Counting the Hard to Count in a Census

Select Topics in International Censuses[1]

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INTRODUCTION

The United Nations (U.N.) 2030 Agenda for Sustainable Development has continued recent international momentum in placing inclusion of marginalized populations at the forefront of international development. As laid out by U.N. Deputy Secretary-General Jan Eliasson in his 2016 remarks to the U.N. General Assembly, "the fundamental principles that underpin the new goals are interdependence, universality and solidarity. They should be implemented by all segments of all societies, working together. No one must be left behind. People who are hardest to reach should be given priority."

The first step in ensuring both representative inclusion for all populations in the national census process and the accurate measurement of Sustainable Development Goals is attention to the inclusion of those hard-to-count (HTC) individuals in national data collection. When national censuses miss members of HTC populations it can lead to skewed demographic estimates, underrepresentation within government, and inefficient allocation of public and private resources.

This technical note presents the four primary reasons why any population may be HTC, four broad strategies for successfully addressing those challenges, and guidance on specific populations which have historically been HTC across national contexts. In so doing, this note will help National Statistics Offices (NSOs) to produce higher quality census data and position themselves to prioritize those "hardest to reach."

Appendix A presents an infographic overview of this material.

IDENTIFYING HTC POPULATIONS

HTC populations are those for whom a real or perceived barrier exists to full and representative inclusion in the data collection process. Some examples of commonly HTC populations include people experiencing homelessness, historically marginalized groups, and nomadic peoples to name just a few. Groups of people may be HTC for four main reasons, each of which roughly corresponds to a different step in the process of identifying and enumerating a populace (Chapin et al., 2018; Tourangeau, 2014). The types of HTC groups are:

1. **Hard to Locate**—Populations can be both hard to sample and hard to identify by some characteristic-of-interest (e.g., nomadic peoples and those hard to identify due to stigma/motivated misreporting).

2. **Hard to Contact**—Once located, populations can be difficult to physically access (e.g., gated communities or populations experiencing homelessness).

3. **Hard to Persuade**—Once accessed, populations may be reluctant to participate in enumeration (e.g., political dissidents or those who feel that they are too busy to participate).

4. **Hard to Interview**—Once engaged, enumeration itself may be hindered by some barrier (e.g., lack of a shared language, low literacy, or some form of disability).

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These categories are not mutually exclusive as more than one HTC challenge may apply to any HTC population. NSOs can begin efforts to identify HTC populations early in the census planning process in the following ways:

1. Use statistical techniques to identify low-response areas and populations from past censuses.

2. Assess documentation from previous census analyses of undercounts.

3. Review coverage from outside sources that assessed census efficacy and coverage.

4. Predict enumeration area response using *a priori* identification of HTC populations. E-census systems let NSOs monitor response in real time and act if rates deviate from anticipated distributions.

See Appendix B for common methods for assessing coverage error and identifying HTC populations.

STRATEGIES FOR HTC INCLUSION

After identifying HTC populations and determining which qualities make them HTC, NSOs can begin developing strategies to enumerate those populations. We group guidance by four broad strategic areas, including: **Staff Training, Outreach and Partnerships, Design and Accommodations, and Special Programs**. Initiatives can fall into areas of overlap in these broad categories; however, this typology serves as a useful conceptual framework for NSO planning.

Staff Training

Training strategies address challenges using clear enumerator instruction. Important areas include:

1. How complex and uncommon circumstances should be handled.

2. Probing techniques to elicit complete responses and avoid pre-identified common sources of error.

3. Instruction on handling distrustful or otherwise challenging respondent interactions.

Enumerator training can be improved by providing training documentation for enumerators, including a complete and field-tested enumerator handbook. An adequate enumerator handbook is well indexed and has instructions on how many conceivable scenarios should be handled along with a mechanism for notifying the NSO if situations not covered by the handbook arise or where instructions are unclear.

Outreach and Partnerships

Outreach and partnership-based strategies leverage the strengths, assets, and expertise of stakeholders to improve census coverage and data quality. These strategies are some of the most effective ways for NSOs to mitigate issues of distrust by respondents. Where issues of trust exist, NSOs can:

1. Identify the distrustful population.

2. Identify organizations and leaders trusted by that population to act as surrogates for the NSO.

3. Convince surrogates to support the census and reach out to HTC populations in trusted locations.

4. Include surrogate individuals and organizations in the planning and preparation of a census.

5. Employ members of HTC populations to be cultural/linguistic translators for census workers.

6. Maintain databases to track engagement with partners, preventing duplication of effort and enabling documentation of successful partnerships.

The U.S. Census Bureau Complete Count Committee program (Box 1) is an effective example of how NSOs can use these recommendations to mitigate distrust.

Design and Accommodations and Special Programs

Design and Accommodations and Special Programs strategies both involve matching census materials, logistics, and overall operations to meet the needs of HTC populations. Design and Accommodations refers to minor adjustments to general census procedures and materials (e.g., development of materials in nondominant languages or in large-print format for those with difficulty seeing). In contrast, Special Programs differ significantly from the standard methodology in some way and are developed when minor changes to the general materials or methodology are insufficient (e.g., special programs enumerating merchant seafarers or nomadic populations). Another example of Special Program strategies is Service-Based Enumeration where populations are enumerated at locations where that group commonly receives important services—such as enumeration of those experiencing homelessness at soup kitchens or emergency and transitional shelters.

Table 1 presents detail on 16 groups that have been identified as being frequently HTC. The populations discussed here do not include every group that may be HTC within a national context, nor will each group be HTC within all contexts. Instead, they represent an overview of groups—identified over a range of contexts—that present challenges for accurate enumeration. This guide provides a comprehensive overview of the challenges and strategies associated with census inclusion for each population, however it should not be considered as an exhaustive text on all methods that can be used and in all contexts in which each population might occur. Appendix A presents a quick reference guide to the information provided for each population, with each group matched to the strategic areas for which guidance is provided and the classes of challenges that generally apply for that population.

Box 1.
Complete Count Committee Timeline

Complete Count Committees are voluntary groups who design and institute efforts to promote census participation within their area.

2018
- Tribal leader, governor, or highest elected local official or community leader determines Complete Count Committees (CCCs) structure.
- CCCs receive 2020 Census training.

2019
- Continue establishing CCCs.
- Open Area Census Offices.
- CCCs develop strategy and work plan.

2020
- CCCs begin community organization mobilization.
- 2020 Census advertising campaign begins in early 2020.
- CCCs support the 2020 Census.
- CCCs encourage self-response.

April 1, 2020 – CENSUS DAY
- CCCs urge households who do not respond to cooperate with census takers.

Source: U.S. Census Bureau, Complete Count Committees, 2018.

Table 1.
Census Inclusion: Challenges and Responses for Select Hard-to-Count Populations

Population	Challenges	Responses
Complex households	**Enumeration:** Households that are polygamous, orphan-headed, or have unrelated members can be challenging to classify.	Enumerator training; questionnaire design with country-specific communal arrangement options.
Young children	**Enumeration:** Complex family relationships can lead to young children being left out of enumeration.	Enumerator training; outreach on the importance of including children.
Access-controlled properties	**Canvassing and enumeration:** Hard to physically access.	Enumerator training; outreach to properties and communities; administrative records; remote enumeration.
Anti-government	**Enumeration:** Distrust of government census efforts can lead to nonresponse.	Enumerator training; avoid prefilled materials and administrative records.
Short-term renters	**Enumeration:** Transitory and with fewer resources available to enable census participation compared to homeowners.	Partner with postal services and community representatives; use locally tailored enumeration strategies.
Migrants and minorities	**Enumeration:** Fear of legal aspects of being counted, unfamiliarity with census benefits, and difficulty with dominant national language(s).	Outreach through trusted institutions; targeted advertising; questionnaire design.
Dense urban areas	**Canvassing:** Common unconventional housing units. **Enumeration:** Poverty, government distrust, and under-education.	Partner with public services; hire workers from the community; enumerator training; administrative records; paired enumeration.
Informal settlements— housing	**Canvassing:** No legal claim to land; concealed and unconventional housing. **Enumeration:** High government distrust and difficulty with national language(s).	Careful census mapping; outreach through community canvassing initiatives; paired enumeration.
Remote and rural	**Canvassing and enumeration:** Can be widely dispersed, lack traditional addresses, and be seasonally inaccessible.	Outreach through public events and traditional/tribal authorities; paired enumeration; quality control flexibility. See Box 2.
Homelessness	**Enumeration:** Physical address.	Service-based enumeration.
Disasters	**Canvassing and enumeration:** Chaotic conditions, unreliable follow-up, and refugee camps.	Service-based enumeration; quality control flexibility; institutional strategies (see Institutions below).
Institutions	**Enumeration:** Hard to access.	Partner with officials for access; administrative records; partner with umbrella organizations.

Table 1.—Con.
Census Inclusion: Challenges and Responses for Select Hard-to-Count Populations

Population	Challenges	Responses
Seafarers and fishers	**Canvassing:** Ship quarters as the only residence. **Enumeration:** Hard to access.	Remote enumeration; institutional strategies (see Institutions on previous page), extended enumeration; administrative records.
Nomadic and transitory	**Canvassing and enumeration:** Widely dispersed, migratory, and social marginalization.	Special census programs guided by group characteristics and research; institutional strategies (see Institutions on previous page).
Age, languages, and disabilities	**Enumeration:** Difficulty with technology, mental and physical challenges, and low literacy rates.	Reference calendars of events; avoid self-/internet-enumeration; adaptive technologies; language-focused hiring; questionnaire design.
Limited connectivity	**Enumeration**: No/limited phone or Internet access.	Mix enumeration methods; partner with schools, libraries, and national communication systems.

Source: U.S. Census Bureau.

Box 2.
2010 U.S. Census Rural Programs

With a newly formed American Indian and Alaska Natives Program, the 2010 U.S. Census used three programs to enumerate especially rural populations based on increasing level of remoteness.

Update Enumerate Program

Challenge: Untraditional addresses and seasonal vacancies (e.g., vacation homes and Colonias on the U.S.-Mexico border). Can be remote.

Response: Intensive canvassing: Multiple visits (with local enumerators) and phone calls focused especially on seemingly vacant addresses.

Remote Update Enumerate Program

Challenge: Sparsely settled areas of Alaska and Maine with residents who may have extended absences. Highly remote.

Response: One enumeration: Local staff, on-the-job training. Team leader checks on all vacant housing units.

Remote Alaska Program

Challenge: Only accessible by small plane, off-road vehicles, dogsleds, or that are only seasonally accessible. Most remote.

Response: One enumeration: All on-the-job training. Village leaders appoint staff and affirm data accuracy. Weather may require special enumeration dates for these areas.
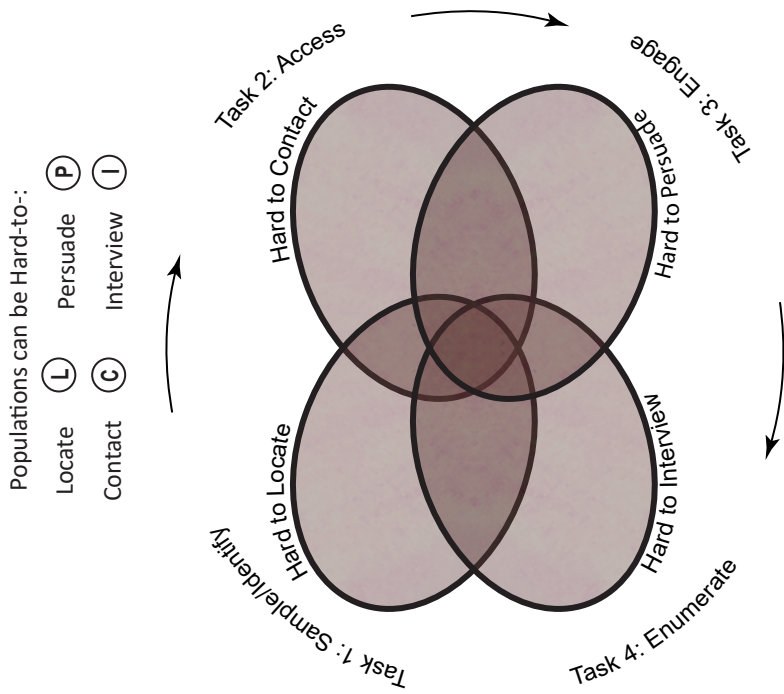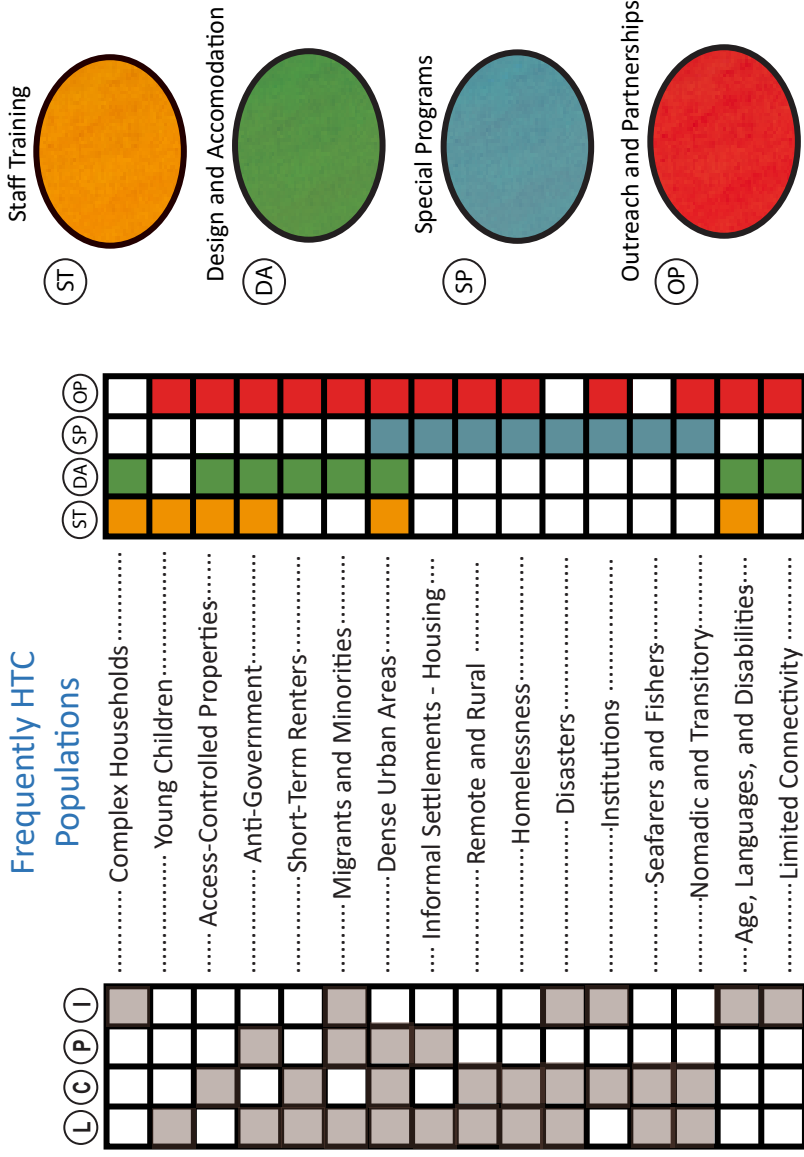
Source: U.S. Cenus Bureau.

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Hard-to-Count (HTC) Groups—Challenges and Strategies for Specific Populations

Which Strategies Can be Effective?

- (ST) Staff Training
- (DA) Design and Accomodation
- (SP) Special Programs
- (OP) Outreach and Partnerships

Frequently HTC Populations

Strategy columns: ST | DA | SP | OP

Populations:
- Complex Households
- Young Children
- Access-Controlled Properties
- Anti-Government
- Short-Term Renters
- Migrants and Minorities
- Dense Urban Areas
- Informal Settlements - Housing
- Remote and Rural
- Homelessness
- Disasters
- Institutions
- Seafarers and Fishers
- Nomadic and Transitory
- Age, Languages, and Disabilities
- Limited Connectivity

Challenge columns: L | C | P | I

What Makes Populations HTC?

Populations can be Hard-to-:
- (L) Locate
- (C) Contact
- (P) Persuade
- (I) Interview

Task 1: Sample/Identify — Hard to Locate

Task 2: Access — Hard to Contact

Task 3: Engage — Hard to Persuade

Task 4: Enumerate — Hard to Interview

Source: U.S. Census Bureau

Appendix B.
Identifying and Measuring Hard-to-Count Populations

Technique / Term	What is it?	Strengths	Limitations
Dual-Systems Estimation — **Post-Enumeration Surveys (PES)**	A second smaller resampling in already-enumerated blocks.	Can easily be disaggregated to assess count by group. Useful for calculating census data adjustments and for improving operations.	Can underestimate undercount due to error matching initial questionnaires to the same respondents in the 2nd round. Sensitive to characteristics that make households more- or less-likely to be enumerated.
Capture-Recapture (C-R)	Predicting the proportion of people in a population who were counted (and who remain uncounted) in both the initial and repeated enumerations.		
Dual-Systems Estimation	After PES, C-R estimates coverage from the initial enumeration.		
Differential Undercount	A measure of the gap between census accuracy for the general populace and any subgroup.	Good metric for census undercount across populations.	Reliant on accurate data on census coverage.
Group Identification or Lifestyle Segments	Use statistical techniques to identify factors associated with low response within populations.	Allows for highly targeted and cost effective outreach.	Needs quality current demographic and socioeconomic population data.
Institutional Knowledge of Past Censuses	Lessons learned and analyses of under/overcount from past censuses can identify HTC populations.	Locally specific.	Difficult when turnover is high or when documentation is not generated or maintained.
Interest Group and Media Request	Interest groups and media coverage can identify areas of possible undercount from past censuses.	Opportunity to engage, building chances for earned media exposure and participation.	Can be politically sensitive.

Source: U.S. Census Bureau