.60 (HM) : $0.54 (HF)</td>
<td>38% p - W/B</td>
<td>Health and Social Assistance (29%), Construction (14%), plus Wholesale Trade (10%) Total=53% (15,100 of 28,635 additional jobs)</td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>36%p - W/H</td>
<td>Healthcare and Social Assistance (28%), Construction (18%), Transportation and Warehousing (15%) Total = 61% (39,929 of 64,912 additional jobs)</td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>42%p W/H</td>
<td></td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>30% p - W/B</td>
<td></td>
</tr>
<tr>
<td>$1 (WM) : $0.81 (WF) : $0.63 (BM) : $0.59 (BF) : $0.58 (HM) : $0.50 (HF)</td>
<td>25% - W/H</td>
<td></td>
</tr>
</tbody>
</table>

### Jobs at Risk of Automation

<table>
<thead>
<tr>
<th></th>
<th>Workers in Alternative Work Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>114,830 (17% of total)</td>
<td>1.2% (3689 of 292,635)</td>
</tr>
<tr>
<td>1,458,400 (17% of total)</td>
<td>1.2% (15,093 of 1,232,355)</td>
</tr>
<tr>
<td>23,883,490 (17% of total)</td>
<td>1.2% (1,380,551 of 109,307,428)</td>
</tr>
</tbody>
</table>

Healthcare and Social Assistance (28%), Construction (18%), Transportation and Warehousing (15%) Total = 61% (39,929 of 64,912 additional jobs)
Indicators: New Haven, Connecticut, United States

<table>
<thead>
<tr>
<th>Self-Employment</th>
<th>Very small business density and dynamism</th>
<th>Entrepreneurial (Business) Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>40,581 (10% of total) 184,032 (10% of total) 14,256,831 (10% of total)</td>
<td>9855, +31 46139, -398 4,216,973 +179,363</td>
<td>N/A for New Haven 4897 (7%) 517,380 (9%)</td>
</tr>
</tbody>
</table>

Sm. Business Entrepreneur Density Total

<table>
<thead>
<tr>
<th>Sm. Business Entrepreneur Diversity Female</th>
<th>Sm. Business Entrepreneur Diversity Black/African American</th>
<th>Sm. Business Entrepreneur Diversity Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>N/A for New Haven 2.1 per 1,000 2.5 per 1,000</td>
<td>N/A for New Haven 1 per 1,000 1.2 per 1,000</td>
<td>N/A for New Haven 1 per 1,000 1.3 per 1,000</td>
</tr>
</tbody>
</table>

forwardcities.org
<table>
<thead>
<tr>
<th>Indicator Choice and Sources (I)</th>
<th>Indicator Rationale</th>
<th>Sources for Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity Gap</strong></td>
<td>This indicator provides a one-of-a-kind lense into how a neighborhood in which children grow up shape their earnings trajectory into mid-age adulthood. The data allows to control for parental income, gender and race of the child, facilitating more instructive comparisons that establish a causal link between neighborhoods, human capital development and social mobility.</td>
<td>2016 The Opportunities Atlas, Opportunity Insights</td>
</tr>
<tr>
<td><strong>Earnings Gap</strong></td>
<td>This raw comparison of earnings by gender and race provides a snapshot of the overall disparities in earnings that full-time employees take home. Rather than accounting for occupation, education and seniority differences (in spirit of “equal pay for equal work”) that explain parts of these gaps, this indicator focuses on earnings in their own right as building blocks of wealth.</td>
<td>2016 American Community Survey (5 year estimates), United States Census Bureau</td>
</tr>
<tr>
<td><strong>Wealth Gap</strong></td>
<td>Wealth is hard to measure directly, so researchers interested in neighborhood-level differences have resorted to using proxies like homeownership rates. Homeownership has shown to generate wealth due to tax incentives, financial market advantages and behavioral nudges. The history of systematic discrimination in the housing market further underlines the indicator’s value and perspective in work on inclusive economic development and entrepreneurship.</td>
<td>2016 American Community Survey (5 year estimates), United States Census Bureau</td>
</tr>
<tr>
<td><strong>Growth Industries</strong></td>
<td>The engine of new job growth are small businesses, which together employed 47.5% of all U.S. workers in 2018. A small number of industries concentrate most of the new jobs created. This indicator outlines the industries responsible for half of all net employment growth locally and specifies whether employment growth goes hand in hand with average salary increases or not.</td>
<td>2016 American Community Survey (5 year estimates), United States Census Bureau</td>
</tr>
<tr>
<td><strong>Self-Employment</strong></td>
<td>People reporting to be self-employed, provides the best available, big-picture marker of the number of entrepreneurs in the country. Disaggregating self-employment by gender allows to probe whether the general decline in self-employment affects all groups equally. Evidence that self-employment is more prevalent at the lower end of the income spectrum further reinforces the importance of this indicator for work on inclusivity.</td>
<td>2016 Nonemployer Statistics, United States Census Bureau</td>
</tr>
</tbody>
</table>
## Indicator Choice and Sources (II)

<table>
<thead>
<tr>
<th>Indicator Choice</th>
<th>Indicator Rationale</th>
<th>Sources for Indicator</th>
</tr>
</thead>
</table>
| **Entrepreneurial Density**          | Research on entrepreneurship mandates to take a close look at the number of entrepreneurs that call a given community home. The number of small businesses (<4 employees) as a share of the local population "is the statistical corollary of the number of entrepreneurs you will run into walking across the street" and a measure that is comparable across communities. We include the rate for specific population subgroups as an indicator of diversity. | 2016 Business Patterns, United States Census Bureau  
2019 Policy Map  
2016 Survey of Entrepreneurs, United States Census Bureau                                                                                                                                                                                                                       |
| **Entrepreneurial Dynamism**         | Static measures of representation by entrepreneurs in a community only provide us with a snapshot picture about density. Probing into changes over time as well as evolutions in salaries paid by small businesses (<4 employees) paints a increasingly dynamic picture of the local entrepreneurial ecosystem.                                                                                   | 2016 Survey of Entrepreneurs, United States Census Bureau  
2012 Survey of Entrepreneurs, United States Census Bureau  
2019 Policy Map                                                                                                                                                                                                                                                                  |
| **Jobs at Risk of Automation**       | Predictions *abound* about widespread job displacement and the overhaul of labor markets due to increasingly sophisticated artificial intelligence. Deconstructing the critical tasks that each occupation needs to perform on the job and assessing their ease of computerization provides a bottom-up accounting of an occupation’s risk to be automated. Aggregating how many of these jobs exist in a community creates profiles of exposure to automation.                                                          | 2017 Bureau of Labor Statistics  
Brookings                                                                                                                                                                                                                                                                       |
| **Workers in Alternative Work Arrangements** | The contingent and alternative workforce, defined here as temporary help-agency workers, on-call workers, contract company workers, independent contractors and freelancers, has grown in leaps. Given persistent data gaps at the local level we need to resort to national estimates, available by occupation, to approximate the scale to which local labor markets are already restructured.                                                                                     | 2015 American Community Survey (5 year estimates), United States Census Bureau  
2005 American Community Survey, United States Census Bureau  
| **Entrepreneurial Diversity**        | Understanding the share of non-white and non-male entrepreneurs is central to the work of promoting equitable entrepreneurial ecosystems.                                                                                                                                                                                                              | 2014 and 2016 Annual Survey of Entrepreneurs                                                                                                                     |