## Getting with the Program: Digital Skills as Opportunity

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Digitalization: What it is, why it matters, how it varies 2 Blacks and tech

## What we mean by "digitalization"

Digitalization is the process of employing digital technology and data to transform business operations and create value



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## An explosion of digital tools is transforming nearly every industry





# amazon webservices





## To measure all this we sorted occupations by their digital content

## High (scores above 60)



Software developers



## Medium (scores between 33 and 60)



Registered nurses



Office clerks

Financial Managers

## Low (scores below 33)



### **Construction laborers**



### Personal care aides

## The share of jobs requiring high & medium digital skills has skyrocketed



## Administrative support 39 64

## Physician assistants 27 56

## Tech empowers: Digitalization brings higher wages

Average annual wage by digital score, 2016

Medium

Low



High



## Digital "know-how" is not, however, distributed evenly





## Non-whites are disproportionately employed in low-digital skill jobs

Employment in select U.S. occupation groups by race

**US** Average **Computer and mathematical** Engineering Management Office and administrative support Healthcare practitioner Community and social services Healthcare support Transportation and material moving Food preparation and serving related Building and grounds cleaning/maintenance

0% 25%

Black ■ Asian ■ Latino

Lower digital score

Higher

digital

score

50% White	75%	100%

## **1** Digitalization: What it is, why it matters, how it varies

## 2 Blacks and tech



## Blacks have a mixed presence in tech occupations



Note: Bubble size reflects 2016 national employment

# Gaps in black representation in tech work are largest in Southern and Eastern metro areas

## Blacks' over- and under-representation in Computer & Math occupations, 2016

9.2% — 0.0%
0.0% — -5.0%
-5.0% — -10.0%
-10.0% — -15.0%
-15.0% — -33.1%

## Employed population 16 years or older, 2016 (thousands)

۲	262	— 79 <sup>4</sup>	4
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- 794 2,012
- 2,012 4,609
- 4,609 9,628

Black workers are overrepresented in tech jobs in Las Vegas, NV by 2.7 percentage points—an increase of 5.1 percentage points since 2010



## Black leaders should adopt two digital workforce training priorities

Expand and widen the high-digital IT talent pipeline 2. Increase basic digital literacy, especially among underrepresented groups

## Black leaders should adopt two digital workforce training priorities

Build and widen the high-digital IT talent pipeline

• Expand aligned, relevant higher-ed feeder programs

 Scale up non-traditional accelerated learning models, experiences, and certifications

 Move toward universal K-12 CS exposure

## Black leaders should adopt two digital workforce training priorities

2. Increase basic digital literacy throughout the community

 Scale-up exposure to basic office productivity tools in school

**Expand** entry-level tech • training programs

## Launch compelling digital literacy campaigns

## Finally: Embrace entrepreneurship

## #BuildSomethingFromNothing to circumvent barriers and build wealth



## For more information:

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# Metropolitan Policy Program at Brookings