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Hard-To-Survey Populations and the U.S. Decennial Census

26th Annual Morris Hansen Lecture

Washington, DC

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Overview

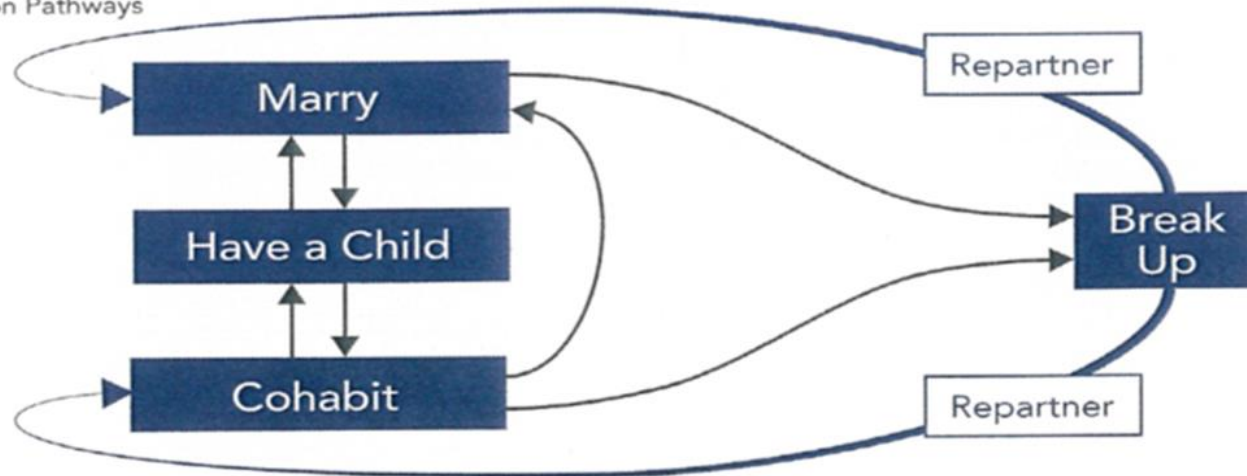
- Challenges for the 2020 Census
 - Changes in family formation and living arrangements
 - Changes in who is hard-to-survey
 - Multiple response modes will complicate messaging
- Options to Consider

Changes in Family Formation

FIGURE 1

Families Are Formed Via Marriage, Cohabitation, or Childbearing.

Family Formation Pathways



Source: PRB, "Understanding the Dynamics of Family Change in the United States", *Population Bulletin* 71.1, 2016.

Key Trends in Family Formation

- A majority of women (65%) ages 19-44 has cohabited
 - 76% - less than high school
 - 67% - high school
 - 58% - Bachelor's degree or more
- Cohabiting unions last 2-3 years on average
- Most marriages preceded by cohabitation
 - 1970s: 10 percent
 - 2010s: 70 percent

Key Trends in Family Formation

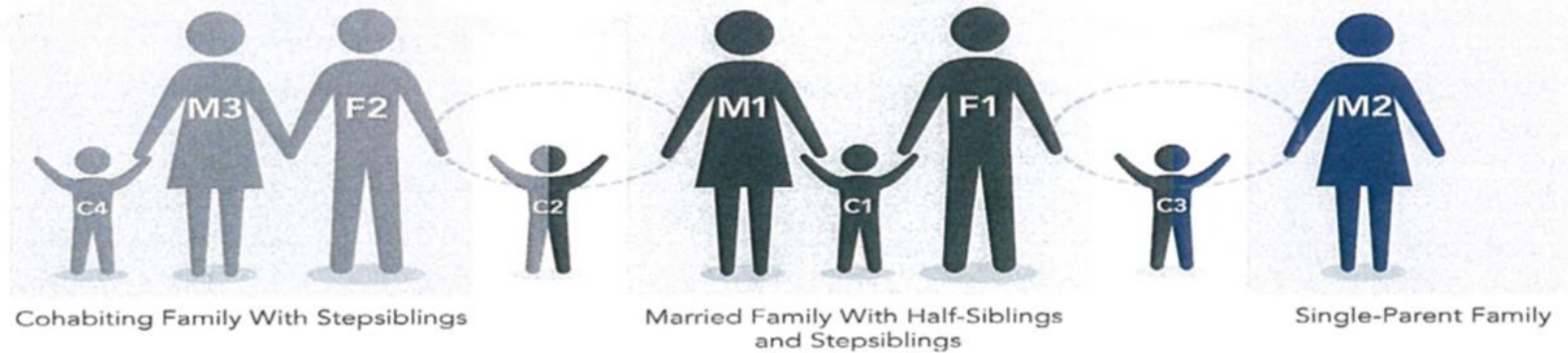
- Increase in nonmarital births
 - 1980-84: 21 percent: 6% to cohabiting mother
 - 2009-13: 43 percent: 25% to cohabiting mother
- Nonmarital births are higher among racial/ethnic minorities
 - Blacks
 - 2009-13: 75% nonmarital: 29% to cohabiting mothers
 - Hispanics
 - 2009-13: 60% nonmarital: 40% to cohabiting mothers
- Increase in multi-partner fertility

Changes in Living Arrangements

FIGURE 2

Families Can Span Multiple Households.

Stylized Example of Complex Family Ties



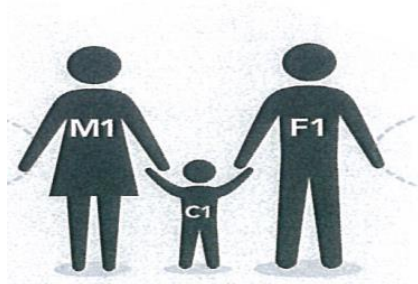
Source: PRB, "Understanding the Dynamics of Family Change in the United States", *Population Bulletin* 71.1, 2016.

Why Do These Changes Matter?

- Living arrangements are more fluid and transitory
 - Children are more likely to split time between multiple households
 - More confusing for respondents to understand who should be counted
- Household structure is more complex
 - Can't determine if other adult in cohabiting household is a resident child's parent
 - In cohabiting households, whether a child is counted as "own" or "unrelated" is arbitrary based on which unmarried partner is Person 1

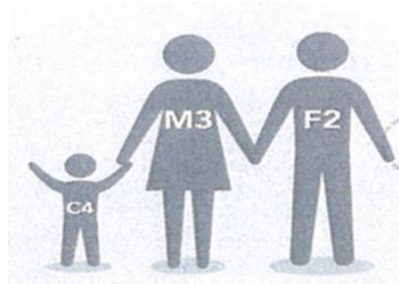
Classification of Cohabiting Couple Households with Children

Person 1



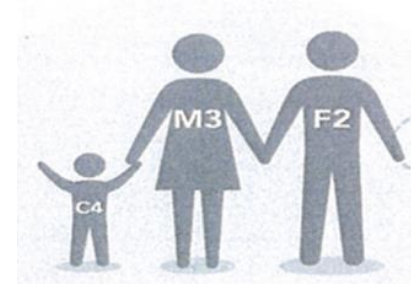
Own child,
Family HH, with
unmarried partner
(Don't know
that F1 **is**
child's father)

Person 1



Own child,
Family HH, with
unmarried partner
(Don't know that
F2 is **not** child's
father)

Person 1



Unrelated child,
Nonfamily HH, with
unmarried partner
(Don't know that
M3 **is** child's
mother)

Why Do These Changes Matter?

- They are more concentrated among racial and ethnic minorities and those with less education and lower incomes (HTS)
- They are contributing to an increase in the net undercount of young children (0-4) in the Census
 - 1980: 1.8 percent
 - 2010: 4.6 percent
 - Research shows that unrelated children and children who are “other relatives” are more likely to be missed (Konicki, 2016; Fernandez, 2016)

Options to Consider

- Add questions or pointers to identify relationship of children to adults other than Person 1
- Continue research to identify causes of undercount of young children
 - Conduct studies to ask respondents why children were not included, especially unrelated and other relatives
- Evolve our concepts of residency and instructions for respondents

Overview

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 - **Changes in who is hard-to-survey**
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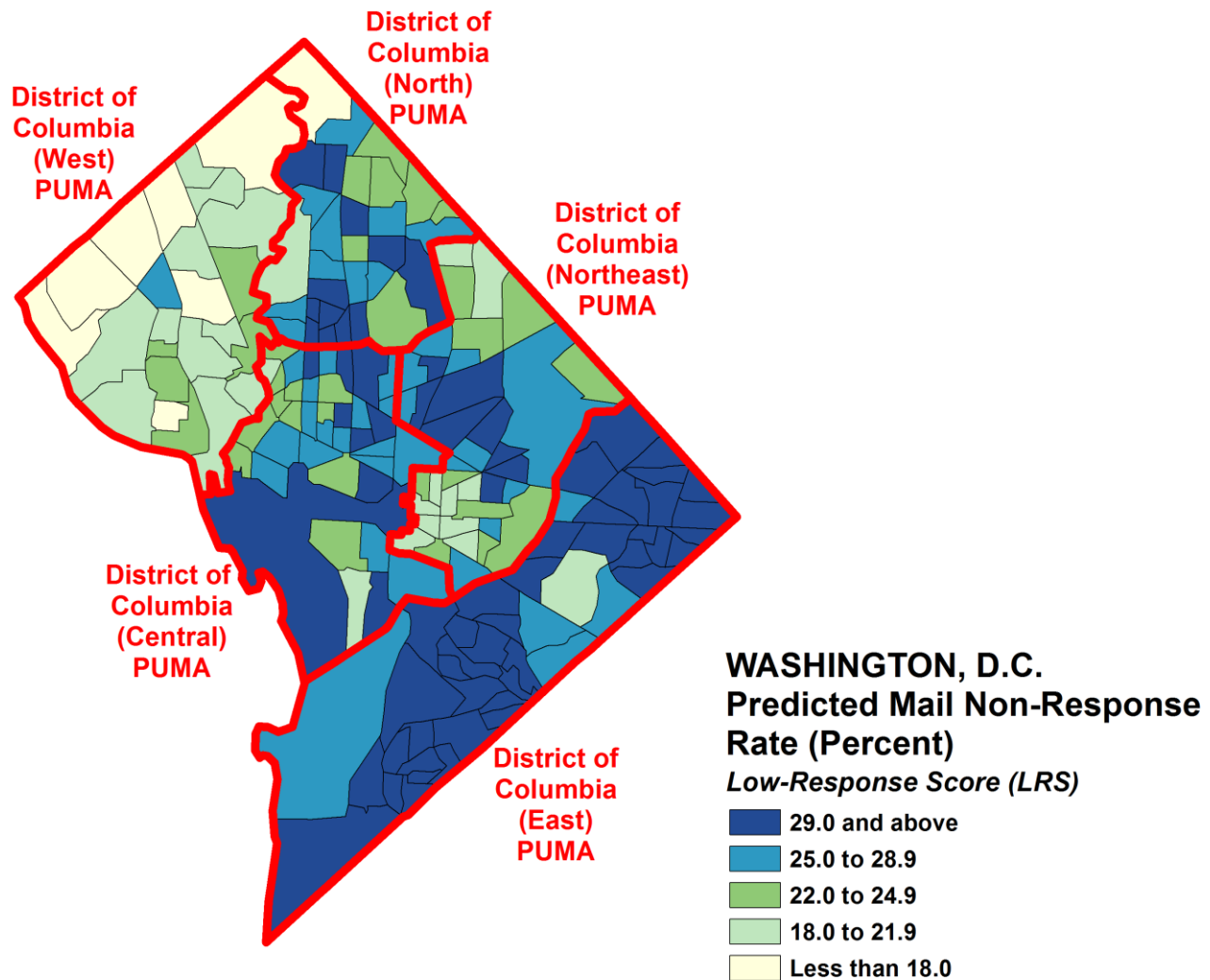
Changes In Who Is Hard-To-Survey

- Internet response option and Internet push for 80 percent of households may change self-response rates for some groups
 - Those with high mail self-response rates (older adults) may be less likely to respond online
 - Those with low mail self-response rates (young, mobile, renters) may have much higher internet self-response rates
- Internet response option had negative effect on groups with low self-response rates in ACS even when paper form mailed later

Changes In Who Is Hard-To-Survey

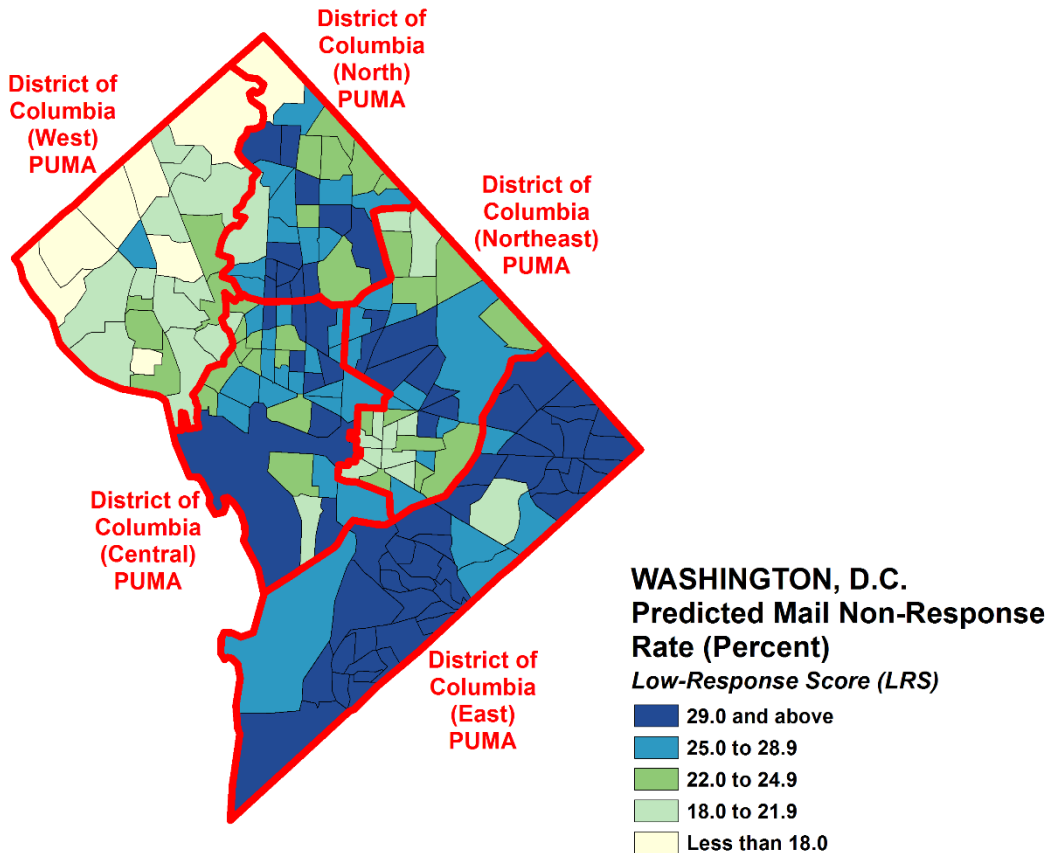
- Hard-to-survey households less likely to have internet subscriptions at home (2013)
 - Non-Hispanic blacks: 61%
 - Hispanics: 67%
 - Ages 65+: 58%
 - Less than high school: 44%
- Changes may make LRS less accurate for 2020 planning until 5-year ACS data are available for 2013-2017

Low Response Score (LRS) by Census Tract



SOURCE: U.S. Census Bureau, Planning Database with 2010 Census and 2010-2014 ACS data.

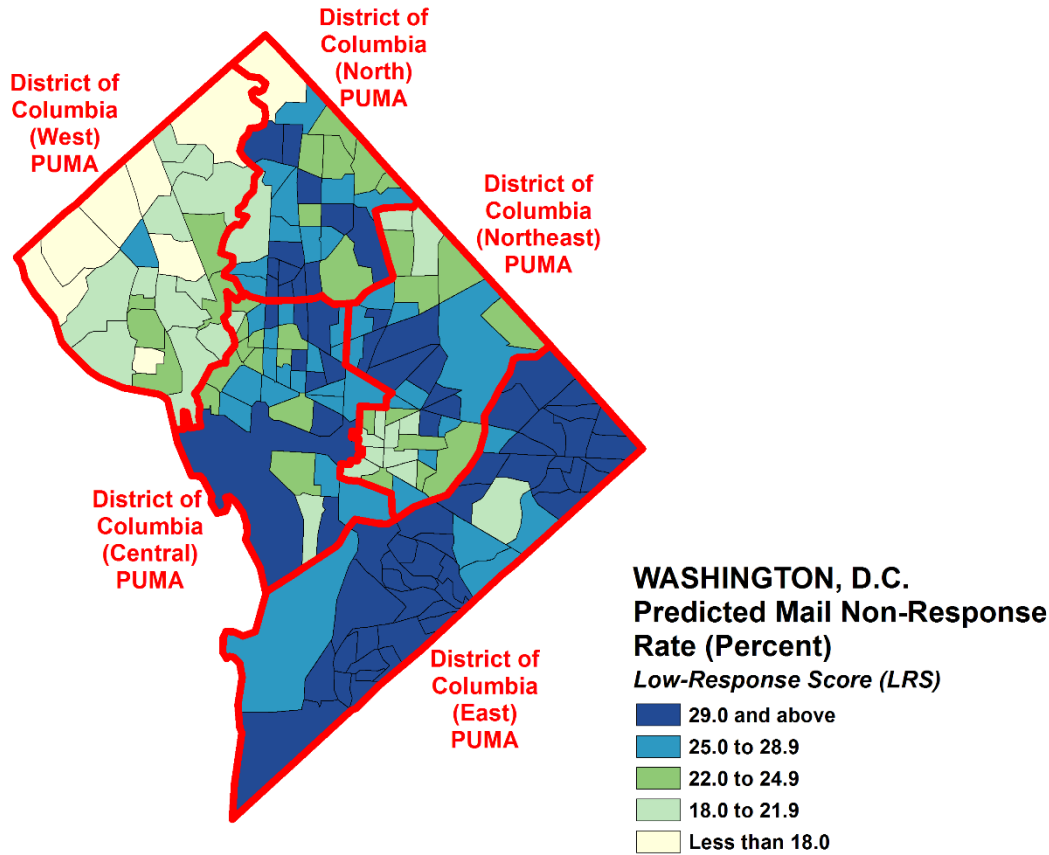
Low Response Score (LRS) by Census Tract



Percent of Households Who Responded Through the Internet, 2015 ACS

DISTRICT OF COLUMBIA	41.8
District of Columbia (West) PUMA	57.4
District of Columbia (North) PUMA	35.7
District of Columbia (Northeast) PUMA	43.2
District of Columbia (East) PUMA	17.2
District of Columbia (Central) PUMA	54.4

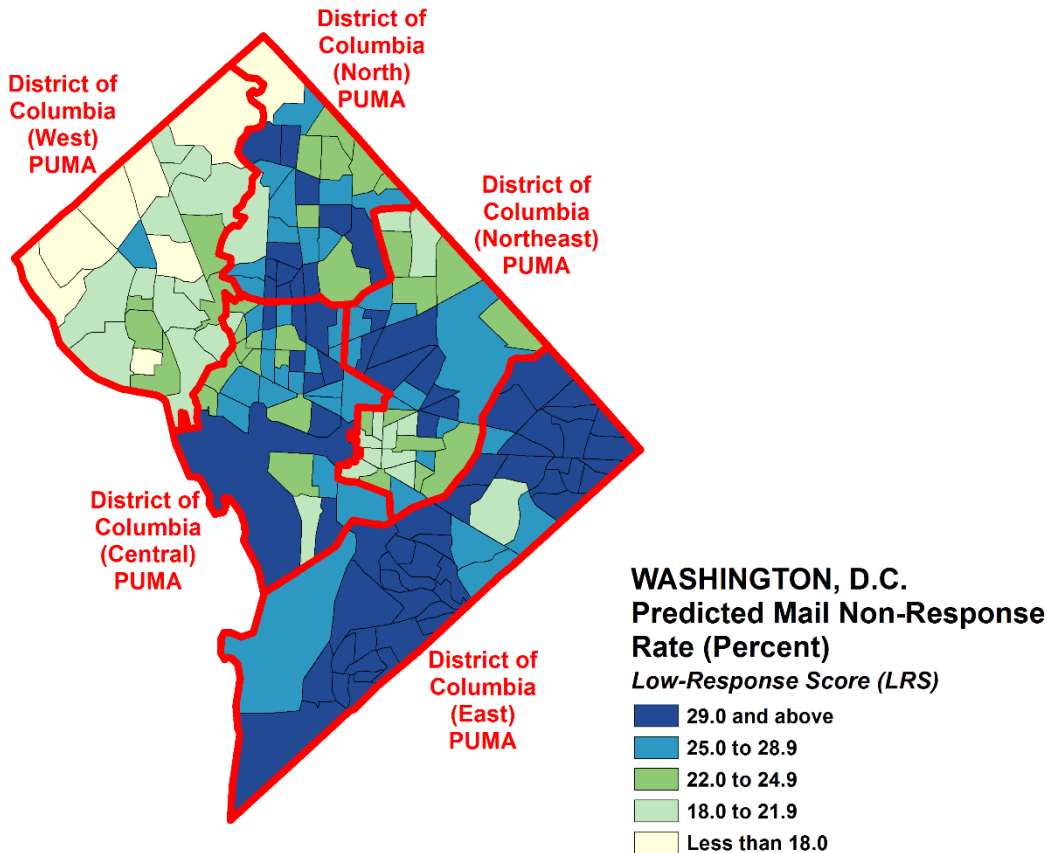
Low Response Score (LRS) by Census Tract



Percent of Households Who Responded by CATI/CAPI, 2015 ACS

DISTRICT OF COLUMBIA	40.9
District of Columbia (West) PUMA	24.5
District of Columbia (North) PUMA	45.1
District of Columbia (Northeast) PUMA	36.1
District of Columbia (East) PUMA	64.1
District of Columbia (Central) PUMA	33.1

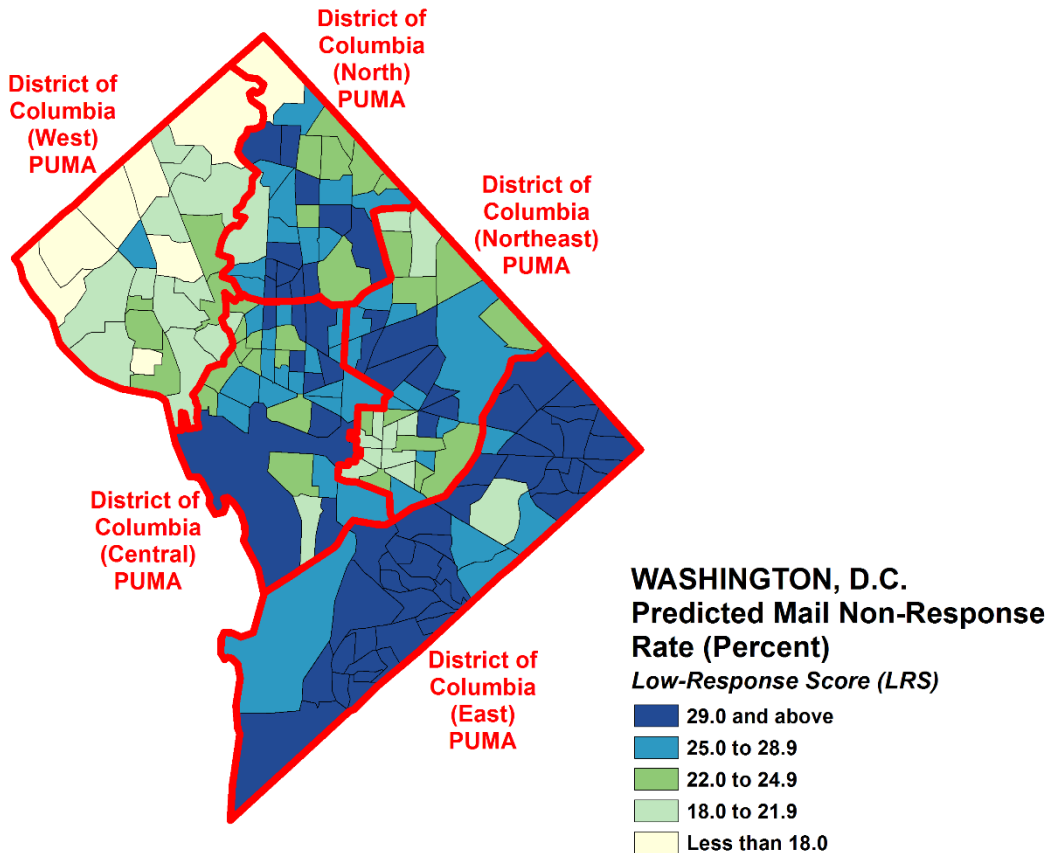
Low Response Score (LRS) by Census Tract



Percent of Households Without a Computer, 2015 ACS

DISTRICT OF COLUMBIA	10.7
District of Columbia (West) PUMA	2.7
District of Columbia (North) PUMA	13.7
District of Columbia (Northeast) PUMA	11.3
District of Columbia (East) PUMA	20.7
District of Columbia (Central) PUMA	5.6

Low Response Score (LRS) by Census Tract



Percent of Households With a Computer, But Without an Internet Subscription, 2015 ACS

DISTRICT OF COLUMBIA	12.7
District of Columbia (West) PUMA	3.6
District of Columbia (North) PUMA	11.2
District of Columbia (Northeast) PUMA	9.7
District of Columbia (East) PUMA	27.4
District of Columbia (Central) PUMA	9.3

Options to Consider

- Continue to mine ACS results and data
 - Provides self-response propensity by mode **in the absence of social marketing**
 - Tracks device ownership and internet access and impact on internet self-response
- Overlay/compare ACS response rates by mode with LRS prior to 2018
- Develop Low Internet Response Score (LIRS) to support targeting for initial paper forms and site location for internet outreach

Options to Consider

■ ACS Caveats

- Technology and internet access change rapidly
- 5-year ACS estimates smooth out change and may not provide accurate measures of device/internet access for 2020 planning
- May need to use 1-year ACS supplemental data in 2019 and 2020 (for areas with at least 20,000 residents) to get more up-to-date estimates

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Multiple Response Modes Will Complicate Messaging

- Some households will receive a paper form in the mail while some will receive only internet push
 - No mass ads like “March to the Mailbox” or messages like “Fill it out and mail it back”
- ACS will be in the field at the same time with different operations
 - Initial mailing is internet push only
 - No online response without unique ID

Conclusions

- Census Bureau continues to innovate in social marketing for the decennial
- Risk that undercount of young children will increase in 2020 Census
 - Window to understand causes and make changes is closing rapidly
- Changes in family formation and living arrangements will continue and survey questions need to evolve more rapidly to keep pace with social change

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Thank You

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