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MEMORANDUM FOR      The Distribution List

From:                      Burton Reist *[signed]*  
Acting Chief, Decennial Management Division

Subject:                    2010 Census Service-Based Enumeration Assessment Report

Attached is the 2010 Census Service-Based Enumeration Assessment Report. The Quality Process for the 2010 Census Evaluations, Experiments, and Assessments was applied to the methodology development, specifications, software development, analysis, and documentation of the analysis and results, as necessary.

If you have questions about this report, please contact Diane Barrett at (301) 763-4208 or Deborah Russell at (301) 763-9383.

Attachment

# 2010 Census Service-Based Enumeration Operation Assessment Report

U.S Census Bureau standards and quality process procedures were applied throughout the creation of this report.

**FINAL**

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## **Executive Summary**

The primary purpose of the 2010 Census Service-Based Enumeration Assessment Report is to describe how the Census Bureau conducted the 2010 Census Service-Based Enumeration Operation at service-based locations and targeted non-sheltered outdoor locations throughout the United States and Puerto Rico and to document the results of the operation. In addition, this report provides the number of service-based locations visited during the operation and demographic information about the people enumerated at those locations. Overall, the data from this report provide valuable information to be used for historical purposes as well as planning for future census enumeration operations at service-based locations and targeted non-sheltered outdoor locations.

The 2010 Census Service-Based Enumeration Operation was implemented to provide people without conventional housing, including those experiencing homelessness, an opportunity to be included in the census by conducting the enumeration at service-based locations and targeted non-sheltered outdoor locations. Prior to conducting the enumeration operation at service-based locations, the Census Bureau conducted the 2010 Census Group Quarters Validation Operation and the 2010 Census Group Quarters Advance Visit Operation, both in preparation for the 2010 Census Service-Based Enumeration Operation.

### **Service-Based Enumeration Assessment Results**

#### **1. How many Service-Based Enumeration locations were visited?**

- A total of 18,918 service-based enumeration locations were visited during the 2010 Census Service-Based Enumeration Operation.
- About four percent (724) of the locations visited had a zero population count.
- Almost half (47 percent) of the locations visited were targeted non-sheltered outdoor locations.
- Approximately 35 percent of the locations visited were shelters.
- The remaining 19 percent of the locations visited were soup kitchens and regularly scheduled mobile food vans.

#### **2. How many person records were data captured (prior to the unduplication process) at each service type location?**

- A total of 459,772 person records were data captured from the 2010 Census Service-Based Enumeration Operation.
- About 47 percent of the data captured person records were from shelters.
- Approximately 45 percent of the data captured person records were from soup kitchens and regularly scheduled mobile food vans.
- The remaining eight percent (37,995) were data captured person records from targeted non-sheltered outdoor locations.

**3. How many of the demographic characteristics for data captured persons were collected during the 2010 Census Service-Based Enumeration Operation?**

- Almost all (97 percent) of the data captured person records had at least two of the following five demographic characteristics collected: name<sup>1</sup>, sex, age and/or year of birth, Hispanic origin, and race. These records were considered data-defined persons.
- Shelters had the largest percentage (approximately 98 percent of 214,094 person records) of data-defined persons among the three service type locations.
- Although targeted non-sheltered outdoor locations had the largest percentage (13.5 percent) of non data-defined persons among the service-based locations, over a third (36.3 percent) of the 37,995 data captured person records had all five data characteristics filled.

**4. What was the rate of item nonresponse for each of the demographic characteristics by type of Service-Based location?**

- Shelters had similar item nonresponse rates as soup kitchens and regularly scheduled mobile food vans combined for most of the demographic characteristics. The item nonresponse rate for:
  - Name, that is both first and last names, was about two percent for both service types,
  - Sex was four percent for shelters and five percent for soup kitchens and regularly scheduled food vans,
  - Age and Year of Birth was ten percent for shelters and 25 percent for soup kitchens and regularly scheduled mobile food vans ,
  - Hispanic Origin was 21 percent for shelters and 19 percent for soup kitchens and regularly scheduled mobile food vans and
  - Race was 17 percent and 14 percent, respectively.
- As expected, targeted non-sheltered outdoor locations had the highest rate of item nonresponse for most of the demographic characteristics as compared to shelters and soup kitchens and regularly scheduled mobile food vans combined. The item nonresponse rates at targeted non-sheltered outdoor locations were:
  - Name, that includes both first and last names, was three percent,
  - Sex was 15 percent,
  - Age or Year of Birth was 49 percent,
  - Hispanic Origin was 38 percent, and
  - Race was 29 percent.

**5. How many persons filled out their forms themselves and how many were filled out by other means by type of Service-Based Enumeration location?**

- Overall, 53 percent of the 433,017 Service-Based Enumeration data captured person records enumerated on Individual Census Reports was completed by the respondent and 42 percent was completed by other means, which included the use of administrative records, a knowledgeable person, or by observation.

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<sup>1</sup> Although “Name” is not a demographic characteristic, it was treated as such in this report.



- Shelters – Of the 200,010 data captured person records enumerated on Individual Census Reports, about 52 percent was filled out by the respondent themselves and 42 percent was filled out by other means.
- Soup kitchens and regularly scheduled mobile food vans – Of the 197,648 data captured person records enumerated on Individual Census Reports, 59 percent was filled out by the respondent themselves and about 38 percent was filled out by other means.
- Targeted non-sheltered outdoor locations – Of the 35,359 data captured person records enumerated on Individual Census Reports, 25 percent was filled out by the respondent themselves and 65 percent was filled out by other means.

**6. How many persons were added to the Service-Based Enumeration Universe from Be Counted Forms?**

- There were 21,681 persons added to the service-based enumeration universe from Be Counted Forms. Of these,
  - About half (10,835) of the Be Counted Form persons were added to shelters,
  - Approximately 31 percent was added to soup kitchens and regularly scheduled mobile food vans, and
  - Only 9 percent was added to targeted non-sheltered outdoor locations.

**7. How many person records were unduplicated during data processing?**

- Of the 459,772 data captured person records, approximately three percent were duplicates and matched to another census person record enumerated on an Individual Census Report or a Be Counted Form classified in processing as Type B.
- Over 97 percent of the data captured person records were counted in the 2010 Census. Of these,
  - 66 percent had sufficient data for matching but did not match to any other person record,
  - 31 percent had insufficient data for matching, and
  - Less than one percent was invalid for the unduplication process.

**8. How many persons reported a valid usual home elsewhere address at soup kitchens and regularly scheduled mobile food vans?**

- Of the 70,594 persons at soup kitchens and regularly scheduled mobile food vans who indicated that they had a usual home elsewhere, 36,654 persons (51.9 percent) provided a valid address.
- If the valid usual home elsewhere address reported on the Individual Census Report was in the 2010 Census as a housing unit and the person was already enumerated on a housing unit questionnaire, then the person was tabulated at the housing unit address only and not at the soup kitchen or regularly scheduled mobile food van.

**9. How many locations and people were tabulated in the final 2010 Census Service-Based Enumeration Operation by service type after post processing?**

- There were 422,972 people tabulated at 18,527 service-based locations in the 2010 Census.

- About half (49.7 percent) of the final service-based enumeration population was counted at 6,345 shelters.
- Approximately 42 percent of the final service-based enumeration population was counted at 3,422 soup kitchens and regularly scheduled mobile food vans.
- The remaining nine percent was counted at 8,760 targeted non-sheltered outdoor locations, about half of the service-based locations.

**10. How does the final population count compare between Census 2000 and the 2010 Census by type of Service-Based Enumeration location?**

- There was an increase of 49 percent in the final Service-Based Enumeration population from Census 2000 (283,898) to the 2010 Census (422,972).
- Soup kitchens and regularly scheduled mobile food vans had more than twice as many persons enumerated in the 2010 Census (175,434) as in Census 2000 (76,465) accounting for a 129 percent increase.
- The number of people enumerated at shelters increased by a rate of 14 percent from Census 2000 (184,008) to the 2010 Census (210,036).
- Although the percentage point difference between Census 2000 Service-Based Enumeration (8.0 percent) and the 2010 Census Service-Based Enumeration (8.9 percent) for the final number of people tabulated at targeted non-sheltered outdoor locations was less than one percentage point, the rate of change increased by 60 percent from Census 2000 to the 2010 Census (37,502).

*Successes*

- The 2010 Census Service-Based Enumeration Operation provided an opportunity for people without conventional housing and people experiencing homelessness to be included in the census.
- The Individual Census Report was redesigned and was the only enumeration instrument the Census Bureau administered to the respondents at all types of service-based locations. During the 2000 Census Service-Based Enumeration Operation, two different instruments were used, the Individual Census Questionnaire at soup kitchens and regularly scheduled mobile food vans and the Individual Census Report was administered at shelters and targeted non-sheltered outdoor locations. Using only one enumeration instrument at the service-based locations allowed the Census Bureau to simplify the enumeration procedures for the enumerators.

*Challenges*

- The greatest challenge that the Census Bureau experienced while implementing the 2010 Census Service-Based Enumeration Operation, was finding people at the targeted non-sheltered outdoor locations where people experiencing homelessness lived or stayed and capturing their demographic data, such as age, Hispanic Origin, and race.

## Conclusions

- Overall, the 2010 Census Service-Based Enumeration Operation was an effective methodology to provide an opportunity for people without conventional housing and for people experiencing homelessness an opportunity to be included in the census.
- As a result of the 2010 Census Service-Based Enumeration Operation, the Census Bureau tabulated 422,972 people at 18,527 service-based locations who might have been otherwise missed. Approximately 50 percent of the people were tabulated at shelters, 42 percent of the people were tabulated at soup kitchens and regularly scheduled mobile food vans, and the remaining nine percent of the people were tabulated at targeted non-sheltered outdoor locations.
- There was a 49 percent increase in the service-based population counts from Census 2000 to the 2010 Census. The majority of the increase is attributed to the fact that there were twice as many persons counted at soup kitchens and regularly scheduled mobile food vans when compared to the persons counted at these locations in Census 2000. At least 175,000 people might have been missed if these service-based locations had not been included in the 2010 Census.

## Recommendations

- **Continue to conduct the enumeration at service-based locations and targeted non-sheltered outdoor locations to provide people without conventional housing and people experiencing homelessness an opportunity to be counted in the decennial census and to minimize the population undercount.**
- **Continue to improve the unduplication process to address complications resulting from potentially counting persons more than once in the census enumerated at or allocated to service-based locations.**
- **Test the usage and evaluate the quality of administrative records to collect demographic data for persons residing in shelters. During the 2010 Census Service-Based Enumeration Operation, the potential use of administrative records was most prevalent in shelters as compared to the other two service-based locations.**
- **Test the availability and evaluate the quality of administrative records for obtaining demographic data for people at soup kitchens and regularly scheduled mobile food vans. Despite the relatively low propensity of the existence of administrative records during the 2010 Census Service-Based Enumeration Operation, these may show promise for providing more complete data in this enumeration universe.**
- **Research and cognitive test the ability to expand the number of enumerator response categories to the “Answered by:” question to specifically indicate how the form was filled out. This improvement will aid the Census Bureau to ascertain whether or not the Individual Census Report was completed using administrative records.**

# **1. Introduction**

## **1.1 Scope**

The purpose of this assessment report is to describe how the 2010 Census Service-Based Enumeration (SBE) Operation was implemented by providing analysis, results, lessons learned, conclusions and recommendations. This report may be used for historical and informational purposes, and provides recommendations and best practices that may be used during the next planning cycle to support the enumeration at service-based locations for the 2020 Census.

In addition, the assessment report will address the following:

- Describe the types of Group Quarters (GQs) included in the service-based locations,
- Discuss the procedures used to implement the operation,
- Provide the number of person records data captured from Individual Census Reports (ICRs) and certain Be Counted Forms (BCFs).
- Provide the number of demographic characteristics collected and the item nonresponse rates for data captured person records,
- Provide the number of persons added to the service-based universe from certain Be Counted forms,
- Provide the number of persons enumerated on ICRs during this operation who reported a valid usual home elsewhere (UHE) address, and
- Provide the final number of people tabulated in the 2010 Census by type of service-based location.

## **1.2 Intended Audience**

The intended audiences for this report are: senior management, external stakeholders, the 2010 Census Group Quarters Enumeration Operation Integration Team (GQE OIT), interdivisional stakeholders and decision makers responsible for the planning, preparation, and/or implementation of future decennial census group quarters (GQ) SBE activities. The audience also includes the following interdivisional stakeholders responsible for planning and implementing the 2010 Census SBE Operation:

- Decennial Management Division (DMD)
- Field Division (FLD)
- Decennial Statistical Studies Division (DSSD)
- Geography Division (GEO)
- National Processing Center (NPC)
- Population Division (POP)

## 2. Background

### 2.1 Census 2000

The objective of the Census 2000 SBE Operation was to provide an opportunity for people without conventional housing, including people experiencing homelessness, who may receive services at shelters, soup kitchens, or regularly scheduled mobile food vans and for persons living or staying in targeted non-sheltered outdoor locations to be included in Census 2000. Census 2000 service-based locations included the following types of GQ facilities:

**Emergency Shelters** – shelters that operate on a first-come, first-serve basis where people must leave in the morning with no guaranteed bed for the next night or they may have a bed for a specific time even if they have to leave the building every day. It could also include facilities that provide shelter during extreme cold weather, facilities for abused women, and facilities for runaway and neglected children.

**Transitional Shelters** – shelters that provide transitional housing programs with a maximum stay for respondents of up to two years and offers support services to promote self-sufficiency.

**Shelters for Children Who are Runaways, Neglected or Without Housing** – shelters and group homes that provide temporary sleeping facilities for juveniles.

**Hotels/Motels** – facilities where vouchers are accepted or operate under contract to provide shelter to people without conventional housing.

**Soup Kitchens** – soup kitchens, food lines, and programs for distributing prepared breakfasts, lunches, or dinners. These programs may be organized as food service lines, bag or box lunches, or tables where people are seated then served by program personnel. These programs may or may not have a place for respondents to sit and eat their meal.

**Regularly Scheduled Mobile Food Vans (RSMFVs)** – mobile food vans that are regularly scheduled to visit designated street locations with the primary purpose of providing food to people without conventional housing. (Every van stop was considered a GQ location).

**Targeted Non-Sheltered Outdoor Locations (TNSOLs)** – includes geographically identifiable outdoor locations, open to the elements, where people who do not usually receive services at soup kitchens, shelters, and regularly scheduled mobile food vans, might be living without paying to stay there. These sites must have a specific location description that will allow a census enumerator to physically locate the site. Not included in this universe are pay-for-use campgrounds, drop-in centers, post offices, hospital emergency rooms, all-night theaters, all-night diners, and any other commercial sites.

The POP was responsible for developing the enumeration frame of service-based locations and TNSOLs for the Census 2000 SBE Operation. During the spring of 1999, the Census Bureau sent letters to the highest elected officials at over 39,000 tribal, state, and local Governmental Units (GUs) and 1,700 national and state advocacy organizations, representing people without conventional housing, requesting the name, address, and contact information of service-based locations and information about the

presence of any known TNSOLs. Follow-up letters were sent to the non-respondents. The respondents that indicated that they had TNSOLs were sent another letter to request specific location descriptions and directions to the locations, since these types of locations typically do not have city-style addresses: house number, street name, and ZIP code.

The GEO provided the name and address information of the GUs in a file extract from the Geographic Program Participant database. The name and address information of the advocacy organizations was obtained from State Data Centers, Regional Census Centers (RCCs), local directories, office knowledge, and the Internet. In addition, the Census Bureau developed an Internet website to request mailing information about individuals and organizations that may have been able to provide names and addresses of service-based locations.

The Population and Housing Programs Branch (PHPB), under the POP, managed and controlled the information received from the government agencies and advocacy organizations through a check-in process to document which entities responded and provided the requested information to the Census Bureau and which entities did not respond. The RCCs geocoded the addresses for the TNSOLs and sent the geocoded file to the PHPB. The PHPB staff keyed the names and addresses of the service-based locations and the location descriptions of the TNSOLs into files and sent them to the Decennial Systems and Contracts Management Office (DSCMO) to update the Special Place/Group Quarters (SP/GQ) Master File.

The FLD sent a memorandum to the Regional Directors requesting them to contact members of the Federal-State Cooperative for Population Estimates and other state agencies to obtain address listings for group homes and migrant seasonal farmworker camps (bunk houses and dormitories). The DMD organized the responses in a data file and sent them to the DSCMO to be keyed and inventoried into the SP/GQ Master File. All of the TNSOL information received after the deadline for the final file transmission to the DSCMO was sent directly to the FLD to be included in the Census 2000 Local Knowledge Update Operation (Kehm, 1999).

The Census 2000 SBE Operation was conducted on March 27, 2000 at shelters, March 28, 2000 at soup kitchens and RSMFVs, and March 29, 2000 at TNSOLs. These were the designated dates to conduct the enumeration and there was no flexibility for changing or selecting an alternative date during this three day period. If the facility was closed on the designated date or the designated date to conduct the enumeration was problematic, the enumeration was not conducted at these locations.

The Census Bureau used two different data collection instruments to enumerate people at service-based locations for Census 2000. The Individual Census Questionnaire (ICQ) was the data collection instrument administered to people at soup kitchens and RSMFVs. This questionnaire was designed for the enumerator to conduct a person-to-person interview with the respondent. The Individual Census Report (ICR) was the data collection instrument administered to people at shelters and TNSOLs. This questionnaire was designed to be self-administered by the respondent.

During Census 2000, enumerators visited 14,817 service-based locations. It was concluded that the Census 2000 SBE Operation was an effective enumeration methodology to enumerate people, without conventional housing who may be experiencing homelessness, so they may be included in the census.

The recommendation out of Census 2000 was that an operation such as this should be planned and implemented for the next decennial census. (McNally, 2002).

## **2.2 2010 Census Service-Based Enumeration Operation Overview**

The Census Bureau implemented the recommendations from Census 2000 to include the SBE Operation in the next decennial census. The 2010 SBE Operation was conducted as a component of the 2010 Census Group Quarters Operations for the 2010 Census. The primary objective of the 2010 Census SBE Operation was to conduct the enumeration at service-based locations and targeted non-sheltered outdoor locations to provide people without conventional housing and people experiencing homelessness an opportunity to be included in the 2010 Census.

### **2.2.1 Group Quarters Operations in Preparation for the Service-Based Enumeration Operation**

Prior to conducting the enumeration at service-based locations, the Census Bureau conducted the following two field operations to prepare for the 2010 Census SBE Operation:

***Group Quarters Validation (GQV)*** – The 2010 Census GQV Operation was an address validation operation where field staff (listers) in the Early Local Census Offices visited addresses that were identified as Other Living Quarters (OLQs) during the 2010 Census Address Canvassing Operation and addresses identified as potential GQs by other selected sources.<sup>2</sup> During this operation, the listers administered the GQV questionnaire to the contact person at the OLQ to determine whether the address was a nonresidential unit, a housing unit, a transitory location, or a GQ (including a service-based GQ).

If the OLQ was validated as a shelter, the maximum number of people who could live or stay at the shelter was collected. If the OLQ was validated as a soup kitchen, the maximum number of people who could be served at a meal was collected. If the OLQ was validated as a RSMFV, the maximum number of people who could be served from the van was collected. The Census Bureau needed to know the maximum number of people that could live or be accommodated at the service-based locations to determine the number of enumerators required to conduct the enumeration. TNSOLs were out-of-scope and were not visited during this census operation. See the 2010 Census GQV Assessment Report (Williams and Barrett, 2012).

***Group Quarters Advance Visit (GQAV)*** – The 2010 Census GQAV Operation was the subsequent GQ field operation to the GQV Operation. This operation was conducted by Crew Leaders (CLs) in the Local Census Offices (LCOs). During GQAV, CLs visited the GQ address (including the SBE locations) and met with the contact person at the facility to inform them of the upcoming SBE Operation, discuss any privacy and confidentiality concerns related to personally identifiable information, and to identify any safety or security issues, such as restricted access, that may hinder the actual enumeration. The primary purpose of the advance visit was to obtain information about the facility in preparation for the enumeration. CLs gave the contact person an “Informational Packet” of census materials that included a SBE poster, SBE brochure, and an informational copy of the ICR questionnaire. Also included in the packet was the Facility Management access letter. The letter, addressed to the facility manager and

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<sup>2</sup> For a list of sources that provided addresses of potential GQs that were included in the workload universe for the 2010 GQV, see 2010 Census Group Quarters Validation (GQV) Assessment Study Plan – Williams and Barrett (2010).

signed by the director of the Census Bureau, emphasized the fact that the Census Bureau needed to include people living in GQs, people staying at facilities providing living accommodations such as shelters and facilities providing other services to people experiencing homelessness, such as the food services at soup kitchens and RSMVFs in the 2010 Census.

During the visit, the CLs conducted an interview with the contact person to obtain the expected population count for the facility in order to plan for the number of ICRs that would be required to enumerate the people at the service-based location. In addition, the CL collected information regarding the arrival time for the residents who lived at the shelters, which meal at the soup kitchens served the largest number of clients, the arrival and departure time of the RSMFV stops, and the hours the TNSOLs were expected to be occupied. They also confirmed the best date and time to conduct the enumeration at the service-based locations during the designated three day period, March 29 through March 31, 2010. TNSOLs were exempt from selecting a date other than the pre-designated day, March 31, 2010. However, TNSOL encampments could be enumerated at a different time other than midnight thru 7:00 a.m. on March 31, 2010.

As previously discussed, prior to the 2010 Census SBE Operation, the service-based GQs were visited by census workers who administered a questionnaire to the service provider during both the 2010 Census GQV and the 2010 Census GQAV Operations. These visits were extremely valuable as they provided an opportunity for service providers at the locations to ask questions about the census and gain an understanding of the enumeration process, including the various enumeration options. In addition, the interviews conducted during these visits with the service providers facilitated the opportunity for the Census Bureau to communicate with members of various organizations and explain the enumeration procedures, to obtain guidance regarding any issues at the facilities, and become aware of any special procedures that needed to be addressed at any of the service-based locations in preparation for the 2010 Census SBE Operation. (U.S. Census Bureau, 2009).

### **2.2.2 Service-Based Enumeration 2010 Census Definitions**

The GQ definitions for the 2010 Census were slightly modified from the GQ definitions that were used for Census 2000. Changes to the definitions were made so they could be more recognizable by industry professionals, and understood by both industry administrators and Census Bureau staff. In the descriptions for the service-based GQs for the 2010 Census, the phrase “people experiencing homelessness” was explicitly added to the definitions. This phrase was added to clarify the fact that the Census Bureau was targeting these locations to reach out to people experiencing homelessness.

The 2010 Census SBE locations were defined as follows:

***Emergency and Transitional Shelters (with Sleeping Facilities) for People Experiencing Homelessness:*** Facilities where people experiencing homelessness stay overnight that include:

- Shelters that operate on a first-come, first-served basis where people must leave in the morning and have no guaranteed bed for the next night,
- Shelters where people know that they have a bed for a specified period of time (even if they leave the building every day), and



- Shelters that provide temporary shelter (such as churches) during extremely cold weather. This category of shelters does not include shelters that operate only in the event of a natural disaster.

Examples of emergency and transitional shelters; missions; hotels and motels used to shelter people experiencing homelessness; shelters for children who are runaways, neglected, or experiencing homelessness; and similar places known to have people experiencing homelessness.

***Soup Kitchens and Regularly Scheduled Mobile Food Vans***

Includes soup kitchens that offer meals organized as food service lines, bagged or box lunches for people experiencing homelessness, and street locations where mobile food vans regularly stop to provide food to people experiencing homelessness.

***Targeted Non-Sheltered Outdoor Locations***

TNSOLs are places where people experiencing homelessness live without paying to stay. It also includes people who stay in pre-identified car, recreational vehicles (RV), and tent encampments. TNSOLs must have a specific location description; for example, “the Brooklyn Bridge at the corner of Bristol Drive,” “the 700 block of Taylor Street behind the old warehouse,” or the address of the parking lot being utilized (Lamas, 2009).

For the 2010 Census, the definition for TNSOLs was enhanced to include pre-identified car, RV, and tent encampments. The encampments were pre-identified by local government officials, advocacy organizations, and members of the census partnership programs. TNSOLs do not include established campgrounds or recreational vehicle parks where people most often are required to pay.

**2.2.3 Pre-Designated Enumerations Dates for the Service-Based Enumeration Operation**

The Census Bureau established pre-designated days, over a three-day period in March 2010, to conduct the 2010 Census SBE Operation. The pre-designated day for the enumeration at shelters for people experiencing homelessness was on Monday, March 29, 2010. Tuesday, March 30, 2010 was the pre-designated day to enumerate people at soup kitchens and RSMFVs. The pre-designated day to enumerate people at TNSOLs was Wednesday, March 31, 2010, in the early morning hours between midnight and 7:00 a.m.

The pre-designated time between midnight and 7:00 a.m. for conducting the TNSOL enumeration, allowed the enumerators to conduct the enumeration during a period when the majority of the people living or staying at TNSOLs were not transient. The primary method for enumerating people at the TNSOLs was for census workers to conduct an interview with the respondent. If the census workers were unable to conduct an interview because the people were asleep or otherwise unapproachable, the census workers enumerated the people by observation and they listed them on the ICR in the “Name” field as “Person 1”, “Person 2”, etc.

Although the Census Bureau attempted to enumerate the specific types of service-based locations on the pre-designated day, enhancements to the procedures for the 2010 Census allowed the service providers the flexibility to have their facility enumerated on any one of the three days during the enumeration period. The Census Bureau allowed this option taking into account that the facility may be closed on the

pre-designated enumeration day or perhaps the pre-designated enumeration day may have been problematic for the location.

It is important to note, that the enumeration date flexibility was not an option for TNSOLs, however, there was an exception for encampments. Encampments had flexibility for selecting the time to conduct the enumeration. The enumeration could be done on the evening of March 30, 2010 or during the early morning hours of March 31, 2010. Flexibility for changing the time to conduct the enumeration was allowed at encampments in consideration that many of the people may have been asleep during the regularly pre-designated time of the early morning hours of midnight and 7:00 a.m. on Wednesday, March 31, 2010. Flexibility with the enumeration time was advantageous to the Census Bureau because it allowed the census workers to enumerate these particular encampments when the residents were more likely to be awake.

#### **2.2.4 Schedule**

The baseline start date for the 2010 Census SBE Operation was March 29, 2010. The baseline end date was March 31, 2010. The actual start date was March 29, 2010 and the actual end date was April 1, 2010. The SBE Operation started as scheduled with the shelter enumeration beginning on March 29, 2010, the enumeration at soup kitchens and RSMFVs started as scheduled on March 30, 2010 and the TNSOL enumeration started as scheduled on March 31, 2010. Although the TNSOL enumeration was scheduled to start and end on March 31, 2010, it actually ended on April 1, 2010. The New York and Boston regions conducted TNSOL enumeration on the night of March 31, 2010 to the morning of April 1, 2010 due to inclement weather.

#### **2.2.5 Service-Based Enumeration BE Address Universe/Workload**

The list of addresses that were validated as service-based GQs during the 2010 Census GQV Operation and the SBE GQs added during the 2010 Census GQAV Operation comprised the initial SBE/GQ universe for the 2010 Census SBE Operation. Included in the field procedures was a process to add service-based locations, identified by stakeholders or LCO staff, to the existing workload during the operation. If a service-based GQ facility/location was identified during the GQAV Operation, prior to adding it to the SBE GQ workload, staff at the LCOs was instructed to browse the workload universe in the control system, Paper Based Operations Control System (PBOCS), to determine whether the address was already on the LCO's master address listing. If not, the census worker administered the GQV questionnaire to the service provider at the facility to correctly classify the facility and apply the correct GQ type code, and to geocode the address. In addition, they also collected the maximum population and the date and time to enumerate the facility.

The information collected about the newly identified service-based GQ was taken to the LCO and entered in the PBOCS. For every added service-based GQ, the PBOCS generated a temporary Processing ID. During the check-in process, the temporary Processing ID was scanned into PBOCS followed by scanning the barcode on the associated ICRs. The process of scanning the two data collection instruments was how the PBOCS electronically linked the GQ ID to the unique barcode on the ICR questionnaires that were completed by the respondents. The linkage was established to ensure that the respondents were counted at the correct service-based GQ facility. The only type of service-

based GQ that was allowed to be added beyond the end date of the SBE Operation was shelters, for people experiencing homelessness, that were open on April 1, 2010.

The estimated workload for the 2010 Census SBE Operation was 64,626 service-based locations. The initial workload for the 2010 Census SBE Operation was 42,829 service-based locations. The number of service-based GQs that were added to the initial workload was 26,763. Thus, the total number of service-based locations enumerated by the field staff at the LCOs during the 2010 Census SBE Operation was 69,592. This overage was primarily due to the number of TNSOLs added to the workload.

Note: The workload number enumerated by the field staff represents the number of SBE locations checked-out of PBOCS by the LCO staff during the 2010 Census Operation and does not represent the final 2010 Census SBE outcome results, as the response data from the ICRs and BCFs were later subject to post processing.

## **2.2.6 Service-Based Enumeration Automation/Data Collection**

### **2.2.6.1 Field Data Collection/Office Computing Environment**

The Field Data Collection/Office Computing Environment (FDCA/OCE) provided the automation resources and infrastructure which included the hardware, software, applications, and telecommunications that allowed the LCO staff to implement the 2010 Census FDCA Operations. FDCA received the address universe from the GEO and sent it to the LCOs via the OCE. In addition, the FDCA/OCE provided the functionality that allowed the field staff to print address listings, small format maps, assignment preparation worksheets, and reports to monitor and control the 2010 Census SBE Operation.

### **2.2.6.2 Decennial Applicant, Personnel and Payroll Systems**

The Decennial Applicant, Personnel, and Payroll System (DAPPS) was the automated control system accessed by the staff in the LCOs to process the payroll for the work performed on the 2010 Census operations. The staff used the payroll form D-308 to submit hours worked and any reimbursement for the mileage used to complete their work assignments. Staff working on the 2010 Census SBE Operation was instructed to enter task code “055” on their payroll form in order to track the actual cost of the SBE Operation.

### **2.2.6.3 Paper Based Operations and Control Systems**

The 2010 Census SBE Operation was a paper-based operation that was conducted throughout the 50 states, the District of Columbia, and Puerto Rico by field staff at the LCOs. PBOCS was the automated control system that the LCO staff used for assignment management and to monitor and control the field work. SBE Enumeration Record (Form D352.1) was generated in PBOCS for every serviced-based GQ in the enumeration frame. PBOCS applied the control number (Census ID) to each enumeration record.

#### **2.2.6.4 Decennial Response Integration System**

Once the SBE cases were checked-in from the field, they were checked out by the LCO office staff and sent to the NPC. The NPC stored the Enumeration Records and sent the ICRs to the Decennial Response Integration System (DRIS). In addition, the DRIS also received the linking file that was created in PBOCS which linked the ICRs to the associated GQ ID found on the Enumeration Record; Form D-352.1. The linkage was created to ensure that the people enumerated were counted at the correct SBE GQ. DRIS data captured the respondent data from the ICRs and created a GQ Add table which was sent to the GEO to update the Master Address File (MAF).

#### **2.2.7 Promotional Materials**

The Census Bureau developed promotional materials to raise awareness of the 2010 Census. For the 2010 Census SBE Operation, posters and brochures were the promotional materials designed to create awareness of the enumeration at service-based locations. The SBE brochure provided a high level overview of the 2010 Census SBE Operation, included information about the census and the uses of census data, provided statements regarding privacy concerns, and explained the descriptions for the types of service-based locations applicable to the 2010 Census SBE Operation. Included in the design of the brochure was a snapshot of the ICR. See Appendix E for the brochure.

The SBE posters highlighted the dates when the enumeration would take place, included a message encouraging participation in the census, and provided the Census Bureau's web address to be used to seek additional information about the 2010 Census. Included in the design of the poster was a snapshot of the ICR. These promotional materials were designed in English and translated and adapted in Spanish. These materials were printed by the Administrative Customer Services Division and sent to the NPC to be included in the kits that were sent to the LCOs. The promotional materials were given to the contact person at the service-based location during the 2010 Census GQAV Operation. See Appendix F for the poster.

#### **2.2.8 Service-Based Enumeration Training**

Staff from the Headquarters FLD GQ Branch created the manuals, training guides, and workbooks that were used to train the LCO staff on the procedures for the 2010 Census SBE Operation. The training materials were translated and adapted in Spanish for the LCO staff in Puerto Rico. CLs received three days of training which included the procedures for the CL duties and on the enumerator procedures to conduct the enumeration at GQs and service-based locations. Based on feedback from the GQE OIT lessons learned, it was suggested that the combined CL/enumerator training be extended from three days to five allowing more time for CLs to absorb the information regarding their duties as well as those of the enumerators. CLs were responsible to train the enumerators to conduct the 2010 Census GQE and SBE Operations.

The Census Bureau conducted verbatim training to ensure that the same instructions were conveyed to everyone receiving the training regardless of their location. The enumerators were cross trained to enumerate all types of GQs which also included the service-based GQs. Having the enumerators trained to conduct the enumeration on all GQ types enabled the Census Bureau to accommodate any last minute changes to the appointments made to conduct the enumeration.

The enumerators received two and one half days of formal training on the procedures for GQs and one half day of take home training on the procedures to conduct the enumeration at service-based locations. The CLs assigned enumerators to assignment areas within their Crew Leader District (CLD). CLs managed the enumerator assignments using the assignment management forms obtained from PBOCS.

Included in the procedural training for the 2010 Census SBE Operation was a sensitivity component to teach the enumerators how to approach people living in difficult circumstances and those experiencing homelessness. The enumerators were taught how to announce and identify themselves when approaching people in the outdoor locations, how to respect the environment the people live in, how to be non-judgmental of this population, and the importance of being aware of their safety while in the surroundings of the outdoor locations. In addition, the enumerator training included specific information about how to work with people that suffer from mental illness, substance abuse, and other types of psychological health concerns.

### **2.2.9 Enumeration Instrument**

The SBE Enumeration Record (Form D352.1) was the data collection instrument used to collect information relative to the SBE GQs. The Enumeration Record included a 14-digit Census ID barcode which was the control number for the SBE GQs. An Enumeration Record was printed from PBOCS for every SBE GQ. Information from the Enumeration Record, such as, the number of ICRs submitted for the SBE GQ and the date the enumeration was conducted was entered into PBOCS. In addition, the status of the address during the enumeration, the Unit Status Code, was collected for each SBE GQ and keyed into PBOCS by staff in the LCOs. This code was used to describe the status of the address during the enumeration and was entered into the PBOCS to be maintained on the Master Address File/Topologically Integrated Geographic Encoding and Referencing Database (MTdb) for future use.

The ICR, which is also referred to as the GQ enumeration questionnaire, was the data collection instrument used to collect individual respondent data during the 2010 Census SBE Operation at all service-based locations. This was unlike in Census 2000, where people at soup kitchens and RSMFVs were enumerated using the ICQ, and people at shelters and TNSOLs were enumerated using the ICR. Using two different enumeration questionnaires required two different procedures for the enumerators to learn and implement in the field. For the 2010 Census, the ICR was redesigned so that the same questionnaire could be used to interview respondents or allow respondents to complete on their own. The ICR was administered at all types of service-based GQs. Another important redesign to the ICR was on the back of the form in the “For Official Use Only” area. An “Answered by:” question followed by a check box selection of “Other” or “Respondent” was placed in this area of the form that was used to identify how the form was filled out. The enumerators were instructed to place a check mark on the appropriate box: to indicate how the form was filled out.

The ICR asked for name, sex, age, date of birth, Hispanic origin, race, and UHE address. For the SBE Operation, only people enumerated at soup kitchens and RSMFVs were eligible to claim a UHE. The UHE allowed respondents to include the address where they lived or stayed most of the time on the ICR.

Every ICR was designed to contain a unique 12-digit barcode that was printed on the form. The barcode was used to electronically link the questionnaire to the respective GQ 14 digit Census ID on the

Enumeration Record. The ICRs were electronically linked to their respective GQ by scanning the GQ ID on the Enumeration Record, then scanning the barcode of all of the associated ICRs. The ICRs were designed in English and translated and adapted into Spanish for Stateside and Puerto Rico use, respectively. (See Appendix B for the ICR)

### **2.2.10 Maps**

The small format paper maps that were used for the 2010 Census GQV and GQAV Operations were reused during the 2010 Census SBE Operation. These maps were used to help the LCO field staff find the SBE locations. However, staff at each LCO had the ability to print additional small format maps from the FDCA/OCE if needed.

### **2.2.11 Partnership**

The 2010 Census Partnership staff worked with local governments and advocacy organizations to identify service-based locations and TNSOLs within the communities they were assigned to. The Partnership Specialist met with contacts within their community to collect site locations for TNSOLs and RSMFVs. In addition, the Partnership Assistants (PA) were extremely helpful with obtaining RSMFV and TNSOL information by working in the field identifying and collecting information from grass roots organizations and local level contacts to obtain locations where car, RV, and tent encampments may exist. The Partnership staff used the form D-353 TNSOL/GQAV to collect data about the TNSOLS and used form D-353PA MFV/GQAV to collect data about RSMFVs. They also worked with various organizations to identify specific recruiting needs, such as acquiring people with specific language skills and identifying cultural facilitators. (See Appendices C and D)

### **2.2.12 2010 Census Service-Based Enumeration Operational Enhancements**

For the 2010 Census, the following operational enhancements were implemented during the 2010 SBE Operation:

- SBE locations were enumerated over three days at the end of March, 2010. During those three days, service providers at shelters, for people experiencing homelessness, soup kitchens and RSMFVs were given the flexibility in the dates on which the enumeration could be conducted. Service providers were allowed to select any day during the three day SBE enumeration period to have their location enumerated in order to minimize the possibility of the location being excluded in the census.
- The 2010 SBE Operation was conducted with a redesigned enumeration questionnaire, the ICR. This questionnaire was used to enumerate people at all SBE locations.
- The enumerator training on the procedures for conducting the enumeration at GQs and service-based locations was combined into one training session.
- All enumerators were trained on the enumeration procedures for all GQ types which included service-based GQs.
- CLs were trained on the GQE and SBE procedures for the CL responsibilities as well as the procedures on GQE and SBE for the enumerator duties.

- A defined process for adding service-based locations was implemented. Service-based locations could be added at any time during the three day enumeration period. Only shelters that were open on April 1, 2010 could be added once the SBE Operation was complete.
- The service-based locations included the same types of facilities as those from Census 2000 however; the SBE definition for TNSOLs was enhanced to include people living in car, RV and tent encampments.
- The ICR was redesigned and was the only data collection instrument administered to respondents at all SBE locations. Unlike Census 2000, the ICQ was administered at soup kitchens and RSMFVs, and the ICR was administered at shelters and TNSOLs.
- The address file for updating the shelters, for people experiencing homelessness, and soup kitchens and RSMFVs was done by staff in the NPC who conducted Internet research to identify these locations and include them in the SBE enumeration frame.
- Transient Night, the operation to conduct the enumeration at transitory locations under the SBE Operation for Census 2000, was removed from the overall 2010 Census SBE Operation and was implemented as a separate operation to enumerate people at transitory locations, 2010 Census Enumeration at Transitory Locations Operation.

### **2.2.13 Conducting the 2010 Census Service-Based Enumeration Operation**

Immediately after the GQE/SBE training sessions, the CLs assigned field work to the enumerators to conduct the enumeration. Since the SBE Operation was the first phase of the 2010 Census GQ Enumeration Operations, enumerators were immediately assigned to SBE cases. Enumerators visited the service-based addresses on their assignment list, met with the contact person, and began conducting the enumeration.

The enumerators provided every respondent a confidentiality notice that addressed information about the Privacy Act and an ICR to collect the respondents' census information. At shelters, the ICR and confidentiality notice were placed in an envelope and given to the residents to be completed or given to the GQ contact person to be distributed to the residents. The enumerators went back to the SBE GQ address at an agreed upon time to pick up the completed ICRs. At soup kitchens and RSMFVs, the enumerators conducted an interview with the clients by administering the ICR. People enumerated at soup kitchens and RSMFVs were eligible to claim a UHE. At TNSOLs, in situations where the enumerators were unable to conduct an interview with a person, they enumerated the person by observation. In addition, enumerators were required to wear safety vests and carry flashlights while conducting the enumeration at TNSOLs. In many areas, culture facilitators, indigenous to the outdoor locations, assisted the enumerators in finding the locations.

When the enumerators completed their enumeration work assignments, they met with their CL to turn in the completed case (enumeration record and ICRs). The CLs took the completed work to the LCO to be checked-in. Each completed case was checked into PBOCS by scanning or keying the barcode that contained the GQ ID of the D-352.1 Enumeration Record, followed by scanning or keying the unique barcodes on all of the ICRs associated with that case. In addition, the number of ICRs and the outcome code of the service-based address were entered into PBOCS. The electronic linkage was created in PBOCS by scanning the barcodes from the enumeration record and the ICRs. The linkage was done to

ensure that the people were associated with the correct GQ. Once this check-in process was complete, each case was checked-out (boxed and shipped) at the LCO and sent to the NPC. The enumeration record was stored at the NPC and the ICRs were sent to DRIS to data capture the respondent entries from the ICRs. The 2010 Census SBE Operation did not include a reinterview component.

#### **2.2.14 2010 Census Be Counted Forms for People Experiencing Homelessness**

In addition to the 2010 Census SBE Operation performed at specific service-based locations, people experiencing homelessness could also participate in the 2010 Census by completing a BCF. The BCF was an unaddressed census questionnaire that the Census Bureau placed at various public locations, Be Counted sites and Questionnaire Assistance Centers, throughout the country. This questionnaire was used to provide an opportunity for people who believed they were not counted, not interviewed by a census enumerator, people with no address, or people who thought they may be left off the 2010 Census household questionnaire for their address, to be counted in the 2010 Census. People who indicated on the BCF that they had no address as of April 1, 2010, and met the criteria of providing two or more of the five demographic data characteristics, were counted in the census and included in the SBE population for that particular geographical area.

#### **2.2.15 2010 Census Non-ID Processing**

The 2010 Census Non-ID Processing Operation received respondent-provided address information from questionnaires without a pre-identified census identification number from several census operations including the 2010 Census SBE Operation. These addresses became Non-ID cases and went through a series of steps in an attempt to assign a Census ID and/or geographic codes. For the 2010 Census, Non-ID cases were classified as follows:

- Type A - These cases originated from questionnaires that provided UHE addresses. These cases came from ICRs from GQ types that were eligible to claim a UHE. For SBE, only soup kitchens and RSMFVs were eligible for further processing of UHEs. These addresses required a block level geocode in order for further processing to occur to determine if the UHE address and persons were already included in the census.
- Type B - These cases originated only from BCFs which the respondent indicated that they had no usual home on April 1, 2010. Respondents were asked to report the address or location information where they stayed on Census day. These cases required at least a state and county level geocode in order to be added to the GQ universe and were proportionately allocated to SBE locations or other GQ types as appropriate.
- Type C - These were enumerator generated “adds” from field operations. For these new added units the enumerator provided a block level geocode for further processing to determine if these “adds” were valid to be included in the census.

#### **2.2.16 2010 Census Service-Based Enumeration Operational Challenges**

The greatest obstacle experienced with the Census Bureau’s attempts to count this segment of the population was finding the TNSOLs where people experiencing homelessness lived or stayed and



capturing their demographic data such as age, Hispanic Origin and race. In addition, the Census Bureau placed great emphasis on being cautiously aware of safety issues for the census workers. Another issue that faced people experiencing homelessness was the fact that for many jurisdictions; it was illegal to sleep in public areas. Therefore, it became difficult for the census workers to find some of the people experiencing homelessness because they may have been fearful of being fined or arrested for doing so.

### 2.2.17 2010 Census Service-Based Enumeration Operational Successes

People experiencing homelessness were counted in a variety of living situations; however, the 2010 Census SBE Operation was an excellent opportunity for the Census Bureau to provide people experiencing homelessness to be enumerated at service-based locations and targeted non-sheltered outdoor locations and included in the census. The Census Bureau tabulated 422,972 persons at 18,527 service-based locations during this operation.

### 2.3 Service-Based Enumeration Operational Expense

The 2010 Census SBE Operation was scheduled to be conducted over a period of three days from March 29 through March 31, 2010. The DMD Cost Model was used to obtain the estimates for the cost and staffing. The LCO staff was instructed to use task code “55” for all work activities associated with SBE Operation in order to charge the activities for the work performed for this operation to the correct budget line. The 2010 Census SBE Operation budgeted amount was \$10.6M and the actual expense was \$10.8M. The budget was overspent by \$244K. The overrun was due to the cost of employing additional enumerators for the high number of unanticipated TNSOLs.

**Table 2.3 Service-Based Enumeration Operational Expense**

Component	Budget	Cost (4/3/10)	% of Total Budget Used	Variance
<b>Production Total</b>	<b>\$10,609,324</b>	<b>\$10,853,325</b>	<b>102.30%</b>	<b>(\$244,001)</b>

Source: C&P Report (April 5, 2010)

### 2.4 Training Staff Authorization

All of the enumerators assigned to work on the 2010 Census GQ Operations, including the SBE component, were trained on the procedures to enumerate all GQ (SBE and GQE) types in order for them to be able to conduct the enumeration at any GQ type assigned to them. Training for SBE was a component of the GQE training and was not conducted separately. There was 48,459 staff members trained to conduct the 2010 Census GQE/SBE Operation. The training cost for the 2010 Census SBE Operation was not a separate cost but was included in the cost for GQE and Military (MIL) training. The cost of training the entire GQ staff, which includes training hours and miles, can be found in the 2010 Census Group Quarters Enumeration Assessment Report.

**Table 2.4 Training Staff Authorization**

Employee Type	DMD Cost Model Training Staff (with Frontloading)	FLD Staffing Authorization (with Frontloading)	Staff invited to Training as of 3/31/2010	Trained Staff 3/21 to 3/27
Trained Staff (SBE, GQE, MIL)	50,905	60,534	61,438	48,459

Source: 2010 Weekly DLG Report (April 7, 2010)

**2.5 Service-Based Enumeration Local Census Office Staffing**

The 2010 Census SBE Operation was completed by field staff in all of the 486 Stateside LCOs and the eight LCOs in Puerto Rico. Staffing positions in the LCOs included a GQ Supervisor, CLs, and enumerators. Staffing authorization specifically for the 2010 Census SBE Operation was increased due to the number of TNSOLs added during the 2010 Census GQAV Operation and the number of late “adds” sent by the NPC to the LCOs from the GUs, advocates, and partnership staff. As described below, there were 31,874 enumerators conducting the 2010 Census SBE Operation.

**Table 2.5 Service-Based Enumeration Local Census Office Staffing**

Employee Type	DMD Cost Model Training Staff (with Frontloading)	FLD Staffing Authorization (with Frontloading)	Staff invited to Training as of 3/31/2010	Working Staff as of 3/29/10 – 3/31/10
			(1)	(2)
Crew Leaders	2,486	1,016		2,332
Enumerators	48,419	59,518	*61,438	31,874
GQ Supervisor	494	494		543
<b>Total Field Staff</b>	<b>51,399</b>	<b>61,028</b>	<b>61,438</b>	<b>34,749</b>

**Column Notes:**

1) FLD Staff invited to training - Total Enrolled (The number of applicants who were offered a position and the LCO administrative staff enrolled the applicant in a training session. This also means that the applicant accepted the position and said “yes” they could attend this training session. This number remains the same and does not change unless an applicant is deleted (dropped or indicated as a no show) from a training class for some reason).

2) Employees Working - This column returns data for the number of employees who submitted a D-308 for the position, time period and task code. This is a “real time” report and changes as D-308s are entered into DAPPS.

\* Staffing numbers authorization was increased based upon the rate of adds for TNSOLs that occurred during GQAV.

Source: 2010 Weekly DLG Report (April 14, 2010)

### 3. Methodology

The results and findings for the 2010 Census Service-Based Enumeration Assessment Report were based on the methods and the data sources listed below.

#### 3.1 Data Sources Used and Purpose

The following lists the data sources and specific files that were used to answer the assessment questions and provides information about the standard topic questions e.g., workload, schedule, automation results, and findings from lessons learned.

- **2010 GQE OIT Lessons Learned**  
Provided documentation about project management, data quality, and data accuracy regarding successes, issues and recommended continued practices or corrective actions based on lessons learned for the 2010 Census SBE program for the next decennial census in 2020.
- **Census Edited File (CEF) GQ Person**  
Provided total population counts and response data for persons counted in service-based GQs after editing.
- **Census Unedited File (CUF) GQ Person**  
Provided total population counts and response data for persons counted in service-based GQs before editing.
- **Cost and Progress Reports (C&P)**  
Provided data regarding the cost and progress for the 2010 Census SBE Operation.
- **Decennial Response File (DRF)**  
Provided the person and SBE records from the collection of respondent data.
- **Decennial Systems and Processing Office (DSPO) Files**  
*SBE Unduplication Results File* –Provided the results of the unduplication process.  
*Be Counted Form Geographic Allocation Results File* -- Provided the results of the allocation of persons from BCFs that generated Type B Non-ID cases<sup>3</sup> to SBE GQs or other GQ types.
- **Non-ID Process Feedback Table (NIFT)**  
Provided the Non-ID Processing results for the Type A and Type B cases.
- **PBOCS Output files**  
Provided GQ linkage file, population and status file, GQ add table for new adds, Address Update File (ADDUP) file for GQ address updates, and auxiliary data output file for the assessment. The system collected GQ updates from data populated on the Enumeration Record including the actual population count and status of the GQ address.

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<sup>3</sup> A Type B Non-ID case was generated from a BCF where the respondent reported no UHE on April 1, 2010.

## 3.2 Quality Assurance Procedures

Census Bureau standards and quality process procedures were applied throughout the creation of this report. These quality process procedures defined how we determined evaluation methods, created specifications for project procedures and software, developed clerical and computer procedures, analyzed data, and prepared this report.

## 3.3 Questions to Be Answered

The assessment report answers specific questions related to the 2010 Census SBE Operation in addition to the standard topic questions. The specific questions identified below are unique to the 2010 Census SBE Operation. These questions were selected and agreed upon by the 2010 Census GQE OIT.

Data for all service-based GQs in the United States and Puerto Rico were combined as one total to answer the following assessment questions.

### 1. How many Service-Based Enumeration locations were visited?

This count provided the number of service-based locations that were visited during the 2010 Census SBE operation. The number of SBE locations with no data capture person records is also included in this count.

Source: *DRF*

### 2. How many person records were data captured (prior to the unduplication process) at each service type location?

This count provided the total number of ICRs data captured prior to the unduplication process for data captured persons at each service type location. Persons at soup kitchens and RSMFVs who reported a UHE that were eligible for Non-ID processing were not included in the SBE universe.

Source: *DRF*

### 3. How many of the demographic characteristics for data captured persons were collected during the 2010 Census Service-Based Enumeration Operation?

This count provided the number of data captured person records with zero, one, two, three, four, or five demographic characteristics collected during the 2010 Census SBE Operation by service type. The five demographic characteristics are: Name, Sex, Age and/or Date of Birth, Hispanic Origin, and Race. The rate of item nonresponse for each of the demographic items was also determined and compared among the service-based locations.

Source: *DRF*

### 4. What was the rate of item nonresponse for each of the demographic characteristics by type of Service-Based location?

The rate of item nonresponse for each of the demographic items was determined and compared among the service-based locations. The rate of item nonresponse was determined by identifying the

number of data captured records that had a blank response in the fields for each of the following demographic characteristics on the ICR, and then dividing the number by the total number of data captured person record, and multiplied by a percent. Demographic characteristics include; last name only, first and last name, sex, age/year of birth, Hispanic Origin, and race.

Source: *DRF*

5. How many persons filled out their forms themselves and how many were filled out by other means by type of Service-Based Enumeration location?

In order to determine how the form was filled out, we referred to the information on the back of the ICR in the “For Official Use Only” section. In this section, Item D “Answered by” contained two check boxes, “Respondent” or “Other” that indicated how the form was filled out. The results of Item D were used to produce the count for the number of residents who filled out their forms themselves or by an enumerator interview, versus being completed by other means, which is use of administrative records, a knowledgeable person, or by enumerator observation. This distribution was shown for data captured persons enumerated on ICRs by type of service- based location.

Source: *DRF*

6. How many persons were added to the Service-Based Enumeration Universe from Be Counted Forms?

This count includes those persons enumerated on BCFs who reported no UHE on April 1, 2010 and were successfully geocoded to a state and county during Non-ID Processing. These person records were associated with Type B Non-ID cases that went through the header coding stage of Non-ID Processing where a state and county were assigned to the address. The DSPO used an algorithm, as specified by the DSSD, to allocate BCF persons to GQs proportional to the number of persons in each of the GQs where first priority was given to SBE GQs. If there were no SBE GQs in the county where the BCF person was geocoded, the person was allocated to other GQ types. The DSPO provided the DSSD with results of the allocation.

Source: *Be Counted Form Geographic Allocation Results*

7. How many person records were unduplicated during data processing?

The unduplication universe included persons without a UHE who may have been enumerated at more than one SBE GQ. The unduplication universe also included BCF persons (Non-ID Type B cases) that were successfully coded to a state and county. The BCF persons were included in the unduplication universe after the DSPO’s geographic allocation process. When the DSPO’s geographic allocation process was complete, the DSPO conducted an automated matching process to identify person records that were duplicates. Results from the unduplication process provided the number of duplicate person records that were not counted in the 2010 Census and the number of records that had insufficient versus sufficient data to conduct the unduplication processing that were counted in the 2010 Census.

Source: *The SBE Unduplication Results File from DSPO*

8. How many persons reported a valid Usual Home Elsewhere (UHE) at soup kitchens and regularly scheduled mobile food vans?

This count provided the number of ICRs that contained a valid UHE for persons at soup kitchens and RSMFVs that were eligible for Non-ID Processing. Persons who indicated a valid UHE were tabulated at the UHE address instead of the SBE address when certain conditions were met.

Source: *NIFT and CUF*

9. How many locations and people were tabulated in the final 2010 Census Service-Based Enumeration Operation by service type after post processing?

The final population counts and location counts by service type were based on the count of persons in SBE GQs after the unduplication process. These counts included the number of persons enumerated during the 2010 Census SBE Operation and persons enumerated on BCFs who were allocated to a SBE GQ.

Source: *CEF*

10. How does the final population count compare between Census 2000 and the 2010 Census by type of Service-Based Enumeration location?

The SBE final population counts between the Census 2000 and the 2010 Census were compared using the following formula to determine whether there was an increase or decrease in percent change by service type. This formula was used to calculate the percent change rate (Jonas, 2003).

$$\% \text{ Change} = \frac{2010 \text{ Census People Enum} - \text{Census 2000 People Enum}}{\text{Census 2000 People Enum}} * 100$$

Source: *2000 GQE Evaluation Report*

### **3.4 Unduplication Methodology of the Service-Base Enumeration Universe**

Since the 2010 Census SBE Operation was conducted over a three day period, it was possible, for example, to enumerate a person at an emergency or transitional shelter and a soup kitchen and/or regularly scheduled mobile food van. It was also possible for a person who was enumerated at a service-based location to fill out a BCF. As in Census 2000, an attempt was made to unduplicate persons in the SBE universe and count each person only once in the census. Based on specifications from the DSSD, the DSPO performed the following steps to identify duplicate persons and remove them accordingly from the SBE universe. (Alberti, 2009).

#### *1. Identified Person Records to be included in the Unduplication Universe*

Forms that were included in the unduplication universe were:

- a.) ICRs from emergency and transitional shelters, soup kitchens, regularly scheduled mobile food vans and targeted non-sheltered outdoor locations and,
- b.) BCFs that generated Type B Non-ID cases that were successfully header coded to a state and county when the BCF persons did not report a usual home on April 1, 2010.

In order to be included in the unduplication universe all person records were required to contain:

- a) At least three characters combined in the first and last name fields and
- b) At least two person characteristics, one of which was age or date of birth.

## 2. *Conducted Computer Person Matching to Identify Duplicates*

Duplicate records were identified using the standardized demographic data. Erroneous duplicates were minimized by treating the first and last names as blank when certain pseudonyms were used. Otherwise, duplicates could have resulted when enumerators used pseudonyms to identify SBE residents or when respondents used pseudonyms in filling out BCFs. The first and/or last name was treated as blank if it matched a certain set of words such as “Person,” “Refused,” “Unknown,” and so on. For a complete list of the pseudonyms, see Alberti, 2009.

Records that were “exact matches” or “exact subset matches” were identified first. A probabilistic matching methodology developed by the Statistical Research Division of the Census Bureau to identify additional sets of potential matched records was used. A final weight was assigned to each pair of person records identified as potential matches. Agreement weights had positive values and disagreement weights had negative values. Variables that were missing from one of the two person records involved in the comparison were assigned the weight of zero. A final weight assigned to the pair of person records was the sum of the agreement and disagreement weights for each matching characteristic.

One person record was selected as the surviving person record by applying specific criteria in the order listed below:

- GQ versus BCF,
- UHE versus Non-UHE,
- GQ Type Code – pick person with the lowest GQ type code, and
- Number of demographic characteristics filled.

## 3. *Output Pairs of Potential Matches for Professional Review*

The DSSD staff reviewed the lists of potential matches to determine those pairs of records that were definite matches or non-matches. Matches were determined on whether or not the first and last name was noncontradictory, the age was within one year of each other and if the date of birth was noncontradictory. The DSSD staff also determined a cutoff weight value (1.67) based on this review. Pairs of person records with a final weight greater than the cutoff were considered as matches.

## 4. *Determine Duplicate Person Records to be Removed from the 2010 Census*

The DSPO staff compared the final weights for each pair of person records against the cutoff weight value to determine records that were duplicates. Pairs of records with a final weight value at or greater than the cutoff weight value were identified as duplicates and were NOT counted in the 2010 Census. Pairs of person records with a final weight value less than the cutoff weight value were considered as unique records and were counted in the 2010 Census.

## 4. Limitations

It is important to note that the 2010 Census SBE Operation does not produce a count of the homeless population. The results in this assessment report reflects only the number of people experiencing homelessness that were found at service-based locations and TNSOLs during the three day period of the SBE Operation.

The assessment report shows results from the United States and Puerto Rico as one combined total by three categories, shelters, soup kitchens and RSMFVs combined, and TNSOLs. The assessment results used unpublished data from various 2010 Census files as was described in section 3.1 “Data Sources Used and Purpose.” However, information for the population in Emergency and Transitional Shelters (with Sleeping Facilities) for People Experiencing Homelessness is available for the general public through the Summary File 1 (SF1). All other SBE population, which is also available for the general public, is included in the “Other Non-institutional Group Quarters” category. State data were released first followed by national level data. In addition to state level data, the SF1 data is available at different levels of geography such as county, incorporated places, American Indian Reservations, tracts, and other geographic components.

The assessment report results include data captured person records from ICRs and certain BCFs that were linked or allocated to a SBE GQ. As in Census 2000, a portion of the ICRs that were completed at service-based locations were NOT data captured, when those ICRs could not be linked to a specific SBE location. This assessment report provides results for only the ICRs that were data captured and only those BCF data captured records allocated to a SBE GQ.

UHE addresses from the information received from people enumerated at soup kitchens and RSMFVs were further processed. Although this assessment report provides results on how many persons at these locations indicated a UHE and provided a valid, geocodable UHE address, the assessment does not provide results of how many persons in this universe were counted at housing units and removed from the SBE universe.

During Census 2000, enumerators entered codes in the “Just In Case” (box) on the back of the ICR to uniquely identify how the form was filled out. A specific code indicated whether the form was filled out by the respondent themselves, an enumerator interview, using administrative records, or other means (Jonas, 2003). For the 2010 Census, in an attempt to make it easier for the enumerator to identify how the ICR was filled out, Item D “Answered by” was added in the “For Official Use Only” section on the back of the ICR. However, it only contained two check boxes “Respondent” or “Other.” Thus we have no way of knowing with certainty when administrative records were used since the data pertaining to “Other” included the use of administrative records, filled out by a knowledgeable person or some other means such as by observation. If the Respondent box was checked, it indicated that the respondent filled out the form themselves or it was completed by an enumerator interview. The “Other” check box was used as a proxy to determine the number of ICRs that may have been filled out through the use of administrative records.



## 5. Service-Based Enumeration Assessment Question Results

### 5.1. How many Service-Based Enumeration locations were visited?

Table 5.1 provides the number of service-based locations visited during the 2010 SBE Operation, as well as a distribution of the workload by service-based type.

There were a total of 18,918 locations visited during the 2010 Census SBE Operation which was about 4,000 more SBE locations visited than during Census 2000. During the Census 2000 SBE Operation, 14,817 SBE locations were visited.<sup>4</sup> The difference was attributed to the increase in the number of pre-identified TNSOLs which included car, RV, and tent encampment locations in the 2010 Census. Almost half (47 percent) of the SBE locations were TNSOLs, approximately 35 percent were shelters and the remaining 19 percent were soup kitchens and RSMFVs.

Of the 18,918 SBE locations visited, a total of 724 SBE locations had a zero population count. Shelters (41 percent) and TNSOLs (42 percent) were primarily responsible for these occurrences.

**Table 5.1 Service Locations Visited During Service-Base Enumeration by Service Type**

Service Type Location	Total Locations Visited During SBE		Least One Data Captured Person		Locations with No Data Captured Persons (Zero Population)	
	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total Number of SBE Locations</b>	<b>18,918</b>	<b>100.0</b>	<b>18,194</b>	<b>100.0</b>	<b>724</b>	<b>100.0</b>
Shelters	6,602	34.9	6,306	34.7	296	40.9
Soup Kitchens and Regularly Scheduled Mobile Food Vans	3,524	18.6	3,399	18.7	125	17.3
Targeted Non-Sheltered Outdoor Locations	8,792	46.5	8,489	46.7	303	41.9
*Counts and percentages are unweighted.						
†Percentages may not sum to 100.0 due to rounding.						
Source: DRF GQ Person						

Note: The total number of 18,918 locations visited represents the results of data captured records. Actually, the LCO staff visited 69,592 service-based locations (see section 2.2.5 “SBE Address Universe/Workload”). However, according to the PBOCS, approximately 73 percent of these serviced-based locations were: unknown, refusals, deemed dangerous, unable to locate in the assigned block, duplicate locations, nonresidential, or vacant or closed at the time of the enumerators’ visit. As specified, these locations were not data captured.

<sup>4</sup> See McNally 2002, “Census 2000 Evaluation E.6 Service Based Enumeration Final Report” dated 11/6/2002.

**5.2. How many person records were data captured (prior to the unduplication process) at each service type location?**

Table 5.2 shows the total number of person records data captured prior to the unduplication process at each service type location. It is important to note that the data do not include persons at soup kitchens and RSMFs, who reported a valid UHE, which were removed from the SBE universe. For a discussion on how many persons at soup kitchens and RSMFVs reported valid UHEs refer to section 5.8.

There were a total of 459,772 data captured person records counted at 18,194 service-based locations from the 2010 Census SBE Operation. As in Census 2000 (90 percent<sup>4</sup>), the majority (91.8 percent) of the data captured persons in the 2010 Census were from shelters, soup kitchens and RSMFVs. The remaining eight percent of data captured person records came from TNSOLs, about half of SBE locations.

**Table 5.2 Person Records Data Captured by Type of SBE Location**

Type of SBE Service Location	Data Captured Persons		SBE Locations	
	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total</b>	<b>459,772</b>	<b>100.0</b>	<b>18,194</b>	<b>100.0</b>
Shelters	214,094	46.6	6,306	34.7
Soup Kitchens and Regularly Scheduled Mobile Food Vans	207,683	45.2	3,399	18.7
Targeted Non-Sheltered Outdoor Locations	37,995	8.3	8,489	46.7
*Counts and percentages are unweighted.				
+Percentages may not sum to 100.0 due to rounding.				
Source: DRF GQ Person				

### **5.3. How many of the demographic characteristics for data captured persons were collected during the 2010 Census Service-Based Enumeration Operation?**

Table 5.3 provides the number of data captured person records that had zero, one, two, three, four, or five demographic characteristics collected during the 2010 Census SBE Operation by service type. The table also shows SBE data captured records that were considered “data-defined”<sup>5</sup> and those that were not data-defined. Data-defined persons represent the least amount of demographic characteristics that a person record can have and still be legitimate. SBE data captured person records were considered data-defined if they contained two of the following five demographic characteristics;

- Name<sup>6</sup>,
- Sex,
- Age and/or year of birth,
- Hispanic origin, and/or
- Race.

Approximately 97.2 percent of the data captured person records collected during the 2010 Census SBE Operation had at least two demographic characteristics, thus considered as data-defined persons. In the Census 2000 SBE Operation, almost all (99 percent)<sup>7</sup> of the data captured person records were considered as data-defined persons. TNSOLs had the largest percentage (13.5) of data captured person records with insufficient data to be considered as data-defined among the service types. This percentage was a substantial increase in percentage points over Census 2000 where less than two percent<sup>8</sup> of persons at TNSOLs were non data-defined.

Approximately 66.3 percent of the 214,094 data captured person records at shelters and 61.2 percent of the 207,683 data captured records at soup kitchens and RSMFVs contained all five demographic characteristics. Over a third (36.3 percent) of the 37,995 data captured person records at TNSOLs had all five data characteristics filled. In the Census 2000 SBE Operation, each of the three service-based locations had a greater percentage of their total number of data captured person records that contained all five demographic characteristics than the 2010 Census. The Census 2000 SBE Operation found that shelters had about 75 percent, soup kitchens and RSMFVs had 71 percent and TNSOLs had 57 percent of their total number of data captured person records with all five demographic characteristics.<sup>9</sup>

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<sup>5</sup> Data-defined person record is an important entity when counting persons at housing units. For GQs, the data-defined entity is irrelevant since there is no minimum amount of demographic data for a GQ person record to be considered legitimate. If a person record was data captured in the GQE universe, regardless of the number of demographic characteristics the record contained, it was considered valid unless the record was invalidated during data processing. The PP\_DDP variable on the GQ DRF Person file was statically assigned “1” for all valid GQ person records. (DSPO)

<sup>6</sup> Although “Name” was not a demographic characteristic, it was treated as such in this report.

<sup>7</sup> See McNally 2002, “Census 2000. Evaluation E.6 Service Based Enumeration Final Report” dated 11/6/2002.

<sup>8</sup> Ibid

<sup>9</sup> Ibid

Overall there were 13,008 (2.8 percent) of the 459,772 data captured person records that were non data-defined, that is, had one or no demographic characteristics collected. In Census 2000, approximately 1.2 percent of the 258,637 data captured person records were non data-defined.<sup>10</sup>

**Table 5.3 Number of Demographic Characteristics for Data Captured Person Records by Type of Service Location**

	Total Data Captured Person Records		Shelters		Soup Kitchens and Regularly Scheduled Mobile Food Vans		Targeted Non-Sheltered Outdoor Locations	
	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total Data Captured Person Records</b>	<b>459,772</b>	<b>100.0</b>	<b>214,094</b>	<b>100.0</b>	<b>207,683</b>	<b>100.0</b>	<b>37,995</b>	<b>100.0</b>
<i>Total Non Data-Defined Person Records</i>	<i>13,008</i>	<i>2.8</i>	<i>2,880</i>	<i>1.3</i>	<i>4,997</i>	<i>2.4</i>	<i>5,131</i>	<i>13.5</i>
No Data Characteristics	2,928	0.6	1,576	0.7	1,038	0.5	314	0.8
One Data Characteristic	10,080	2.2	1,304	0.6	3,959	1.9	4,817	12.7
<i>Total Data-Defined Person Records</i>	<i>446,764</i>	<i>97.2</i>	<i>211,214</i>	<i>98.7</i>	<i>202,686</i>	<i>97.6</i>	<i>32,864</i>	<i>86.5</i>
Two Data Characteristics	12,894	2.8	3,979	1.9	6,562	3.2	2,353	6.2
Three Data Characteristics	52,434	11.4	25,034	11.7	21,216	10.2	6,184	16.3
Four Data Characteristics	100,077	21.8	40,275	18.8	49,252	23.7	10,550	27.8
Five Data Characteristics	281,359	61.2	141,926	66.3	125,656	60.5	13,777	36.3
* Counts and percentages are unweighted. † Percentages may not sum to 100.0 due to rounding. Source: DRF GQ Person								

<sup>10</sup> See McNally, 2002, "Evaluation E.6 Census 2000 Service-Based Enumeration Final Report" dated 11/6/2002.

#### **5.4 What was the rate of item nonresponse for each of the demographic characteristics by type of Service-Based Enumeration location?**

Table 5.4 shows the rate of item nonresponse for each of the demographic items for all SBE forms. As expected, TNSOLs had a substantially higher rate of item nonresponse than the other two SBE service types for all demographic characteristics, except for Both First and Last Name (2.7 percent) fields. The reason for the low item nonresponse in the Both First and Last Name fields was that enumerators were instructed to enter “Person” in the Last Name field and the number in the First Name field on the ICR if they were unable to obtain a name.

As mentioned earlier, the greatest challenge was enumerating and capturing demographic data for people at TNSOLs where people experiencing homelessness lived or stayed. The item nonresponse rate for TNSOLs for the other demographic characteristics (i.e., other than name) ranged from about seven percent to 49 percent. Enumerators only interviewed persons who were awake and approachable. Since enumeration for this segment of the population was conducted late at night and the early morning hours, (except at encampments) most residents were asleep and /or covered up which made collecting demographic data by observation, specifically age, Hispanic origin, and race difficult.

- The item nonresponse rate for age data item appears to be most serious for TNSOLs at the rate of 49 percent. This rate was five times as high as the item nonresponse rate for shelters (ten percent) and doubled the item nonresponse rate for soup kitchens and RSMFVs (25 percent).
- The Hispanic origin item nonresponse rate for TNSOLs (38 percent) was the highest among the SBE locations. This rate is about twice as high as the item nonresponse rate for both soup kitchens and RSMFVs (19 percent) and shelters (21 percent). In Census 2000, the Hispanic origin nonresponse rate was the lowest (15 percent) at shelters among the SBE location types<sup>11</sup>.
- TNSOLs also had the highest rate of nonresponse for race, at about 29 percent, among the service types which was also twice as high as the item nonresponse rates for soup kitchens and RSMFVs (14 percent) and shelters (17 percent).

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<sup>11</sup> See McNally 2002, “Census 2000. Evaluation E.6 Service Based Enumeration “dated 11/6/2002.

**Table 5.4 Nonresponse to 100 Percent Items by Type of Service-Based Enumeration Location**

	Total		Shelters		Soup Kitchens and RFSMV's		TNSOLs	
	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total
<b>Last Name Only</b>	15,820	3.4	6,848	3.2	6,442	3.1	2,530	6.7
<b>First Name Only</b>	85,739	18.7	20,704	9.7	47,258	22.8	17,777	46.8
<b>Both First and Last Names</b>	9,319	2.0	5,003	2.3	3,294	1.6	1,022	2.7
<b>Sex</b>	24,194	5.3	8,611	4.0	9,838	4.7	5,745	15.1
<b>Age or Year of Birth</b>	93,376	20.3	21,931	10.2	52,715	25.4	18,730	49.3
<b>Hispanic Origin</b>	97,203	21.1	44,330	20.7	38,544	18.6	14,329	37.7
<b>Race</b>	75,375	16.4	36,019	16.8	28,294	13.6	11,062	29.1
*Counts and percentages are unweighted. †Percentages may not sum to 100.0 due to rounding. Source: DRF GQ Person								

### 5.5 How many persons filled out their forms themselves and how many were filled out by other means by type of Service-Based Enumeration location?

Table 5.5a provides the results of how data captured ICRs were completed, that is, by the respondent or by other means for each service type. Enumerators were instructed to indicate how the form was filled out by marking the appropriate box to the “Answered by” question on the back of the ICR. See Figure 1 below. If the “Respondent” box was marked, it indicated that the respondent filled out the questionnaire themselves or the enumerator filled it out via an interview with the respondent. If the “Other” box was marked, it indicated that the form was completed by other means, that is, through the use of administrative records, a knowledgeable person such as the SBE GQ contact person, or by observation. Note that this question was only applicable to persons data captured on ICRs. BCFs were all completed by the respondent.

**Figure 1. Answered by Check Boxes on ICR**

The image shows a section of a form titled "FOR OFFICIAL USE ONLY". Below the title is a label "GQ Control Number" followed by a large empty rectangular box. Underneath this box are three input fields labeled "A. PN", "B. JIC1", and "C. JIC2", each containing three small boxes for digits. Below these is a section labeled "D. Answered By:" with two checkboxes: "Respondent" and "Other".

There were a total of 433,017 SBE data captured person records enumerated on ICRs. Each ICR represented one data captured person record. Over half (52.9 percent) of the ICRs were completed by the respondent, 42.0 percent were completed by other means, and five percent were blank or invalid responses. Over half of the ICRs data captured at shelters (51.7 percent) and soup kitchens and RSMFVs (59.2 percent) were filled out by the respondent themselves or via an enumerator interview.

TNSOLs had the largest percentage (65.4 percent) of ICRs that were filled out by other means. More than likely, these ICRs were completed by observation rather than the use of administrative records. If there was no GQ contact person or gatekeeper, procedures allowed enumerators to complete ICRs for persons at TNSOLs by observation, especially for those persons who were sleeping or completely covered up from head to toe.<sup>12</sup> This may also be the reason for TNSOLs having the highest item nonresponse rate for all demographics characteristics, except for the last and first name, which may have been recorded as “Person 1”, for example. Refer to the previous section 5.4 for the discussion on item nonresponse rates at TNSOLs.

Enumerators were able to conduct interviews with residents who were awake and approachable. About 25 percent of the 35,359 ICRs data captured at TNSOLs were completed by the respondent themselves or by enumerator interviews.

<sup>12</sup> 2010 Census Group Quarters Enumeration Enumerator Manual D-569.12 April 2009

**Table 5.5a How Service-Based Enumeration ICRs Were Filled Out**

<i>Answered by:</i>	Total ICRs		Shelters		Soup Kitchens and RSMFVs		TNSOLs	
	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total Data Captured Persons on ICRs</b>	<b>433,017</b>	<b>100.0</b>	<b>200,010</b>	<b>100.0</b>	<b>197,648</b>	<b>100.0</b>	<b>35,359</b>	<b>100.0</b>
<i>Respondent</i> - Respondent filled out form themselves or enumerator filled out form by interviewing respondent	229,206	52.9	103,315	51.7	117,035	59.2	8,856	25.1
<i>Other</i> - Enumerator or the contact person filled out form using administrative data, or by observation	182,018	42.0	84,682	42.3	74,203	37.5	23,133	65.4
<i>Blank or invalid response</i>	21,793	5.0	12,013	6.0	6,410	3.2	3,370	9.5
*Counts and percentages are unweighted. †Percentages may not sum to 100.0 due to rounding. Source: DRF GQ Person								

Table 5.5b compares the results of data captured ICRs that were completed by other means among the service-based locations. Of the 182,018 forms that were filled out by other means, 47 percent were from shelters, 41 percent from soup kitchens and RSMFVs and 13 percent from TNSOLs. Based on field observations and enumerator debriefings, administrative records were one of the other means that was used to obtain demographic data for persons at shelters. Administrative records, more than likely, were not available or did not exist at soup kitchens, RSMFVs, or TNSOLs during the enumeration.

**Table 5.5b Service-Based Enumeration ICRs Filled Out by Other Means**

<i>Answered by: Other - Enumerator or the contact person filled out form using administrative data, or by observation</i>	<b>Data Captured Persons</b>	
	*Count	+Percent of Total
<b>Total</b>	<b>182,018</b>	<b>100.0</b>
Shelters	84,682	46.5
Soup Kitchens and Regularly Scheduled Mobile Food Vans	74,203	40.8
Targeted Non-Sheltered Outdoor Locations	23,133	12.7
*Counts and percentages are unweighted. †Percentages may not sum to 100.0 due to rounding. Source: DRF GQ Person		



## 5.6. How many persons were added to the Service-Based Enumeration Universe from Be Counted Forms?

Table 5.6 provides the count of persons enumerated on BCFs who did not have a usual home, those were, people who were without conventional housing on April 1, 2010. Those persons were to report on the BCF the location where they stayed on Census Day, such as a city, county, state or any address information as appropriate. As described in section 2.2.15 of this report, those persons with no home were classified as Type B Non-ID cases. Only those Type B Non-ID cases that were successfully geocoded to a state and county during Non-ID Processing were proportionately allocated first to SBE GQs and then to other GQs as appropriate. Note that the allocation of Type B Non-ID cases took place after the unduplication process. See Barrett (2010).

There were a total of 26,975 persons allocated to 7,737 GQs.<sup>13</sup> As expected, the majority (80.4 percent) of these BCF persons were allocated to SBE GQs. Approximately 22,000 persons were added to the SBE universe from BCFs. About 40.2 percent (10,835) of these BCF persons were allocated to shelters and 31.4 percent to soup kitchens and RSMFVs. About nine percent of BCF persons were allocated to 1,466 TNSOLs.

**Table 5.6 Persons Added to the SBE Universe from Be Counted Forms**

	BCF Persons		GQs	
	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total BCF Persons Allocated to GQs.....</b>	26,975	100.0	7,737	100.0
<b>Total BCF Persons Allocated to SBE GQs.....</b>	21,681	80.4	6,875	88.9
Shelters.....	10,835	40.2	3,266	42.2
Soup Kitchens and Regularly Scheduled Mobile Food Vans.....	8,480	31.4	2,143	27.7
Targeted Non-Sheltered Outdoor Locations.....	2,366	8.8	1,466	19.0
<b>Total BCF Persons Allocated to Other GQs.....</b>	5,294	19.6	862	11.1
* Counts and percentages are unweighted.				
+ Percentages may not sum to 100.0 due to rounding.				
Sources: BCF Geographic Allocation Results File (DSPO)				

<sup>13</sup> For the overall results of the allocation of BCF persons by GQ type categories, see the 2010 Census GQE Assessment Report (Williams, et.al, 2012).

## 5.7 How many person records were unduplicated during data processing?

The SBE unduplication universe included persons without a UHE who may have been enumerated at more than one SBE service-based location. Since the 2010 Census SBE Operation was conducted over a three day period, it was possible, for example to enumerate a person at an emergency or transitional shelter and a soup kitchen and/or RSMFV. It was also possible for a person who was enumerated at a SBE service-based location to fill out a BCF. Persons enumerated on a BCF, where the respondent reported no usual home, that was successfully coded to a state and county during Non-ID Processing were also included in the unduplication universe. An automated matching process as well as a clerical review of matches was conducted to identify person records that were duplicates. See Alberti (2009).

Table 5.7 provides the results of the unduplication process of data captured person records in the 2010 Census SBE Operation. Of the 459,772 data captured person records, approximately three percent were duplicates as identified in this process. These records matched to another census person record enumerated on an ICR or a BCF at a certain geographic level.

Approximately 97 percent of the data captured persons records were counted in the census. A total of 300,928 (66 percent of 459,772 ) were data captured person records with sufficient data for matching. Of these:

- Most (62.4 percent) of these were unique data captured person records that did not match to other SBE data captured person records, and
- the remainder (3.1 percent) was designated as the survivor record in a set of matched data captured person records.

About 31 percent had insufficient data for matching. These insufficient records did not have at least three alphabetic characters in the combined first and last name fields nor have at least two demographic characteristics, one of which had to be age or year of birth. These records were counted in the census as unique persons.

### Erroneous Duplicates

Enumerators used pseudonyms to identify persons at SBE locations when a first and last name could not be obtained. These pseudonyms in the first and last name fields caused erroneous duplicates. In the Census 2000, of the 16,787 (6 percent of 258,728) duplicates found, about 14 percent of these were most likely erroneously unduplicated.<sup>14</sup>

In order to minimize the possibility of erroneously identifying duplicate records, due to the use of pseudonyms, certain words such as “Asleep,” “Person,” “Resident,” “Jane or John Doe” were treated as blank during the 2010 Census SBE unduplication process (Alberti, 2009). This process forced the final weight to be based on demographic characteristics rather than the first and last name which minimized erroneous duplicates. It seemed to contribute to the low unduplication rate for the 2010

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<sup>14</sup> See McNally 2002, “Census 2000. Evaluation E.6 Service Based Enumeration” dated 11/6/2002.

Census, which is less than half (2.8 percent) of the six percent unduplication rate found in Census 2000.

**Table 5.7 Service-Based Enumeration Unduplication of Data Captured Person Records**

	<b>Count</b>	<b>Percent of Total</b>
<b>Total Data Captured Person Records from SBE Locations</b>	<b>459,772</b>	<b>100.0</b>
Data Captured Person Records Matched and Not Counted in the Census (Duplicates).....	12,774	2.8
Total Data Captured Person Records Counted in the Census.....	446,998	97.2
Data Captured Person Records with Sufficient Data for Matching.....	300,928	65.5
<i>Unique person records that did not match</i> .....	286,769	62.4
<i>Survivor person records in a set of matched persons records</i> .....	14,159	3.1
Data Captured Person Records with Insufficient Data for Matching.....	142,315	31.0
Data Captured Person Records Invalid for Unduplication <sup>15</sup> .....	3,755	0.8
Counts and percentages are unweighted.		
†Percentages may not sum to 100.0 due to rounding.		
Source: DRF GQ Person & SBE Unduplication Results File (DSPO)		

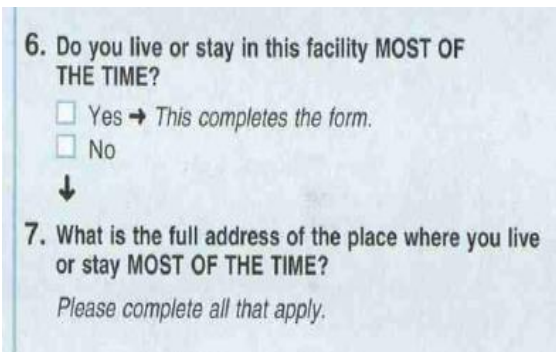
<sup>15</sup> Of the 3,755 data captured person records that were invalid for the unduplication process, 87 percent (3,257) of these were persons associated with Type A and Type C Non-ID cases that just happened to be matched to an SBE GQ. Since these were not persons associated with a Type B Non-ID case, they were not included in the unduplication universe. The remaining 498 data captured person records were inadvertently omitted from the SBE unduplication and should have been assigned as unique (not matched) person records.

## 5.8. How many persons reported a valid Usual Home Elsewhere (UHE) at soup kitchens and regularly scheduled mobile food vans?

### Determining Respondents who indicated they had a UHE

Persons who reported a UHE at certain GQs were eligible to be included in Non-ID Processing which identified valid UHE addresses. Among the SBE GQ types, persons at soup kitchens and RSMFVs who reported a UHE were eligible for further processing. Although persons enumerated on ICRs from all GQs were asked to answer question 6. “Do you live or stay in this facility MOST OF THE TIME?” only certain GQ types were UHE-eligible.<sup>16</sup> Note that if the person marked “No” to question 6, indicating they had an UHE, then they were prompted to provide the UHE address of the place where they lived or stayed at most of the time. See Figure 2 below for the UHE questions 6 and 7 on the ICR.

**Figure 2. UHE Question on ICR**



6. Do you live or stay in this facility MOST OF THE TIME?

Yes → This completes the form.

No

↓

7. What is the full address of the place where you live or stay MOST OF THE TIME?

Please complete all that apply.

Table 5.8a below shows how persons at soup kitchens and RSMFVs answered Question 6 on the ICR. Approximately 36 percent of persons at soup kitchens and RSMFVs indicated that they lived or stayed somewhere else most of the time; that is they had a UHE. Although over half (54.9 percent) of the respondents did not answer this question, about nine percent of the 197,648 persons counted at soup kitchens and RSMFVs indicated that they stayed at the facility.

<sup>16</sup> See Williams, et al (2012) for a list of all of the UHE-eligible GQ types.

**Table 5.8a How Persons at Soup Kitchens and Regularly Scheduled Mobile Food Vans Reported Where They Lived or Stayed on the ICRs**

<b>6. Do you live or stay in this facility MOST OF THE TIME?</b>	<b>*ICRs</b>	<b>+Percent of Total</b>
<b>Total ICRs at Soup Kitchens and RSMFVs</b>	<b>197,648</b>	<b>100.0</b>
Yes, stay at this facility most of the time (Counted at Soup Kitchens or RSMFV)	18,369	9.3
No, do not stay at this facility most of the time (Indicated Respondent had an UHE)	70,594	35.7
Marked both Yes and No	213	0.1
Blank	108,472	54.9
* Counts and percentages are unweighted. + Percentages may not sum to 100.0 due to rounding. Source: DRF GQ Person		

Identifying Respondents who had “Valid” UHE Addresses

Table 5.8b shows the total number of UHE addresses collected on the ICR that checked “No” to Question 6, and do not stay at this facility most of the time. The “No” response indicated that the respondent had an UHE. It also identifies how many of the UHEs provided on the ICR were “valid” addresses.

The respondents who indicated that they lived or stayed somewhere else most of the time other than at the soup kitchens or RSMFVs were prompted to provide the address of that place by completing the address fields in question 7 of the ICR. (Refer back to Figure 2).

Of the 70,594 persons enumerated on ICRs at soup kitchens and RSMFVs who indicated that they had a UHE, 83 percent provided the address of where they stayed or lived at most of the time. Over half (51.9 percent) of the 70,594 responses that indicated they had a UHE were “valid” addresses. The conditions for an ICR to be considered as a “valid” UHE that moved on to further processing were:

- The ICR was from an UHE-eligible GQ type. SBE GQs that were UHE eligible were soup kitchens and regularly scheduled mobile food vans.
- The ICR indicated that the person did NOT stay at the SBE facility most of the time.
- The UHE address was present and was at least geocoded to a state, and county.
- The first and last name was sufficient for matching, that is; the concatenated first and last name fields contained at least three alphabetic characters.

Further processing included matching valid UHE addresses to the MAF and determining where the SBE person should be counted. For those persons who provided a valid UHE address on the ICR, the SBE person was tabulated at the housing unit address in the 2010 Census and was removed from the SBE universe. If the address matched to a GQ or transitory location, the SBE person was counted at the soup kitchen or RSMFV.

**Table 5.8b Valid Usual Home Elsewhere Addresses Provided by Respondents from Soup Kitchens and Regularly Scheduled Mobile Food Vans**

<b>Valid UHE Addresses for Soup Kitchens &amp; RSMFVs</b>	<b>*Count</b>	<b>+Percent of Total</b>
<b>Total ICRs at Soup Kitchens &amp; RSMFVs marked “No, do not stay at this facility most of the time” -- (indicates an UHE).....</b>	<b>70,594</b>	<b>100.0</b>
Total ICRs at Soup Kitchens & RSMFVs that provided an UHE address.....	58,594	83.0
<i>ICRs with valid UHE addresses.....</i>	36,654	51.9
<i>ICRs with non-valid UHE addresses.....</i>	21,940	31.1
Total ICRs at Soup Kitchens & RSMFVs without UHE addresses.....	12,000	17.0
*Counts and percentages are unweighted.		
†Percentages may not sum to 100.0 due to rounding.		
Source: DRF Add Tables (rps_address_add_2010)		

**5.9. How many locations and people were tabulated in the final 2010 Census Service-Based Enumeration Operation by service type after post processing?**

The final population counts and number of location by service type as shown in Table 5.10 were based on the number of persons in SBE GQs after the unduplication process. The data also include the number of persons enumerated on ICRs during the 2010 Census SBE Operation and persons enumerated on BCFs who were allocated to a SBE GQ.

A total of 422,972 persons were counted at 18,527 SBE GQs in the 2010 Census. The majority (91.2 percent) of persons were tabulated at shelters (49.7 percent) and soup kitchens and RSMFVs (41.5 percent). Although the population count at TNSOLs represented only nine percent of the SBE population, these persons were tabulated at nearly a half of the SBE locations enumerated in the 2010 Census.

**Table 5.9 Final 2010 Census Population and Locations Count by Service Type**

Type of SBE Service Location	Persons		SBE Locations	
	*Count	+Percent of Total	*Count	+Percent of Total
<b>Total</b>	<b>422,972</b>	<b>100.0</b>	<b>18,527<sup>17</sup></b>	<b>100.0</b>
Shelters	210,036	49.7	6,345	34.3
Soup Kitchens and RSMFVs	175,434	41.5	3,422	18.5
Targeted Non-Sheltered Outdoor Locations	37,502	8.9	8,760	47.8
*Counts and percentages are unweighted.				
+Percentages may not sum to 100.0 due to rounding.				
Source: CEF				

<sup>17</sup> There was an increase between the final number of SBE locations (CEF 18,527 ) and the number of SBE locations visited (DRF 18,194 ) with at least one person data captured. The increase was attributed to those person records with an unknown GQ type (999) that were allocated to 333 SBE GQs. (DSPO)

### 5.10 How does the final population count compare between Census 2000 and the 2010 Census by type of Service-Based Enumeration location?

Table 5.10 compares the final population count between Census 2000 and the 2010 Census, by type of SBE location and by measuring the percent of change. The percent change in the number of people enumerated in the 2010 Census and Census 2000 was calculated using the following formula:<sup>18</sup>

$$\% \text{ Change} = \frac{2010 \text{ Census People Enum} - \text{Census 2000 People Enum}}{\text{Census 2000 People Enum}} * 100$$

Overall, there was an increase of approximately 49 percent in the final SBE population enumerated from the Census 2000 (283,898) to the 2010 Census (422,972).

Although each of the service types had a substantial increase in the number of people enumerated in the 2010 Census compared to Census 2000, soup kitchens and RSMFVs had the greatest percent change among the other SBE locations. More than twice as many persons were enumerated in the 2010 Census compared to Census 2000 with a percent change rate of approximately 129 percent for soup kitchens and RSMFVs.

The number of people enumerated at shelters had an increase percent change rate of 14 percent between the 2010 Census and Census 2000. There was approximately a 15 percentage point decrease in percent of SBE persons counted at shelters in the 2010 Census (49.7 percent) versus Census 2000 (65 percent).

Although the percentage point difference between the 2010 Census (8.9 percent) and Census 2000 (8.0 percent) for the final number of people tabulated at TNSOLs was less than one percentage point, and the rate of change was increased by 60 percent from Census 2000 to the 2010 Census.

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<sup>18</sup> See Jonas 2003, "Census 2000 Evaluation E.5. Revision 1, Group Quarters Enumeration" dated August 6, 2003.



**Table 5.10 Comparison of Final Population Counts Between Census 2000 and the 2010 Census by type of Service-Based Enumeration Location**

Type of SBE Location	Census 2000		2010 Census		Percent of Change
	Count*	Percent <sup>+</sup>	Count*	Percent <sup>+</sup>	
<b>Total.....</b>	<b>283,898</b>	<b>100.0</b>	<b>422,972</b>	<b>100.0</b>	<b>49</b>
Shelters.....	184,008	65.0	210,036	49.7	14
Soup Kitchens and Regularly Scheduled Mobile Food Vans.....	76,465	27.0	175,434	41.5	129
Targeted Nonsheltered Outdoor Locations.....	23,425	8.0	37,502	8.9	60
*Counts are unweighted.					
+Percentages do not sum to 100.0 due to rounding.					
Source: CEF for the 2010 Census and Group Quarters Enumeration Report for Census 2000					

## 6. Related 2010 Census Assessment Reports

- The 2010 Census Group Quarters Validation Operational Assessment documented the results of the operation to include the distribution of OLQs validated as GQs, Housing Units, Transitory Locations, Non-Residential, Vacants, or Nonexistent (Deletes). It also described the data capture results and the update actions to the MTdb and the Reinterview quality component.
- The 2010 Census Address List Update Program for Service-Based Enumeration, Group Homes, and Carnival Locations Assessment Report documented the results that the program used to update the enumeration frame for group homes, service-based GQ, and transitory locations by obtaining addresses from Internet research, tribal, state, and local governments, national and state advocacy organizations, and carnival management companies.
- The 2010 Census Group Quarters Enumeration Assessment documented the results of the operation and recorded the population data by defined GQ types, and reported the number of GQs added and the number of GQs that no longer existed at the time of the census. In addition, the assessment recorded data on defined GQ types, added GQs, whether there were no ICRs associated with the GQ, and the status code of the GQs that had a zero-population at the time of enumeration.
- The 2010 Be Counted and Questionnaire Assistance Centers Assessment documented the results of the operation and how well it identified and collected information on people who believed they were not counted in the census. For example, they believed they did not receive a census questionnaire or who believed they were excluded from the original mailback questionnaire returned by their household.
- The 2010 Census Non-ID Processing Assessment documented the results of the operation and provided information on the number of cases sent to automated and clerical Non-ID Processing, the outcome of the cases, the action taken on the records in the MTdb as a result of the process, and the impacts to the 2010 Census address files.

## 7. Key Lessons Learned, Conclusions, and Recommendations

### 7.1 Lessons Learned

The key lessons learned from the 2010 Census SBE Operation Assessment are described below:

#### *Problems*

- The keying data capture rules were managed by the POP and they were responsible for the global rules across all of the census questionnaires. These global rules were inadequate for handling some special situations. In particular, the Decennial Programs Branch of the POP provided specifications for the last name (L\_NAME) and first name (F\_NAME) data fields as alpha only (no numbers could be accepted). However, the GQE Enumerator manual instructed enumerators that when they were unable to obtain a name that they should write the name as Person 1, Person 2, where “Person” would be the last name while the “number” is written as their first name.

During data capture for SBE this caused persons enumerated as Person 1, Person 2, etc., being data captured as only "Person" with no number attached to the individuals in the GQ. It may have been expected that the enumerator was supposed to write the number out as a word. In any event, the data capture rules for the name field especially for the SBE population should have been defined as alphanumeric.<sup>19</sup>

The GQE OIT suggests that when the rules for processing data fields are established, someone who understands the full process of how the data fields are used for the output should be involved in the development of these rules. It is imperative that subject matter experts are involved in the process to ensure that every data field on the questionnaire has an owner/stakeholder who has a clear understanding of its entire life cycle (for example, identifying exceptions to global rules and those individuals should be involved in all required meetings).

- The duration of three days for the combined CL and Enumerator training that was administered to the CLs (GQAV/GQE/SBE) was too short to allow the CLs to gain full understanding of the duties for these group quarters operations.

### ***Best Practices***

- During the GQ operations, the enumerators were not assigned to a specific CLD. This allowed the LCOs the ability to move people across CLDs as needed to meet flexible workloads accommodating the SBE locations.
- The Census Bureau allowed service providers at service-based locations flexibility in scheduling the enumeration on any day, within the three day enumeration time period. For example, for those shelters that were closed or not prepared for an enumeration on the designated date, the GQ contact person was allowed to select an alternate date that was feasible to conduct the enumeration.
- In addition to the standard CL training, CLs also received the enumerators training as an effort to help them thoroughly understand the work required of the enumerators.
- Cultural facilitators, indigenous to the outdoor locations, were effective in assisting the Census Bureau in identifying outdoor locations and facilitating access for the census workers to the TNSOLs.
- PAs were instrumental in helping the Census Bureau identify service-based locations.

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<sup>19</sup> DRIS eventually contacted the DSSD who informed them that the name fields on the ICRs may contain numeric values since the enumerators were instructed to enter pseudonyms such as "Person 1" when a name could not be obtained at SBE locations. The name fields were changed to alphanumeric for SBE ICRs.

### *Data Processing of Be Counted Forms*

- During data processing of Type B BCFs, there were 49 valid persons who were not allocated to a GQ because there were not any occupied GQs in the state and/or county although there were vacant GQs available. We may want to consider allocating Type B, BCF persons to both occupied and vacant GQs that meet certain conditions.

## **7.2 Conclusions**

The key points concluded for the 2010 Census SBE Operation are described below:

- Overall, the 2010 Census SBE Operation was an effective methodology to provide an opportunity for people without conventional housing and those experiencing homelessness an opportunity to be included in the census.
- As a result of the 2010 Census SBE Operation, the Census Bureau tabulated 422,972 people from 18,527 service-based locations who might otherwise have been missed.
- As a result of the 2010 Census SBE Operation, approximately 50 percent of the people were tabulated at shelters, 42 percent of the people were tabulated at soup kitchens and RSMFVs, and the remaining nine percent of the people were tabulated at TNSOLs.
- For the 2010 Census SBE Operation, there was an increase of 49 percent over the SBE population counts from Census 2000. The majority of the increase was attributed to the fact that there were twice as many persons counted at soup kitchens and RSMFVs when compared to the persons counted at these locations in Census 2000. At least 175,000 people might have been missed if these service locations had not been included in the 2010 Census.
- Of the 459,772 data captured person records during the 2010 Census SBE Operation, approximately 2.8 percent were duplicates, indicating that these records matched to another census person record enumerated on an ICR or a BCF and thus were removed from the service-based universe. Such an unduplication rate was less than half of the rate obtained for SBE from Census 2000 (i.e., six percent of 258,728 data captured person records).
- During the 2010 Census SBE Operation, demographic data for people at service-based locations was obtained by the respondent themselves or by other means, such as through the use of administrative records. Among the service-based locations, the use of administrative records was more prevalent in shelters (42 percent) than in the other two types of service-based locations. The data suggest that demographic data for people at soup kitchens and RSMFVs (38 percent), and TNSOLs (65 percent) were obtained by other means as well. The data at these SBE locations were likely to be obtained by personal knowledge or by observation, rather than the use of administrative records.
- Of 70,594 people from the soup kitchens and RSMFVs who reported a UHE, 36,654 (51.9 percent) reported a valid UHE address.

- During the 2010 Census SBE Operation, demographic data for people at service-based locations was obtained by the respondent themselves or by other means, such as through the use of administrative records, personal knowledge or by enumerator observation. Based on anecdotal evidence, of the 182,018 forms filled out by other means, the use of administrative records was more prevalent in shelters (47 percent) than in the other two types of service-based locations. The data and evidence suggest that demographic data for people at soup kitchens and RSMFVs (41 percent), and TNSOLs (13 percent) obtained by other means was more than likely obtained by personal knowledge or by observation, rather than the use of administrative records.

### 7.3 Recommendations

These recommendations are intended to assist the Census Bureau develop an improved methodology for the enumeration of service-based GQ locations. The key recommendations derived from this assessment are described below:

- **Continue to conduct the enumeration at service-based locations and targeted non-sheltered outdoor locations to provide people without conventional housing and people experiencing homelessness an opportunity to be counted in the decennial census and to minimize the population undercount.**
- **Continue to allow service providers at service-based locations flexibility in scheduling the enumeration on any day, within the three day enumeration time period, in the event they are unable to enumerate people at the facility on the designated date. Flexibility with selecting an alternate date other than the designated date for the enumeration improves coverage and minimizes the possibility of the facility being excluded in the census.**
- **Continue to administer the crew leaders a combined training session that includes, crew leader and enumerator training on the Group Quarters Advance Visit, Group Quarters Enumeration, and Service-Based Enumeration Operations. Training the crew leaders on all group quarters operations provided them a thorough understanding of the duties required of the enumerators they were responsible to supervise.**
- **Increase the duration of the combined crew leader training from three days to five days to allow additional time for the crew leader to better absorb the information and gain a better understanding of the procedures.**
- **Consider options to improve the verbatim training for the local census office staff and seek methods to make the training sessions interactive.**
- **Continue to cross train all enumerators on the procedures to conduct the enumeration at all types of group quarters, including the service-based enumeration locations. Cross training the enumerators to conduct the enumeration at all types of group quarters provides the Census Bureau the flexibility to accommodate last-minute changes to the enumeration appointments.**

- **Continue to use culture facilitators to assist with identifying targeted non-sheltered outdoor locations because of their familiarity with the locations and their ability to facilitate access to the locations for the census workers.**
- **Continue to improve the unduplication process to address complications resulting from potentially counting persons more than once in the census enumerated at or allocated to service-based locations.**
- **Test the usage of administrative records to collect demographic data for persons residing in shelters and evaluate the quality of the records. During the 2010 Census Service-Based Enumeration Operation, the collection of data from means other than the respondent was most prevalent in shelters.**
- **Test the availability and evaluate the quality of administrative records for obtaining demographic data for people at soup kitchens and regularly scheduled mobile food vans. Despite the relatively low propensity of the existence of administrative records during the 2010 Census Service-Based Enumeration Operation, these may show promise for providing more complete data in this enumeration universe.**
- **Research and cognitive test expanding the number of enumerator response categories to the “Answered by:” question to specifically indicate how the form was filled out. This improvement will aid the Census Bureau to ascertain whether or not the Individual Census Report was completed using administrative records.**

## **8. Acknowledgements**

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- Decennial Statistical Studies Division,
- Field Division - Group Quarters Branch,
- Geography Division,
- Group Quarters Enumeration Operational Integration Team,
- National Processing Center, and the
- Population Division

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## Appendix A: List of Service-Based Enumeration Assessment Acronyms

<b><u>Acronym</u></b>	<b><u>Definition</u></b>
ADDUP	Address Update File
BCF	Be Counted Form
C&P	Cost and Progress
CEF	Census Edited File
CL	Crew Leader
CLD	Crew Leader District
CUF	Census Unedited File
DAPPS	Decennial Applicant, Personnel, and Payroll System
DMD	Decennial Management Division
DRF	Decennial Response File
DRIS	Decennial Response Integration System
DSCMO	Decennial Systems and Contracts Management Office
DSPO	Decennial Systems Processing Office
DSSD	Decennial Statistical Studies Division
FDCA	Field Data Collection Automation
FLD	Field Division
GEO	Geography Division
GPP	Geographic Program Participant database
GQ	Group Quarters
GQAV	Group Quarters Advance Visit
GQE	Group Quarters Enumeration
GQ ID	Group Quarters Identification Number
GQS	Group Quarters Supervisor
GQV	Group Quarters Validation
GU	Governmental Units
ICQ	Individual Census Questionnaire
ICR	Individual Census Report
LCO	Local Census Office
MAF	Master Address File
MFV	Mobile Food Van
MIL	Military
MTdb	Master Address File/Topologically Integrated Geographic Encoding and Referencing Database
NIFT	Non-ID Feedback Table
NPC	National Processing Center
OCE	Office Computing Environment
OIT	Operational Integration Team
OLQ	Other Living Quarters
PA	Partnership Assistants
PBOCS	Paper Based Operation Control System
PHPB	Population and Housing Programs Branch



POP	Population Division
RCC	Regional Census Center
RSMFV	Regularly Scheduled Mobile Food Van
RV	Recreational Vehicle
SBE	Service-Based Enumeration
SF1	Summary File 1
SP/GQ	Special Place/Group Quarters
TIGER	Topologically Integrated Geographic Encoding and Referencing
TNSOL	Targeted Non-sheltered Outdoor Location
UHE	Usual Home Elsewhere

# Appendix B: Individual Census Report (ICR)

Draft 9 (3-17-2009)(D-20)

OMB No. 0607-0919-C; Approval Expires 12/31/2011

United States  
**Census  
2010**

**Individual Census Report**

U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

Use a blue or black pen.  
**Start here**

**1. What is your name? Print name below.**

Last Name

First Name MI

**2. What is your sex? Mark  ONE box.**

Male  Female

**3. What is your age and what is your date of birth?**  
*Please report babies as age 0 when the child is less than 1 year old.*  
*Print numbers in boxes.*

Age on April 1, 2010    Month    Day    Year of birth

→ NOTE: Please answer BOTH Question 4 about Hispanic origin and Question 5 about race. For this census, Hispanic origins are not races.

**4. Are you of Hispanic, Latino, or Spanish origin?**

No, not of Hispanic, Latino, or Spanish origin  
 Yes, Mexican, Mexican Am., Chicano  
 Yes, Puerto Rican  
 Yes, Cuban  
 Yes, another Hispanic, Latino, or Spanish origin — *Print origin, for example, Argentinian, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.* ↗

**5. What is your race? Mark  one or more boxes.**

White  
 Black, African Am., or Negro  
 American Indian or Alaska Native — *Print name of enrolled or principal tribe.* ↗

<input type="checkbox"/> Asian Indian	<input type="checkbox"/> Japanese	<input type="checkbox"/> Native Hawaiian
<input type="checkbox"/> Chinese	<input type="checkbox"/> Korean	<input type="checkbox"/> Guamanian or Chamorro
<input type="checkbox"/> Filipino	<input type="checkbox"/> Vietnamese	<input type="checkbox"/> Samoan
<input type="checkbox"/> Other Asian — <i>Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.</i> ↗	<input type="checkbox"/> Other Pacific Islander — <i>Print race, for example, Fijian, Tongan, and so on.</i> ↗	

Some other race — *Print race.* ↗

**6. Do you live or stay in this facility MOST OF THE TIME?**

Yes → *This completes the form.*  
 No ↗

**7. (If No) What is the full address of the place where you live or stay MOST OF THE TIME?**  
*Please complete all that apply.*

Street address number

Street name

Apartment number

Rural route address

City

County

State or foreign country

ZIP Code

U S C E N S U S B U R E A U

Form **D-61 (ICR)** (4-2-2009)

D-61 (ICR) - Base Black ink

D-61 (ICR) - Tone Pantone Process Cyan - 10%, 25%, 50% and 100%



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Economics and Statistics Administration**  
**U.S. Census Bureau**  
 Washington, DC 20233-0001  
 OFFICE OF THE DIRECTOR

March 17, 2010

A message from the Director, U.S. Census Bureau . . .

This is your official 2010 Census form. We need your help to count everyone in the United States. It is important that everyone be counted, regardless of where they may be living at the time of the census. This Individual Census Report is to be used to count people who are currently living or staying in group quarters, such as college or university dormitories, nursing homes, group homes, emergency and transitional shelters for people experiencing homelessness, and other such locations. **Please follow the instructions you were given when you received this form for returning it to the appropriate person.**

Your answers are important. Census results are used to decide the number of representatives each state has in the U.S. Congress. The amount of government money received also depends on these answers. That money is used for services for children and the elderly, roads, and many other local needs. As allowed by law, your census data becomes public after 72 years. This information can be used for family history and other types of historical research.

Your answers are confidential. This means the Census Bureau cannot give out information that identifies you. Your answers will only be used for statistical purposes, and no other purpose. Please visit our Web site at <[www.census.gov/2010census](http://www.census.gov/2010census)> and click on "Protecting Your Answers" to learn more about our privacy policy and data protection.



***Thank you for completing your official 2010 Census form.***

The U.S. Census Bureau estimates that, for the average respondent, this form will take about 5 minutes to complete, including the time for reviewing the instructions and answers. Send comments regarding this burden estimate or any other aspect of this burden to: Paperwork Reduction Project 0607-0919-C, U.S. Census Bureau, AMSD-3K138, 4600 Silver Hill Road, Washington, DC 20233. You may e-mail comments to <[Paperwork@census.gov](mailto:Paperwork@census.gov)>; use "Paperwork Project 0607-0919-C" as the subject.

Respondents are not required to respond to any information collection unless it displays a valid approval number from the Office of Management and Budget.

**FOR OFFICIAL USE ONLY**

**GQ Control Number**

**A. PN**

**B. JIC1**

**C. JIC2**

**D. Answered By:**  Respondent  Other

## Appendix C: D-353 PA TNSOL/GQAV Sheet

THIS LISTING CONTAINS CONFIDENTIAL INFORMATION, THE RELEASE OF WHICH IS PROHIBITED BY TITLE 13, U.S.C., OMB NO. 0607-0919-C APPROVAL EXPIRES 12/31/2011

<b>Targeted Nonsheltered Outdoor Locations Partnership Contact Sheet</b>							
Form D-353PA (TNSOL/GQAV)		Group Quarters Advance Visit					
4/2/2009		2010 Census					
Partnership Specialist Name & Phone #:					LCO:		
Partnership Assistant Name & Phone #:							
GQ Name: Site/Location/Physical Description	Estimated # of people	House #	Street Name	City	Zip Code	Point of Contact	
ex. Field south of abandoned old mill Corner of Any street and Any Drive	3	5991	Any Drive	Any Town	99997	Michael Moe	
ex. Any store's loading dock behind store (3 tents)	4	5103	Any Street	Any Town	99997	John Joe	
1							
2							
3							
4							
5							
6							
7							

## Appendix D: D-353 PA MFV/GQAV Sheet

THIS LISTING CONTAINS CONFIDENTIAL INFORMATION, THE RELEASE OF WHICH IS PROHIBITED BY TITLE 13, U.S.C., OMB NO. 0607-0919-C APPROVAL EXPIRES 12/31/2011

<b>Regularly Scheduled Mobile Food Van Partnership Contact Sheet</b>										
Form D-353PA (MFV/GQAV)			Group Quarters Advance Visit							
4/2/2009			2010 Census							
Partnership Specialist Name & Phone number:									LCO:	
Partnership Assistant Name & Phone number:										
GQ Name: Site/Location/Physical Description	Sponsor/Facility Name and Phone #	Estimated # of people	Time	Day(s)	House #	Street Name	City	Zip Code	Point of Contact	
ex. Corner of Main street and Any Drive		20	10 am	Monday Wed Thurs	5229	Any Drive	Any Town	99997	David Zoe, AME Church	
ex. Anytown University behind convenience store parking lot		?	2:00 PM	Tues Wed	106	Any Street	Any Town	99997	David Zoe	
1										
2										
3										
4										
5										
6										
7										

## Appendix E: D-1184 SBE Brochure

### USES OF CENSUS DATA

#### Federal Laws

The federal government is the main user of census data. More than 50 laws require the use of census data in one form or another. Here are some examples of how the data are used.

#### Schools

Locations where new schools are needed are identified using data about age.

#### Social Services

Local health agencies plan and administer programs promoting the well-being of families and children using data about family types, composition, and living arrangements of the population.

#### State, Local, and Tribal Governments

States, cities, counties, and American Indian reservations use census data to plan:

- Health care services and facilities.
- Housing and community development needs.
- Locate election areas.

#### Businesses

Businesses use census data to:

- Plan for future product demands.
- Plan new sites.
- Determine if their workforce matches the community.

#### Organizations

Churches, day care centers, nursing homes, and charities use census data to plan for:

- Community needs.
- Writing grants.
- Distribution of resources.

### USES OF CENSUS DATA—CON.

#### Data Analysts

Census data are used to monitor:

- Population growth and change.
- The quality of life in America.
- Changes in our society.

The census provides a snapshot of the nation, which helps define who we are.

For more information about the 2010 Census, visit [www.2010census.gov](http://www.2010census.gov).

## Service-Based Enumeration



## SERVICE-BASED ENUMERATION

The goal of Service-Based Enumeration (SBE) is to include people in the 2010 Census who may be missed when we count people at their homes. During the SBE operation, we count people who receive services at emergency and transitional shelters, soup kitchens, and regularly scheduled mobile food vans. We also count people experiencing homelessness who stay at certain outdoor locations.

### TYPES OF SERVICE-BASED LOCATIONS FOR THE 2010 CENSUS

#### Emergency and Transitional Shelters for People Experiencing Homelessness

These are places where people experiencing homelessness stay overnight. They include shelters that operate on a first-come, first-serve basis where people must leave in the morning and have no guaranteed bed for the next night, shelters where people know that they have a bed for a specified period of time, even if they leave the building every day, and places that provide temporary shelter during extremely cold weather (such as churches).

Examples are missions, hotels and motels used as a shelter, and places for children who are run-aways, neglected or experiencing homelessness.

#### Soup Kitchens

Includes soup kitchens that offer meals for people experiencing homelessness. These places may have people get in a service line to receive their meal or they may give them a bag or box lunch.

#### Regularly Scheduled Mobile Food Vans

Mobile food vans that are regularly scheduled to visit certain locations to provide food to people experiencing homelessness.

#### Targeted Nonsheltered Outdoor Locations

Certain outdoor locations open to the elements where people experiencing homelessness live without paying. Sites must have a precise location description that will allow a census team to locate it.

#### Enumerating at Emergency and Transitional Shelters

On a set date, census workers will:

- Visit your shelter and meet with a staff person.
- Distribute census forms to residents.
- Help residents fill out their forms, if needed.

#### Enumerating at Soup Kitchens

On a set date, census workers will:

- Visit your soup kitchen and meet with a staff person.
- Enumerate the clients before they enter the soup kitchen.

#### Enumerating at Regularly Scheduled Mobile Food Vans

On a set date, census workers will:

- Arrive at the designated mobile food van stops ahead of the van.
- Enumerate the clients before the van arrives.

### HOW YOU CAN HELP

- Inform your clients and staff about the arrival of census enumerators.
- Assure clients and staff that all information collected is confidential.
- Volunteer to be sworn in by census workers to help with enumeration.
- Stress the importance of the 2010 Census to the community.
- Promote the census by displaying posters.
- Let clients and staff know about possible census jobs.
- Be sure that informed staff is on duty the day of the enumeration.

## ABOUT THE CENSUS

The census is conducted by the federal government to learn about the nation's population and housing. The Constitution requires a census every 10 years to determine how many seats in the U.S. House of Representatives each state will have.

Census data are used to draw the electoral districts within states, allocate federal funds, track changes in the population, and measure changes and trends in society.

The U.S. Census Bureau is the government agency responsible for conducting the census. The census is conducted in years ending in zero, such as 1990, 2000, and 2010.

The 2010 Census data are used to distribute Congressional seats to states, make decisions about what community services to provide, and distribute \$400 billion in federal funds to local, state, and tribal governments each year.

The census is conducted under authority of Title 13 of the U.S. Code—which is the census law. The law requires that all answers are kept confidential. Information about individuals can only be seen by sworn census employees and is not released for 72 years.

The Census Bureau does not share answers from the census with any individual or organization. This includes the Internal Revenue Service and the Immigration and Customs Enforcement Service. Also, we do not share answers with welfare agencies, courts, police, or the military. Answers are not even shared with the President of the United States.



Appendix F: D-1184 P SBE Poster

# 2010 Census: It's In Our Hands



**The census provides a snapshot of the nation.**

*Census enumerators will be here  
between March 29 and March 31, 2010.*

*Help your community get its fair share of over \$400 billion a year.*

For more information about the 2010 Census, visit:

**[www.2010census.gov](http://www.2010census.gov)**



IT'S IN OUR HANDS

U.S. CENSUS BUREAU  
Helping You Make Informed Decisions

United States  
**Census  
2010**  
Issued July 2009  
D-1184P-2009



