Connected Communities and Inclusive Growth

Hernan Galperin and François Bar Annenberg School for Communication University of Southern California





Connected Communities and Inclusive Growth

Outline:

- 1. Project overview
- 2. Home Internet in California in US context
- 3. Where are the unconnected Californians? Who are they?
- 4. Digital Inequality in Los Angeles: Community case studies



Why connected communities?

- Internet as a public utility for the 21st century
- Not just availability, but also affordability and skills
- State and local initiatives are critical



Connected Cities and Inclusive Growth (CCIG) project

- Goals:
 - map/analyze digital inequalities at local community level
 - offer user-friendly data visualization tool
- Data sources:
 - <u>Availability</u> → CPUC data (type and speed of service)
 - <u>Adoption</u> → American Community Survey (ACS): ~350K in CA
- Complementary to other studies
- International comparisons



The Big Picture: California in the US context



California ranks 8th in home Internet penetration





California also ranks 8th in GDP per capita



State GDP p/c (in chained 2009 US \$)

Source: American Community Survey 2016 and Federal Reserve



Growth in California has recently slowed down: ~350K new HH per year

2013-2016 growth in home Internet penetration (in %)





Where are the unconnected Californians? Who are they?



Home Internet Penetration by PUMA



Internet penetration varies significantly across CA communities



Home Internet by PUMA





Least connected CA communities located in dense urban areas



Home Internet by PUMA (bottom 10%)



Income differences explain some but not all gaps between California communities

Home Internet in CA by PUMA (in %)



Median HH income



Who are the unconnected Californians?

- Older
- Low-income
- Black or Hispanic
- People w/disabilities



Significant gains in household connectivity among **older adults**, but gaps remain

Home Internet penetration in California by age group (in %)





Low internet penetration concentrated in bottom 20% **income** distribution

Home Internet penetration in California by income decile (in %)





Low-income households are catching up with the rest ...though still below 75%





Mobile-only internet households are significantly poorer



Mobile-only Internet households in California, by income decile (in %)



Mobile-only internet households are poorer



Mobile-only Internet households in California, by income decile (in %)



Income gap in full connectivity (PC + wired) remains unchanged

Home Internet (PC+wired only) in CA by income (in %)





Hispanic/white gap closing, but black/white gap growing



USC University of Southern California

Does mobile-only connectivity explain the closing of the racial gap?



Mobile-only households in California, by race (in%)



Significant connectivity gains among people with disabilities



Home Internet penetration in CA by disability status



Digital inequality in Los Angeles: Community case studies





Mapping project url: tiny.cc/broadbandLA



Community case study: South LA (Westmont)

- Least connected community in California:
 - 60% home Internet
 - Almost half (26%) are mobile only
 - K-12 households: 26% unconnected & 28% mobile only
- Intersectionality of factors:
 - Poverty (67%)
 - Black and Hispanic (94%)
 - Disability (14%)



Community case study: East LA (Boyle Heights)

- Low home Internet adoption rate:
 - 71% home Internet
 - 16% households are mobile only
- Intersectionality of factors:
 - Poverty (65%)
 - Black and Hispanic (76%)
 - Disability (15%)
 - Non-English households: 67%



Next steps/ongoing work

- Continue to update analysis and viz tool with new data
- Partner with local organizations for community case studies
- Develop case studies of underserved populations (eg, people with disabilities, homeless)
- Engage with policymakers and community partners to support targeted connectivity and literacy initiatives



thank you

hgalperi@usc.edu fbar@usc.edu

www.arnicusc.org/research/connected-cities



Number of high-speed Internet Service Providers (ISPs) by census block in LA County





Source: CPUC 2015