

5G, SMART CITIES & COMMUNITIES OF COLOR

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Key Resources

5G & Smart Cities

DELOITTE, [WIRELESS CONNECTIVITY FUELS INDUSTRY GROWTH AND INNOVATION IN ENERGY, HEALTH, PUBLIC SAFETY, AND TRANSPORTATION \(2017\)](#) (report that explores four major industries—energy, health, public safety, and transportation—highlighting case studies that demonstrate how wireless connectivity has enabled these industries to evolve).

THOMAS K. SAWANOBORI, CTIA, [THE NEXT GENERATION OF WIRELESS: 5G LEADERSHIP IN THE U.S.](#) (Feb. 9, 2016) (an industry overview of 5G technology, including details of 5G technology, real-world implications, industry-specific case studies, and recommendations for policymakers).

JEREMY GREEN, MACHINA RESEARCH, [THE SMART CITY PLAYBOOK: SMART, SAFE, SUSTAINABLE](#) (November 2016) (report making recommendations with regard to data policies, coordinating smart city initiatives across different city departments, making smart city benefits visible to residents, educating procurement departments to effectively evaluate vendor bids and establish the right relationships with vendors, and using smart city solutions to revive declining cities).

NATIONAL LEAGUE OF CITIES, [TRENDS IN SMART CITY DEVELOPMENT](#) (2016) (report on the growing emergence of Smart Cities to guide city leaders on equitable development and innovation, with five city case studies: Chicago, IL, Philadelphia, PA, Charlotte, NC, San Francisco, CA, and New Delhi, India).

MAJED AL AMINE, KENNETH MATHIAS & THOMAS DYER, ACCENTURE, [SMART CITIES: HOW 5G CAN HELP MUNICIPALITIES BECOME VIBRANT SMART CITIES](#) (2017) (brief detailing impact of 5G on economic development, and including recommendations on permitting reforms).

Digital Inclusion Plans

BRANDON BROOKS, COLIN RHINESMITH & ANGELA SIEFER, BENTON FOUNDATION, [DIGITAL EQUITY PLANNING IN U.S. CITIES](#) (October 2016) (article reviewing the digital equity planning processes in Austin, Portland, and Seattle).

INSTITUTE OF MUSEUM AND LIBRARY SERVICES, [BUILDING DIGITAL COMMUNITIES: A FRAMEWORK FOR ACTION](#) (2012) (resource for designing a digital inclusion plan, and includes a vision for the future, principles that define digital inclusion, goals to make digital inclusion a reality, and sample strategies for achieving the goals).

[STRATEGIES AND RECOMMENDATIONS FOR PROMOTING DIGITAL INCLUSION](#), FEDERAL COMMUNICATIONS COMMISSION (Jan. 11, 2017) (report highlighting strategies for digital inclusion focused on internet service providers, government, and philanthropy, and providing examples and recommendations).

CITY OF SEATTLE, [DIGITAL EQUITY INITIATIVE ACTION PLAN](#) (2016) (model Digital Inclusion Plan from Seattle that seeks to close the digital gap through three main goals: 1) device and technical support, 2) greater internet connectivity, and 3) skills training).

CITY OF KANSAS CITY, MO [DIGITAL EQUITY STRATEGIC PLAN](#) (MARCH 2017) (model Digital Inclusion Plan that describes the current state of the digital divide and digital equity in Kansas City and nationally, and makes proposals to advance digital equity in the city).

CITY OF PORTLAND, OFFICE OF COMMUNITY TECHNOLOGY [DIGITAL EQUITY ACTION PLAN](#) (2016) (model Digital Inclusion Plan from Portland that targets access and adoption gaps for disadvantaged communities).

Diverse Contractors and Workforce

US TELECOM, [TELECOM SUPPLIER DIVERSITY](#) (a centralized resource with lists of the member telecom companies—including AT&T, Sprint, T-Mobile, and Verizon—supplier diversity programs, certification resources, and events and expos).

Network Access and Affordability

[EveryoneOn.Org](#) (website providing an overview of services and low-cost internet provider options, including eligibility information, state-by-state analysis, and an annual digital divide report).

[National Broadband Map](#) (2014) (a searchable and interactive website that allows users to view broadband availability as of 2014 across every neighborhood in the United States).

[Internet/Broadband Factsheet](#), PEW RESEARCH CENTER (Jan. 12, 2017) (factsheet of home broadband and mobile patterns in the U.S., including smartphone dependency by race, income, and geographic community).

5G Infrastructure Permitting

CTIA, [ENABLING THE WIRELESS NETWORKS OF TOMORROW: RULES OF THE ROAD FOR POLE ATTACHMENTS IN STATES ACROSS AMERICA](#) (2016) (report detailing the need for small cell sitings—particularly pole attachments—and recommendations for policymakers, including providing nondiscriminatory access, mandatory timelines, rates, and an effective complaint process).

NEXT CENTURY CITIES, [LOCAL GOVERNMENT PRINCIPLES RELATING TO RIGHTS-OF-WAY MANAGEMENT AND COMPENSATION & OWNERSHIP OF TELECOMMUNICATIONS FACILITIES](#) (2017) (document detailing the principles of local rights-of way control, prepared by the National Association of Telecommunications Officers and Advisors).

5G AMERICAS & SMALL CELL FORUM, [SMALL CELL SITING: REGULATORY AND DEPLOYMENT CONSIDERATIONS](#) (2017) (telecommunications industry report detailing how industry believes regulators can facilitate approvals for small cell equipment, sites, and deployment).

NATIONAL LEAGUE OF CITIES, [CITY RIGHTS IN AN ERA OF PREEMPTION: A STATE-BY-STATE ANALYSIS](#) (2017) (a report providing a state-by-state analysis of preemption laws on seven issues, finding that 17 states have preemption on municipal broadband, and providing recommendations to city officials).

Digital Readiness and Workforce Training

JOHN B. HERRIGAN, [DIGITAL READINESS GAPS](#) PEW RESEARCH CENTER, (Sept. 20, 2016) (report of survey findings detailing the gaps in skills to work online).

NICOLE DUPUIS, BROOKS RAINWATER & ELIAS STAHL, NATIONAL LEAGUE OF CITIES, [THE FUTURE OF WORK IN CITIES](#) (2016) (report that presents the history of work, examines the technologies fueling automation, analyzes economic forecasting on work, and provides recommendations to city officials).

[TechHire](#), OPPORTUNITY@WORK (an initiative that builds community-specific public-private partnerships to provide access to workforce training, transform hiring practices, and create inclusive tech networks for workers and employers).

ELLYN SHOOK AND MARK KNICKREHM, ACCENTURE, [HARNESSING REVOLUTION: CREATING THE FUTURE WORKFORCE](#), (2017) (report detailing the impending economic and social shifts being caused by digital and technological changes and recommending that private sector leaders accelerate reskilling workers, redesign work for human potential, and strengthen the talent pipeline).

WORLD ECONOMIC FORUM, [THE FUTURE OF JOBS EMPLOYMENT, SKILLS AND WORKFORCE STRATEGY FOR THE FOURTH INDUSTRIAL REVOLUTION](#) (2016) (international report describing the major disruptions in employment and changing skill sets, and detailing the relative magnitude of these trends by industry and geography and the expected timeframe).

CARL BENEDIKT FREY AND MICHAEL A. OSBORNE, [THE FUTURE OF EMPLOYMENT](#) (Sept. 17, 2013) (academic study predicting that a large percentage of transportation, production, office and administrative support, sales, service, and construction jobs are at high risk of being automated in the future, and ranking 702 occupations according to their probability of computerization).

JAMES MANYIKA, MICHAEL CHUI, JACQUES BUGHIN, RICHARD DOBBS, PETER BISSON & ALEX MARRS, MCKINSEY AND COMPANY [DISRUPTIVE TECHNOLOGIES: ADVANCES THAT WILL TRANSFORM LIFE, BUSINESS, AND THE GLOBAL ECONOMY](#) 74 (2013) (anticipating that in developed countries 15 to 25 percent of industrial worker tasks could be automated cost-effectively by 2025).

CENTER FOR GLOBAL POLICY SOLUTIONS, [STICK SHIFT: AUTONOMOUS VEHICLES, DRIVING JOBS, AND THE FUTURE OF WORK](#) (March 2017) (finding that four million jobs will be lost due to autonomous vehicles, that 4.23 percent of Black workers and 3.25 percent of Latino workers are in driving occupations, and that these two racial/ethnic groups rely more heavily on driving jobs than others).

Data Policies

DAVID ROBINSON AND LOGAN KOEPKE, UPTURN, [STUCK IN A PATTERN: EARLY EVIDENCE ON “PREDICTIVE POLICING” AND CIVIL RIGHTS](#) (August 2016) (reviewing the problem of data bias in the context of predictive policing, and providing steps municipalities should take to address the issue).

Wayne Logan & Andrew Guthrie Ferguson, [Policing Criminal Justice Data](#), 101 MINN. L. REV. 541 (2016) (examining various criminal justice data errors and proposing solutions designed to address them).

ASH CENTER FOR DEMOCRATIC GOVERNANCE AND INNOVATION, [DATA-SMART CITY SOLUTIONS: A STARTER KIT FOR DATA-SMART CITIES](#) (2017) (guide that highlights resources about the best way to move toward an open data-driven city).

BEN GREEN, GABE CUNNINGHAM, ARIEL EKBLAW, PAUL KOMINERS, ANDREW LINZER & SUSAN CRAWFORD, BERKMAN KLEIN CENTER FOR INTERNET & SOCIETY AT HARVARD UNIVERSITY [OPEN DATA PRIVACY: A RISK-BENEFIT, PROCESS-ORIENTED APPROACH TO SHARING AND PROTECTING MUNICIPAL DATA](#), (2017) (report listing responsible privacy-protective processes that cities that release data could adopt).

NATIONAL LEAGUE OF CITIES, [CITY OPEN DATA POLICIES: LEARNING BY DOING](#) (2014) (report explaining how open data can drive economic development and the delivery of city services, and makes recommendations to cities).

[Cities.Data.Gov](#), [Cities-Policies](#) (2016) (U.S. Government’s open data website providing open data use examples at the county and state level, and housing data, tools, and resources to conduct research, develop web and mobile applications, and design data visualizations).

JOEL GURIN & LAURA MANLEY, WORLD BANK GROUP, [OPEN DATA FOR SUSTAINABLE DEVELOPMENT](#) (AUG. 2015) (paper that provides a brief introduction to the field of open data for development).