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From: Deborah M. Stempowski **(signed June 11, 2019)**
Chief, Decennial Census Management Division

Subject: 2020 Census Evaluation: Evaluation of the Group Quarters Advance Contact (GQAC) Operation Study Plan

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This memorandum releases the final version of the 2020 Census Evaluation: Evaluation of the Group Quarters Advance Contact (GQAC) Operation Study Plan, which is part of the 2020 Census Program for Evaluations and Experiments (CPEX). For specific content related questions, you may also contact the authors:

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United States Census 2020

2020 Census Evaluation

Evaluation of the Group Quarters Advance Contact (GQAC) Operation Study Plan

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I. Introduction

The Center for Behavioral Science Methods (CBSM) will conduct an evaluation of the 2020 Census Group Quarters Advance Contact (GQAC) operation. The purpose of this research is twofold: we plan to evaluate the implementation of the "502" group quarters (GQ) type code during the GQAC operation and understand the magnitude of the mismatch between census coding of college and university student housing and the true status of an address. Our findings are intended to inform a program of research that could continue into 2030 Census research and planning activities and yield significant improvement in both decennial and American Community Survey (ACS) college or university housing identification procedures.

II. Background

The Census Bureau defines college and university student housing as a category of "group quarters" and conducts enumeration activities at those addresses using GQ operational procedures. This GQ category is inclusive of multiple subtypes of buildings, including traditional residence halls, fraternity and sorority housing recognized by the college or university, and apartment-style housing that is designed primarily to house college and university students. These facilities may be located either on or off campus, and may be owned/leased/managed either by the college or university or by a private company or agency. Historically, all college or university student housing have been coded as a single GQ Type 501. However, the definition and coding employed by the Census Bureau have not kept pace with the evolution in student housing options, and Census Bureau group quarters research has primarily focused on college- or university-owned/leased/leased/managed faciliites (Kuwik et al, 2014; Moore, 2013)

The use of a single category has been shown to be problematic for multiple reasons. First, stakeholders, through state data centers, have requested additional granularity in GQ data to be able to distinguish the populations of students residing at the college/university-owned, leased, or managed vs. privately owned, leased, or managed facilities. Second, the accurate identification of privately owned, leased, or managed apartments designed for college and university student residents is often difficult and operational procedures previously used have led to miscategorization.

For example, Census Bureau listers may incorrectly code a privately owned student housing facility as a housing unit (HU) instead of a GQ. Or a student residing in a privately owned facility may report to an American Community Survey (ACS) field representative (FR) that the unit is an apartment and not a GQ. Further complicating this issue is the coding of these addresses on the Delivery Sequence File from the United States Postal Service (USPS), where privately owned/leased/managed student housing facilities are coded a housing units by default.

The prevalence of such errors during census field data collection is expected only to increase. As student expectations and trends have evolved, the number of private college/university student housing options have increased, making it more difficult for listers, enumerators and

field representatives to distinguish these student-targeted residences from traditional apartment buildings. During a decennial census environment, multiple opportunities exist for an address to be reclassified, including the Address Canvassing operation, GQAC, and GQ enumeration (GQE).

The issues are further compounded with ACS data collection. Annually, thousands of individual apartments within private student housing buildings are randomly sampled by the ACS. In past years, ACS FR, relying on information or categorization from the respondent or building informant, converted units from GQs to HUs or the reverse. (Please note that while an argument may be made that such units should not be considered GQs at all and instead be enumerated as HUs, that is not the matter currently under discussion.)

In light of these issues, the GQ Working Group Definitions Subteam conducted some initial research to explore the problem, and identify and pretest a potential solution. Specifically, in 2015, the Center for Survey Measurement (CSM) conducted exploratory qualitative research in three locations with universities (two large public institutions, one private). At each location, interviews were conducted with the office of student housing at the university and two private apartment building managers.[1] Based on those results, more tailored research was completed the subsequent year. In 2016, CSM conducted additional targeted interviews with housing administrators and apartment managers in a different location with multiple colleges and universities in close proximity to each other. A total of six interviews were conducted, three with each respondent type.[2]

Based on the research findings, a proposal was put forth to implement a secondary or subcategory (GQ Type 502) for college/university student housing that was owned/managed/leased by a private company or agency. A critical part of the definition was the description of "by the bed" or "single-liability" leasing, a term that was found to be highly meaningful during the early research. In short, students are able to sign individual leases for a single room–or bed–and are therefore not fiscally responsible for their roommates' portion of the lease. Students may also opt to rent in an apartment where they do not know their roommates in advance.

In 2017, the ACS conducted a field test implementing the new and revised definitions of college and university student housing,[3] surveying contacts at 120 privately owned student housing locations. FRs also completed debriefing questionnaires at the end of the field data collection period. This test demonstrated that these revised codes could be successfully implemented in the field, with most FRs reporting no difficulty.

As a result of what has been found to date, the GQAC operation made the decision to implement the following procedures for the 2020 Census.

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[1] Holzberg, Jessica L. "Findings and Recommendations from Group Quarters (GQ) Student Housing Qualitative Interviews." Center for Survey Measurement, U.S. Census Bureau, November 30, 2015.
[2] Graber, Jessica E. "Findings and Recommendations from Group Quarters Student Housing Research." Center for Survey Measurement, U.S. Census Bureau, May 2016.
[3] Butler, Nicole "Field Test on Revised and New Definition of College/University Student Housing." 2017 American Community Survey Research and Evaluation Report, August 2017.

STEP 1: The GQ Type will be verified (previously assumed to be 501).

STEP 2: If confirmed as student housing, a follow-up question will be asked of the college/university respondent:

> "Is this student housing owned, leased, or managed by a college, university, or seminary?
>
> Or, is this student housing owned, leased, or managed by a private company or agency, which typically offers "by the bed" (or single-liability) leases to students?

Facilities where respondents answer "yes" to the first question will maintain their GQ Type 501 code. Private facilities, whose respondents answer "yes" to the second question, will be updated to reflect the new GQ Type 502.

III. Assumptions

Below are some assumptions used when developing this study plan.

1. The Living Quarters Type code for any specific address may be updated or revised during a number of data collection operations–including ACS data collection, 2020 Address Canvanassing, GQAC (both in-field and in-office), and GQE.

2. We anticipate that GQs identified and enumerated during the 2020 Nonresponse Followup operation (NRFU), including early NRFU, will be updated in the MAF to reflect a status of GQ.

3. Addresses identified as GQ Type 502 during the 2020 GQAC operation will be recorded as such only in the GQAC Production Control System (PCS).

4. The current Master Address File (MAF) does not include a GQ Type of 502. All college or university student housing, regardless of ownership type is coded as a 501. The MAF will not

be modified to reflect any 502s identified during 2020 GQAC operations. All identified 502s will remain 501s in the MAF after the 2020 Census.

5. Listers conducting the 2020 Address Canvassing operation will record detailed GQ types, including both 501 and 502, within the Listing and Mapping Application (LIMA) system.

6. Center for Behavioral Science Methods (CBSM) staff will have access to quantitative data, as well as interviewer/clerk notes from the GQAC operation.

7. The anticipated dates of the GQAC operations are as follows:
   - GQAC In-Office: 2/3/20 – 3/6/20
   - GQAC In-Field: 2/20/20 – 3/6/20
   - GQ Enumeration: 4/2/20 – 6/5/20

IV. Research Questions

The GQAC team is seeking to understand the factors that lead to the misclassification of college/university student housing, and to understand the magnitude of the mismatch between census coding of college and university student housing and the true status of an address. Our specific research questions include:

1. Are the 2020 Census GQAC college or university student housing questions and materials effective in soliciting accurate information from student housing providers?

2. Are there reporting differences found during the GQAC operation by method of contact (in-field vs. in-office)–in respondent cooperation, accuracy of data collected, effectiveness of staff ?

3. What is the prevalence of shifting between codes, that is addresses shifting between classification as a HU to a GU, or the reverse, from a 501 to a 502 or the reverse, and through which census operations.

4. How do 2020 Census final GQ Type codes compare to the alternative frame that will be developed as part of this proposed research?

5. Are there differences between college/university student housing and private college/university student housing organizations with regards to cooperation and accuracy in reporting?

V. Methodology

Analyses will make use of a combination of qualitative and quantitative data analysis using a variety of sources that include: ethnographic observation of the data collection operations, reinterviews of GQ housing informants, analysis of 2020 Census data collected prior to and

during 2020 operations, and comparisons of census-collected data to those from alternative sources. This effort is described as five unique, yet interrelated tasks. Each is described below.

A. Design

Task 1. Expert Review of Group Quarters Advance Contact Materials

The expert review of the GQAC materials will serve as the foundation for the subsequent proposed work. While this review will not be completed in time to impact 2020 Census operations, this review is critical to provide context to the evaluation. We will document all suggestions and integrate these recommendations into our final evaluation report. CBSM will evaluate the following materials:

- Address Canvassing training materials.
- GQAC in-office screening questions.
- GQAC in-office clerk training materials, including calling scripts, FAQs, letters, other job-aids.
- GQAC in-field screening questions.
- GQAC in-field screening interviewer training materials, including scripts, FAQs, letters, other job-aids.

Data collected during Task 1 will be important when answering research question #1.

Task 2. Observation of GQAC Staff During 2020 Census Operations

CBSM proposes visiting approximately three-to-six sites around the country and observing clerks and field staff conducting GQAC calls and visits. The purpose of this is to observe first-hand the functionality of the instrument and evaluate the level of staff training (e.g., the degree to which clerks and census field supervisors [CFS] need to respond to questions, provide clarification or guidance, probe, and perhaps assist respondents in coming to a final response).

CSBM will work closely with the GQ team and Field Division to select locations with multiple colleges/universities and high numbers of student housing. During GQAC interactions with respondents, CBSM staff will only observe and not speak or participate in any way. During these visits, CBSM will:

- Listen in on GQAC in-office screening calls.
- Observe GQAC in-field staff conducting visits to student housing locations that are unresolved from in-office operations.
- Conduct debriefing interviews (either one-on-one or as a group) with clerks and field staff to solicit their feedback on the instrument, probe their knowledge about classifying student housing, frequent areas of difficulty encountered by GQ respondents, and gain insight into GQAC field staff strategies for helping respondents understand the classification task, and identify any other issues or common outcomes from the GQAC operation.

Data collected during Task 2 will be important when answering research questions #s 1, 2, and 5.

Task 3. Development of an Alternative Frame from External Sources

CBSM proposes developing a separate frame of privately owned college/university student housing to compare against and evaluate 2020 Census results. Given available resources, we

consider this frame development to be a prototype and will limit it in scope to (1) major national college/university student housing providers, and (2) geographies where we conducted qualitative research to capture locally owned entities. The frame will be focused on college or university student housing that can be positively confirmed as privately owned, mangaged, or leased and meet the Census Bureau's definition of a GQ Type 502. We recognize that not all addresses–such as private homes that rent rooms to students–will be represented in our frame. Further, as the frame is not intended to be a national representation of all privately owned student housing providers, we will not produce prevalence rates of these entities.

The frame will be generated and/or validated using webscraping tools, known lists of college or university student housing, third party vendors, and other methods to be explored. We will reach out to subject matter experts in the Geography Division for any input or collaboration, as appropriate.

Data collected during Task 3 will be important when answering research question #4.

Task 4. Analysis of 2020 Census Data

CBSM will analyze quantitative data collected during GQAC to identify addresses that changed codes at any point between the 2010 and 2020 censuses, including any updates made during American Community Survey (ACS) operations. As possible, we will also identify post-2020 Census MAF updates resulting from NRFU and early NRFU operations where GQs were identified and enumerated. We will review patterns in status changes by contextual factors, including those describing the associated university and regional or local census offices. We will also review case notes for select cases.

We will identify cases where the housing type code has changed since the 2010 Census, either during ACS operations or the 2020 Census. We will identify addresses from the MAF universe, as well as any added cases identified during GQ and NRFU and early NRFU operations. If part of the sampled geography, the case will also be compared to the alternative frame. For each case, the change in coding will be identified, focusing on four specific living quarter types:

- Housing Unit (HU)
- GQ -501
- GQ – 502
- Unknown – 999

Additional analyses include identification and examination of the following:

- Alternative Frame addresses determined to be 502s that were miscoded in 2020 Census operations.
- ACS-sampled addresses where individual units were coded as GQs, but not the entire building.
- Confirmation of Basic Street Address and geocoding of all 502 additions during the 2020 GQAC operation.

Data collected during Task 4 will be important when answering research questions #s 2, 3, 4, and 5.

Task 5. 2020 Census GQAC Student Housing Unit Mismatch Debriefings

Based on the results of the Task 4 data analyses, CBSM proposes conducting follow-up interviews with GQAC respondents who incorrectly coded their student housing type. These interviews will be conducted over the telephone. The purpose of these interviews will be to debrief the respondent on their recollection of the GQAC interaction, probe on their understanding of the questions and terminology, and identify possible strategies to facilitate accurate classification. We will use contact information collected or updated during 2020 operations (GQAC or other) to re-contact these respondents.

Data collected during Task 5 will be important when answering research questions #s 1, 2, and 5.

Data collection from the public will require clearance from the Office of Information and Regulatory Affairs (OIRA) at the Office of Management and Budget (OMB). CBSM has a generic clearance to conduct such research and we can seek approval under this mechanism. Alternatively, CBSM can work with staff in the Decennial Directorate staff to submit a request under other available clearance channels.

B. Interventions with the 2020 Census

This research involves direct observation of 2020 GQAC clerks for the in-office operation and the census field supervisors for the in-field and in-office operations. We will also request to conduct staff debriefings. CBSM research staff will not interfere or participate in interviewer/clerk-respondent interactions.

C. Implications for 2030 Census Design Decisions and Future Research and Testing

The findings from this multitiered evaluation are intended to inform a program of research that could continue into 2030 Census research and planning activities and yield significant improvement in both decennial and ACS student housing identification procedures.

VI. Data Requirements

Data File/Report	Source	Purpose	Expected Delivery Date
2010 GQ Student Housing Data	2010 Census	Baseline GQ Type code	mm/dd/yyyy
Mid-decade updates to GQ Type	ACS	Identify any ACS updates post-2010	mm/dd/yyyy
2020 GQAC Quantitative data	2020 Census	To compare changes in classification over time and identify any additions or deletions to GQ lists.	mm/dd/yyyy
2020 GQAC Call notes	2020 Census	Provides context to quantitative data review	mm/dd/yyyy
Post-2020 MAF data	2020 Census	To compare changes in classification over time and	mm/dd/yyyy

		identify any additions or deletions to GQ lists from Early NRFU or NRFU	
Alternative Frame of Privately Owned/Managed College or University Student Housing Providers	CBSM	To compare classifications of addresses from census data sources	mm/dd/yyyy

VII. Risks

1. IF we are unable to secure sufficient funding THEN we will be unable to complete this research.
2. IF CBSM is unable to gain access to the data necessary to conduct our analyses THEN we will be unable to conduct our stated research plans.
3. IF Census Bureau regional offices do not make GQAC clerks and field staff available for observation THEN we will be unable to conduct our stated research plans.

VIII. Limitations

1. This research is intended to evaluate the 2020 GQAC operation and not produce a solution to a specific problem. It is also designed to be exploratory and inform an ongoing research agenda in support of ACS operations and planning for the 2030 Census. Therefore the outcomes will likely be modest, but useful for long-term planning and will provide a perspective that has been missed to date.

2. Task 2 requires the selection of three to six sites for observation. The selection criteria will be based on the presence of colleges and universities to increase the yield of addresses coded as student housing. We recognize that this method of selection is not statistically representative and may not represent all college and university student housing.

IX. Division Responsibilities

Division or Office	Responsibilities
CBSM	• Project management • Protocol development • OMB clearance for Task 5 • Incentive request for Task 5 • Data collection • Data analyses • Report preparation
DCMD/Special Enumerations	• Review of and comment on materials • Providing CBSM access to data
FLD/Oversight Branch FLD/Group Quarters Branch	• Assist in gaining access to Area Census Office staff for observations

X. Milestone Schedule

Evaluation of the GQAC Student Housing Operation Milestone	Date
Complete Task 1 – Expert Review of GQAC Materials	09/30/2019
Complete Task 2 –Observation of GQAC Staff during 2020 Census Operations	03/6/2020
Receive, Verify, and Validate Data For Evaluation of the GQAC Operation for College or University Student Housing	mm/dd/yyyy
Complete Task 3 – Development of an Alternative Frame from External Sources	09/30/2020
Complete Task 4 – Analysis of 2020 Census Data	09/30/2021
Complete Task 5 – 2020 GQAC Student Housing Unit Mismatch Debriefings	09/30/2021
Distribute Initial Draft Evaluation of the GQAC Operation for College or University Student Housing Report to the Decennial Research Objectives and Methods (DROM) Working Group for Pre-Briefing Review	09/01/2022
Decennial Census Communications Office (DCCO) Staff Formally Release the FINAL Evaluation of the GQAC Operation for College or University Student Housing Report in the 2020 Memorandum Series	09/15/2022

XI. Review/Approval Table

Role	Approval Date
Paul Beatty, Division Chief, CBSM	mm/dd/yyyy
Decennial Census Management Division (DCMD) ADC for Nonresponse, Evaluations, and Experiments	mm/dd/yyyy
Decennial Research Objectives and Methods (DROM) Working Group	mm/dd/yyyy
Decennial Census Communications Office (DCCO)	mm/dd/yyyy

XII. Document Revision and Version Control History

Version/Editor	Date	Revision Description
1.0/Graber	5-3-2019	Initial version
1.0/Graber	5-8-2019	Integrated comments from GQAC team
2.0/Graber	5-30-2019	Integrated comments from DROM
2.1/Graber	5-30-2019	Integrated comments from DROM
2.2/Graber	6-11-2019	Integrated edits from Stakeholder relations staff

XIII. Glossary of Acronyms

Acronym	Definition
ACO	Area Census Office
ACS	American Community Survey
ADC	Assistant Division Chief
CBSM	Center for Behavioral Science Methods
CFS	Census Field Supervisor
CSM	Center for Survey Methods
DCCO	Decennial Census Communications Office
DROM	Decennial Research Objectives and Methods Working Group
DSF	Delivery Sequence File
DSSD	Decennial Statistical Studies Division
EXC	Evaluations & Experiments Coordination Branch
FR	Field Representative
GQ	Group Quarters
GQAC	Group Quarters Advance Contact
GQE	Group Quarters Enumeration
HU	Housing Unit
IPT	Integrated Project Team
MAF	Master Address File
NRFU	Nonresponse Follow Up
PCS	Production Control System
R&M	Research & Methodology Directorate
RCC	Regional Census Center
USPS	United States Post Office

XIV. References

Butler, Nicole "Field Test on Revised and New Definition of College/University Student Housing." 2017 American Community Survey Research and Evaluation Report, August 2017.

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