ProAct Now: Planning Effectively in a Changing World

Presentation at the APA-PA 2020 Annual Conference

David Rouse, FAICP, ASLA
Principal, David Rouse FAICP

Ben Hitchings, FAICP, CZO
Principal, Green Heron Planning, LLC

(October 20, 2020)
The world is changing rapidly. Are you ready for it?
Responding to the Pandemic

• Recover from the pandemic
• Prepare for the next “shock”
• Position your community for success

Source: Amy Webb, Future Today Institute
1. Understand drivers of change
   • COVID-19 pandemic
   • Emerging issues and trends

2. Explore local implications

3. Discuss how to prepare
1. Drivers of Change

**Environmental**
- Climate change
- Changing energy sources
- Natural resource depletion
- Globalization vs. localization

**Economic**
- Automation
- E-commerce
- Sharing economy
- Ethical consumption

**Technological**
- Artificial intelligence
- Autonomous vehicles
- New mobility
- Smart cities

**Social**
- Aging population
- Declining health
- Equity, diversity, inclusion
- Immigration

- Automation
- E-commerce
- Sharing economy
- Ethical consumption

- Aging population
- Declining health
- Equity, diversity, inclusion
- Immigration

- Artificial intelligence
- Autonomous vehicles
- New mobility
- Smart cities
Which emerging issue do you think will have the greatest impact on your community in the next five years?

A. Aging population
B. E-commerce
C. New mobility
D. Climate change
E. Other
COVID-19 Impacts: E-commerce & Retail

Potential Long-term Issues and Questions

- Will new e-commerce behaviors that emerged during the pandemic stick?
- What are the implications for local communities (bricks-and-mortar retail, etc.)?

(Source: McKinsey Global Institute)
COVID-19 Impacts: Remote Work

- How will the pandemic impact remote work trends over the long term?
- What are the implications for local communities?

Philadelphia-Camden-Wilmington MSA
Remote Jobs Index = 108%

Pittsburgh MSA
Remote Job Index = 104%

(Source: Chmurra Economics & Analytics)
COVID-19 Impacts: Parks and Open Space

- Will the surge of interest in parks and walkable environments persist post-pandemic?
- How can local communities capitalize?

(Source: Restart Montco, Montgomery County, PA)
A. Social Drivers

• Aging Population
• Declining Health
• Equity, Diversity, Inclusion
• Immigration
Aging Population

• Shift by 2034 from youth-dependent to old-age dependent U.S. population

• Positive economic and social contributions

• Increasing pension, health care costs

• Need for more aging infrastructure
Declining Health

- Cost of chronic diseases
- Social determinants of health
- Disparities in health outcomes

(Source: Kaiser Family Foundation)
Equity, Diversity, Inclusion

- U.S. projected to become “majority-minority” by 2042
- Growing income inequality
- Increasing acceptance of diversity by younger generations

(Source: Pew Research Center)
Immigration

• Driven by global forces such as poverty, violence, and political repression

• By 2030, immigration expected to become largest contributor to U.S. population growth

• Positive social and economic contributions
B. Technological Drivers

- Artificial intelligence
- Autonomous vehicles
- New mobility
- Smart cities
Artificial Intelligence

• Predictive analytics enabled by big data
• Number crunching vs. deep learning
• Concerns regarding cybersecurity, privacy, and equity (algorithmic bias)
Autonomous Vehicles

- Projected built environment impacts
- Factors that will drive positive vs. negative outcomes:
  - Fleet vs. private ownership
  - Shared vs. single ridership
  - Electric vs. fossil fuel power
  - Cost of mobility as a service

(Source: Chapin, Stevens, and Crute, Planning magazine, April 2017)
New Mobility

- Disruption of transportation systems and practices
- Positive vs. negative impacts?
- Emergence of micromobility (bicycles, e-scooters)
Smart Cities

• Potential sustainability benefits
• Concerns regarding access to data, cybersecurity, privacy, and equity (digital divide)
• Funding of technology and infrastructure investments
C. Economic Drivers

- Automation
- E-commerce
- Ethical consumption
- Sharing economy
Automation

- Varying impacts on occupations and local economies
- Increased value of human qualities such as social skills and creativity

(Source: McKinsey Global Institute)
E-commerce

- Reduced demand for brick-and-mortar stores
- Increased demand for experiential retail
- Expansion of warehouse, distribution uses
- Freight and delivery impacts on local street systems

(Source: Digital Commerce 360)
Sharing Economy

• Shift from ownership of resources to access to goods and services
• Disruption of regulatory structures
• Opportunities to leverage civic assets
Ethical Consumption

- Increased demand for environmentally and socially responsible products and business practices
- Market support for the circular and subscription economies
D. Environmental Drivers

- Climate change
- Changing energy sources
- Natural resource depletion
- Globalization
Climate Change

- Acute shocks vs. chronic stresses, e.g.:
  - Extreme weather
  - Rising temperatures / urban heat island effect
  - Sea level rise
- Social vulnerability
- Mitigation vs. adaptation
Changing Energy Sources

- Market shift from fossil fuels toward solar, wind, and other renewable sources
- Technological and infrastructure investments needed to support shift
- Land use and regulatory implications
Natural Resource Depletion

- Driven by population growth and demand for products and necessities
- Reflected in water usage, fossil fuel and raw material extraction, and farming and fishing practices
- Potential local responses
  - Reduced material consumption
  - Increased recycling and renewable energy use
  - Natural ecosystem restoration
Globalization vs. Localization

- Economic integration / interdependence
- Global connectivity via ICT / teleworking
- Global spread of pests, invasive plants, and pandemics
- Countervailing force: localization
COVID-19 + Drivers of Change

Social
- Aging population
- Declining health
- Equity
- Immigration

Environmental
- Climate change
- Energy
- Resource depletion
- Globalization vs. Localization

Economic
- Automation
- E-commerce
- Ethical consumption
- Sharing economy

Technological
- Artificial intelligence
- Autonomous vehicles
- New mobility
- Smart cities
2. Local Implications

Austin, TX

Cleveland, OH
Local Implications: Austin, TX
Austin: Social Drivers

Age, 2018

Median Age = 33.6  National Median = 38.2
65 and Older = 8.7%  National Average = 16.0%
White Alone = 48.8%  National Average = 60.7%
Foreign-Born = 17.7%  National Average = 13.7%

Sources: https://datausa.io/profile/geo/austin-tx/#demographics, U.S. Census

Race or Ethnicity, 2018

Foreign-Born, 2017
Austin CityUP™ is a smart city consortium of companies, organizations, and individuals collaborating to advance Austin through smart city techniques.
“Austin is the 13th most vulnerable metro area in the country...with 29.1 percent of its total workforce at risk.”

Source: Kempler Industries, https://patch.com/texas/
Austin makes top 10 list of cities heating up—In the bad, climate change way

by Jerrod Kingery  |  Friday, August 23rd 2019
Local Implications: Cleveland, OH
Cleveland: Economic Drivers

(Graphic source: https://datausa.io/profile/geo/cleveland-elyria-mentor-oh-metro-area#demographics, U.S. Census)
Cleveland: Economic Drivers

COVID Community Vulnerability Map
Identification of the populations at risk for severe outcomes once infected to inform resource planning, interventions, outreach and other community initiatives

(Source: Jvion; covid19.jvion.com/#)

Cleveland Pandemic Response - COVID19 Community Hub

(Source: Cleveland Pandemic Response; cleveland.recovers.org)
Cleveland: Technological Drivers

Cleveland Clinic Medical Innovations

Cleveland State University Innovation

Cleveland Health Line
3. How to Prepare?
Flash Poll – Question #2

Is your community using the following strategies? (check all that apply)

A) Closing streets to facilitate outdoor exercise and active transportation
B) Allowing parking to be used for outdoor dining
C) Enabling bike share and/or e-scooters
D) Planning for smart cities
E) Planning for autonomous vehicles
Pandemic Innovations

Tampa, FL

City of Tampa’s Lift Up Local Economic Recovery Plan

Seattle, WA

SDOT Blog
Seattle Department of Transportation

Announcing Stay Healthy Streets
Pandemic Innovations

Streets for Pandemic Response & Recovery
Planning Topics

- Economic & Business
- Regulations & Zoning
- Transportation
- Housing
- Public Meetings
- Open Space & Recreation

https://www.montcopa.org/3529/Restart-Montco
Chandler first in the nation to include autonomous vehicles and ride sharing in zoning code

During this week’s City Council meeting, City Planning staff introduced an ordinance to amend parking and loading regulations in the City’s zoning code. The proposed zoning amendments would prepare Chandler for a future increase in autonomous vehicles and ride share usage.

Experts in the Planning industry suggest that with the change in transportation use, parking demand will be reduced and the demand for drop-off and pick-up areas will increase. However, no one is yet able to predict what that exact demand could be. As a result, Chandler’s proposed zoning amendments will allow more flexibility to adjust parking ratios as transportation behavior evolves.

Climate Change

Asheville, NC

Commercial Property Flooding

Vulnerability & Risk Assessment

Commercial properties exposed to flooding can be affected by inundation of flood waters, leading to structural loss or damage and rises exceeding a loss of property and economic resources. One of the greatest impacts on the economy of Asheville was through business interruption, loss of revenue, and damage to property. Some businesses use their own flood control measures, but they may be insufficient to protect these areas.

Norfolk, VA

Norfolk Vision 2100

Enhancing Economic Engines

Red areas are home to key economic assets that are essential to the city’s future. Land use policy and infrastructure investments to protect these areas should encourage additional dense mixed-use development in these areas.

Adapting to Rising Waters

Yellow areas are established neighborhoods that experience more frequent flooding. The city should explore new and innovative technologies to help reduce flood risk and focus on investments on extending the resilience of key infrastructure.

Norfolk, VA

Establishing Neighborhoods of the Future

Purple areas are established neighborhoods at low-risk of coastal flooding. The City should make investments that improve connections between these areas and key economic assets to ensure that these neighborhoods continue to thrive.

Asheville Comp Plan

Click Here

Click Here

Click Here

Designing New Urban Centers

Green areas are at low-risk of coastal flooding and have great potential for high density mixed-use and mixed income development. These areas are prime opportunities for creating walkable, bikeable, transit-rich communities. The City should encourage transformational development in these areas.
New York City Creates Chief Algorithms Officer Position

The new position, which will operate out of Mayor Bill de Blasio’s office, will lead the development of guidelines and best practices surrounding the use of algorithm-based tools by city agencies.


CITY OF CHULA VISTA
SMART CITY
STRATEGIC ACTION PLAN
2017

https://www.chulavistaca.gov/home/showdocument?id=15417
Equity + Health + Automation + . . .

Evergreen Cooperatives

Cleveland, OH

- Creating jobs, building wealth, and empowering residents
Flash Poll – Question #3

How prepared do you think your community is to address emerging issues?

A. Not prepared
B. Somewhat prepared
C. Very prepared
D. Unsure
Recommended Methodology

Step 1: Emerging Trends Orientation
Step 2: Resilience Assessment
Step 3: Recovery and Readiness Plan
Step 1: Emerging Trends Orientation

A. Scan drivers of change
B. Identify ones most applicable to community
C. Target top drivers to address
Step 2: Resilience Assessment

A. Document community goals, assets, and vulnerabilities

B. Evaluate threats and opportunities posed by each driver, and prioritize

C. Assess institutional capabilities and barriers to respond to drivers
A. Identify special projects to help recover from pandemic and address key threats and opportunities

B. Identify policies, procedures, and programs to increase agility

C. Establish structure to monitor change, advance readiness, and adjust course over time
Contact Information

David Rouse, FAICP, ASLA
*Principal, David Rouse FAICP*

drouse@davidrousefaicp.com
267-664-9553
davidrousefaicp.com

Ben Hitchings, FAICP, CZO
*Principal, Green Heron Planning, LLC*

bhitchings@greenheronplanning.com
919-625-1250
greenheronplanning.com

proact-now.com